

JEDDAH URBAN GROWTH AND DEVELOPMENT PROCESS : THE UNDERLYING FACTORS

Mohammed Sani Abdu
Jamaluddin Yousef Salagoor
Fahad An-Nwisser Al-Harigi

College of Architecture and Planning, King Faisal University
Dammam, Saudi Arabia

Abstract:

Jeddah is the second largest city in the Kingdom of Saudi Arabia and the gateway to the holy cities of Makka and Al-Madina. It is rich in modernity as it was in history and tradition. The city grew from a small walled town to a regional trade centre in few decades.

The main goal of the paper is to examine the underlying factors that shaped the growth and development of Jeddah. The paper traces the development of the city in conjunction with the economic development of the Kingdom of Saudi Arabia. Then the main forces underlying the growth of the city are examined, planning problems are highlighted and some conclusions are drawn.

Keywords: *Jeddah, Urban growth, Islamic cities, Saudi Arabia.*

Introduction:

JEDDAH is by far one of the most important cities of the Kingdom of Saudi Arabia. Not only for its importance as a contemporary national centre, but also for its history, geographical location and role as a unique pilgrims reception centre for the holy cities of Makkah and Al-Madina. It is a city rich in modernity as it was in history and tradition. It is this unique combination of history, culture, economic prosperity, modernity, attributes and the flexibility and versatility for the blending of all these that attracted many well informed studies of the city - contemporarily among which are - A. Pesce (1977), M. Konash, et al (1984), G. Duncan (1987), K. Abdulghani (1993) etc.

However, most of these studies dealt with either the portrait account, administrative or planning process of the city in general. Although some of the factors at play in shaping these accounts or processes were contained in some of these studies, they were not on their own right analysed and dealt with, with the intention of highlighting their importance in the growth and development of Jeddah.

It is against this background that, this paper sought to examine and highlight these factors as they inter play along the city's development path in the period between 1927 - 1995. The contention here is that, the presence of the factors as they were (and still are) and their interactions over space and time are more important in determining the growth and development of Jeddah (attained so far and the probable future pattern), than a mere portrayal or technical account would lead us to believe. These forces include - natural (locational) factors, economic (oil) boom, governmental foresight etc.

The paper first traces and charts out the development path of Jeddah along the line of the economic development of the Kingdom of Saudi Arabia. The country economy is mainly driven by the oil revenues which is subjected to the fluctuation of the oil market. Therefore, the urban development of the city of Jeddah can be divided into three periods: the pre-boom, the boom, and the post boom. Then the main factors underlying the growth and development processes of the city are isolated and analysed, some intrinsic planning problems are highlighted and some conclusions drawn.

1. The Urban Development Of Jeddah (1927 – 1995)

The urban development of Jeddah is strongly linked to the Kingdom of Saudi Arabia economic development, which can be divided to three periods:

1.1 The Pre-Boom Period 1927-1970.

The history of ancient Jeddah is a long one, dating back to 500 BC and have been well captured by Angelo Pesce (1977). According to Pesce, "As Jeddah was in antiquity at best a fishermen's hamlet" was of limited interest to him so also that antiquity phase is not to be the central theme of this paper, important as it might be.

Although there was the first oil boom from the end of the Second World War (1945) to 1956 which had an effect on the expansion of Jeddah, doubling its population from 25,000 to 50,000. Most of the city remained organically compact and within the 3 km² walled city until 1947, when this was demolished. The first boom was followed by a period of economic austerity and crisis until the second boom in 1973. There is a consensus that in almost all studies the growth and development of the city was frozen until the latter period. However, some important land marks were achieved during this time which later influenced the direction of development.

The pre-boom period could also be conveniently divided into two stages. The first stage is until 1945, when Jeddah remains within its wall with an area of not more than 180 ha. The population then was estimated to be stagnating between 10,000 and 25,000. The main economic base was revenues from commerce and services offered to pilgrims. The revenues were very little coupled with the dwindling number of pilgrims visiting due to the second world war. Thus, the situation affected all aspects of the city's development - social, educational, health, economic and consequently physical.

The urban fabric of Jeddah during this period remained traditional in character - organic fabric, narrow streets, mainly animals mode of transportation. The city had four main gates. The architecture was vernacular and multi storey (4-7 stories) built with local materials (coral stone) walls, wooden lattice (mashrabia) covered openings. These were highly adaptive to the environment and climate. From the above account it is easily discernible that economic base was the main determinant of urban transformation and growth.

The period after the second world war (post 1945) witnessed the economic upturn of the Kingdom of Saudi Arabia, in which the Kingdom received its first oil revenue in 1946 about ten million United States dollars. This continued to increase upto 280 million US dollars in 1956. Jeddah was one of the first cities in the Kingdom to benefit from this flourishing economy. (Makhlouf, A. 1985) This is as a result of its function as the

gateway to Makkah not only as a holy city but the capital of the country at that time. The economic upturn was further accentuated by the increase inflow of pilgrims as a result of the ending Second World War. Accordingly these affected the urban growth. The population increased dramatically, the wall had to be demolished in 1947. Some of the principal public investments then included roads, royal palaces, public hospital, harbour oil refinery, the old airport and water supply from Wadi Fatimah (Fatimah Valley) about 55 km from Jeddah to compliment the sea water condensation plant. With this increase in investment also came other pressures like housing, employment, commerce and services. Hence the increasing complexity and differentiation of the Urban Land Uses.

