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Architectonics in Pre- and Post-revolutionary Iran

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Abstract

The 1908 discovery of oil in southwest Iran resulted in rapid industrialisation and a constant escalation of the rate of technological advancement in the country. Since then, the general attitude of the populace toward technological expression in architectural “image” has transformed drastically. In the pre-revolutionary era, 1908–1978, the Pahlavi dynasty utilised architechnological statements, along with the prevailing commodification of culture, to position the nation on the global modernisation track, and to propagate a new identity for the existing semi-peasant society. At the time, many argued that Westoxification and Technological Toxicity had invaded the traditional fabric of cities; as a result, the 1978 Islamic revolution took place in resistance to the government’s allegedly hostile modern policies. Interestingly enough, since the revolution, not only has the trend for the technification of architecture been supported by a large number of intellectuals, architects and the masses, but the desire for Islamic Utopia has, paradoxically, gradually dissolved. This development has left architectural historians and critics with one fundamental question: why has the country’s attitude towards the modernization and technification of architecture significantly transformed in a short period of time? Discussing a number of contemporary architectural projects from these two contradictory historical junctures, this paper posits that the revolutionary power of technology, along with the domination of consumerism, have played a decisive role in changing the society’s attitude towards the modern lifestyle and its expression in architecture after the Islamic Revolution.

Since the advent of industrialisation, architecture in Iran has reflected the impact of not only the advancement of the building industries, but also the state ideologies practiced in different epochs. The pre- and post-revolutionary eras in Iran are significant periods in the country's contemporary history of architecture. Discussing several projects from these two historical junctures, this paper will highlight the impact of technology on architecture, and the culture of Iran at large. In the pre-revolutionary era (1908–1978), the Pahlavi dynasty promoted architectonics that coincided with the prevailing commodification of culture as an ideology to position the nation on the track of global modernisation, and to propagate a new national identity. At the time, many argued that Western technologies and modern architectural expressions invaded the traditional fabric of cities. In retrospect, one can argue that the 1979 Islamic revolution took place in part against the state's Technological Toxicity.¹ Interestingly, since the Islamic revolution, not only has the trend toward the technification of architecture been supported by a large number of intellectuals, but the desire for Islamic Utopia has also vanished. I will argue that the transformative power of technology, along with the dissemination of consumerism, have played a decisive role in changing the country's inclination towards the modern lifestyle and its architectural expressions even after the Islamic Revolution. In addition, since the 1970s the society has been transformed by technological influences, and most of the traditional fabric of cities and local cultures has been almost entirely subdued by the processes of modernization and the effects of the global dissemination of technology.

The Appearance of Early Modern Expressions in Iranian architecture

The 1908 discovery of oil in southwest Iran by English engineer William Knox D'Arcy, who had previously spent twenty years in Australia mining for gold,² resulted in the rapid industrialisation of the country.³ At the beginning of its industrialisation, Iran was an agrarian society ruled by Mozaffar Ad-Din Shah Qajar. The country's population was around 10–12 million, with 60% settled in villages, 25–30% nomadic, and less than 15% living in municipal centres. However, the creation of the Anglo-Persian oil company, swift development, and an abundance of jobs, resulted in population migration from rural areas to industrial towns⁴ such as Masjed-Soleyman, Haftkel and Naft-Sefid. Still, population displacement, as well as the migration of foreign workers and technicians from India and England in the early to mid-1910s, meant that the Anglo-Persian oil company engineers initiated a number of company towns for the workers and staff in industrial areas. Within a few years, due to the need for transportation and other necessities prompted by the Western lifestyle, oil-rich Iranian towns were confronted with a large number of modern facilities and technologies. It can be argued that the early modern expressions in architecture

emerged in these regions through exposing new materials, including concrete and steel (Figure 1). Although the local people and authorities were fascinated by the new buildings, due to the oil industries, it was only the southwest of Iran that was touched by new modern technologies, and the bulk of the population continued living in a peasant culture.

