The Visibility of Modernization in Architecture

A Debate

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Oil, Utopia, and the Architecture of the Off-Modern

The Anglo-Iranian Oil Company Planning in the 1930s Iran

Rahmatollah Amirjani

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Introduction

In the generic discourse of architecture, a large body of work has been written regarding the town planning imposed on the British colonies, including India and Australia. However, there are only a few materials that address some aspects of the architecture that emerged at the time of British domination of the Iranian oil-rich regions. In particular, the housing and town planning of the Anglo-Persian Oil Company and later the Anglo-Iranian Oil Company has been severely neglected in both generic and Iranian discourses of architecture.. There are a variety of reasons for the lack of knowledge, including the location of these industries and the depletion of oil reserves in many of them. The town planning and the oil industry developments mostly took place in remote locations with harsh environments. As a result, only a few scholars have managed to visit and record these projects. In addition, after the exhaustion of oil resources, the company usually would leave the town and sold the houses to the public, which caused complete destruction or transformation to these undiscovered heritages. The industrial suburbs located in Haftkel, Gach Saran, or Naft Sefid could be an example justifying the argument. After the end of oil extraction, the Anglo-Iranian company left the management of the industrial oil towns. Subsequently, the built houses were faced with severe transformations or termination by their new residents mainly due to the lack of management and maintenance. In addition, their remote location and the migration left no hope of these legacies surviving.

Reviewing some of the projects that emerged from the 1910s to the 1930s, one could label this undiscovered period as "the time of limitless architecture." During this era, the company invited several colonial architects to design and build office buildings, warehouses, and, most importantly, to create "piece of home" for British employees through the planning of large industrial towns with the most advanced facilities and amenities. The existing archive testifies that the architects were usually provided with large land allocations, ample budget, and skilled labour, with no consideration for any design or planning regulations due to the power, domination, and autonomy of the company.[1] This created an opportunity for some architects to experiment and express their desired design and utopian thinking without limits. Consequently, several oil-

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rich regions experienced various unique architectural results. Some of the unacknowledged aspects of these projects could shed light on the architects' design ideology and their impact on architectonics emerging in other colonies.

This essay aims to investigate the 1930s planning of the Anglo-Persian Oil Company in the town of Abadan, which showed a significant change in the company's colonial strategies: introducing more culturally friendly qualities to the proposed architecture and town planning. Focusing on the Bawarda housing project as the company's flagship, this chapter seeks to investigate the factors involved in the transitions taking place in Abadan in the 1930s. To comprehend the full picture, it is necessary to briefly review the critical events involved with the company's planning leading to the emergence of Bawarda. In this regard, the first section of this chapter will focus on the racial and segregation policies in the developments that took place between the 1910s and late-1920s. Using different colonial tactics, the company attempted to control and accelerate the exploitation of oil resources. However, due to a different set of socio-political changes in Britain and Iran, the Anglo-Persian Oil Company attempted to provide better living conditions in order to secure the company's future. This inaugurated the first colonial-paternalist habitat in Iran, known as Bawarda. Regardless of the company's exploitive intentions, this complex manifested a unique and eclectic design language sympathetic to the custom of the local people. In this regard, using morphological and typological analysis, the remainder of this chapter will focus on this housing complex and James Mollison Wilson, the key player and architect behind the 1930s company town planning in Abadan.

The Town Planning of the Anglo-Persian Oil Company between the 1910s and 1930s

In the late 1890s, Iran was an agrarian society ruled by Mozaffar Ad-Din Shah. At that time, the relationship between the Persian Qajar dynasty and Britain was strengthening. Since the British considered Persia a strategic region with rich natural resources, by the end of the nineteenth century, they had increased their presence in the country through different contracts. In 1901, an English mining entrepreneur, William Knox D'Arcy (1849–1917), signed a contract with Mozaffar Ad-Din Shah Qajar (1853–1907), the fifth Qajar king of Persia, for oil exploration.[2] After switching the drilling site to the city of Masjed Soleyman and the Naftun area, D'Arcy found oil in May 1908.[3] Apropos, the Anglo-Persian Oil Company (APOC) was created to pursue oil exploration and extraction in 1909.[4] The company selected the Abadan region, located 300km southwest of Masjed Soleyman, to refine, pack, and export crude oil.[5] Abadan was chosen for several reasons: The region had a small town with several access routes to the Persian Gulf through the Arvand river, also known as Shatt al-Arab, which could be used as a canal for large ships. In addition, Abadan already had some shipping infrastructure and docks that could be used for primary material importation, workforce migration, and oil exportation.[6]

After the 1908 discovery of oil, accommodation, office buildings, and easy transformation were considered an urgent necessity for the expansion of the company and subsequent oil exploration. The first APOC housing projects and administration buildings appeared in Masjed Soleyman and Abadan in the early 1910s. Both the dwellings and office buildings were built in the style of the region's flat-roofed traditional houses, manifesting a careful rendition of the traditional brickwork. By the mid-to-late 1910s, the company engineers were able to design the houses and offices independently due to the importation of metal beams and steel sheets. It was at this point that both residential and commercial typologies in Masjed Soleyman, Abadan, and other towns, began to simulate English cottage houses and bungalows with hip or Dutch-gable roofs and verandas. For transportation purposes, the company built several roads between the houses and offices in addition to importing diesel cars and trams from England. These transformations could be considered the early signs of modernisation in Iran, introducing standard urban reform initiating for the first time an interaction between Iranian peasants and a modern western lifestyle by large. These interventions also resulted in the country's early experience of "*global palimpsestic petroleumscape*," a layered physical and social landscape engineering that reinforces itself over time.[7]

By the late 1910s, building proper accommodation for Iranian workers was not a priority for the company. They had to live in filthy tents or nearby traditional houses with high rent and unpleasant conditions.[8] Therefore, APOC authorities had to rethink a different housing policy for the local workforce. Two significant factors enforced this change. First, the company gradually started to train and hire skilled Iranians as technicians from other regions, and the firm could not leave these new employees without accommodation. Second, the discrimination apparent in the accommodation provided for foreigners, supported with the latest cooking, cleaning, and heating equipment in contrast to the poor conditions of Iranian workers, raised the local people's opposition. Even Indian workers, who typically worked as professional gardeners, were placed in better accommodation than many native workers. As a result, some locals interrupted the extraction of oil by stealing oil-well parts or drilling tools, and many threatened the company's foreign staff and their families in the name of nationalism.[9]

These protests showed that the locals not only welcomed the imported and strange style of the houses but also fought to experience it. Indeed, in many non-western countries with old traditions, the encounter with, and the processes of modernisation could not begin without the invasion of European colonialism,[10] the telling tale of modernity's affiliation with colonialism. For instance, many aspects of modernity, including the provision of standard urbanisation and uniform housing, were employed to suppress the protests of the locals due to the colonialist social segregation agenda. On the other hand, the expansion of colonisation not only brought a universal experience of the project of modernity but also laid the foundation for the dissimilation of western morality and humanist culture.