After this first boom, the period of economic difficulty set in, escalated by the closure of the Suez Canal in 1956. Government had to set policy instruments to cut expenditure and also to urge private participation in new and redevelopment projects and encourage the Industrial Sector to finance and support economic development. As a result of this austere time, population growth rate of Jeddah decreased by 4%, between 1956 - 1960 compared to 16% between 1952 - 1956. The positive effect of this economic difficulty is that, it made the government to resort to planning for the first time, not only national planning was resorted to but also urban planning. The Kingdom sought and got the assistance of the United Nations, under the leadership of its expert Dr. AbdulRahman Makhlof - Jeddah got its first plan in 1962 (see figure 1). The main features and configuration of the development of Jeddah were determined by this plan. The linear pattern, the location of the new King Abdulaziz Airport, the direction of the main motor transit ways and the ring roads and the cornich were all determined by the plan. Generally except for the city boundary and the populations projections which were far exceeded by the early 1970s, the main features of the plan remained valid to date. With this plan in hand, it was easy for Jeddah to continue its development once the economic crisis was over and replaced by the second boom. As the economy began to pickup, regional studies, aerial photographs and studies of a modern water desalination project and other projects were begun. (See figure 2) for illustration of the growth sequence of Jeddah upto 1980.

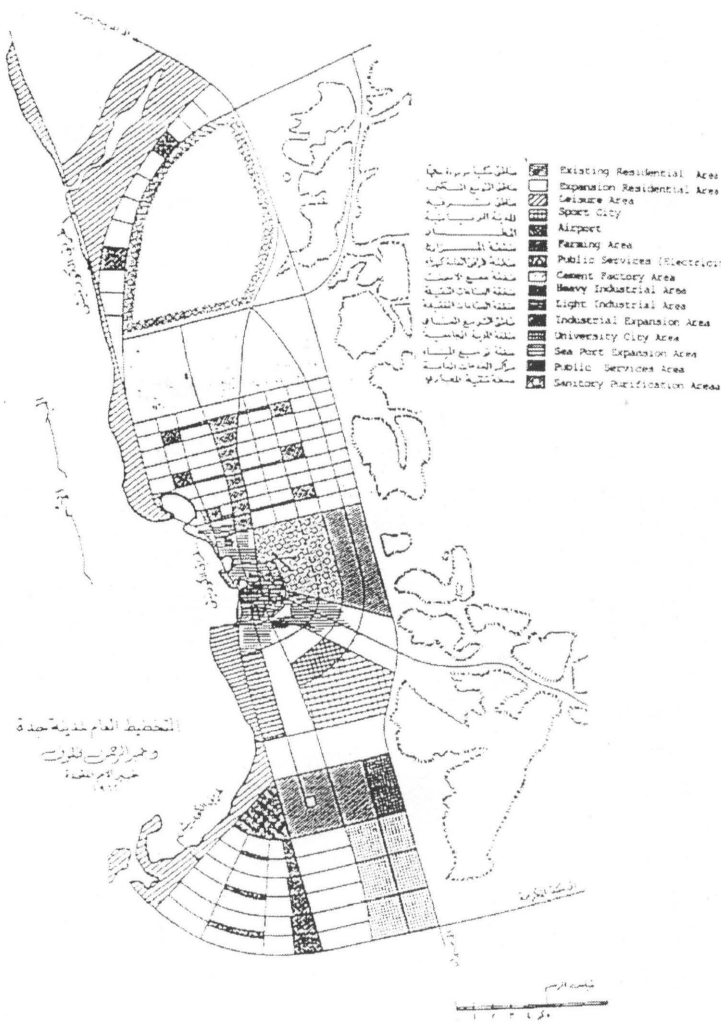


Figure: 1 The First Master Plan of Jeddah 1962 by Dr. Abdul Rahman Makhlof.

Source: Makhlof, A. (1985), Al-Darasat Al-Mraniah Al-Shamilah Li-Madinat Jeddah 1387-1383, (The Comprehensive Urban Studies for Jeddah City, from 1368 to 1383, (1959-1963). A report prepared for the ministry of Municipalities and Rural Affairs, Jeddah Municipality, Vol. II. p.94.



Figure: 2 Historical Growth of Jeddah.

Source: Sert Jackson International/Saudi Consult (SJI/SC), (1978) Jeddah Action Master Plan, Technical Report No.5, p.33

1.2 The Boom Period (1973-1983) :

This period was ushered in by planning zealousness due to the lessons of the previous economic crisis and the increasing inflow of oil wealth. These were begun under the first five year national plan (1970-1975). The main thrust of the plan was not only physical developments but included mostly studies like the population, national transport, regional socio-economic and physical studies. Under the auspices of these studies, the second Jeddah Master plan (1973) was prepared by an experienced international consultancy consortium - Robert Mathew, Johnson - Marshall partners, (See figure 3). The plan and the planning processes were undertaken comprehensively at the time based on the optimistic inflow of oil revenues into the Kingdom. The plan also took into consideration the following favourable elements prevalent in Jeddah - a sound economic/commercial base, the coastal line, open spaces (for recreation) communications and utilities already rooted in place. As at 1971 Jeddah was the diplomatic centre of the Kingdom, the headquarters of the Saudi Monitory Authority (SAMA) and hence the centre of professional, scientific and skillful employment ⁽⁸⁾. The plan consolidated all these and got the blessing of the government for concurrent implementation.

