

The pattern of structural transformation of the Saudi Contemporary Neighbourhood: The case of Al-Malaz, Riyadh, Saudi Arabia

Dr. Fahad A. M. Al-Said
Dean of College of Environmental Design
King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia
Email: alsaid@kfupm.edu.sa

Abstract

The paper explores the use of aerial photographs and other sources of information to study the processes of structural pattern and transformation of contemporary Saudi neighbourhood. The paper highlights the historical and legislative process of development of the Al-Malaz Neighbourhood, Riyadh Saudi Arabia. The study concludes that there is formation of traditional patterns of neighbourhood change within Al-Malaz and the uncontrolled structural growth could lead to economic decline.

Introduction

The neighbourhood and change of urban neighbourhood has been the focus of urban research (Downs, 1981; Galster, 2001, Barton, 2002; Bauder, 2002; and Overman, 2002). Contemporary urban research seeks to understand the processes of formation and transformation of neighbourhood and apply the knowledge in revitalizing and promoting good neighbourhood. However, the complexity of the dimensions of neighbourhood change renders it intractable and unpredictable. As a result, there is no single, generalisable interpretation of the neighbourhood (Kearns and Parkinson, 2001). There is the need to further expand the horizon of investigation for better understanding of neighbourhood change. The continuous study of the neighbourhood as a unit of urban development could provide urban designers and policy makers with useful base information in dealing with the complexity of modernization (Al-Shayeb and McClosekey, 1982). The need for such study is very relevant to the Arab world where the Western approach of neighbourhood planning has fast replaced traditional neighbourhood. Scholars (Fathy, 1973; Alshuwaikhat and Khaled, 1993; Elaraby, 1996 and Bianca, 2000) have highlighted the inappropriateness of indiscriminately replacing traditional patterns with Western patterns without due regard to the underlying indigenous socio-cultural and economic processes.

In this vein, the paper explores the use of aerial photographs and other sources of information to study the processes of structural formation and transformation of typical contemporary Saudi neighbourhood. The paper highlights the historical and legislative process of development of the Neighbourhood Al-Malaz, Riyadh Saudi Arabia with the underlying assumption that the transformation of unit house is fundamentally consequential to neighbourhood transformation. The first part of the paper describes the location and development of Al-Malaz neighbourhood, a typical contemporary neighbourhood in the Arabian Gulf. The second part highlights the legislative processes that affects neighbourhood dynamics in Al-Malaz and thereby focuses on the transformation of the neighbourhood over five decades, ranging from the 1950s to the present.

The location

Al-Malaz neighbourhood which is located 4.5 km north east of Riyadh city centre in Saudi Arabia (fig. 1) represents a typical modern Saudi neighbourhood in physical appearance and legislative formation and transformation. The project was planned in **1373/1957** due to the moving of government headquarters from Makkah to Riyadh. It was intended to accommodate the transferred government workers and their families. The project was financed by the Ministry of Finance and consists of 754 detached dwellings units (villas) and 180 apartment units located in three buildings. Al-Hathloul (1981) considered Al-Malaz neighbourhood as "a model to be reproduced in future developments in Riyadh and elsewhere". He related this to the fact that: the project was sponsored by the government as an authoritative statement on how modern neighbourhoods should be; Al-Malaz was seen as a symbol of modernity in planning and building material in sharp contrast with the traditional; and the neighbourhood residents are part of the Saudi public and highly regarded by other segments of the society (Al-Hathloul, 1981).

Al-Malaz neighbourhood was planned following a gridiron plan with a hierarchy of streets, rectangular blocks, and large lots which in most cases are square in shape (fig. 2). The main thoroughfares are 30 meters in width, secondary streets 20 meters, and minor streets of 10 and 15 meters. The block areas are 100 by 50 meters. The typical lot size is 25 by 25 meters, with some variety of 25, 37.5 and 50 meters in width and 25 meters in depth. The neighbourhood density target was 60 people per hectare, and the built up private areas was 53% served by 45% public areas.



Figure 1. Map of Saudi Arabia showing the location of Riyadh.
Source: Al-Said, 1992 (modified by the Author).