Nevertheless, the Anglo-Persian Oil Company started the first housing projects for local employees in Masjed Soleyman and Abadan in the 1920s. Due to the construction of the refinery, the company had built a number of single dwellings for the British in Abadan. However, it was the Cheshm-e Ali district in Masjed Soleyman that saw the first oil town for foreign staff, skilled local workers, and Iranian technical elites. Indeed, Cheshm-e Ali should be considered as the first mass housing project in Iran. This housing not only showed cost-effective design strategies but was also designed based on a racial and segregationist zoning agenda that reflected colonial principles of the era. In the original scheme, the English engineers designed three different types of dwellings in two separate zones. The accommodation for the locals was constructed of masonry walls, using stone blocks typically laid and bound together by a lime mortar. The design offered tiny semi-detached rooms with flat roofs, currently known as *Bist-futi Ghadimi*, organised in straight lines away from the foreign staff accommodations.[11] Unlike the Masjed Soleyman traditional houses, these units were not climatically responsive. The white-washed-looking dwellings were not designed according to the region's courtyard models that maintained the traditional notion of privacy for the families. In addition, for so-called "sanitation purposes," the company designed accommodation for the locals without toilets, bathrooms, or kitchens; the residents had to use public toilets and prepare their food in communal kitchens, or in what was called *Bokhar*. In contrast, the company delivered two types of bungalow-like houses for the English staff, the houses had four to five bedrooms in addition to a kitchen, bathtub, and separate gardens in the back and front covered with box-wood fencing. As for urban quality, the living zone of the locals did not follow any logic of town planning (Figure 13.1).

On the other hand, the English-speaking staff sector showed variations of the early planned garden villages in England, including Milton Abbas in Dorset with its organic lines and identical row-detached blocks with large setbacks at two sides.[12]

At the same time, the company utilised the same segregationist strategy for the provision of housing in Abadan. By the late 1920s, the APOC Housing and Maintenance Office expanded and promoted the existing docks and shipping ports in Abadan; most importantly, the office developed a previously built bungalow area, known as Braim, to keep the English staff and Iranian technicians close to the refinery.[13] Arguably, the Braim neighbourhood should be considered the country's first self-sufficient model of a company town planned following aspects of the English garden suburb planning. Although the Braim plan proposed a set of luxury facilities, a club, supermarkets, cinema, swimming pool, tennis courts, and gardens using a culture-friendly image, it was only the foreign employees who had permission to use and enjoy this small green oasis. The Braim housing scheme and management still followed colonial and segregational principles. At this stage, it seems convincing to conclude that the provision of green suburbs with good recreational facilities was part of British colonial policies to bring "a piece of home" to persuade the personnel to stay and work in remote areas, and of course, to encourage them to prevent local solidarity and unionisation.

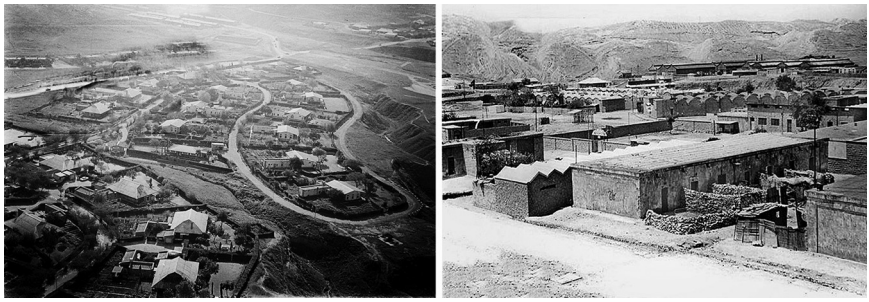

Fig. 13.1. A comparison between the British district (1951) and the locals' living zone (1961) in Masjed Soleyman.
(Source: NISOC, © Both photographs reproduced with permission from the National Iranian South Oil Company archive, 2019)

In Braim, for the first time, Iran also experienced a low-density town plan based on vehicular streets in addition to mass-produced houses comprising flat-roof masonry and conventional bungalow typologies. The design also delivered a number of two-storey apartments, standing out with European expression. These low-rise typologies were used both for residential and office buildings. Their language, in most cases, expressed different quotations of Mediterranean-style arcaded verandas in addition to western-style apartment models with balconies. Interestingly, the Braim general dressing showed a precise use of the local brick patterns; moreover, the articulation of arcades also indicated a strong connection with the existing vernacular veranda models in the Abadan and Khorramshahr towns (Figure 13.2).

Some scholars have argued that the mentioned culturally friendly image was a result of a "collaboration" between the Iranian government and APOC.[14] This is partly true; however, one should understand that reflecting the region's culture of building and architecture was not the company's priority. Indeed, the initial architectural drawings were adjusted based on regional quotations and construction techniques; as for mass-production purposes, the company had to hire a large number of locally sourced skilled architects, masons, and labour force who were only familiar with traditional building methodologies and materials. Given this point, it was mainly a lack of industrial building materials, building machinery, technology, and skilled foreign carpenters that brought the vernacularisation of the first "imported modern suburb" in Iran.