Again the drawing and the launching of the Second National Development Plan (1975-1980) ⁽⁹⁾ of the Kingdom of Saudi Arabia coincided with the culmination and consolidation of the oil boom (1973-1983). The boom and the consequent large revenue inflows enabled the government to embark upon multisectoral development plans, programs and projects. One of the sectors that received priority attention is the urban sector. Infact one of the main goals of the second plan is to develop the physical infrastructure to support the achievement of the cultural, historical, and political fundamentals, values and principles of the Kingdom" ⁽¹⁰⁾. The plan therefore embarked upon the serious physical restructuring of the major centres of population, which provided the main economic bases of the Kingdom, of which Jeddah was a leading centre. In particular the plan envisaged that by 1978 all major towns would have had operational master plan.

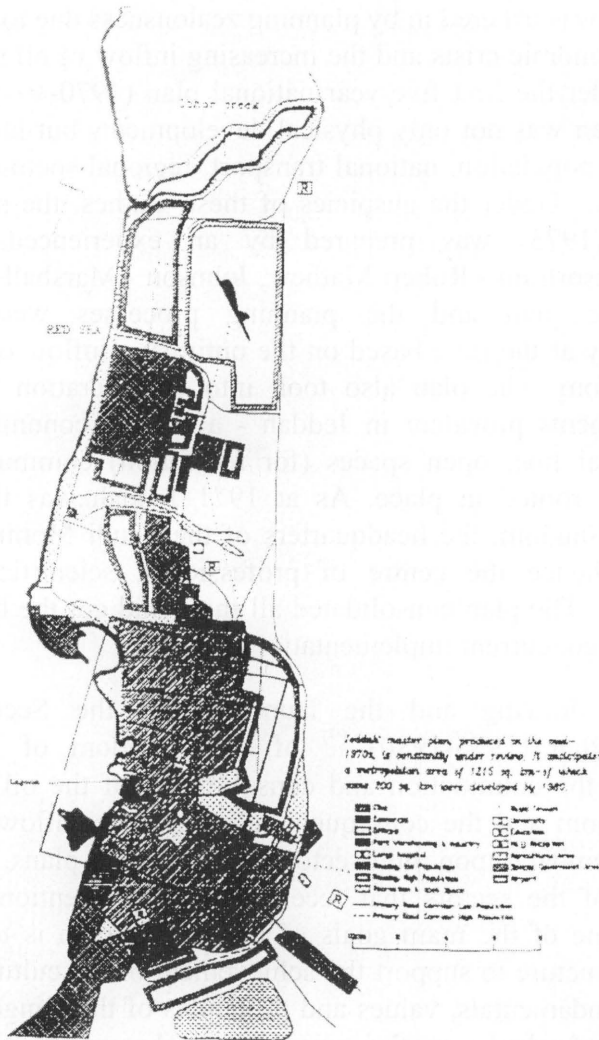


Figure: 3 Second Master Plan of Jeddah, (1973-1983) by Robert Mathew, Johnson-Marshall Partners (RMJMP)..

Source: Khalid Khaidr and John France, (1980), Jeddah Old and New, Stacey International. London, p.16.

Jeddah Within The National Plan Framework:

The second five year plan classified all the settlements in the Kingdom into national, regional, district centres and villages. Jeddah stood out clearly as an established national centre. The main role of the city as the principal entre-port (gateway) to the Kingdom derived from its geographical location. It has the only navigable deep water harbour within the shipping hostile Red Sea reef coastline. It has always (for long period) been the trading hub between Indian sub continent and Europe and its proximity to and favourable location to the holy city of Makkah. These features provided Jeddah with all the opportunities of being one of the most important national centres. Therefore the second five year plan was easy to designate it as:

- i) A centre of Sea, air and land communication
- ii) Commercial and business centre
- iii) Second diplomatic city of the Kingdom
- iv) Hajj and Umrah reception centre for non-Saudis
- v) An educational health and cultural centre.

Beside the above national roles, it follows naturally that Jeddah tripled as a leading regional and local centre of commerce, business, manufacturing and services. Thus the city became a magnetic pole, especially attractive for immigration of both skilled and unskilled workers alike. The population of the city grew rapidly from 381,000 in 1971 to about 600,000 in 1974 and to just over 1,000,000 by 1983. This explosion of population necessitated the need not only for provision of facilities and services but also for planned development. And with the opportunity provided by the even faster growth in the economy and national revenue inflows, the tasks of planning and implementation of the urban expansion programmes proceeded without delay.

The significance of Jeddah as a principal centre of national importance was demonstrated with the fact that about 30% of government's projects expenditure was invested in the city during the second five year plan⁽¹¹⁾. Besides investment in Urban infrastructure like the water desalination and supply, transportation network, the completion of the new airport and expansion of the Seaport, a large share of these investments went into the governmental sector, particularly the defence sector. Likewise, private investments too have played an important role in the urban expansion of Jeddah. This is particularly true in the area of housing, business and manufacturing sector. Indeed according to Duncan (1987)" Because of its long established role as a Seaport and trading centre, the strength of its mature commercial activities and its growing industrial base, Jeddah is less dependent on government investment and funding than other regions or cities in the Kingdom." It is important to note here, that both government and private investments rather than deterring one another, actually complemented each other harmoniously in Jeddah. Thus these twin thrust propelled growth in all sectors of the city. Hence the unparalleled population growth rate (14.0 percent) ever experienced by the city within a period of three years (1971-1974). Similarly in physical terms Jeddah's area grew four fold from 31,400 ha to 121,500 ha within six years.