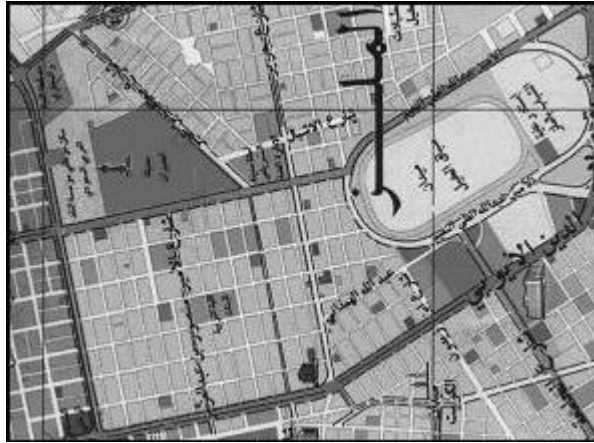


Figure 2. Administrative map of Riyadh showing Al-Malaz Neighbourhood structure.
Source: Ar-riyadh Municipality Archive.

Saudi Building Regulations

Prior to Al-Malaz foundation in 1957, the Saudi cities in general and Riyadh in particular have experienced the formulation of the contemporary planning and building regulation. The Al-Malaz foundation occurred as a physical representation of how the ideal planning should be from the government point of view. After its construction was finished, the neighborhood became a model for the Saudi neighbourhood. The contemporary building regulation was initiated by statute of the Makkah Municipality and Municipalities which was issued in **1357/1937** under the order No. 8723. The order granted the municipality of Mecca [Makkah] and other municipalities the responsibility for supervision of the towns' organization, their beatification, and the work needed to result in their having an enhanced scenic setting in public interest (Al-Hathloul, 1981). The order was followed by Kings' Abdulaziz's order to found Al-Khobar city in **1358/1938**. The Alkhobar city order sought to encourage urbanization by giving guidelines for building organization and construction such as the prohibition of building houses with palm tree branches or wood (Al-Subaii, 1987). In **1371/1951**, the villa type house was introduced to Saudi Arabia through the ARAMCO home ownership plan (Faden, 1980). These orders and events set the background for the contemporary neighbourhood in Saudi Arabia and the structure and pattern of the neighbourhood are influenced by the different regulations.

The Al-Malaz neighbourhood: The 1950's

The construction of the Al-Malaz neighbourhood was initiated between **1373/1953 – 1370/1957**. In **1380/1960** roads and building statute was prepared by the administrative console of Makkah municipality. Articles of this statute stated:

It is not permitted to use any building in the residential area as a shop or workshop for any purpose related to marketing or any malodorous craft.

It is not permitted to use any building in the markets and bazaars as a workshop for any malodorous craft.

It is not permitted to use residential buildings as substitute for public buildings and vice versa ...

It is not permitted to construct any building, be it temporary or permanent, in these districts except with a clear written permission from the building authority.

For the different buildings set back requirement the statute, article 24 introduced these instructions:

It is not permissible for the building authority to establish building line with a maximum of fifteen meters from the organization line [the street limit], on the condition that establishing such a line would in no way prevent the construction of buildings that are suitable for the status of the district.

When building line is established in any residential district, then no building should be erected beyond this line, except for the fence.

When a building line is established in a street or in a part of a street related to markets and bazaars, then no building could be erected beyond this line, except for arcades and balcony projections.....

Concerning the size of the lot and its dimensions, the article 28 stated:

It is not permitted to erect dwellings on any lot from land designated for building inside any new district unless it complies with the following conditions:

(a) that the area of the lot from land designated for building is not less than 175 sq. cubits [98.45 sq. m.] according to the decision of the building authority.

(b) that the dimension of the lot's frontage width on any street is not less than one-third of the lot's length perpendicular to that street, and it should in no way be less than nine meters or twelve cubits.

(c) the conditions stated in paragraph (a) of this article do not apply to any lot in market or bazaar districts if it is not used as a room or a building for human habitation.....

(d) the building authority does not have to adhere to either all part of the conditions stated in paragraph (a) of this article.