The 1930s Transitions in the Anglo-Persian Oil Company Town Planning: Rapid Paternalism

As explained in the previous two sections, the Anglo-Persian Oil Company used different racial and segregation methodologies from the 1910s to late-1920s. However, several factors gradually forced APOC to alter its planning in the oil-rich regions of Persia. As will be explained shortly, these incidents

Fig. 13.2. A comparison between a veranda house typology in Khorramshahr (1917) and offices built in Bawarda (1951).
(Source: on the left, photograph reproduced from "Mohammerah" [20-b] (1/1), British Library: India Office Records and Private Papers, Photo 496/6/40, in *Qatar Digital Library* <https://www.qdl.qa/archive/81055/vdc_100023814039.0x000030> [accessed 12 July 2022]; on the right, NISOC, © photograph reproduced with permission from the National Iranian South Oil Company archive, 2019)

caused the emergence of new planning qualities more sympathetic to the custom of the local people. Firstly, similar to many other countries, the United Kingdom was faced with the largest economic crisis in its history – the Great Depression.[15] The Great Depression crisis decreased the demand for oil around the globe. As a result, the APOC's revenue was severely affected by the unpromising market, causing the company to dismiss 15,000 Iranian employees.[16] Secondly, Britain was facing large nationalist movements and ethnic tensions in many of its colonies, most notably in India and Africa, desperately trying to keep control of its valuable colonies.[17] In the case of Persia, as highlighted by a *Jerusalem Post* reporter, APOC brought a state of slave–master relationship in the company towns and oil fields which severely exploited the native labourers and caused widespread public dissatisfaction in the region.[18] Lastly, local administrations in the colonies were also increasingly criticising English planners for their segregationist schemes and, of course, not understanding regional cultures and traditions.[19] These issues, along with the state of insecurity among the remaining workers, caused a set of strikes and protests in the Iranian oil towns, one after another.

Interestingly, the Great Depression also affected the Persian government's modernisation programme and their foreign exchange earnings. At that time, the country's economy mainly relied on the exportation of cereal, rugs, and silk. Due to the severe worldwide economic depression and low demand for the aforementioned products, more than 35,000 skilled workers lost their jobs in the relevant industries. This forced the new king of Persia, Reza Pahlavi (Reza Shah or First Pahlavi, 1878–1944) to act and rescue the country from an

economic crisis. Reza Shah, well-known for his patriotism and nationalist agenda, saw his modernisation in danger, and argued that William K. D'Arcy's deal with the previous government was not profitable for the country. The king encouraged the cabinet to withdraw from the contract and start a new negotiation for a profitable deal with the United Kingdom.[20] After a long discussion between the two sides, APOC agreed to sign a new contract with the Iranian government in April 1933.[21] The new agreement was approved by the Iranian National Consultative Assembly on 28 May 1933, and received Reza Shah's assent.[22] The Anglo-Persian Oil Company survived and continued its vast oil exploration under the new contract; however, the firm was asked to change its name to the Anglo-Iranian Oil Company (AIOC) in 1935, when Reza Shah requested foreign countries and delegates to use the name "Iran," the historical name used by local people, instead of Persia.[23]

The 1933 deal played a significant role in the development of upcoming company town planning in the oil fields. It, paradoxically, initiated the first encounter with limited aspects of modernisation. With the new contract, the AIOC promised to offer local employees better salaries and to provide improved living conditions in the industrial towns and their surrounding regions by building schools, hospitals, roads, and communication systems.[24] In this regard, providing better town planning, urban infrastructure, and living standards was considered the most effective strategy to control the existing situation. Interestingly, the United Kingdom applied this "unwanted methodology" not only in Iran but also in other colonies. This form of domination, known as paternalistic colonialism, or colonial-care discourse,[25] attempted to offer some level of social benefit and welfare to secure the loyalty of local employees and to motivate the natives to participate and contribute to the company's slavery and exploitation. As Uma Narayan states, "[this] paternalistic moral vision of colonialism was sustained by the discourses of religion, philosophy, science, and art-cultural practices that collaborated to make sense of western superiority part of the collective world view of people in the colonising countries."[26] At this time, building standard housing, providing free education, health insurance, western products, and building hospitals and schools with the language of modern architecture, all became the main headline of the AIOC propaganda machine. Of course, paternalistic ideas and the use of town planning as a deceptive tool had been circulating in English colonies from the early 1920s, especially in India; however, it was in the early 1930s that this practice became an official agenda severely affecting architectonics in the British Colonial Empire.[27] This claim could be tracked in a letter from the Secretary of State for the Colonies of the British Empire, Lord Passfield, to the British colonial governors in 1930, highlighting the important role of "regional planning" for securing the future development of colonisation.[28]

The combined result of changing socio-political conditions in Iran and Britain meant that the subsequent Anglo-Iranian Oil Company towns were given

more autonomy, facilities, and flexibility in their approach to native employees from the 1930s onwards. To this end, in the early 1930s, the company hired a Scottish architect, James Mollison Wilson (1887–1965), the founder of Wilson Mason & Partners, to design and expand several oil towns in Iran.[29] Wilson was among a number of young architects who were given considerable amounts of work in parts of the British Empire before and after the Second World War. According to Mark Crinson, Wilson had experience working as an assistant to Sir Edwin Lutyens on a New Delhi scheme from 1913 to 1916.[30] Lutyens, who has been considered as one of the greatest British architects in the twentieth century, designed and restored many country houses, war memorials, and palaces mainly with Arts and Crafts style; he also had some tendencies towards Garden City planning, evident in his contribution to the Hampstead Garden Suburb in London.[31] Wilson had also collaborated with Harold C. Mason, who had been a colonial architect in Iraq between 1921 and 1935.[32] While Wilson was conducting a number of projects for the Iraq Petroleum Company he began to receive the early commissions from the APOC in the late 1920s.[33] For instance, in 1927, Wilson was commissioned to design a hospital in Abadan as his first project for the Anglo-Persian Oil Company. Wilson received this project, known as the Number One Oil Hospital, from the general manager of the Anglo-Persian Oil Company, Sir Arnold Wilson, who had previously worked with J.M. Wilson in Baghdad as the High Commissioner.[34] However, as his design language aligned with the company's new planning strategy, Wilson was officially hired and started a full-time career in Iran by mid-1934. His early work included everything from designing individual offices through to the planning of new residential districts in Abadan, Masjed Soleyman, and Haftkel, as well as other oil towns including, Gachsaran, Agha Jari, and Bandar-e Mahshahr.[35]

Wilson's portfolio shows a general tendency towards an Art Deco style and neoclassical architecture. However, reviewing Wilson's projects in Iran, he expressed a strong affinity with the Iranian traditional architecture by utilising regional and cultural features in an explicit language. Interestingly, Wilson's drawings from his time of practice in Iraq also indicate his profound knowledge of, and sympathy towards the traditional and ancient architectural elements and patterns which one could find in the central and western regions of Iran.[36] Arguably, Wilson was unassailably familiar with the ancient Persian architecture, even before he received commissions from APOC. For instance, in his drawing of the Basra Port Office, in a combination with neoclassical architecture and Islamic symbols, Wilson clearly articulated the traditional Iranian brickworks along with the well-known Sasanian vault self-supporting arch form, known as "four-vault."[37] Perhaps Wilson was exposed to the pre-Islamic Persian architecture, in particular Sasanian style, through his time of practice in Iraq. Indeed, the current region of Iraq was a part of Persia in many historical periods, including during the Sasanian era. Even today, one could find large numbers of inspiring ancient ruins and historical sites from different

Persian empires in Iraq, most notably Taq Kasra, also known as Arch of Ctesiphon, from the Sasanian dynasty.