Technology as Ideology: Architectonics in the Pre-Revolutionary Era

By the end of the Qajar dynasty, and by the time of Reza Pahlavi (First Pahlavi) in the mid-1920s, the processes of industrialisation and modernisation were disseminated all over the country. Influenced by Mustafa Kemal Atatürk's reforms and the modern movement in Turkey, Reza Shah argued that modernisation was the only way forward to develop the country, and that the country could only succeed using modern technologies and the elimination of the dominant Islamic culture.⁵ Reza Shah initiated controversial policies and rules speeding up the process of modernisation, and planting the seeds of Iranian National Architecture style that aimed to combine Achaemenid architectural features with those of modern architecture, including asymmetrical compositions and flat rooves. Reza Shah aimed to reconstruct the core of national identity by replacing the existing radical Islamic culture⁶ "that [was] responsible for all the social failures and cultural lags since the Muslim conquest of Persia" with classical and modern elements.⁷ In this regard, Tehran became the main scene for the First Pahlavi's ambitions and ideology, the capital that would represent the previously forbidden pure Persian identity to the world.



Figure 1. Naft Club, a masterpiece of the Anglo-Persian Oil Company era in Masjed-Soleyman (Photograph by Rahmatollah Amirjani, 2017)

Through the collaboration of foreign architects and advisors, Reza Shah attempted to transform the traditional image of Iranian cities. In Tehran, most of the old houses, historic citadels, and sites were drastically destroyed, and modern Parisian boulevards, along with new public

buildings, were rapidly constructed. The buildings were supposed to convey a new identity motivated by Nationalism, Archaism, and Modernism, with no sign of Islamic elements. To this end, the administration employed several local and international modernist architects in the late 1930s, including Vartan Hovanesian, Mohsen Forughi, Paul Abkar, Manochehr Khorsand, and most notably Gabriel Guevrekian, one of the founders of the Congrès Internationaux d'Architecture Moderne (CIAM) conferences.⁸ Arguably, through politicising art, the first architectonic manifestations of this ideology⁹ emerged in the work of the aforementioned architects in Reza Shah's period. Inspired by the Modern movement in Europe, most buildings were built based on the Modern language and National style,¹⁰ delivering a strong message of the upcoming era (Figure 2).



Figure 2. The Meli Bank by Mohsen Forughi in 1940 (Photograph modified by Rahmatollah Amirjani, adapted from <https://uk.wikipedia.org>)

As a result of the abdication of Reza Shah in 1941, and by the power of Mohamad Reza Pahlav, the use of technology in architectural “image” reached its peak. The new Shah considered skyscrapers to be flags of modern countries, and had strong tendencies towards “building big” as part of his national modernisation plan.¹¹ Accordingly, the administration hired a number of foreign companies that were able to construct large projects in a short period of time. In addition, the Association of Iranian Architects-Diploma (AIAD) was organised in 1944 to determine the future orientation of architecture in Iran. Most of the AIAD members had studied in Europe under the influence of Modern architecture movements; as a result, they became the state's advisers and contractors to fulfil Shah's project of modernity. Although the AIAD members were aware of people's dissatisfaction concerning the new emerging image of Iranian cities, they continued to

insist on modern architecture as a means for the government's cultural reforms. As Manochehr Khorsand, the head of AIAD, stated:

The generation of professional traditional architects does not exist anymore, and today, architecture is applied by illiterates and unprofessional individuals who could not develop the existing construction techniques. Since the rise of modern building in Iran, the people have been able to understand the revolutionary power of modern technology and also vernacular architecture weaknesses. Although the society has not welcomed the new trend yet, we could gradually prepare the public opinion for approaching [modern architecture expression].¹²

Among the work of the Second Pahlavi period, the Senate Building (1952-1955) has turned into a symbol of Mohammad Reza Shah's drive for modernization (Figure 3). The Senate project was designed by Mohsen Forughi in collaboration with Heydar Gholi Khani Ghiaï-Chamlou, an Iranian modern architect, and Andreh Block, a French sculptor.¹³ Having a senate building or parliament as a modern cultural phenomenon was an attempt to deconstruct the previous dictatorial governing system, taking the first steps towards founding a Western democracy in the Middle East. In fact, this building portrays Pahlavi's ambitions regarding the country's governing system, architectural image, and identity.