For the right of way, the statute recognizes the need for widening some of the existing streets and stated:

The straightening of roads and their design are to be designated according to the map.....

Roads are to be planned according to the approved design, on the condition that this design be gradually implemented either when reconstructing dilapidated buildings or when constructing new ones. To be exempted from this are buildings whose removal is required by the public interest.....

Existing streets are to maintain their present condition unless public interest requires their widening according to the approved design in the town's map, on the condition that these newly opened streets do not exceed the following widths: main streets, not less than 15m.; secondary streets, not less than 8 to 12m.; not less than 4 to 6m.

Also during this period (**1380/1960**), the Deputy Ministry of Interior for Municipalities issued a circular to all municipalities and town planning offices in the country. The circular stated further regulations on issuance of building permit, building heights (not more than eight meters), built-up area (not more than 60%) and set backs.

The above listing of written regulations showed that Al-Malaz neighbourhood urban pattern is a reflection of the Saudi contemporary built environment transformation from the traditional process to the contemporary self-conscious process. Prior to its foundation the traditional ownership system and easement rights were in full practice. The municipality statutes in 1973 has officially shifted the planning and designing of neighbourhoods from its users to the municipality. Consequently, the different neighbourhoods zoning, street layouts, and houses expansions are no longer a by-product of its users needs, but rather a planned one. Al-Khobar city planning, and Dammam city future expansion layouts which were proposed by ARAMCO's engineers in 1937 were the first to introduce the villa type house to the average

Saudi through its home ownership plan in 1951. In other words the message to the future neighbourhoods was clear: municipality controls, grid-iron street layout, and a villa type house.

The contemporary pattern message was officially translated into Al-Malaz neighbourhood pattern (fig. 3). It was for the average Saudi, constructed by the government in a contemporary way. Not only that, but the issuing of the Ministry of Interior circular in 1960 to all the Saudi municipalities was in confirmation of the reproduction of Al-Malaz neighbourhood plan and design all over the country through clear stated regulations. This circular is the turning point in Saudi Arabian contemporary built environment physical pattern and regulations. It requires planning of the land, subdivision with cement poles, obtaining an approval for this from the municipality, prohibited further land subdivision, controlled the height of the buildings, the square lot ratio of the built, require set backs, and clearly confirms that "these regulations cancels all other stipulations which are in contradictions with them".



Figure 3. Al-Malaz Neighbourhood, 1960's.
Source: Al-Said, 1992.

The Al-Malaz neighbourhood: The 1970's

In **1390/1970** the Doxiadis master plan of Riyadh confirmed the set-back requirements appointed in 1380/1860. The Ministry of Municipal and Rural Affairs was established in **1395/1975**. In **1400/1980** the SCET international/SEDES of Paris revised Riyadh master plan done by Doxiadis and prepared an Execution and Action Master Plans and developments studies. The plan was accompanied by a document entitled "Planning regulations". Part of this document stated:

.....visual privacy is the most important factor determining the design of private homes in Saudi Arabia. Zoning regulations should provide a legal framework for safeguarding the privacy of each home and ensuring the full use of property by its owner, in accordance with Saudi traditions and jurisprudence.

.....In most R & C districts the owner can elect to build the side property line... The elimination of side set-backs in residential districts allows the design and construction of greater variety of housing types more suited to local climate and social customs.

.....Rear set-backs are optional in R districts, but mandatory in RS and C districts.....

In **1409/1989** the approval of Saudi cities "Urban boundary" that prepared by the Ministry of Municipal and Rural Affairs by the Council of ministers after three years study became another legislative determinant of neighbourhood transformation. Doxiadis 1970 Riyadh master plan has little effect on Al-Malaz neighbourhood (fig. 4). It dealt with the planning of new Riyadh neighbourhoods, and confirmed the 1960 circular regulations. SCET 1980 proposal for the new master plan of Riyadh has revised Doxiadis' master plan and only recommended the abandonment of the set backs requirement in some of the city neighbourhoods. The 1989 cities urban boundary resulted in the sharp increase of land prices inside the city boundary because of the availability of infrastructure and services. The lands outside the city boundary, even though only a few hundred meters away, are low priced because their infrastructure and services are not in the immediate plans of the municipality.