By 1980 the growth of Jeddah become so rapid and phenomenal in both population and spatial terms and demand for facilities and services. Although the 1973 master plan provided the framework for growth and development control, establishing the elements of future city structure and direction⁽¹²⁾. According to Abdulghani (1993) it was realized that the Municipality of Jeddah was unable to implement the plan, since it did not envisage a massive scale of development as it did occur within a very short time. Therefore in the same year 1980 a consulting consortium Sert Jackson International/Saudi Consult (SJI/Sc)⁽¹³⁾ was called in to review the plan and the situation then. The review was to guide Jeddah for a decade upto 1990. This was called the Master Directive Plan (See figure 4). It had similar objectives with the previous plan except for the inclusion of the spine corridor development along Madinah Road and the control of the central area. Secondary the redevelopment proposals of the old airport site for

residential neighbourhood to accommodate upto 100,000 population. Other features include commercial, industrial and recreational uses appropriate sitings and the commencement of the Mass Transit System. Although the main technical, administrative and control systems of the Master Directive Plan have been put in place, but the principal proposals the utilization of the old airport site and that of the Mass transit system have not been implemented to date. This may not be totally unconnected with the economic fluctuation and recessions experienced globally in general and specifically by the Kingdom in the middle of 1980-1990 and the subsequent effect of the Gulf War in the early 1990s.

The Post Boom Period 1984 - 1995:

The volatility of oil revenues has had a major impact on the national economy and subsequently on the urban development of the Saudi cities. The favourable economic condition which prevailed in the last segment of the 1970s and early 1980s did not last for long. Oil income which consistently held the dominant share of the total government revenues and directly influenced government expenditures, peaked in 1981/1982 and fell steadily thereafter. Consequently planned government expenditure for the fourth five year plan (1985-1990) was about 23 percent below the actual expenditure of the third five year plan (1980-1985). Despite the cautious approach of the fourth plan, the worsening of the world oil markets in the first quarter of the 1980s caused government revenues to fall short of their anticipated levels. Accordingly, expenditures were rapidly reduced, resulting in the overall decline of government fiscal performance of 20 percent below the fourth plan target ⁽¹⁴⁾.

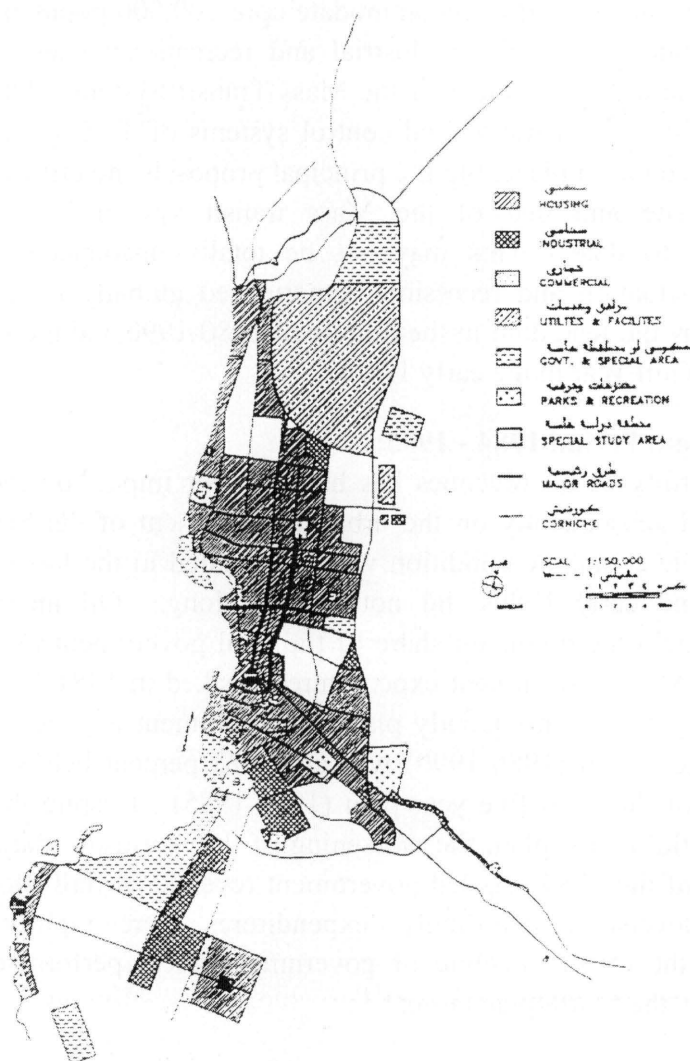


Figure: 4 Jeddah Master Directive Plan 1980-2000, by SJI/SC..

Source: Sert Jackson International/Saudi Consult (SJI/SC), (1978) Jeddah Action Master Plan, Technical Report No.9, p.49

Reduction in government expenditures was not evenly distributed amongst the different sectors of the economy, some sectors were targets for more reduction than others. Unfortunately, municipalities and housing sectors suffered most with huge cuts of about 50 percent of their planned expenditure targets. This set a spiral effect on allied sectors which have direct influence on urban development ⁽¹⁵⁾.