Using both modern and ancient Persian architectural elements, the Senate project clearly highlights the authorities' hostility towards Islamic ideology and its presence in the society. For the first time, modern architectural language, along with the latest construction techniques, met Iranian pre-Islamic architectural elements, without addressing the customary geometric Islamic patterns. The composition of the building is another interpretation of the Great Palace of Xerxes in Persepolis. However, the Senate project is a collage of elements derived from a number of well-known modern buildings.¹⁴ To provide maximum natural light, the main facade of the Senate building contains glazed windows. In order to prevent the main facade from overheating, the design utilizes a giant rectilinear concrete frame, recalling Le Corbusier's modular system and his Claude & Duval factory in France. The articulation of geometric forms in interior spaces, the rectangular and square proportions, and the use of vertical and horizontal lines, for example, reflect De Stijl architecture. Decorated with Achaemenid features, the main hall is surrounded by electric movable curved walls, which were considered to be revolutionary at that time. In addition, the hall is covered by a unique transparent semi-dome, the first suspended cable structure in Iran.

The hanging gold chain-shaped columns at the main gate originated from the personification of Justice in ancient Sasanian art, which is known as Anoshiravan Dadgar.¹⁵



Figure 3. The Senate Building (Photograph modified by Rahmatollah Amirjani, adapted from Saman PourFalatoon, 2011)¹⁶

Arguably, the design was too extrinsic for the society to digest at the time; it drew objections from clergies and intellectuals at the beginning of its construction. Jalal Al-Ahmad, a leader of an opposition movement, wrote that “they pummelled Islam: dug out the ancient god of Zoroaster, revived Cyrus and Darius, reconstructed fire temples, and placed the Farvahar emblem on entries and walls.”¹⁷ In response, the British ambassador argued that “[the administration’s] destructive tendencies passed all of the logical boundaries.”¹⁸ Similarly, Ann K. S. Lambton, an Iranologist, wrote “a majority of the people despised Shah due to his hostile policies towards Islam.”¹⁹

Another significant factor for the technification of Iranian architecture was Harry S. Truman’s Point Four program, inaugurated between the 1950s and the 1960s. At that period, the US had become progressively more committed to the stability and security of the Middle East, as a way to suppress the Soviet Communist influence. This marked the beginning of heavy US support for the Pahlavi monarchy. The American government started exporting the latest technologies and capitalistic ideologies²⁰ under the cover of “humanitarian projects” such as Truman’s Point Four Program.²¹ In fact, the US foreign-policy makers determined to furnish Iran with Western ideas, commodities, and modernization in an effort to integrate the underdeveloped country into the global capitalistic economy. Later, American engineers built several low-cost residential projects and schools, and, although none of these works could be considered as modern architecture in its truest sense, they played a great role in the upcoming high-rise projects by educating the existing local

architects, and providing the latest construction technologies, including pre-fabricated concrete and steel systems.

During the aforementioned era, the emergence of an American goods and consumer culture could be counted as another influential feature that fuelled the desire for new technologies among the middle and upper classes. Under the Point Four educational program, changes in kitchens, cooking, hygiene and other domestic activities formed a new desire for Western products.²² In terms of architecture and urban image, the instant rise of the high-rise projects with public areas at ground level, upper-class green neighbourhoods, and the development of large avenues with modern facilities all offered a new way for experiencing Western pleasure. Simultaneously, American commodities, including cars and kitchenware, and the latest technologies in heating and cooling, communication and media, were widely advertised by different sectors of the government. Together these factors gradually transformed the taste of the society at different levels.



