

Social Housing as a State-Funded Mega Project: A Case Study from Saudi Arabia

Apostolos Kyriazis*,¹, Evgenios Balasis², Nikolaos Patsavos³

How to cite: Kyriazis, A. et al. 'Social Housing as a State-Funded Mega Project: A Case Study from Saudi Arabia.' *Architecture_MPS*, 2018, 13(3): 3. DOI: <https://doi.org/10.14324/111.444.amps.2018v13i3.001>.

Published: 30 April 2018

Peer Review:

This article has been peer reviewed through the journal's standard double blind peer-review, where both the reviewers and authors are anonymised during review.

Copyright:

© 2017, the Author(s). This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC-BY) 4.0 <https://creativecommons.org/licenses/by/4.0/>, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited • DOI: <https://doi.org/10.14324/111.444.amps.2018v13i3.001>

Open Access:

Architecture_MPS is a peer-reviewed open access journal.

*apostolos.kyriazis@adu.ac.ae

¹ Abu Dhabi University, UAE

² Neapolis University of Pafos, Cyprus

³ University of Ioannina, Greece

Title: Social Housing as a State-Funded Mega Project: A Case Study From Saudi Arabia

Authors: Apostolos Kyriazis¹, Evgenios Balasis², Nikolaos Patsavos³

Architecture_media_politics_society. vol. 13, no. 3.

April 2018

Affiliations: ¹Abu Dhabi University, UAE
²Neapolis University of Pafos, Cyprus
³University of Ioannina, Greece³

Abstract

There are many kinds of war. They span from typical military conflicts to socially and politically charged environments, from fiscal colonization to ghostly wars about information and the internet. But what about the fear of a possible war? Could housing initiatives be connected to that? What kind of design methods and standards as well as processes would that specific case entail? What other factors would add pressure to studying and implementing housing projects in this context? What could be the possible measure of such projects' eventual assessment?

This paper is based on the assumption that fear of a spreading of the Arab Spring in the Saudi Kingdom triggered a massive state-funded housing project. The ambitious case of Saudi Arabia's Ministry of Housing (MoH) will be discussed and gradually unfolded within its social, cultural, economic, and technical-design conditions. The project's development is discussed both before its launch-conceptualization and throughout its implementation. The original insight given stems from the authors' participation as lead urban planners in one of the major companies awarded the project.

Title: Social Housing as a State-Funded Mega Project: A Case Study from Saudi Arabia

Authors: Apostolos Kyriazis¹, Evgenios Balasis², Nikolaos Patsavos³

Architecture_media_politics_society. vol. 13, no. 3.

Affiliations: ¹ Abu Dhabi University, UAE
² Neapolis University of Pafos, Cyprus
³ University of Ioannina, Greece³

April 2018

Introduction: State-Funded Housing Initiatives in the Kingdom of Saudi Arabia (KSA)

Three decades ago, the urban expansion of Riyadh and other big cities in Saudi Arabia was fueled mainly by real estate land speculation. The urban sprawl and the non-contiguous and leapfrog development of the KSA cities were the direct result of massive urbanization creating an urgent demand for housing and commercial facilities.¹ This was a strictly centralized political act defining the market's control on housing development while denying the municipalities and their offshoot communities' substantial powers and underestimating the looming financial, socio-political implications of the resulting urban sprawl.² As F.A. Mubarak (2004) states, "such outward growth, as in most other Saudi cities and towns, can be seen as suburbanization without suburbia."

In the mid-eighties, the government attempted to control the expansion of undeveloped sub-divided land and to slow down the urban growth via the Urban Growth Boundary Policy. Three urban development spatio-temporal "limits" (Phase I – 1995, Phase II – 2005, Phase III – beyond 2005) were introduced for Riyadh as a growth management tool aiming mainly to:

1. control urban sprawl by encouraging infill development where utilities were generally available;
2. reduce the cost of infrastructure provision through better coordination tied to commonly agreed phasing; and
3. preserve the natural environment around the cities.

The same decree extended the scope of the study to the hundred largest municipalities of the kingdom.

Today, ten years after the “release” of Phase III, that bold initiative is deemed a success from many perspectives,³ though it did not avoid the formation of undeveloped areas (“white lands”) and failed to control housing prices in the metropolitan areas. The current MoH project, in most cases, focuses on the empty lands left as a by-product of Phase II and III in cities all over the country. Other initiatives addressing different scales, specific topics, and tools, and working in parallel to the MoH Housing project are the National Spatial Strategy, the Real Estate Development Fund (REDF), the Land Information System (LIS) and later conversion to GIS, and the Metropolitan Development Strategy ArRiyadh (MEDSTAR).

Hypothesis

This paper assumes that the ongoing (though currently threatened) MoH national project is a direct product of the underlying crisis in the KSA. By saying this, it is important to specify the use of the concept of ‘crisis’ for the purposes of this empirical research paper. As *The Affordable Housing Institute* and *Ernst & Young* state, “unless MENA’s public and private sector leaders change their strategies, the growing crisis of affordable housing will become a major long-term problem that leads to widespread social dissatisfaction.”⁴ As also demonstrated in that study, the KSA may hardly be considered as an exception to that. The MENA region, Gulf countries, and the KSA especially are currently undergoing a critical transformation asking for urgent action. Their population is growing at two to three times the global average while their economies are shifting towards a more services-based model. Housing shortages and rapid population growth, together with other severe social risks (unemployment, frantic urbanization, unclear processes of political representation and negotiation, cultural ambiguity, and immigration) define the common ‘hot’ social ground on which the Arab Spring social unrest burst and the Saudi MoH project was conceived. In addition, the MoH project had to be developed in conjunction with the national spatial and housing development context, which inherited a set of severe challenges in terms of administrative, technical, and cultural obstacles colliding with the specific planning and design processes.