The effect of the performance of the economy on city growth in the Kingdom is well demonstrated in Jeddah. The city population fluctuates along with ups and down turns of the economy. For example, Jeddah's population increased by one and a half of its former size within three years (from about 400,000 in 1971 to about 600,000 in 1974). The studies have shown this explosion of population to be mainly due to high influx of migrants from both inside and outside the country, attracted by the employment opportunities and high wages offered by the city. The population continued to increase albeit at lower rate of 7.4 percent until it reached the 1.13 million mark in 1983. With the down turn of the economy in the mid 1980s, the population growth rate dropped to its lowest level of 2.65 (lower than the national figure of 3.0 percent). The population of the city did not reach the 1.20 million mark by 1985, due to the departure of expatriate workers who constituted more than half the population of the city then.

The pattern of the city's growth and development naturally followed the fluctuating rhythm of both the economy and the population. There was therefore, leap frog developments in Jeddah, with land subdivision (which form the basic cohorts of development) scattered around. This necessitated the government to embark on Urban Growth Boundary Studies (UGB). The Urban Limit Study as is popularly known endeavours not only to set the boundary of the city but also determines when development would proceed (G. Knaap 1985) to reach it. The Jeddah study was carried out between 1985-1987, with conservative urban limit projection; population growth rate was put at 4.1 percent which was to take the population to 1,790,000 in 1995 a period of ten years ⁽¹⁷⁾. Although, the 1993 national census figures have not been released, there is the feelings and observations that the

economic performance on which the consultant based their assumptions has been below anticipation. And therefore, the population of the city could be much less.

Another dimension worth mentioning is the apparent low (overall) gross density of population in the city. This could be explained due to the rapid earlier expansion and the provision of infrastructure based on the high population growth rate especially during the boom days. The built up area doubled from 3,250 to 6650 hectares in five years (1971-1976). In the preceding five year (1976-1981) it increased to 11,415 hectares. This pattern became phenomenal in the early 1980s when a growth rate of 19 percent was experienced within four years between 1981 - 1985, bringing the urban area to 22,555 hectares. According to the Urban limit study of 1985, Jeddah would continue to grow over the next twenty years, but in a much slower fashion than experienced before. The built up area is expected to grow at a rate of 6 percent per annum, thereby reaching 39,173 hectares in 1995 and 74,647 hectares by the year 2005 ⁽¹⁸⁾.

The direction of growth of Jeddah during the boom days in the first half of 1970s was mainly towards the north and the south as the city expansion was restricted by the old airport in the east and the Red Sea in the west. In the second half of the 1970s however, growth was mainly northward due to the construction of the new airport and the allocation of large low density residential land to private developers by the government. During this period new scattered residential subdivision developed rapidly between the new airport and the old town, along the new Madina highway and along the coastal line in the west. Although some development took place along the Makkah highway in the east, it was not comparable to the above. The northward expansion of the city continued in the 1980s and even beyond the new airport, as the vacant land between the old town and the airport had been filled. The strategy now as laid out in the urban limit study is to continue this trend up to year 2005, but with definite development of the three main axial expressway and sub centres along the estimated 62 km length of the city (against its 20 km width). Also the supporting infrastructure is also to be fully provided along these developments. (Municipality of Jeddah, 1987)

Having traced the growth and development of Jeddah over space and time above, the determinant factors that played to shape up the city as it were, would be highlighted next.

2. Determinants Of Jeddah Urban Growth:

Two levels of factors (or forces) are easily discernible - the primary factors which interact and shaped the substantive and morphological development of Jeddah and the Secondary ones, which gave rise to the land use mix and image of the city. The primary determinants are discussed first.

2.1 The Primary Factors:

2.1.1 Natural Factors (Locational Factors):

Jeddah's location, is one of the crucial factors that positively sustained it through the centuries of its historical development as a commercial port city and still accentuates its growth; additionally, as a national, regional centre and specially as a Hajj interchange and node. Jeddah as mentioned earlier was strategically located at the hub of the India/Europe spice trade shipping route historically and in recent times the Indian/Atlantic Oceans oil trade route. Most important is the availability of the only navigable deep water harbour at Jeddah against the generally hostile hard and shallow reef along most of the Red Sea coast line of the Arabian Peninsula. Again the availability of an elongated and over 12 km wide coastal plain adjacent to the deep water harbour provided an ample opportunity for the growth of the city. According to Duncan (1987) Jeddah's location on a flat plain between the Sea and the mountains, lend itself to a linear form of growth. Lastly, its proximity to the holly city of Makkah and the presence of a mountain pass between the outlying foothills to the east connecting the two cities provided additional development opportunities. The availability of the coastline and the cornich development in Jeddah also make it as a major tourism and recreational center for the Kingdom.

2.1.2 ***The Economic Factor:***

As seen earlier in the paper, there are basically two oil boom periods experienced in the Kingdom. The first boom of the post second world war period which lasted upto 1956 and second boom of the early 1970s. Each of the booms had an impact to the growth and development of Jeddah. Although the first oil boom had played no less important role in the development of the Kingdom and Jeddah in particular, but the second boom is certainly the most significant. The contribution of this period to the growth and development of Jeddah has been highlighted earlier. However in order to appreciate the importance of the first oil boom and its impact on the Kingdom of Saudi Arabia, the following narration by Abdulaziz Al-Suleiman (the son of King Abdulaziz's treasurer) may serve as an illustration: In 1930:

"The entire treasury of Saudi Arabia was packed, in gold pieces, on the back of one camel and was in custodian ship of my father, Abdullah Suleiman, the King's treasurer" ⁽²⁰⁾

This could be contrasted with the first oil earning of 10,000,000 USA dollars in 1946 and the steady increase thereafter. The second oil boom being the most significant in the general transformation of the Saudi economy and its impact on urban development would be the main consideration here. As observed by one of Jeddah's analyst, the city did not differ appreciably in employment structure from other urban sectors of the western region by 1971. It is therefore clear that the structural complexity of Jeddah is mainly as a result of the second boom. By 1970, oil production in the Kingdom reached 3,548,865 barrels per day (Bpd) for the first time and by 1980 it peaked at 9,631,366 bpd and stabilized at just over 6 million bpd by 1982. Table 1 below gives an indication of the revenue inflows to the Kingdom during the boom era.