Figure 4. A modern living room with Western furniture, advertised by Anglo-Iranian Oil Company (Photograph modified by Rahmatollah Amirjani, adapted from Iranian Oil Operation Companies, 1957)²³

In the late 1960s, the dissemination of modern architectural expressions, large buildings combining International and Archaism styles, and Westernisation, along with influences of globalisation, gave rise to new oppositions among different classes of the society. The Shah's radical interventions, and the effects of what Fredric Jameson calls "market ideology,"²⁴ not only troubled the image of Islamic identity, but also affected the people's behaviour concerning the Islamic lifestyle. For instance, many people gradually start-

-ed to use indoor toilets, as a modern phenomenon, that were placed towards Mecca, or to live in modern apartments which did not consider privacy and other features of the Islamic way of living. Nevertheless, Tehran and some other cities were polarised between traditional and modern visions, causing a sense of disorientation among the people; as a result, some intellectuals argued that Mohammad Reza Shah poisoned the country with Western ideas and products, and they saw this as an opportunity to stand against his monarchy. It was at this time that new terms, including Westoxification and Technological Toxicity, emerged as a reaction to the Shah's Westernisation strategies. In addition, the Soviet Union took advantage of the new protests, highly supporting Communist and anti-imperialist parties, including the Tudeh Party²⁵ of Iran. Through different magazines and publications, groups with Communist and Islamic tendencies provoked the masses and clergies into fundamental acts against the Pahlavi regime.

Architecture or Revolution

Although the Second Pahlavi administration made many efforts to consider the Islamic culture and traditions in their interventions and Westernisation policies, it was too late to prevent the masses from toppling the regime. Through the departure of Shah on January 16, 1979, and the return of Ayatollah Khomeini, the leader of the revolution who had been in exile for fifteen years, the Pahlavi regime ultimately fell. In his first speech, Ayatollah Khomeini strongly rejected Westernisation and the new image of the country: "The Shah shifted us to whoredom and irregularity by Westernisation. We do not have any problems with modernisation; however, we want Islamic art, not the repetition of strange pre-Islamic and Western features. Everything should be Islamic: our cities, universities, art and television."²⁶

The pre-revolutionary protests clearly show that architectural ideology may have an influence on the socio-political status of societies.²⁷ In fact, "[architectonics are] effectively capable of embodying different theological and ideological meanings, and can provoke various cultural responses."²⁸ The pre-revolutionary situation in Iran highlighted that architectonics could be employed as a form of "screen," reflecting certain political and ideological values, however its powerful message could also create radical force for social change. Perhaps these incidents recall Le Corbusier's perception concerning architecture and revolution: "It is the question of building which lies at the root of the social unrest of today,"²⁹ and, as Neil Leach points out, "An appropriate architecture would combat social unrest and it could prevent revolution."³⁰

Architectural ideology in Post-revolutionary Iran

As a result of the successful of the revolution on the 11th of February, 1979, the country's infrastructure, organisations, and socio-political approaches were reconstructed based on an Islamic ideology. In a short period of time, Western technologies and commodities were attacked or banned by the revolutionary guards and the new Islamic authorities. Consequently, most of the technological agreements³¹ and contracts with the Western world were cancelled; any pleasure or fun with foreign music instruments or technologies was forbidden; and a large number of cinemas, theatres, bars and cafes were closed or destroyed. In addition, many buildings or artworks with Achaemenian and non-Islamic symbols were demolished. Moreover, a new committee, the Committee of Cultural Revolution, was formed for the Islamisation of universities, schools, and governmental organisations. Subsequently, most of the academies and important cultural sectors were shut down for almost two years, which resulted in the exile of many enlightened Iranians.

Shortly after the revolution, from 1979 to 1988, members of the Iranian architectural society faced the darkest days of their careers. As a consequence of its Modern approach and collaboration with the previous government, the AIAD organisation was obstructed, and its members, along with a large number of Second-Generation architects, were forced to leave the country. In addition, the new anti-imperialist ideology showed a clear animosity towards some countries, including Israel, which caused the departure of many foreign companies. Ultimately, the construction of many projects was stopped. By the time of the Iran hostage crisis³² on November 4, 1979, and the subsequent US sanctions, along with the outbreak of the war with Iraq in 1980, the post-revolutionary situation had become more complex. These issues not only fuelled the local anti-Western movements, but also completely interrupted the emergence of new modern buildings in the country.