As a whole, this massive project was, since its initiation, a critical testing ground for the whole of the Kingdom and its capacity to develop and implement its intentions. The MoH project entailed an uneasy combination of political urgency, on one side, and a set of applied design methods and institutional processes on the other. The latter preexisted the former. Thus, it could be easy to adhere to a strictly informative and descriptive technocratic address of the project without risking pointing towards its political context. Still, doing so would mean one failed to address two facts: First, bureaucratic

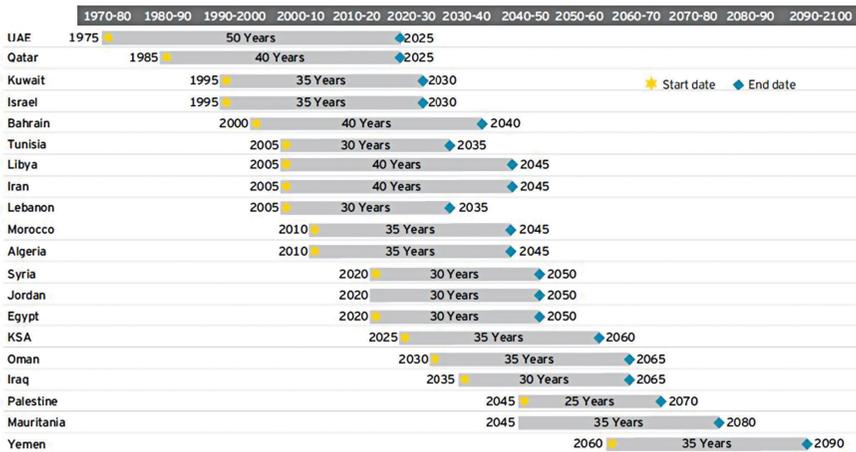


Figure 1. Demographic projection for the MENA countries.

Source: United Nations, 2004, *World Population to 2100*, taken from The Affordable Housing Institute and Ernst & Young, *Understanding the crisis of affordable housing in MENA*, 2013.

and technological processes are hardly neutral. On the contrary, they are the product and the tool of the political system they represent and attempt to reproduce. Second, many experts point to the imposing housing demand in the MENA region and, in particular, the Saudi Kingdom, while also suggesting that “this shortage is one [at least] of the underlying causes of the Arab Spring.”⁵

Socio-Political Background

In the summer of 2015, following the recent decline in the price of crude oil and the large fiscal spending packages announced earlier that same year, the government budget deficit caused project layoffs across the Kingdom. Almost simultaneously, IMF announced that Saudi Arabia’s economy was teetering on the brink and might run out of financial assets within the following five years if it maintained its current policies.⁶ The government decided to freeze its funding on contracts in order to preserve liquidity, among them many projects related to urban planning, infrastructure, and housing. It seems that the “Post-oil boom phase,”⁷ the current phase of urban development in the KSA, is gradually reaching its end.

According to the latest statistical releases,⁸ the population growth rate rose and remained high during the last five years at 2.55 percent (2014), while the number of non-Saudi nationals reached 33 percent of the total population. Over the last three decades, the population increased from 13 million, 500 thousand in 1985 to 30 million in 2014; the official projections⁹ add another 7 million by the year 2025. The greater metropolitan areas of

Riyadh, Jeddah-Makkah-Taif, and Damman-Khobar are still receiving a huge number of domestic and international immigrants every year.

The Kingdom's ruling class enjoys colossal wealth, but the country is also home to a large number of poor families, mainly in rural areas, and middle-class unemployed young people who realize that they will not enjoy the comfortable life that their parents have led. The fact that almost two-thirds (67%) of the Saudi nationals are below 25 years old, coupled with unemployment that reached 11.7 percent among Saudis in 2014, reveals a shadowed future for a significant percentage of the population.

Despite efforts to curtail the pace of suburbanization of the metropolitan surroundings, and the initiatives/measurements aimed at holding housing prices down, big cities still suffer from the mass of "white lands," while 60 percent of Saudi families do not own their own homes.¹⁰ Rising rents have made it difficult for even middle-class people to afford housing. According to real estate experts, that is one of the underlying causes of the social unrest and the resulting political turmoil that spread across the MENA region during the Arab Spring of 2011.

Under increasing pressure from the factors presented above, the authorities have undertaken some ambitious initiatives during the last decade. Among them are projects related to education (Schools and University projects), employment (Saudization, feminization),¹¹ transportation (Public Transportation Projects in Riyadh and Jeddah), and social housing (Ministry of Housing Project).

Ministry of Housing: The MoH Project

The foundation of the Ministry of Housing was an extremely promising and strategically chosen political act. In terms of semiotics and appearances (highly valued within the given cultural context), the use of the word "housing" – isolated from any other adjacent terms (in full contrast to all other Saudi Ministries) – was intended as a straightforward message directly addressing the common feeling and the people's fundamental concern for one of the hottest topics since the oil boom; namely, the ability of the state to meet the increasing housing demand in this rapidly urbanizing society.¹²

The MoH would embody some scarcely allocated minor authorities and host other existing initiatives of the real estate sector. The MoH has been directly responsible for the management of residential property in the Kingdom. Furthermore, MoH would fully absorb the Real Estate Development Fund, immediately after the Fund's authorization to increase the amount per home loan to be provided to beneficiaries from 300,000 SAR to 500,000 SAR. However, other key players would remain active, retaining intersecting areas of control. The Ministry of Municipalities and Rural Affairs (MoMRA) is one of them. That "divide and conquer" method, especially in the real estate sector, was highly criticized for holding responsibility for the control of the land values and the contrasting segregation of the urban areas.¹³

To dissolve all shadows and capitalize on the momentum of its founding, MoH announced its first and main project at the first month of its existence: the design and construction of one hundred “cities” (or developments) containing 500,000 houses country-wide! The initial budget was set at 250 billion SAR. Most of the project sites lie in undeveloped rural areas, with only a few planned on suburban plots near the major cities (Riyadh, Jeddah, Damman). The country was divided in five parts: North, South, East, West, and Riyadh. An international firm took over this last piece. The other four pieces were awarded to three consultancies (with the local one receiving two pieces: the north and the south one).