The Realisation of Bawarda: Theatrical Planning, Concealed Segregational Zoning, and Paternalism

As his first major work, Wilson planned a new suburb in the south-east of Abadan called Bawarda (Figure 13.3).[38]

As mentioned in the introduction, Bawarda can be considered the flagship design showcasing the 1930s transitions in the company's planning. Wilson's scheme, which was originally designed in 1934, followed some features from garden suburb planning that Abadan was previously exposed to through the Braim district. Indeed, to create maximum harmony between the old and new suburbs, Wilson employed many architectonic and planning features of the former. However, in contrast with Braim, the new suburb was partly integrated with the town centre. Despite similarities with Braim, the scheme had a large number of commonalities with some early industrial and company towns designed with a hint of garden suburb planning. For instance, one could understand Bawarda as a reinterpretation of Tony Garnier's 1917 *Une Cite Industrielle*, [39] along with borrowing some elements from the existing projects in other colonies. It is possible that Wilson followed Garnier's proposal as a

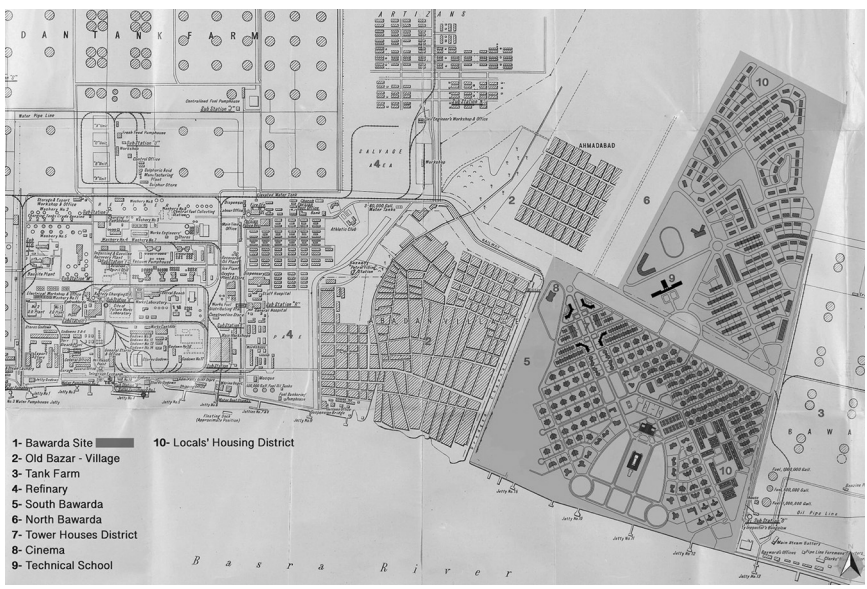

Fig. 13.3. The location of Bawarda in relation to the Abadan refinery.
(Source: Abadan and Bawarda [64r] (1/2), British Library: India Office Records and Private Papers, IOR/L/MIL/17/15/24, f 64, in *Qatar Digital Library*https://www.qdl.qa/archive/81055/vdc_100041422291.0x00008a, the image is used and modified with permission from the Qatar National Library, 2022)

source of inspiration due to the site terrain, zoning, and the company's planning requirements. Indeed, both schemes were expected to be self-sufficient industrial towns located near a factory and close to a river; the towns had a management core or head office connected to residential sectors using a transportation system. It is also possible to conclude that Wilson borrowed some planning concepts from the works of other colonial architects, most notably from his master's iconic project in New Delhi. Arguably, the hexagonal accesses and correlation of Bawarda undeniably addressed Lutyens' layout of Raisina and its staff quarters in New Delhi.[40] Moreover, one could see some commonalities between the Bawarda scheme and Walter Burley Griffin's 1913 plan for Mossmain, the Yellowstone Garden City in Montana.[41] As will be discussed below, Wilson's architectural language and planning in Abadan reflected a number of design characteristics previously introduced by different colonial and early modern architects, all questioning the authenticity of his concepts used in Iran.

That notion of theatricality played a key role in Wilson's master plan of Bawarda. Indeed, it was this theatrical quality that made 1930s developments unique compared to the previous company's interventions. In the generic discourse of architecture, theatricality has mainly been defined as the communicative angle of design, "the way a person relates to architecture by experiencing a building's space as well as appropriating its form."[42] Once again, Wilson had been exposed to this concept at the time of assisting Lutyens, who expressed a monumental representation of the power of the British Empire using architecture and town planning in India. As another colonial-paternalist approach, this strategy not only penetrates and influences the regional cultures but also constantly reminds the beholder (local) of the allure of colonial modernisation: a new experience of pleasure, comfort, consumerism, western lifestyle, and architecture.[43] It is convincing to also conclude that, between the 1910s and 1930s, the APOC company towns focused only on secluded and introverted proposals using major aspects of garden suburb planning. However, it was after the 1930s socio-political transitions that the visual experience of the local spectators became a crucial component in the AIOC interventions. At this time, one could see more extroverted planning proposals employing public gardens, monuments, and medium-rise buildings in the company's territories, most notably in Masjed Soleyman and Abadan towns.

Forming different serial visions in his master plan, Wilson presented a magnificent theatrical manifestation for the new suburb and southern fringe of Abadan town. To do that, the main access to Bawarda started from the refinery in the west, it then passed the edge of Abadan traditional district, known as Bazar-e Amiri (previously known as Abadan Village), then crossed the heart of Bawarda using a large avenue, and eventually reached an oil-tank farm in the east side of the new suburb. Along the way, in different visual angles and locations, Wilson placed several gardens, green walkways, open sports facilities, shops, and drinking sections with water taps. Later, he added buildings

and landmarks with monumental language, including a cinema, technical school, and elevated water tank, all employing an alternative but familiar architectural language. Based on Wilson's zoning strategy, unauthorised people were not allowed to enter Bawarda's residential sectors; however, the locals could still walk through the main avenue, planted with dense date trees, and enjoy the gardens designed with fountains and seating areas. For locals, all these fresh elements brought some traces of *Pardis*: an abbreviation for paradise rooted in a Persian word that generally addresses heaven, offering an endless green oasis, infinite pleasure, and healthy, comfortable life.