As a result of the end of the war in 1988, and the rise of "The Era of Construction," post-revolutionary architectonic projects gradually emerged. In this period, some new terms, including Islamic Utopia and Iranian-Islamic Architecture, were highly advertised by the government. As in post-revolutionary Russia, the new regime attempted to employ architecture as a way of supporting their ideology. However, in reality, it was still the legacy of the Pahlavis' period that determined the architectural projects and tendencies. Through the reopening of universities, and the initiation of new projects, three main architectural trends slowly revived: first, the practice of combining Iranian vernacular features with modern construction technique, which was followed by the remainder of the Second-Generation architects; second, the absolute regional architecture; and third, the Modern style. Although the new ideology pushed architects to follow Islamic

principles, Modern and International styles became the dominant expressions in the early age of The Islamic Republic of Iran.³³

The Navvab complex might be the biggest post-revolutionary municipal project that was conceived at the peak of the radical Islamic movements in the early 90s (Figure 5). Through gentrification of a traditional districts in the heart of the capital, the project was supposed to deliver the first Islamic Utopia based on the new extreme anti-Western ideology. While creating a link between the south and north of Tehran, the Navvab plan also pursued other goals, including providing new public spaces that considered the norms of Islamic society, and forming new green areas in order to enhance the landscape and living environment.³⁴ After the completion of the complex in 1999, the project was considered to be one of the biggest failures in the contemporary history of social housing in Iran. Issues such as high-rise apartments instead of courtyard houses, air and noise pollution due to highway proximity, a defenseless and insecure environment, and a lack of green spaces for residents all reflected American well-known modern neighborhoods of the 1960s.³⁵ In fact, Navvab radically altered the traditional identity of the city centre due to its modern and high-tech image. As a result, many argued that the desire for Islamic Utopia had, paradoxically, gradually faded even among some sectors of the state.



Figure 5. The Navvab project, a post-revolutionary modern complex in Tehran (Photograph modified by Rahmatollah Amirjani, adapted from Trending.com, <http://trending.com/posts/2017-11-16/tehran-iran>).

Perhaps the existing Western construction technologies could be counted as an initial factor that helped Modern architecture to become a leading style after the revolution. By the end of the eight-year war, many houses and public buildings had been severely damaged by bombing. In addition, the high birth rate in the 1990s forced the government to build a large amount of social housing

for less well-off people.³⁶ Due to its fast construction speed and capacity for mass production and repeatability, the administration continued the pre-revolutionary Modern style for their projects. Simultaneously, the government not only started to complete the unfinished Pahlavi modern projects, but also reopened the abandoned Modern buildings for their use.

The globalisation and dissemination of the consumer culture of capitalism might be considered to be the other factor that stimulated the country's inclination towards modern architecture and Western technologies. Since the industrialisation of the country, Iranians have been obsessed with the Western commodities that bring comfort and pleasure. Although in the Second Pahlavi era, Westernisation, consumerism, and Technological Toxification became excuses for the people's protests, according to Karimi "Iranians themselves were actively engaged on a local level in figuring out which aspects of contemporary Western home life actually worked for them and which did not."³⁷ In addition, as a result of the dissemination of globalisation in the 1990s, digesting Western technologies as a consequence of universalisation has become easier; the consumption of Western commodities has rapidly increased and is not considered Westoxification anymore! These phenomena have also gradually affected the people's taste concerning architectural image. Reviewing the post-revolutionary projects constructed by the private sector clearly shows the society's tendency toward Modern architectural manifestation.