Table 1: Oil Revenue

Year	Barrel/day	Hosted Price (\$)	Revenue/day (\$)
1950	546,703	1.75	956,730
1960	1,247,140	1.80	2,244,852
1970	3,548,865	1.80	6,387,957
1979	9,251,097	24.00	222,026,328

Source: Aramco Handbook and Third Development Plan in Duncan 1987, P.80

The large revenue inflows to the Kingdom facilitated the government to embark upon serious urban sector developments in the entire country, and particularly in Jeddah. It was quoted that about 30% of the total projects expenditures in the Kingdom during the second five year plan was invested in Jeddah. Some of the projects undertaken during this period include the Seaport expansion programme with the construction of additional ten (10) berths bringing the total to twelve, the construction of the new King Abdulaziz International Airport, one of the largest and the busiest in the Kingdom plus the pilgrim centre (cities), desalination plant and water supply system projects, the establishment and commissioning of many defence projects (e.g. the Navy Project). On the human welfare side the commissioning of the crash housing project; and the establishment of the Real Estate Development Fund meant direct access to interest free housing credit by the citizens. Hence the phenomenal expansion of the housing sector of the city. Meanwhile almost all of the urban and region studies for the western region and of course the Jeddah Master Plan), utilities and environmental protection projects (e.g. the Jeddah storm water ditch) were executed during the boom period. One can safely say without fear of condition, that the second oil boom had a propound effect on the

development of the Kingdom in general, but more so rigorously in the case of Jeddah in particular.

2.1.3 ***Institutional Factors:***

At the national level, the decision to adopt the principles of national planning in the first place has been a great foresight of the government which is worthy of note. More so, not only the adoption of national planning strategies but the adherence strictly to the implementation of the planning tenets have been contributory to the realization of both national and regional objectives. For example, the decision to classify the national settlement systems (into national, regional, district centres and villages) has been a primary factor in recognizing the importance of Jeddah as a national centre and hence the nature and volume of investments required for the city. In addition the careful choice of experienced planning consultants to undertake the herculean tasks of drawing Jeddah's Master Plan was not a mean achievement. Again, another fundamental issue is the decision by the government to give the go ahead to the planners to plan and implement the infrastructure programmes based on the high population (growth) projections, rather than the low estimates. This facilitated the phenomenal development of the city and its ability to cope with all the urbanization pressures with few dislocations. Lastly records also show, that the government had always extended full cooperation and support to all the technical teams associated with the development of planned Jeddah. (RMJ Mp. 1973) (Duncan, 1987).

2.1.4 ***The Role of Planning:***

The development of modern Jeddah to its epic role of national centre, have been based on three master plans prepared by three different groups. Although the first master plan (1962) prepared by a United Nations consultant Dr. Rahman Makhloof is hardly mentioned by the subsequent plans. It nonetheless forms the foundation of the master planning process of modern Jeddah. Accordingly its principal recommendations (for instance adoption of grid iron patterns, infrastructure proposals, location of the international airport, alignment of main transportation corridors) have been adopted by the subsequent plans. This is an indication of the wisdom of the good choice of the consultant.

The second master plan (1973) was prepared by Robert Mathew, Johnson - Marshall Partners (RMJMP). For details regarding the processes of selection of consultants and the planning process itself see Robert Mathew (RMJMP, 1972), Duncan (1987) and Salagoor (1990). The outstanding features of the second master plan are (a) the integration of the regional and urban components of the plan in a sort of continuum without clashes; (b) the perception and the preparation of the plan by the consultants as a development process rather than a product - a master plan. These two features of the plan facilitated the flexibility and the futuristic characteristics of the development of Jeddah. They also allow for the preservation of the Islamic and traditional values of the Kingdom and the integration of these with compatible modern developments in the city. This is an outstanding achievement in the urban expansion of Jeddah.

The two features (futuristic and flexibility) were tested, when the growth of the city became so rapid and phenomenal due to rapid population increase (mainly immigration) as a result of the boom. Demand for facilities and services far outstripped forecasted supply. A consulting consortium - Sert Jackson International/Saudi Consult (SJI/SC) were called into review the second plan and the situation at hand in 1980. The resultant work is now known as the third Jeddah Master Plan or the Jeddah Master Directive Plan. The main features of this plan is that it took a longer (period) perspective of the growth of the city (1980-2000). Thus, all projections were atuned to this; population was projected to 2.25 million, while the land requirement was projected to 121,500 ha three times the area covered by the second plan (1973) See Figure 3. Secondly it sought to correct the land use problems created by the urban expansion beyond the targets and boundaries of the 1973 plan. The Master Directive Plan also treated the issue of implementation with all the seriousness it deserves. Execution plans, bye-laws and even the planning agency to control the development were established.

According to proposal of the Urban Limit Study, the city future expansion will take place mainly in the north and the south of the existing built up area. As such the city will take a more linear form following the

Red Sea coastal line and along the north southern main expressways. According to the study the built up area will measure about 62 km north to south and around 20 km east to west by 2005.