Initially, the numbers sounded dazzling, and the respective strategies were highly aggressive. MoH would build entire cities, including the houses themselves. However, when the dust settled, the project proved to be extensively problematic.

Administrative Setbacks

In a housing crisis, time can only inflate the situation as an auto-catalyst. Thus, despite the apparent urgency in announcing and approving schemes and projects, little was done in terms of administrative infrastructure. The bureaucratic issues that had to be tackled were underestimated. The need to satisfy the population’s increasing housing needs and quench any thoughts of discontent towards the ruling family had to come with unprecedented speed and reflexes. The consultancies awarded with the MoH project were able to launch studies and conduct their first stage of design work only two years after the Ministry’s founding.¹⁴ Jurisdiction problems were also apparent. The MoMRA already had some minor housing projects of its own, targeting the same objectives as the MoH. Furthermore, a set of standards set by MoMRA were used by MoH as the basis for its project. This set, however, was only covering several essential issues of influence and control (i.e., positioning of mosques), deriving from the Doxiadis plans for the Superblock neighborhoods of Riyadh.¹⁵

The socio-cultural singularities of Saudi Arabia were displayed in the process of the project’s plot allocations. This was a highly political process, in which several provinces – less dedicated to Riyadh’s standings – were provided top priority regarding the MoH project implementation in an effort to improve the popularity and influence of the royal family. The southern mountainous provinces (i.e., Asir, Abha) were amongst the first to be included in the process. After having been approved by the central state, each municipality had to provide candidate plots for the design firm to evaluate. The review process and the final selection was more a political and social negotiation process rather than a technical one. In many occasions, visiting groups of engineers – accompanied by local officials – were prohibited to step on what seemed to be reclaimed as private family land, even under the threat of deadly weapons. In such cases, the subsequent negotiations between

the municipalities and the individuals would then last for many months and usually end up in land exchange arrangements. Institutional provisions and ministerial decrees have been seriously challenged in their authority by local communities and traditions when put on trial on the ground.

Technical Impediments

Obstacles of a more technical nature resulted in non-scientific and dubious site analysis studies. Digital information was elusive or simply non-existent, as many municipalities still work on hand-drawn maps and plans. This includes both spatial information and statistics. In some extreme cases, the exact boundary lines of plots were empirically described, resulting in clashes between adjacent property owners, local and central authorities, and the subcontracting topographers. Statistics were, in many cases, poorly prepared due to the lack of preparatory work by the MoH. Inevitably, all proposals were based on assumptions and lump sums. Other vital information was also missing. A logical decision to exclude residential uses from any “wadis” (dry riverbeds that flood rarely year-round, yet with catastrophic results) and to create buffer zones was not supported properly, since a cohesive national river/wadi digital registry was missing. Hydrologists had to work on sometimes highly elusive wadis in flat lands. And hydrology models would sometimes arrive even later than the master plan approvals, resulting in major losses in time, budget, and design efforts.

In some special cases, the whole project sequence wouldn't even reach the topographic survey and the overall site analysis. Access to sites allocated close to the border to Iraq (in the north) and to Yemen (in the south) was banned by the military for security reasons.

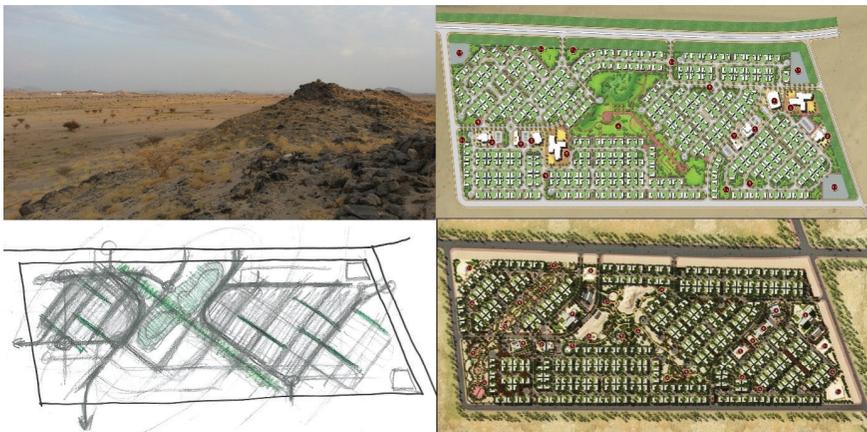


Figure 2. MoH Project site: Tathlith. An example of disregarding topography (hills and wadis).

However, the most important impediment was the lack of national standards. As aforementioned, initially the standards of another ministry were applied. But they were only dealing with mosque positioning issues, underlining the importance of religious control over such parameters as walkability, clustering, land-use distribution, and implementation budget. In terms of architectural design, individual Western engineers from the assigned firms were the ones to import foreign typological and stylistic standards, such as the “Western-like” villa typology. In parallel, the introduction of the automobile as an element of the identity of the “modern” urban classes took advantage of the non-referential modernistic street grid.¹⁶ Non-customized design standards expanded even to the master plan’s presentation templates. Still, key elements such as strictly limited visibility to the interior private space of the planned houses would be decided by the MoH, in full compliance with the central political approach on approved social behavior and aesthetics.