From a general point of view, Wilson's scheme offered a shared green oasis to all employees with their families without any discrimination; however, one should understand that the company indirectly imposed different limits, zones, and boundaries for some residents, in particular for the locals. In Bawarda, Wilson separated the scheme into two poles using the previously mentioned avenue. These residential poles, known as North- and South-Bawarda, had their own entry gates and were designed differently from one another. The south district, which can be understood as the main focus of Wilson's plan, consisted of six separated functioning layers: transhipment ports, gardens, main offices, leisure clubs, sports courts, and residential clusters accommodating high-ranked employees. North-Bawarda included a technical institute, schools, sports facilities, and residential quarters for middle- and low-ranked employees. Based on AIOC placement programmes, even high-ranked Iranian employees were accommodated in the quarters located in the corners of North- and South-Bawarda, guaranteeing minimum social interaction with non-local residents.[44] In practice, only a small number of the Bawarda houses were given to native employees, and it was only the senior married couples, trained in British universities, who were eligible to be placed in the Bawarda dwellings.[45] In an interview with a former senior manager, it was highlighted that AIOC saw Iranians as the secondary "unwanted residents" with different traditions, behaviour, lifestyle, and level of hygiene.[46] Similar to in the previous company towns in Abadan, AIOC did not accommodate minimum-wage or contract workers in Bawarda; however, the company offered skilled labourers and technicians to use sports facilities, restaurants, and leisure clubs in North-Bawarda. Indeed, like the strategies of the British in other colonies, the company offered some level of western lifestyle, pleasure, and freedom to Abadan residents and local employees using a paternalistic approach; in return, AIOC managed to temporarily suppress the dissatisfactions and continue the exploitation of resources.

Style, Typological, and Morphological Analysis of Bawarda

The plan of Bawarda inevitably employed modernistic elements of urban and residential schemes, such as the proposed independent suburb with different types of low-rise offices, accommodations, and facilities through alternative design practices. Reviewing Wilson's houses in Bawarda, as previously mentioned, one could see a clear continuation of design characteristics from Braim

to form a homogenous language between the old and new suburbs. However, compared to Braim, the dwellings delivered more tectonic, tactile, and regional sensibilities, an alternative design methodology that can be interpreted today as Regionalism or Vernacular Modernism. Interestingly, in some buildings, Wilson showcased a strong alternative language of architecture by making a compromise between Art Deco elements and vernacular quotations. Indeed, it was these design negotiations that brought uniqueness to the work of J. M. Wilson in Bawarda; a dialectic between an interpretation of the region and border-devouring modernity that created a new narrative and discourse of the modern. One should also understand that the vernacular has been a key generative element of the modern condition, and "[it] lived on as a strong subcurrent of modern praxis."[47] Arguably, Wilson's contribution added a strong "vernacular" quality to the 1930s AIOC paternalist approach, which created a sense of culture for the local beholder, convincing him to collaborate with the foreigner and appreciate its creation.

Bawarda architecture undeniably showcased a great obsession with the region's culture of building. However, one could interpret Wilson's work as an exceptional collage, highlighting elements from a number of projects in other colonies in addition to some buildings from the early modern movement in Europe. This claim is evident in each of Wilson's buildings in Abadan, from his first work, Abadan No.1 Hospital, until Wilson's last masterpiece, the Abadan Labour residential quarter, locally known as Kooy-e Kargaran. For instance, regarding Wilson's Abadan Technical School, the building looks like a translation of Aladdin Factory by C. Nicholas and J. E. Dixon-Spain, built in 1932. Moreover, the building's rectangular composition delivers the same language employed in St Martin's Church at New Delhi by Arthur Shoosmith, completed in 1930.[48] In the Naft Cinema building, known as Cinama Taj, which was commissioned in 1939, the overall geometry addresses the Roman Catholic Cathedral of Sacred Heart by Henry Alexander Nesbitt Medd and Walter Sykes George's St Thomas Church, both in New Delhi.[49] However, using vernacular brickwork, gigantic white concrete fins, and linear cornices, along with stucco ornamentation between horizontal windows, Wilson decoded and localised the language of Art Deco in a balanced syntax (Figure 13.4).

Interestingly, Wilson presented this syntax only in Iran; indeed, his other projects in similar regions, particularly Iraq and Kuwait, barely share commonalities with his legacy in Abadan.[50] For example, careful use of Indo-Saracenic architecture combined with Art Deco elements and bungalow features in some Bawarda office buildings should be counted as a unique design characteristic found only in Abadan, Iran (Figure 13.5).

In addition to its unique language, Bawarda also offered one of the earliest mass-produced towns in Iran, offering new culture-friendly typologies to the Iranian discourse on housing. The Bawarda scheme was mainly planned based on three- to seven-bedroom flat-roof houses with courtyards at both the back and front. Wilson formulated innovative models for each residential type, specifically for the seven-room, two-storey dwelling known as Tower House and a three-bedroom single-storey typology called King Houses (Figure 13.6).[51]

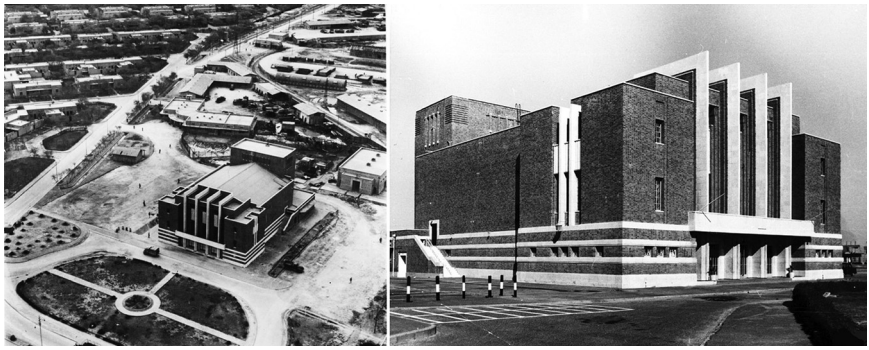

Fig. 13.4. Naft Cinema (the late 1950s).
(Source: NISOC, © Both photographs reproduced with permission from the National Iranian South Oil Company archive, 2019)