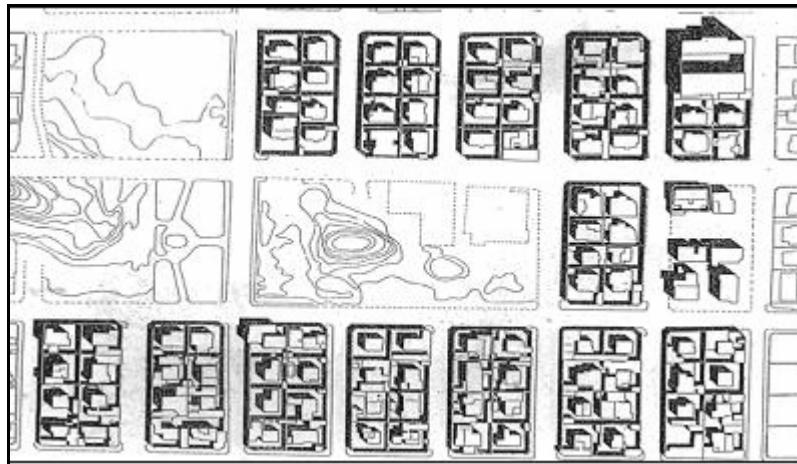


Figure 4. Al-Malaz Neighbourhood, 1970's.
Source: Al-Said, 1992.

Al-Malaz neighbourhood: The 1990's till present

The neighbourhood structure and street pattern continued to be guided by Saudi contemporary building regulations which had evolved from the 1960's. The building and zoning regulations further established the grid-iron patterns of wide streets through compulsory set-backs and site-coverage limits. This resulted in fostering the construction of freestanding, villa type buildings (fig. 5).

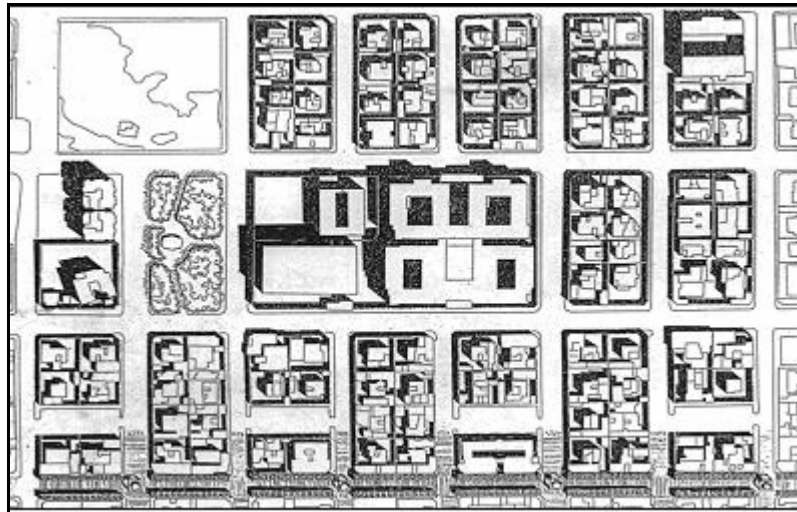


Figure 5. Al-Malaz Neighbourhood, 1990's.
Source: Al-Said, 1992.

One can notice changes that are due to the alteration of the written rules from the comparative look at the existing neighbourhood pattern (fig. 6) and emerging patterns from the 1960's. The written rules (that is, building regulations) have had a great influence on the neighbourhood street pattern and not the building blocks. The alterations of the block pattern are due to the existence of un-written or unofficial rules among the neighbourhood residents. These rules subscribe their existence to the Traditional Arab-Muslim territory types (Al-Said, 2003). The neighbourhood blocks unofficial structural transformation, mainly in the villa house, has passed through three distinctive stages: firstly the villa stage, secondly the villa expansion stage, and thirdly the villa annex buildings stage (fig. 7).