Architectural, Aesthetic, Social and Cultural Issues

If speed and efficiency were key concerns, could they be combined with high-end architecture and aesthetics? And if yes, could a non-standard design successfully express the social and cultural conditions demanded by the Saudi state and the end-users of the projected developments? After all, who will the users be? This project lacked the most important of feasibility pre-studies: a social study concerning the end-user, and the pursued social context, one that would support the double transition from a nomadic life to a permanent settlement and from a rural life to an emergent Saudi bourgeoisie; one that would provide and potentially differentiate the true needs of the communities in terms of locality; and would adjust to specific, customized properties of age, employment, culture, and climate. Such a study was never part of the big picture, either due to the urgency of the project or purposely in order to promote a uniform, nationwide urban identity that would serve the political agenda of the state. Could this imply that the individual receiving such a ‘modern villa’ would happily denounce his/her own voice, will, and preferences? Originally yes, since this was one of the major master plan objectives: “to have equal plots with equal accessibility in order to promote a sense of a compact community and justice in the eyes of God and the Government.”¹⁷ So, even when local authorities pushed the MoH for faster and more palpable results (to satisfy the public) and MoH decided to abolish the villa design and concentrate on the design/implementation of the infrastructure, locality principles didn’t apply. Thus, little concern was given to such parameters as local culture and way of life, communal activities and public space, climate and so on.

Another particularity was that the lack of standards (in all disciplines involved) was often replaced by the introduction of negative standards, or things to be avoided, directly by the MoH officials to the designers. Most of those standards concerned the road network, though their implications would

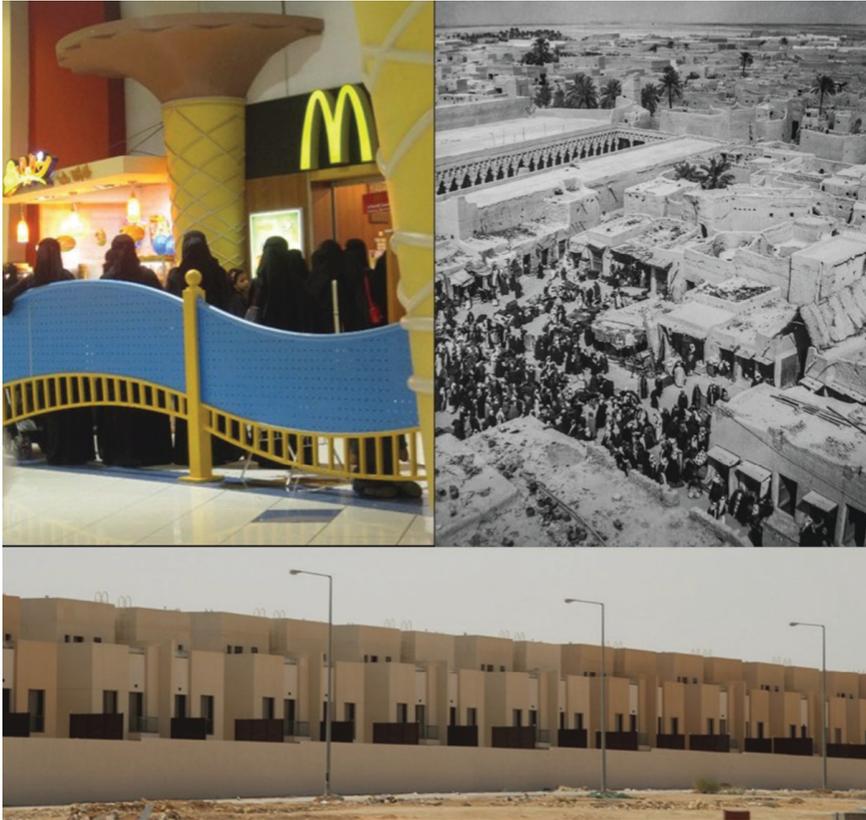


Figure 3. From mild and organic urbanism to cultural cacophonies.
Source: Apostolos Kyriazis archive and Saudi Ministry of Tourism and Antiquities – top right).

extend to the overall urban morphology produced. The most glaring example was the order to avoid designing crossroad junctions. To the designers' surprise, the reason for that directive was not related to driving safety concerns addressing the higher accident risk the crossroads would imply. Instead, a religious symbolic perspective was presented, solely based on the bird's eye ("Google Earth") view of the development. This was indicative of the central state's strong intention to forge a superficial, uniform behavioral pattern for its civilians by tampering with and reproducing urban design stereotypes as a means of social manipulation.

Master Planning

All the aforementioned issues were constantly stalling, if not discarding, the main project's time schedule, creating vicious circles of communication

between the planners and the supervising bodies. Nevertheless, the Ministry founded the master plans on ‘moving sand’ and enclosed its end-users in yet another real estate dead end. The stereotypes used seriously challenged the project’s future sustainability since it had not been grounded on a clear understanding of the relative context at hand.

Concept Formalism and Zoning

Provided that all analysis studies were submitted and approved in compliance with regulations, the concept stage was to be designed and submitted for each site. One concept alone would be selected to proceed to full design. Hence, the road network, residential plots, community facilities, and public spaces would have to be displayed in a freehand way of minimum information displayed and main statistics estimated. However, the MoH definition of a concept was limited to a “Google Earth” perspective, disregarding the natural context, topography, orientation, views, and all sustainability factors addressed at the urban scale. Formalism was unavoidable, with symmetrical approaches being favored.

Zoning was also on the MoH desirables list, since its clarity would guarantee equality amongst all villa owners and better control of the public spaces. The main utility stations would fit at the corners of the plots, neglecting the topography (at a point that “the water tower can stay at the lowest point, we can afford more pumps”) and disregarding any neighboring development/land use, pedestrian passages, or existing mixed-use areas.