Interestingly enough, Shah's intended project of modernity, which was considered to be one of the reasons for the revolution, has become a symbol of, and identity for, the new Islamic state. Since the revolution, the government has not been successful in creating their own Islamic-Iranian prescription for the country's architectural image. Perhaps one reason for the administration's failure is that they have been unable to Islamize the foundations of Art and Architectural studies and the Pahlavi-era curricula in academies. In fact, they could not support their ideology with a logical discourse. In addition, post-revolutionary or Third-Generation architects had almost always studied under the supervision of the Second Generation. However, the works of these new architects have not been as powerful as the Second-Generation architectural work. This can be related to the emergence of digital architecture in the 90s, a factor that has arguably not only destroyed students' creativity and ability to reproduce complex Iranian vernacular patterns,³⁸ but also contributed to the emergence of poor modern abstract projects. Thus, the authorities have preferred to select the Second Pahlavi modern projects as symbols, because of their identity, individuality, and historical features (Figure 6).

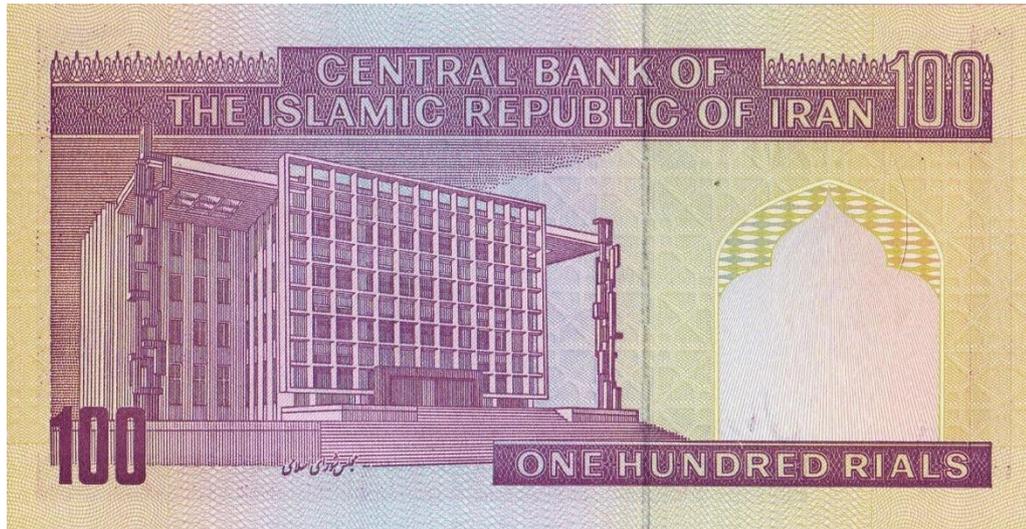


Figure 6. Using a controversial pre-revolutionary modern project, the Senate Building, on a post-revolutionary paper-money (Image modified by Rahmatollah Amirjani, adapted from Wikipedia, https://en.wikipedia.org/wiki/Iranian_rial)

At present, a large part of the administration is still pursuing the quest for Islamic Utopia, severely rejecting modern projects and insisting on the use of Islamic symbols. For instance, the production of modern dome-less mosques,³⁹ or houses with open kitchens, is still a subject of debate between Iranian clergy and architects.⁴⁰ Interestingly enough, the aforementioned shifts in the people's tastes could also be seen in different layers of the regime. Nowadays, a large proportion of public projects are being designed based on Modern language and architectural features that were rejected by authorities.⁴¹ This paradox clearly shows the revolutionary power of technology, commodification, consumerism, and the influence of globalisation on both architecture and the country's inclinations.

Perhaps the pre-revolutionary intellectuals were indeed right about the effects of Technological Toxification, Westoxification, and capitalism on Iranian culture. Similar to the process of modernization in many other countries, Shah's project of modernity consisted of two major features: technology and products. Both of these aspects have influenced the behaviour of the people and brought something of a Western consumer culture and social transition to Iran. Although the revolution was a reaction against Westernization, it was too late to extract the pleasant venom of consumerism, and to deter the society from enjoying a Western lifestyle. Since the 1970s, the country has been metamorphosed by both the cultural and technical aspects of technology, and most of the traditional fabric of cities and local cultures has been almost obliterated by modern architectural expressions. Nevertheless, these events have left

architectural historians and critics with one major question: is there any reason to deter local cultures from technological and architectonic revolutions? Technological revolution or resistance!?