The city's north southern expansion trends along the coastal line is expected to continue in the long future emphasizing its linear urban character. This will necessitate the expansion of the north southern main expressways and the other supporting infrastructure, and also the development of a new secondary centre, as the city expands in order to accommodate the new population.

2.1.5 *The Dynamic Population:*

Another crucial factor that contributed immensely in the urban development of Jeddah is its resilient population. The people of Jeddah have been very adaptive and forward looking. Jeddah is by far the most cosmopolitan city in the Kingdom. For the detailed insight into this see RMJMP (1973), socio-economic survey. An illustration of the RMJMP social survey shows that by 1971, 88% of heads of households in the city were born outside Jeddah, and out of these, about 66% were born outside the Kingdom. That these diverse peoples of also different social economic and cultural backgrounds came together to build the city of modern Jeddah within the framework of the planning process set out; is an indication of their resilience and versatility. This is an important planning element for the healthy growth of any principal city. The people have also demonstrated their ability to cash in on opportunities provided by the government and also their circumstances in private investment and developments have been very commendable in Jeddah.

2.2 The Secondary Factors:

2.2.1 *Government Intervention/Planning Control:*

The government was quick to realize the profound impact of the flourishing economy on urban growth and development in the Kingdom. In addition to releasing enormous amounts of funds to improve municipal facilities and services (e.g. street paving/lighting, sewerage, waste disposal etc), King Abdulaziz also issued a Royal decree in 1947 to control the growth of Jeddah (Al-Ansary, A.1982). The decree divided Jeddah into five zones;

- a. The vacant land within the old city wall to be owned and controlled by the municipality.
- b. The vacant land outside the city wall to be owned by the Ministry of Finance.
- c. All vacant lands on both sides of Makkah road from kilometre six to the walls of Ain Al-Aziziah (government agency that supplies fresh water to Jeddah from the Fatimah Valley) to be owned by the agency Ain Azizia.
- d. The land east and south the Khozzam Palace to kilometre five, and north to Makkah road to be reserved for the Royal Palace.
- e. The vacant land in front of the army camp and the foreign Ministry to the Sea to be kept vacant and unbuilt. While the vacant land south of the Seaport was to be used for customs buildings, storage and guest houses for pilgrims.

It has been shown that the decree was effective in terms of instituting the general land ownership pattern; but not as effective in controlling the city growth. Some of the reasons adduced are lack of planning agency at that time to control development, and also the rapid expansion of the entire urban fabric due to the oil boom, at a pace which caught everyone unawares.

2.2.2 ***Commercial Business And Housing Pressures:***

As the economic base of the city flourishes and expands so also the commercial business and housing pressures increase, particularly in the city centre. This situation escalated with the large influx of migrant workers into the city. Thus forced to appear in the city centre, new building types, particularly apartments and high rise buildings against the traditional low rise family type houses. Most of the apartment types have shops on the ground floors, while the upper floors are used as housing for the migrant works. Such type of buildings appeared mainly along both sides of the first ring road, Makkah and Madina roads. Contrasting with this area are neighbourhoods (like Sabeel, Al-Bakhariya, Al-Sharifiah and Amaria) which house Bedouins and therefore developed organically with traditional Arabic style building types.

2.2.3 The Influence of Major Urban Projects on the Land Use Pattern:

The location of the Seaport and the oil refinery to the south and the new international airport to the north of the old town have considerable influence on the pattern of distribution of land uses in Jeddah. Each of these activities constituted a magnetic pole and attracted cognate land uses to its sphere of influence. The Seaport attracted landuses like warehouses, storages, oil dums, workshops and electricity station to the Southern Jeddah. whereas the airport attracted to the north such uses as hotels, government and private offices and low density residential uses. This pattern consequently affected the social fabric and distribution of the Jeddah population and the building types housing the low income, spontaneous vernacular archetypes and huts are found in the south, while high income, planned developments with villa types of buildings are found in the north.

2.2.4 The Influence of the Urban Highway System on Commercial Development:

The linear north-south and east-west alignment of the Madina and Makkah roads have affected the nature and direction of commercial development of Jeddah. Whereas Madina Road directed the growth to the north, Makkah Road directed the other axis of growth to the east. Therefore along these main roads and the ring roads appear multi storey buildings with shops and business offices at the lower floors creating shopping streets. Infact the commercial street developments have been so intense, that the development of commercial centres as contained in the master plans have been stalled.

The development of Jeddah spectacular as it might seem did not proceed without some problems in particular planning problems.

3. Some Planning Problems In The Development Of Jeddah:

3.1 The Demolishing of the Old City Wall:

The Jeddah old city wall was described to be in good condition upto 1947 when it was demolished (RMJ MP, 1973). It was destroyed to give way to urban expansion without due consideration giving to preservation and the principles of integration. The historical and cultural importance of the wall in projecting the ancient image and role of Jeddah were buried along with the debris of the wall under the foundations of the modern

Seaport. Therefore, Jeddah's contemporary image is more modern with little passing image preserved in the remotely and located buildings in the inner city by the wooden balconies and flat roofs. Whereas Jeddah's past history as symbolized by the old city wall is richer and as important as its contemporary role.