Urban Sprawl, Urban Stereotypes and Social Inertia

Was the infliction of the abovementioned housing stereotypes unavoidable? The absence of options in plot dimensions and housing typologies and the unexplained perseverance of the “Western” villa typology,¹⁸ combined with the prohibition of crossroads (for symbolic reasons), together with other technical issues, resulted in a seamless, uniform, monotonous urban morphology, barren of density fluctuations. Priority was given to unobstructed

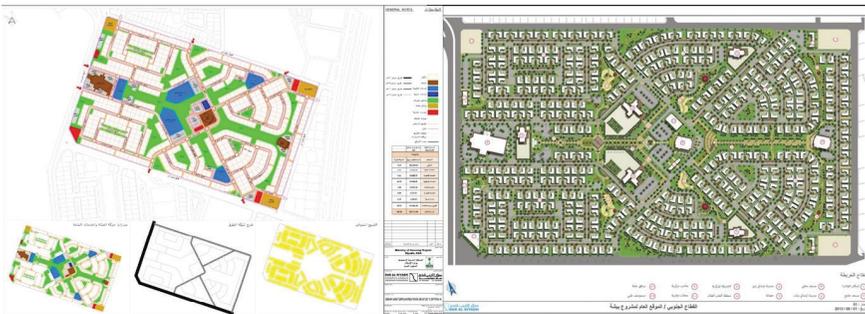


Figure 4. MoH Project site: Bisha. A symmetric vision, completely isolated from its urban context.

and ubiquitous car circulation, whereas free pedestrian movement and ‘walkability’ were both unexplored and obsolete at the same time. This new urban sprawl would provide the easy way against all urban design and planning values regarding adherence to local traditions and sustainability.¹⁹ As Constantinos Doxiadis had stated five decades previously, the city of the present must express the synthesis of the human and the mechanic scale of the automobile, the latter being the greatest challenge to the continuity of human settlements.²⁰

Across the limited literature concerning housing in Saudi Arabia, there are few reports on the true reasons for the benchmarking transitions reshaping the region: from the local vernacular courtyard house to the Western villa with permanently curtained windows,²¹ from the organic volumetric arrangements and the windy sikkak to rectangular plots of 6m high walls,²² or from the bustling souqs to indifferent, geometrically perfect but soulless public spaces.²³ The adoption of the villa, in particular, conveys a stereotype experienced in the USA during the similar car and consumption boom in the sixties, detached however from all “sleeping cities” criticism and seemingly unable to go through similar social conquests ever since. The superficiality of the use of imported stereotypes reveals a diverse society in transition and its high inertia. But, despite the fact that the sustainability scene globally argues for solutions based on locality and tradition,²⁴ the Saudi state somehow relies on a state of apathy and negation in an effort to ensure its political stability.

Ineffective Renegotiation

Even if most of the bottlenecks of the project were explained orally to the Ministry officials, there was no mechanism established to tackle them. Administrative issues were partially resolved through individual efforts and personal contact and endeavor. However, technical and architectural obstacles were too fundamental to bypass, and, at the same time, they had already been embodied in the local system of urban governance and social relations.

Since the first major inefficiency indicators were visible, the Saudi government has made several convulsive attempts to modify things: The Ministry hired (2013) one of the four original companies for consultation regarding design approvals without, however, unifying design standards or proposing a system for their regular revision.²⁵ Also, the Minister’s position, a highly political choice made by the royal family, has been reassigned twice since MoH founding.²⁶ Nevertheless, these gestures only targeted the program’s efficiency rather than its qualitative parameters.

The pressure on the supply side for middle- and low-class housing remains unaddressed. As shown in a recent report published by Bloomberg, since the oil boom the Saudi state has hinged on supporting the real estate monopolies through irrational urban growth strategies and on sustaining extreme levels of social segregation.²⁷ After fueling the land market speculation and being threatened by a potential fiscal and social collapse, the Saudi government

recently decided on an unprecedented wave of subsidies' cuts, including an "undeveloped urban land tax."²⁸ The details of this late effort are still undisclosed; however, it is quite doubtful that the real estate oligarchies will eventually indemnify and redeem themselves for decades of exploitation, or that the commercial prices will become low enough for a wider social spectrum to afford.

Concluding Remarks

Fear of the expansion of the Arab Spring uprising to the Saudi Kingdom in 2011, triggered the founding of a special Ministry of Housing and the launch of a remarkable public housing program countrywide. This political tactic was not strategically matched by a parallel concern regarding chronic high unemployment rates, extreme social segregation, and scanty housing. The overall sketchiness of this endeavor belies the compromised intentions of the project. Administrative conflicts, cultural side-effects, and technical inadequacies were constantly in the picture. The government relied on forwarding specific urban stereotypes by the introduction of obsolete standards. The proposed urban morphology, barren of any social, economic, and environmental sustainability factors – vital for such a demanding environment – and of any architectural and urban design elements of cultural significance and continuity, only served the central state's purposes to individualize, flatten, and control communities, and to depoliticize the public agenda.²⁹

Apart from the project's failure, it is proven that a publicly funded social housing program may succeed only by actively engaging the end-users in the process and by providing a speculation-free environment for all key players.³⁰ Furthermore, when sustainability is the question in such demanding environments, locality and tradition can be the answer.

Unfortunately, this project was founded on sand – easily stirred by the wind. The endogenous reaction to any change has proven too strong to intercept. Concerning the latter, this was an intentional choice. This echoing failure, however, must become a valuable stepping stone to the introduction of more civic rights and social participation in large-scale projects.