¹ The term Technological Toxicity is derived from the Persian term Westoxification, coined by Jalal al-e Ahmad, and refers to the fascination with Western technology, even as it erodes the traditional Iranian cultural practices.

² David Carment, "D'arcy, William Knox (1849–1917)," in *Australian Dictionary of Biography*, ed. Bede Nairn and Geoffrey Serle (Canberra: The Australian National University, 1981).

³ Rahmatollah Amirjani, "An Analogical Quotation" In *Proceedings of 34th Annual Conference of the Society of Architectural Historians Australia and New Zealand* (Canberra, 5-8 July 2017), 13-24.

⁴ Nigel Westbrook and Ali Mozaffari, "A Return to the Beginnings of Regionalism: Shushtar New Town seen in the light of the 2nd International Congress of Architects, Persepolis, Iran 1974." In *Proceedings of 32th International SAHANZ conference, University of New South Wales, 7-10 July 2015*, eds. Paul Hogben and Judith O'Callaghan (Sydney, N.S.W: 2015), 715-725.

⁵ Seyyed Mohsen Habibi, *Intellectual Trends in the Contemporary Iranian Architecture and Urbanism: 1979-2003* (Tehran: Cultural Research Bureau, 2016).

⁶ Amir Bani Mas'ud, *Iran Contemporary Architecture* (Tehran: Honar-e Memari-e Qarn Publications, 2015).

⁷ Ramin Jahanbagloo, *Iran and the Problem of Modernity: Interview with a number of Iranian & non-Iranian authorities about the confrontation of Iran with the achievements of modern word* (Tehran: Ghatre Publication, 2016).

⁸ Bani Mas'ud, *Iran Contemporary Architecture*, 229-263.

⁹ An ideological manifestation is an articulation of identifiable elements or symbols through techno-aesthetic and techno-artistic features of architecture. See: Vladimir Mako, *Architecture and Ideology*, ed. Vladimir Mako, Mirjana Roter Blagojevic, and Vokotic Lazar. Marta (Cambridge: Cambridge Scholars Publishing, 2014).

¹⁰ The manifestation of ancient Achaemenid elements through Modern language, See: Bani Mas'ud, *Iran Contemporary Architecture*, 193.

¹¹ Fatemeh Farnaz Arefian and Seyed Hossein Moeini, *Urban Change in Iran: Stories of Rooted Histories and Ever-Accelerating Developments* (Cham: Springer International Publishing, 2016).

¹² Manuchehr Khorsandi, "The Association of Iranian Architects-Diploma," *Architect Magazine*, 1946.

¹³ Bani Mas'ud, *Iran Contemporary Architecture*, 254-257.

¹⁴ Bani Mas'ud, *Iran Contemporary Architecture*, 190.

¹⁵ Bani Mas'ud, *Iran Contemporary Architecture*, 254-257.

¹⁶ Contemporary Architecture of Iran, "Senate house of Iran," CAOI, https://fet.uwe.ac.uk/conweb/house_ages/council_housing/print.htm.

¹⁷ Bani Mas'ud, *Iran Contemporary Architecture*, 190.

¹⁸ Ivand Abrahamian, *A History of Modern Iran*, trans. Ebrahim Fattahi (Tehran: Nashre Ney Publisher, 2017).

¹⁹ Ivand Abrahamian, *A History of Modern Iran*, 170.

²⁰ "Capitalist ideologies" refers to ideologies based on a free-market system, where the means of production are operated for profit. Characteristics central to capitalism include the sovereignty of the consumer, private property, competitive markets, voluntary exchange, profitable systems of reproduction, capital accumulation, wage labor, a price mechanism, and, most relevant here, the commodification of art and architecture.

²¹ William E. Warne, *Mission for Peace: Point 4 in Iran* (Bethesda: Ibex, 1999).