Designed for English high-ranking managers and directors, the Tower House configuration and its verticality somehow followed the general form of some other buildings presented in Bawarda, including the Technical School. These houses expressed strong tectonic and regional sensibilities in a hybrid language using large integrated rectilinear volumes wrapped in various layers of regional tile- and brickworks. Interestingly, this careful choice of blue tiles represented the notion of "water and sky" as a mystical element in the traditional Iranian courtyard houses. Additionally, the utilised brickwork patterns addressed the facade of vernacular houses in Shushtar and Dezful historical towns in the Khuzestan region. Employing these quotations, Wilson connected this imported typology into the cultural core of the region offering a great sense of belonging to the locals. The manifestation of large brick volumes had been seen in the work of other colonial architects; however, Wilson perfectly familiarised these brick-dressed objects using traditional patterns. Indeed, these dwellings could be understood as a true manifestation of Louis Kahn's phrase, "Even a brick wants to be

Fig. 13.5. Two offices in the south Bawarda.
(Source: Photographs by the author, 2017)

Fig. 13.6. King Houses (1956) vs a Tower House.
(Source: on the left, NISOC, © Photograph reproduced with permission from the National Iranian South Oil Company archive, 2019; on the right, photograph by the author, 2017)

something."[52] Similar characteristics can also be followed in the flat-roof King Houses designed for the middle-rank senior staff, a typology with Art Deco motifs. To design King Houses, Wilson combined several rectangular volumes featuring a series of setbacks to form the house's stepped outline; in addition to this, he carefully used a semi-circular extended volume with a curved cantilever awning to finalise the general form, and this brought a great sense of Art Deco architecture to this typology.

The Bawarda houses could also function based on British and Iranian-Islamic traditional lifestyles, highlighting the flexibility and adaptability of plans. Since Wilson's design was highly compatible with locals' lifestyle one could argue that the dwellings were originally planned based on the Iranian traditional way of living. But a comparison between the Bawarda houses and the dwellings built in previous company towns and suburbs, including Braim, indicates no major change in the spatial organisation of plans (Figure 13.7).

As previously mentioned, due to the lack of imported materials and foreign skilled masons, it was only the dressing and expression of the buildings in the company towns that showed a strong connection to the existing vernacular architecture by the 1920s. Indeed, it is more convincing to conclude that the plans of the houses were originally intended to serve the way of living of the English and other western employees. However, through a slight change, and most of the time without any modifications, the proposed plan hierarchy and zoning could also deliver the major aspects of the Iranian lifestyle. For instance, the position of the porch, and foyer, along with the geometry of the main entrance of Bawarda dwellings, shared some characteristics with the concept of "hierarchy of entrance" (*Selsel-e Marateb-e Vorodi*) and the notion of "entry division spaces" (*Hashti*) in the existing traditional courtyard houses of the region.[53] In the discourse of traditional Iranian architecture, these considerations are proposed to maintain the privacy of family members rather than having a direct physical encounter with guests or strangers. Another

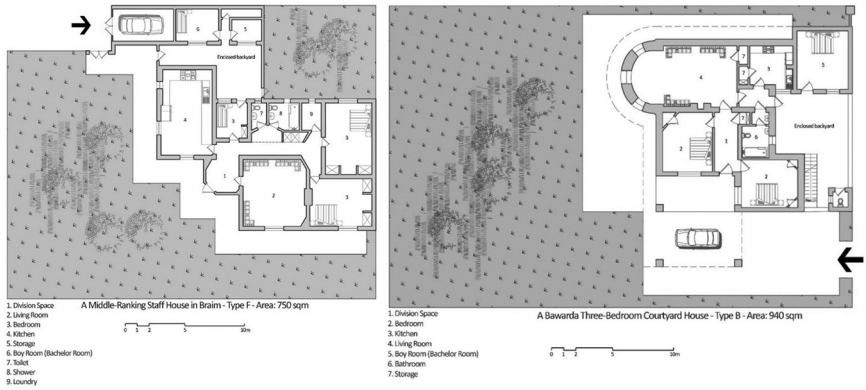

Fig. 13.7. A comparison between Braim and Bawarda house plans hierarchy. (Source: By the author, 2019)

interesting example is the dwelling flat rooftops, which were gradually utilised by locals for sleeping on summer nights and during the more moderate seasons. As explained previously, the design of the rooftops was driven by the language of modern architecture, and the roofs were only supposed to function as a protective element. Still, the height of the balustrades unintentionally provided a suitable place to preserve the users' privacy for sleeping purposes. In addition to plan flexibility, the poetic use of plants, in particular boxwood hedges, was another example that brought cultural elements to both the English and local employees. Once again, this design feature is also intended to revive some aspects of English garden suburbs. In addition, utilising the dense hedge could be understood as a climate-responsive feature. Interestingly, using tall hedges not only maintained the privacy of the Iranian families but also revived the vernacular notion of windcatchers used in different historical cities of the Khuzestan province.

Oil Towns in the Aftermath of the Nationalisation

By the early 1950s, the increasing power of the opposition to the British in the oil fields had created an intense and widespread demand for the nationalisation of Iran's oil industry. The most influential movement was led by Mohammad Mosaddegh (1882–1967), a member of the National Consultative Assembly for the National Front oppositional organisation, also known as Jebhe Meli Iran.[54] In March 1951, the national legislative body of Iran voted to nationalise the oil industry and to create the National Iranian Oil Company (NIOC).[55] After some political tensions brought by the 1951 nationalisation, British Petroleum (the new name for the British side of the Anglo-Iranian Oil Company after 1954) was forced by the US to participate in a consortium of different companies, which would bring Iranian oil back to the international market under the Iranian Oil Participants Ltd (IOP).[56] The IOP, also known as Consortium for Iran, consisted of British Petroleum, Royal Dutch Shell, Gulf Oil,