Notes

- 1 Saleh Al-Hathloul and Mughal Muhammad Aslam, "Urban Growth Management: The Saudi Experience," *Habitat International* 28 (2004): 610, accessed September 24, 2015, doi:10.1016/j.habitatint.2003.10.009.
- 2 Faisal A. Mubarak, "Urban Growth Boundary Policy and Residential Suburbanization: Riyadh, Saudi Arabia," *Habitat International* 28 (2004): 584, 589, accessed September 24, 2015, doi: 10.1016/j.habitatint.2003.10.010.
- 3 For an early brief evaluation, see Al-Hathloul and Muhammad Aslam, "Urban Growth Management," 610, accessed September 24, 2015, doi:10.1016/j.habitatint.2003.10.009.

- 4 Affordable Housing Institute and Ernst & Young, “The Growing Crisis Of Affordable Housing in MENA,” 2013. accessed December 04, 2015, http://www.ey.com/Publication/vwLUAssets/The_growing_crisis_of_affordable_housing_in_MENA/%24File/The_growing_crisis_of_affordable_housing_in_MENA.pdf.
- 5 Charlotte Kan, “The Affordable Housing Challenge,” *The Middle East Magazine* (March 2012), accessed December 10, 2015. <http://www.themiddleeastmagazine.com/wp-mideastmag-live/2012/03/the-affordable-housing-challenge/>. In this brief article, the author refers to the 2011 UK-based international property agency Jones Lang LaSalle’s research report on the MENA region housing market and to the opinion of Maysa Sabah Shocair, the MENA advisor to the Affordable Housing Institute, pointing at both the direct link between the Arab Spring and the severe affordable housing shortage in the MENA region. Saudi Arabia is noted as one of the countries with the most urgent problems. At the same time, it is stated that housing “is not a simple method for popular appeasement.”
- 6 International Monetary Fund. *Regional Economic Outlook: Middle East And Central Asia October 2015*, World Economic and Financial Surveys, 0258-7440. Washington, DC: IMF, 2004, accessed January 5, 2016, <https://www.imf.org/external/pubs/ft/reo/2015/mcd/eng/pdf/mreo1015.pdf>.
- 7 Shaibu Bala Garba, “Managing Urban Growth and Development in the Riyadh Metropolitan Area, Saudi Arabia,” *Habitat International* 28 (2004): 593–608, accessed September 24, 2015, doi:10.1016/j.habitatint.2003.10.010.
- 8 Central Department of Statistics and Information of Saudi Arabia. <https://www.stats.gov.sa/en/node>
- 9 Ibid. http://www.cdsi.gov.sa/english/index.php?option=com_docman&Itemid=160
- 10 D. Al-Jassem, “52% of Saudis in Riyadh Rent Houses,” *Arab News*, February 7, 2013, accessed October 4, 2015, <http://www.arabnews.com/saudi-arabia/52-saudis-riyadh-rent-houses/>.
- 11 “Saudization is a complex process intended to eradicate unemployment among the indigenous population. It involves bringing together many of the Kingdom’s institutions, funds and manpower and involves long term planning and execution. It assumes both the commitment and the capacity of the government to achieve its targets as well as the willingness of the private industry to break with its heavy reliance on imported labour.” Definition from Manal Soliman Fakeeh, “Saudization as a Solution for Unemployment: The Case of Jeddah Western Region.” PhD thesis submitted at the University of Glasgow Business School, May 2009. (PhD thesis submitted at the University of Glasgow Business School, May 2009), 134. The goals of Saudization have been put forward by means of the Nitaqat program. One of the aspects of this program has been the special Nitaqat program for female Saudis to enter the labor market (feminization).
- 12 Abdallah Ben Rubeian, “Saudi Arabia’s Housing Crisis,” *Al Monitor*, January 31, 2014, accessed December 29 2015, http://www.al-monitor.com/pulse/business/2014/01/saudi-arabia-housing-policies-failed.html#.
- 13 Pascal Menoret, *Joyriding in Riyadh: Oil, Urbanism and Road Revolt* (New York: Cambridge University Press, 2014).

- 14 Marwa Rashad, “Saudi Arabia Launches New Housing Scheme to Ease Shortage,” *Reuters*, March 13, 2014, accessed December 29, 2015, <http://www.reuters.com/article/saudi-housing-idUSL6N0MA17I20140313#XFwEFqtj6R8SAq6T.97/>.
- 15 Constantinos A. Doxiadis Archives, file 23325, *Final Master Plan, July 1971*, p. 284. The masterplan for Riyadh, reproducing the autonomous communities’ cell-like Ekistic structure of the Greek planner, was based mainly on a study of the city’s relation to the new airport and was commissioned in 1968. There followed, in 1970, an evaluation report on the municipal development for the period 1965–1970, a five-year development plan for its municipalities (1970–1974), and a ten-year development plan for the Kingdom’s school buildings commissioned in 1971.
- 16 Menoret, *Joyriding in Riyadh*, 98.
- 17 Verbal directive given during a concept meeting with MoH officials.
- 18 Faisal A. Mubarak, “Cultural Adaptation to Housing Needs: A Case Study, Riyadh, Saudi Arabia,” in IAHS Conference Proceedings, San Francisco, June 1–7 1999, accessed January 08, 2015. http://www.researchgate.net/publication/237115225_CULTURAL_ADAPTATION_TO_HOUSING_NEEDS_A_CASE_STUDY_RIYADH_SAUDI_ARABIA/.
- 19 Mohammed Saied Al Surf et al., “Analyzing the Literature for the Link between the Conservative Islamic Culture of Saudi Arabia and the Design of Sustainable Housing” (paper presented at the 2nd International Conference on Socio-Political and Technological Dimensions of Climate Change, Kuala Lumpur, Malaysia, January 2012).
- 20 Constantinos Apostolos Doxiadis, “The Ancient Greek City, and the City of the Present,” in *The Living Heritage of Greek Antiquity*, European Cultural Foundation (The Hague: Mouton & Co, 1967), 192–211. Further discussed in Martha Zarmakoupi, “Balancing Acts Between Ancient and Modern Cities: The Ancient Greek Cities Project of C. A. Doxiadis,” *Architectural Histories* 3(1) (2015). Ubiquity Press, Ltd. doi:10.5334/ah.cv., and Socrates Yiannoudes, and Nikolas Patsavos, and Vassilis Tsesmetzis, “AspraSpitia 2015: Intentions and Transformations: Constantinos A. Doxiadis’ Industrial Settlement and Its Development,” in the Proceedings of the International Conference *Changing Cities II: Spatial, Design, Landscape & Socio-Economic Dimensions*, Porto Heli, Greece, June 22–26, 2015.
- 21 Menoret, *Joyriding in Riyadh*, 80.
- 22 Rafik, Ibrahim. “Elements of Traditional Urban Form in the Arab World”. Part of PhD research. Accessed February 03, 2015. <https://www.linkedin.com/pulse/elements-traditional-urban-form-arab-world-rafik-ibrahim>
- 23 Pascal Menoret, *The Abu Dhabi Guide: Modern Architecture 1950s–1990s* (Abu Dhabi: Menoret Pascal, 2014), 19.
- 24 Ecocities World Summit, *Conference Proceedings* (Abu Dhabi, October 11–13, 2015).
- 25 Parsons, *Ministry of Housing Infrastructure Program*, accessed December 29, 2015, <http://www.parsons.com/projects/Pages/saudi-moh-infrastructure-program.aspx/>.