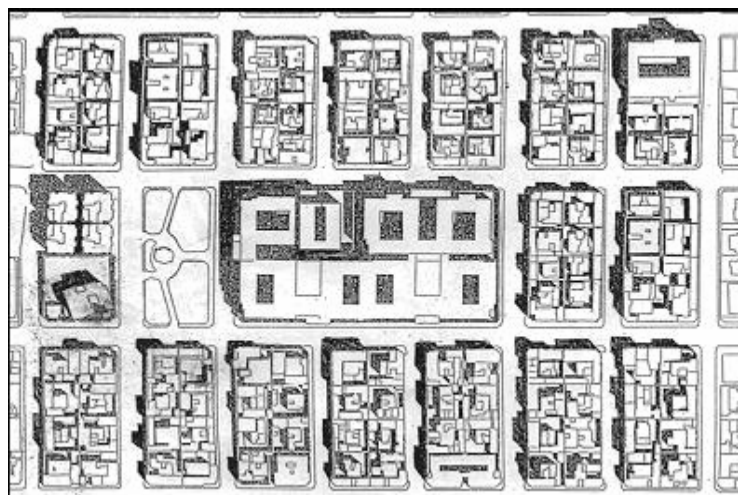


Figure 6. Existing neighbourhood pattern in Al-Malaz.
Source: Al-Said, 1992.

The villa stage is the house physical pattern as intended by the building regulations. It resulted in the villa type house known all over the world. The villa structure is nested in a set-back space, surrounded by a three meters fence. The phase started in the late fifties and early sixties; it fully respects the building materials, setback, and square lot ratio regulations.

The changes such as changing a door position, rooms function, and spaces subdivision, as an indication of the failure of the initial villa interior design to match its users needs.

The villa expansion stage has started as early as the mid sixties. In this phase the square lot ratio regulation has experienced its first challenge. Villa owners attached new structures to their villas and close down the balconies space and used them as rooms. This act can be related to the changes in the villa users needs in relation to natural, person-made and human environments.

The annex building stage was clear in the early seventies. In this phase the set-back requirements are challenged through using the set-back space for building new rooms alongside the fence wall. These structures are known locally as (Mulhaq) or annex. Due to the continuous changes in the users needs, they went back to traditional unofficial rules – particularly ownership concept – to re-type the set-back spaces territory and built on them. The municipality has realized this when revising Doxiadis master plan and abandoned the side set-back regulations in SECT master plan.

In summary the un-written (unofficial) rules resulted in three stages of the Al-Malaz neighbourhood house, and showed three facts: first the certainty of the physical changes on the residential unit; second the contemporary physical changes has its roots in traditional concept; and third the municipality partial understanding of these changes through the relaxation of its building regulations such as lot ratio and set-back requirements. These three facts have resulted in the transformation of the original villa house but not the street spaces and patterns. Doxiadis (1971) even though he did not participate in this transformation, had rightly stated that "many of the newer parts of the city are constructed in a manner that has paid very little tribute and attention to the design and aesthetic quality of traditional architecture. If this were to continue, Riyadh would rapidly become a city of no character." Today, not only Riyadh city but also all Saudi cities neighbourhood are without character. The reasons are not as Doxiadis thought of it "paid very little tribute and attention to the design and aesthetic quality of traditional architecture", but because users are applying the traditional "open-ended design" method in a contemporary built environment.



Figure 7. Chronological Transformations of the villa house (1957-2001).

Source: Al-Said, 1992.

Conclusion

This study in a way has further the debate on the appropriateness of establishing contemporary Saudi neighbourhood based on Western neighbourhood concepts and patterns. The image-based approach aided the understanding of the structural formation and transformation of the contemporary Saudi built environment. It is apparent that there should be reservations in the indiscriminate adoption of Western neighbourhood pattern. The regulations for street pattern organization were abided by the neighbourhood but the traditional concept of building structure still evolved. Thus, due consideration should always been given to the social-cultural setting of Saudi Arabia in adopting modern concept of neighbourhood development. The uncontrolled structural growth that is occurring within the fences of the villa should be addressed as this could lead to neighbourhood socio-economic decline. Further studies need to be carried out in analyzing the impact of modernization on Saudi Arabia neighbourhood development especially in establishing linkages between legislations, socio-cultural factors, economic and structural transformation of contemporary neighbourhoods.

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