Compagnie Française des Pétroles, and the Standard Oil Company of New York, Texaco, California, and New Jersey.[57] However, the 1951 nationalisation also created a sense of fear among the western IOP members, showing the potential consequences of unfair exploitation and treatment. As a result, these nations attempted to improve the welfare of the National Iranian Oil Company employees.[58] Wilson and his partners kept collaborating with the Consortium's newly established Road and Housing departments in Ahvaz and Abadan. The office started to hire Iranian architects, particularly the Second Generation who were trained under the influence of the so-called "humanistic architecture" movement during post-war America and Europe.[59] This also coincided with the development of the social housing movement in Iran in the 1960s that fuelled the desire to live in modern dwellings among mid- and lower-class Iranians.[60] The government also invited a few well-known culturalist architects, including George Candilis (1913–1995) to introduce different housing proposals for the new suburbs developed by NIOC.[61] Given these points, from the mid-1950s until the 1979 Islamic Revolution, the oil regions of Iran experienced a new revolutionary garden suburb and town planning movement which paid more attention to local traditions in addition to the growing desire towards having a western lifestyle. Most importantly, the previously built oil towns, including Braim and Bawarda, did begin to house Iranians alongside British and American employees, and that brought "the golden age of oil towns" to the local employees. Due to his growing reputation, Wilson and his partners not only commissioned different housing developments in the oil fields but also received many projects from the Iranian government and private institutions until 1964.[62] Wilson died on 26 June 1965, at the age of 78; however, most of the subsequent oil towns have followed his architectural language and planning style since his death.[63] Sadly, the outbreak of the 1979 Islamic Revolution, the Eight-Year War between Iran and Iraq, and the release of many dwellings to other organisation employees since 2005 resulted in ongoing mismanagement, causing the gradual decay of Bawarda, similar to other oil towns. Interestingly, many residents, who lived in Bawarda for almost 70 years, prefer the AIOC and Consortium eras and, regretfully, remember those periods as the "good old British days."

Despite its dark history and segregationist roots, the 1930s AIOC planning brought cultural and technical transformations creating a unique image for Abadan in addition to other oil towns, including Ahvaz and Masjed Soleyman. This "unwanted modernisation" has formed an exclusive identity for southwest Iran distinguished from the other regions. Interestingly enough, James Mollison Wilson's contribution reflects a timeless quality as it responded to, and was admired by, both the pre- and post-revolutionary governments with contradictory ideologies. However, Wilson's design strategies were not used in both states' public housing programmes, which failed due to the ongoing conflict between traditions and modernity. Indeed, Wilson's meliorist design offers an alternative solution compromising the region's culture of building, mass production, and the universalisation of western lifestyle.

Nevertheless, considering its revolutionary theatrical expression, traditional connotations, poetic use of greenery, and, of course, the culture-friendly lifestyle offered by the dwellings, Bawarda undeniably showcased some aspects of *Arman Shahr*, the forgotten concept of Iranian-Islamic utopia, in concrete reality. The realisation of this syntax was perhaps James Mollison Wilson's most enduring contribution. In this sense, it is not implausible to speculate that "alternative modernities," call it "postmodernism," first took place in many non-western countries as a result of different incidents, including the expansion of colonisation and the importation of a universal experience of the project of modernity.

Notes

1 See James H. Bamberg, *The History of the British Petroleum Company (the Anglo-Iranian Years 1928–1954)*, vol. 2 (Cambridge: Cambridge University Press, 2009).
2 Katayoun Shafiee, *Machineries of Oil: An Infrastructural History of BP in Iran* (Massachusetts: The MIT Press, 2018). For more information, see Irvand Abrahamian, *A History of Modern Iran*, trans. Ebrahim Fattahi (Tehran: Nashre Ney Publisher, 2017). See also Percy Sykes, *A History of Persia*, 2 vols., vol. 2 (New York: Routledge, 2004).
3 Arash Khazeni, *Tribes and Empire on the Margins of Nineteenth-Century Iran* (Washington: University of Washington Press, 2010), 148.
4 Mohammad Hasan Nia, *History of Iran's Oil Industry 1901–1914* (Tehran: International Publishing Co.), 221–38.
5 Masoud Foruzandeh, *Illustrated History of Iranian Oil* (Tehran: Abed, 2017).
6 Iraj Vali Zadeh, *Anglo and Bungalow in Abadan* (Tehran: Simia Honar, 2012).
7 See Mohamad Sedighi and Carola Hein, "Iran's Global Petroleumscape: The Role of Oil in Shaping Khuzestan and Tehran," *Architectural Theory Review* 21, no. 3 (2016): 354.
8 See Part One in Parviz Aryanfar, *The History of Iranian Oil Towns* (Tehran: The Museum and Archive of Oil Industry, National Iranian Oil Company, 2018).
9 See the Anglo-Persian Oil Company relations with the Bakhtiari tribe in Hasan Nia, *History of Iran's Oil Industry 1901–1914*, 331–48.
10 Siavash Saffari, Kara Abdolmaleki, and Roxana Akhbari, "Unsettling Colonial Modernity: Islamicate Contexts in Focus," in *Unsettling Colonial Modernity in Islamicate Contexts*, eds. Siavash Saffari, et al. (Newcastle upon Tyne: Cambridge Scholars Publishing, 2007), 5.
11 The term *Bist-futi Ghadimi* is the localised English expression equivalent to "old 20-foot units."
12 See Robert A. M. Stern, David Fishman, and Jacob Tilove, *Paradise Planned: The Garden Suburb and the Modern City* (New York: The Monacelli Press, 2013), 20.
13 Mark Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," *Planning Perspectives* 12, no.3 (1997): 342.
14 See Hein, Carola, and Mohamad Sedighi and Hein, "Iran's Global Petroleumscape: The Role of Oil in Shaping Khuzestan and Tehran," Architectural Theory Review 21, no. 3 (2016): 354.
15 The Great Depression, also known as the Great Slump in the United Kingdom, is the largest and most profound of Britain's economic downfalls in the twentieth century. It occurred around the 1930s, as a result of the global Great Depression.
16 See James H. Bamberg, *The History of the British Petroleum Company*.