- 26 Angus McDowall, and Andrew Torchia, “Saudi Replaces Housing Minister after King Vows to Address Shortage“, *Reuters*, March 12, 2015, accessed December 29, 2015, <http://www.reuters.com/article/saudi-housing-idUSL5N0WE0BZ20150312/>.
- 27 Zainab Fattah, “Saudi King Gifting Land Undercuts Homebuilding Promises,” *Bloomberg*, March 25, 2013, accessed December 29, 2015, <http://www.bloomberg.com/news/2013-03-24/saudi-king-gifting-land-undercuts-homebuilding-promises.html>.
- 28 “Saudi Arabia Backs Tax on Empty Land as 40% of Riyadh Sits Empty,” *Gulf News*, November 20, 2015, accessed December 29, 2015, <http://gulfnews.com/business/property/saudi-arabia-backs-tax-on-empty-land-as-40-of-riyadh-sits-empty-1.1623369/>.
- 29 Menoret, *Joyriding in Riyadh*, 115.
- 30 Participatory planning, both as a theoretical issue and as a set of applied projects and their evaluation, is discussed in an extensive international literature. Indicatively, one may look at J. Friedmann, “The New Political Economy of Planning: The Rise of the Civil Society,” in *Cities for Citizens*, ed. M. Douglass and J. Friedmann (Chichester: John Wiley & Sons, 1998).

Bibliography

- Affordable Housing Institute and Ernst & Young. “The Growing Crisis Of Affordable Housing in MENA,” 2013. Accessed December 04, 2015. http://www.ey.com/Publication/vwLUAssets/The_growing_crisis_of_affordable_housing_in_MENA/%24File/The_growing_crisis_of_affordable_housing_in_MENA.pdf.
- Al Fahim Mohammed. *From Rags to Riches; A Story of Abu Dhabi*. Abu Dhabi: Makarem, 2nd edition, 2013.
- Al-Hathloul, Saleh, and Mughal Muhammad Aslam. “Urban Growth Management: The Saudi Experience.” *Habitat International* 28 (2004): 609–623. Accessed September 24, 2015. doi:10.1016/j.habitatint.2003.10.009.
- Al-Jassem, D. “52% of Saudis in Riyadh Rent Houses,” *Arab News*, February 7, 2013. Accessed October 4, 2015, <http://www.arabnews.com/saudi-arabia/52-saudis-riyadh-rent-houses/>.
- Al Surf, Mohammed Saied et al., “Analyzing the Literature for the Link between the Conservative Islamic Culture of Saudi Arabia and the Design of Sustainable Housing.” Paper presented at the 2nd International Conference Socio-Political and Technological Dimensions of Climate Change, Kuala Lumpur, Malaysia, January 2012.
- Aravantinos, Athanasios. *Urban Planning. Towards a Sustainable Development of the Urban Area*. Athens: Kritiki publications, 2nd edition, 2007.
- Balasis, Evgenios. “The Urban Diffusion: Suburbanization of the Rural Residential Areas.” *Geographies* 12 (2006): 47–68.
- Ben Rubeian, Abdallah. “Saudi Arabia’s Housing Crisis,” *Al Monitor*, January 31, 2014. Accessed December 29, 2015, <http://www.al-monitor.com/pulse/business/2014/01/saudi-arabia-housing-policies-failed.html#/>.