3.2 Social Segregation:

The pattern of land use developments, described earlier above have effectively dichotomise the population of Jeddah into two and spatially located, with the high income in the north districts of the city and the low income to the south. One of the social cohesive objectives of planned neighbourhoods is lost in Jeddah. Thus, there is also loss in the quality and quantum of services and facilities provided in the same area of the southern districts of the city. Places like Hindawuya and Karantina are fast becoming urban squalors harbouring illegal immigrants and low income natives. This has a potent security implications (urban stress and strife).

Conclusion:

As seen above, Jeddah is quite a unique city in the Kingdom of Saudi Arabia for its historic and cultural heritage as well as for its development path into modernity. In undergoing the process of growth and development Jeddah has experienced many phases of prosperity and austerity, but in the end, the city came out waxing stronger and stronger. The paper sought to highlight some of the main factors that interplay and interact to make the modern Jeddah of today.

Two strands of factors became easily visible, the primary factors responsible for the substantive and morphological development and there secondary forces that give rise to the land use mix and image of Jeddah. These two levels of forces have positively interacted to determine the urban profile of Jeddah. However, the demolition of the old city wall and the social economic segregation of the city have affected the city negatively in terms of the loss of cultural heritage loss and social cohesion and constitute a potent pockets of slum development (the case of Hindawaya and Karantina sighted above).

Notes And References:

1. Pesce, A. (1977), Jeddah: Portrait of An Arabian City, Falcon Press, London.
2. Konash, M. et al (1984), The Planning of Jeddah, Saudi Arabia, King Fahd University of Petroleum and Minerals, Dammam.
3. Duncan, G.O. (1987), The Planning and Development of the city of Jeddah 1970-1980, Unpublished, Ph.D Thesis, University of Durham.
4. Abdulghani, K. (1993), Jeddah: A study of Metropolitan Change, Cities February, 1993. Butterworth - Heinemann Ltd. Washington, D.C.
5. Pesce (1977), Op. cit.
6. Makhoulf, A (1985), Al-Darasat al-Mraniah, al-Shamilh li-Madinat Jeddah min 1378 la 1383 H, (The Comprehensive Urban Studies for Jeddah City from 1378 to 1383H (1959-1963). A report prepared for the Ministry of Municipalities and Rural Affairs, Jeddah Municipality, Vol.2.
7. Ministry of Planning, The First Development Plan (1970-1975), Ministry of Planning, Saudi Arabia, Riyadh.
8. Duncan (1987), op. cit p. 76.
9. Ministry of Planning, The Second Development Plan (1975-1980), Ministry of Planning, Saudi Arabia, Riyadh 1975.
10. Ministry of Planning Second Plan (1975-1980) Ibid. p.3.
11. Duncan (1987), Op. cit p. 32.
12. Konash, M. et. al (1984) op. cit in Abdulghani (1993) p.54 Cities.
13. Sert Jackson International/Saudi Consult (SJI/SC; 1980), Jeddah Master Directive Plan 1980-2000. An update Master Plan Reports, Ministry of Municipal and Rural Affairs.
14. Ministry of Planning, Fifth Development Plan 1990-1995), Ministry of Planning, Saudi Arabia, Riyadh 1990 pp. 19-24.
15. Fifth Development Plan Ibid, pp.25 and 97.

16. Knaap G. (1985), The price effects of Urban Growth Boundaries in Metropolisitan Plan Portland, Oregon; Land Economics, Vol. 61 No.1 pp.27-35.
17. Municipality of Jeddah (1987) Urban Limit Study, Jeddah, p.179.
18. Urban Limit Study (1987) Ibid, pp.41, 97 and 280.
19. Ibid, pp.23-41; 279-296.
20. The above naration was made by Al-Suleiman to Duncan. G.O. See also Duncan op. cit p.
21. See op. cites - RMJMP (1973), Duncan (1987), SJI/CS (1980).
22. Salagoor, J.Y. (1990) The Influence of Building Regulations on Urban Dwelling in Jeddah, unpublished Ph.D thesis University of New Castle Upon Tyne.
23. Al-Ansary, A. (1982) Tarikh Madinat Jeddah (The History of Jeddah), Vol. 1, 2nd Edition, Dar Masur Press, P.195.
24. See op. cites Pesce (1977), RMJMp (1973).

النمو العمراني وتطور مدينة جدة العوامل المؤثرة في النمو العمراني

د. محمد ساني عبده

د. جمال الدين يوسف سلاخور

د. فهد بن عبدالله نويصر الحريقي

قسم التخطيط الحضري والإقليمي
كلية العمارة والتخطيط - جامعة الملك فيصل
الدمام - المملكة العربية السعودية

ملخص :

تعتبر جدة ثاني أكبر مدينة في المملكة العربية السعودية وبوابة الأراضي المقدسة، الغنية بتراتها وتاريخها ونهضتها العمرانية الحديثة. ولقد نمت من قرية صغيرة محاطة بالأسوار وأصبحت مركز تجاري إقليمي في غضون عدة عقود.

تهدف الورقة إلى دراسة العوامل التي شكلت مدينة جدة ووجهت نموها وتطورها العمراني. كما ناقشت التطور الاقتصادي للمدينة في ضوء التنمية الاقتصادية التي شهدتها المملكة العربية السعودية. ولقد ركزت الدراسة التحليلية لنمو المدينة على العوامل السكنية والاجتماعية والخصائص المكانية وسلطات الضوء على المشاكل التخطيطية وأخيرا ختمت الورقة بخلاصة الدراسة.

مفتاح الكلمات:

جدة، النمو العمراني، المدن الإسلامية، المملكة العربية السعودية.