17 Caroline Cohn, "India and Nigeria: Similar Colonial Legacies, Vastly Different Trajectories: An Examination of the Differing Fates of Two Former British Colonies," *The Cornell International Affairs Review* 7, no. 1 (2013): 18–30.
18 Stephen Kinzer, *All the Shah's Men: An American Coup and the Roots of Middle East Terror*, Second ed. (New Jersey: Wiley, 2008), 96.
19 Robert K. Home, "Town Planning and Garden Cities in the British Colonial Empire 1910–1940," *Planning Perspectives* 5, no. 1 (1990): 23–37.
20 Chelsi Mueller, "Anglo-Iranian Treaty Negotiations: Reza Shah, Teymurtash and the British Government, 1927–32," *Iranian Studies* 49, no. 4 (2016): 577–92.
21 Shafiee, *Machineries of Oil: An Infrastructural History of BP in Iran*, 51.
22 Budd Herbert, *Small World, Big Market: Global Business* (Maryland: Lexington Books, 2014), 61.
23 Shafiee, *Machineries of Oil: An Infrastructural History of BP in Iran*, 99–102.
24 Kinzer, *All the Shah's Men: An American Coup and the Roots of Middle East Terror*, 67.
25 See Uma Narayan, "Colonialism and Its Others: Considerations on Rights and Care Discourses," *Hypatia* 10, no. 2 (1995): 133–40.
26 Narayan, "Colonialism and Its Others: Considerations on Rights and Care Discourses," 134.
27 See Home, "Town Planning and Garden Cities in the British Colonial Empire 1910–1940," 26.
28 Robert K. Home, *Of Planting and Planning: The Making of British Colonial Cities* (Abingdon: Routledge 1990), 187–88.
29 Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," 348.
30 Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," 348.
31 See Reem I. R. Alissa, "Building for Oil: Corporate Colonialism, Nationalism and Urban Modernity in Ahmadi, 1946–1992" (University of California, Berkeley, 2012), 44.
32 Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," 348.
33 Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," 348.
34 Alissa, "Building for Oil," 45.
35 See also Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," 348.
36 See the drawings in Barry Joyce, "The Building of Baghdad," (2017), https://www.ribaj.com/culture/james-mollison-wilson-architect-of-empire-baghdad.
37 See Figure 2 in Joyce, "The Building of Baghdad."
38 Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," 349.
39 Tony Garnier's proposal, *Une Cite Industrielle* (1917), was a complete industrial town for approximately 35,000 inhabitants. It was a well-organised and monumentally innovative scheme where the industrial spirit, utopian thoughts, and the region cultural conditions were manifested in a united work.
40 Robert Grant Irving, *Indian Summer: Lutyens, Baker and Imperial Delhi* (London: Yale University Press, 1981), 138.
41 See Stern, Fishman, and Tilove, *Paradise Planned: The Garden Suburb and the Modern City*, 258.
42 Gevork Hartoonian, *Architecture and Spectacle: A Critique* (Farnham, Surrey: Ashgate Publishing Limited, 2012), 34.
43 See also Arif Dirlik, "Architectures of Global Modernity, Colonialism, and Places," *Modern Chinese Literature and Culture* 17, no. 1 (2005): 33–61.

44 See Maintenance and Planning Office, "New Braim and Bawarda Housing Provision" (Abadan: Road and Housing Department of Anglo Iranian Oil Company, 1942), 21.
45 Crinson, "Abadan: Planning and Architecture under the Anglo-Iranian Oil Company," 351.
46 Hooshang Amiri, verbal interview by Rahmatollah Amirjani, 2016, Abadan.
47 Bernd Huppauf and Maiken Umbach, "Introduction: Vernacular Modernism," in *Vernacular Modernism: Heimat, Globalization, and the Built Environment*, eds. Maiken Umbach and Bernd Huppauf (Stanford, California: Stanford University Press, 2005), 1 & 8.
48 Other scholars also argued that some of Wilson's works in Iraq, in particular St George's Church, also addressed Shoosmith's St Martin's Church in New Delhi. See Joyce, "The Building of Baghdad."
49 See Joyce, "The Building of Baghdad."
50 For instance, see Ahmadi Housing in Kuwait as highlighted in Alissa, "Building for Oil."
51 Both typologies have turned into office buildings after the 1979 Islamic Revolution.
52 See Kries Mateo, Jochen Eisenbrand, and Stanislaus von Moos, eds., *Louis Kahn: The Power of Architecture* (Weil am Rhein, Germany: Vitra Design Museum, 2013).
53 In many introverted traditional houses in Iran, a divisional space, or *Hashti*, follows the main entrance. Its purpose was to maintain the traditional notion of privacy for the family members, in particular for the housewife. A *Hashti* could be planned in different models, including rectangular, square, octagonal, and hexagonal shapes. See chapter five in Mohammad Karim Pirnia, *An Introduction to Islamic Architecture of Iran* (Tehran: Sorush Danesh, 2005).
54 See Christopher Bellaigue, *Patriot of Persia: Muhammad Mossadegh and a Tragic Anglo-American Coup* (New York: Harper Perennial, 2013).
55 Tareq Y. Ismael and Jacqueline S. Ismael, *Government and Politics of the Contemporary Middle East: Continuity and Change* (Abingdon: Routledge, 2010).
56 See "The Consortium Agreement of 1954," Iran Review, http://www.iranreview.org/content/Documents/The-Consortium-Agreement-of-1954.htm.
57 Shafiee, *Machineries of Oil: An Infrastructural History of BP in Iran*, 193.
58 See Part Three in Parviz Aryanfar, *The History of Iranian Oil Towns*.
59 For more information regarding the Second-Generation Architects, see Rahmatollah Amirjani, "Architectonics in Pre- and Post-Revolutionary Iran" (paper presented at the 35th Annual Conference of the Society of Architectural Historians of Australia and New Zealand: Historiographies of Technology & Architecture, Wellington, New Zealand, 4–7 July 2018).
60 See Rahmatollah Amirjani, "Labour Housing and the Normalisation of Modernity in 1970s Iran" (paper presented at the 38th Annual Conference of the Society of Architectural Historians Australia and New Zealand, Adelaide, South Australia, 2021).
61 See ArchiWebture: Online Architect Archive Inventories, "Fonds Candilis, Georges (1913–1995)," France Ministère de la Culture et de la Communication, https://archiwebture.citedelarchitecture.fr/pdf/FRAPN02_CANGE.pdf, 2017. July 20. 2018.
62 It is believed that Wilson's last project in Iran was the 1964 Pharmacy Factory in Tehran. See Vahid Ghobadian, *Theories and Styles in Contemporary Iranian Architecture* (Tehran: Ulum Memari Royal, 2015).
63 See Dictionary of Scottish Architects, "James Mollison Wilson – Basic Biographical Details," Dictionary of Scottish Architects, http://www.scottisharchitects.org.uk/.