- Central Department of Statistics and Information of Saudi Arabia. <https://www.stats.gov.sa/en/node>
- Daghistani, Abdal-Majeed Ismail. "A Case Study in Planning Implementation: Jeddah, Saudi Arabia." Electronic working paper No 5, Centre for Research in European Urban Environments, Department of Town and Country Planning, University of Newcastle upon Tyne, Newcastle, 1993. Accessed January 8, 2016. <http://www.ncl.ac.uk/guru/assets/documents/ewp5.pdf/>.
- Douglass, Mike, and John Friedmann (eds.). *Cities for Citizens: Planning and the Rise of Civil Society in a Global Age*. Chichester: John Wiley & Sons, 1998.
- Doxiadis, Constantinos Apostolos. "The Ancient Greek City, and the City of the Present." In *The Living Heritage of Greek Antiquity*, European Cultural Foundation. The Hague: Mouton & Co, 1967.
- Ecocities World Summit. *Conference Proceedings* (Abu Dhabi, October 11–13, 2015).
- Elsheshtawy, Yasser. "(In)formal Encounters: Mapping Abu Dhabi's Urban Public Spaces." *Built Environment* 37 (2011): 92–113.
- Elsheshtawy, Yasser. "From Souqs to Emporiums: Reading Abu Dhabi's Urban Transformation in the 20th and 21st century." *Open House International* 38(4) (2013): 58–69.
- Fakeeh, Manal Soliman. "Saudization as a Solution for Unemployment: The Case of Jeddah Western Region." PhD thesis submitted at the University of Glasgow Business School, May 2009.
- Fattah, Zainab. "Saudi King Gifting Land Undercuts Homebuilding Promises." *Bloomberg*, March 25, 2013. Accessed December 29, 2015, <http://www.bloomberg.com/news/2013-03-24/saudi-king-gifting-land-undercuts-homebuilding-promises.html>.
- Friedmann, J. "The New Political Economy of Planning: The Rise of the Civil Society." In *Cities for Citizens*, ed. M. Douglass and J. Friedmann. Chichester: John Wiley & Sons, 1998.
- Garba, Shaibu Bala. "Managing Urban Growth and Development in the Riyadh Metropolitan Area, Saudi Arabia." *Habitat International* 28 (2004): 593–608. Accessed September 24, 2015. doi:10.1016/j.habitatint.2003.10.010.
- International Monetary Fund. 2015. *Regional Economic Outlook: Middle East And Central Asia October 2015*. World Economic And Financial Surveys, 0258-7440. Washington, DC: IMF, 2004. Accessed January 5, 2016. <https://www.imf.org/external/pubs/ft/reo/2015/mcd/eng/pdf/mreo1015.pdf/>.
- Kan, Charlotte. "The Affordable Housing Challenge." *The Middle East Magazine*, March 2012. Accessed December 10, 2015. <http://www.themiddleeastmagazine.com/wp-mideastmag-live/2012/03/the-affordable-housing-challenge/>.
- Kyriazis, Apostolos. "Upgrading Potential of the Greek Cities Urban Tissue and the Role of the 'Active City Blocks Renewal Tool.'" PhD dissertation submitted at Aristotle University of Thessaloniki, 2008.
- Kyrtsis, Alexandros-Andreas, ed. *Constantinos A. Doxiadis: Texts, Design Drawings, Settlements*. Athens: Ikaros, 2016.
- McDowall, Angus and Andrew Torchia, "Saudi Replaces Housing Minister after King Vows to Address Shortage." *Reuters*, March 12, 2015. Accessed December 29, 2015, <http://www.reuters.com/article/saudi-housing-idUSL5N0WE0BZ20150312/>.

- Menoret, Pascal. *Joyriding in Riyadh: Oil, Urbanism and Road Revolt*. New York: Cambridge University Press, 2014.
- Menoret, Pascal. *The Abu Dhabi Guide. Modern Architecture 1950s-1990s*. Abu Dhabi: FIND, 2014.
- Mubarak, Faisal A. "Urban Growth Boundary Policy and Residential Suburbanization: Riyadh, Saudi Arabia." *Habitat International* 28 (2004): 567–591. Accessed September 24, 2015. doi:10.1016/j.habitatint.2003.10.010.
- Mubarak, Faisal A. "Cultural Adaptation to Housing Needs: A Case Study, Riyadh, Saudi Arabia." In IAHS Conference Proceedings, San Francisco, June 1–7, 1999. Accessed January 8, 2015. http://www.researchgate.net/publication/237115225_CULTURAL_ADAPTATION_TO_HOUSING_NEEDS_A_CASE_STUDY_RIYADH_SAUDI_ARABIA/.
- Parsons. *Ministry of Housing Infrastructure Program*. Accessed December 29, 2015, <http://www.parsons.com/projects/Pages/saudi-moh-infrastructure-program.aspx/>.
- Rafik, Ibrahim. "Elements of Traditional Urban Form in the Arab World." Part of PhD research. Accessed February 3, 2015. <https://www.linkedin.com/pulse/elements-traditional-urban-form-arab-world-rafik-ibrahim/>.
- Rashad, Marwa. "Saudi Arabia Launches New Housing Scheme to Ease Shortage." *Reuters*, March 13, 2014. Accessed December 29, 2015, <http://www.reuters.com/article/saudi-housing-idUSL6N0MA17I20140313#XFwEFqtj6R8SAq6T.97/>.
- "Saudi Arabia Backs Tax on Empty Land as 40% of Riyadh Sits Empty." *Gulf News*, November 20, 2015. Accessed December 29, 2015, <http://gulfnews.com/business/property/saudi-arabia-backs-tax-on-empty-land-as-40-of-riyadh-sits-empty-1.1623369/>.
- US–Saudi Arabian Business Council. *King Abdullah Establishes Ministry of Housing*, 2011. Accessed December 29, 2015, <http://www.us-sabc.org/custom/news/details.cfm?id=996/>.
- Yiannoudes, Socrates, Patsavos, Nikolas, and Tsesmetzis, Vassilis. "AspraSpitia 2015: Intentions and Transformations: Constantinos A. Doxiadis' Industrial Settlement and Its Development." In The Proceedings of the International Conference *Changing Cities II: Spatial, Design, Landscape & Socio-Economic Dimensions*, Porto Heli, Greece, June 22–26, 2015.
- Zarmakoupi, Martha. "Balancing Acts Between Ancient and Modern Cities: The Ancient Greek Cities Project of C. A. Doxiadis." *Architectural Histories* 3(1) (2015). Ubiquity Press, Ltd. doi:10.5334/ah.cv.