²² Pamela Karimi, "Dwelling, Dispute, and the Space of Modern Iran," In *Governing by Design: Architecture, Economy, and Politics in the Twentieth Century*, edited by AGGREGATE, (Pittsburgh: University of Pittsburgh Press, 2012)

²³ Iranian Oil Operation Company, "Housing and Amenities," Iranian Oil Operation Company magazine, 1957, <https://abadanm.com/>.

²⁴ Fredric Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991).

- ²⁵ The Tudeh Party of Iran is an Iranian communist party, which was formed in 1941 with the support of the Soviet Union, and was active until the 1980s. For more information see: http://www.iranchamber.com/history/tudeh/tudeh_party01.php.
- ²⁶ "Ayatollah Khomeini's Speech in Behesht Zahra," YouTube video, posted by "Amir Soleymani," December 10, 2014, <https://www.youtube.com/watch?v=yeWHkEaWoUw>
- ²⁷ This concept is fully explained in: Manfredo Tafuri, *Architecture and Utopia: Design and Capitalist Development* (Cambridge: MIT Press, 1999).
- ²⁸ Vladimir Mako, *Architecture and Ideology*, 15.
- ²⁹ Le Corbusier, *Towards a New Architecture* (Eastford: Martino Fine Books, 1970).
- ³⁰ Leach, "Architecture and Revolution," 114.
- ³¹ Arms purchase, communication, transportation and nuclear agreements with America, England, Germany and France.
- ³² See History.com Staff, "Iran Hostage Crisis," A+E Networks, 2010, <http://www.history.com/topics/iran-hostage-crisis>.
- ³³ Bani Mas'ud, *Iran Contemporary Architecture*, 359-362.
- ³⁴ "The Negative and Positive Points of Navvab," Behtarin-Ha News Agency, <http://www.bartarinha.ir/fa/news/636876/%D9%86%DA%A9%D8%A7%D8%AA-%D9%85%D8%AB%D8%A8%D8%AA-%D9%88-%D9%85%D9%86%D9%81%DB%8C-%D9%BE%D8%B1%D9%88%DA%98%D9%87-%D9%86%D9%88%D8%A7%D8%A8-%D8%A7%D8%B2-%D9%86%DA%AF%D8%A7%D9%87-%DA%A9%D8%A7%D8%B1%D8%B4%D9%86%D8%A7%D8%B3%D8%A7%D9%86>.
- ³⁵ See Reza Shaker Ardekani, Hamed Akhgar, and Hossein Zabhi, "Obstacles of Iranian Inner-Cities Gentrification (Case Study: Navvab Project, Tehran, Iran)," *International Journal of Architecture and Urban Development*, 4, 1 (2014): 95-110.
- ³⁶ Tejarat Farda, "A Study on the High Birth Rate in the 1990s in Iran," *Tejarate Farda Magazine*, 207, 2017.
- ³⁷ Karimi, "Dwelling, Dispute, and the Space of Modern Iran," 120.
- ³⁸ Bani Mas'ud, *Iran Contemporary Architecture*, 363.
- ³⁹ Kamali Dehghan, Saeed. "A Modern Mosque without Minarets Stirs Controversy in Tehran." *The Guardian*, October 24 2017.
- ⁴⁰ "Banning 'Open Kitchens' in Kohgiluyeh and Boyer-Ahmad Province," Asre Iran News Agency <http://www.asriran.com/fa/news/251501/%D9%85%D9%85%D9%86%D9%88%D8%B9%DB%8C%D8%AA-%D8%B3%D8%A7%D8%AE%D8%AA-%D8%A2%D8%B4%D9%BE%D8%B2%D8%AE%D8%A7%D9%86%D9%87-%D8%A7%D9%88%D9%BE%D9%86-%D8%AF%D8%B1-%DA%A9%D9%87%D9%83%DB%8C%D9%84%D9%88%DB%8C%D9%87-%D9%88-%D8%A8%D9%88%DB%8C%D8%B1%D8%A7%D8%AD%D9%85%D8%AF>.
- ⁴¹ See The Agha Khan Award for Architecture, "Tabiat Pedestrian Bridge," (Aga Khan Development Network, 2016); "40 Knots House" (Aga Khan Development Network, 2016).