



New Pedestrianism as a tool to sustainable commercial design at Amman City

Samer Abu Ghazaleh ¹

B.Arch., M.Phil. (UK), Ph.D (UK) Hon.Dipl. Arch.I (UK), Professor of Architecture at University of Jordan

Abstract

The concept of pedestrianism is not new at Amman. It had been tried at several locations at Amman in the past but failed due to different reasons. What is new here is the application of this concept on a new commercial project called Abdali Project at the city of Amman. The Boulevard of the Abdali Project will be investigated in this research in terms of its layout design and social affect upon the users. The project which is completed in 2016 took nearly ten years to complete due to the international recession after 2007, which affected Jordan as well. Abdali project is the largest mixed use development project in Jordan. Pedestrianism is part of the concept of sustainability which is part of the theme of the design of the Boulevard. This study examines the Boulevard of the Abdali Project in terms of its design, style, layout, location and its effect on the urban planning. A survey is carried out to investigate the economic, social interaction and layout of the Boulevard by the author and a number of conclusions are reached at end through analysing the questionnaire. This research concludes that the concept of pedestalization is successful at this project with the need for certain element to improve the current situation.

Keywords: Abdali Project, Boulevard, pedestrian, sustainability



1. Introduction

New pedestrianism is about making the area pedestrian in urban planning theory, founded in 1999 by Michael E. Arth, an American artist, urban designer, and landscape designer [Digby, 2013]. New Urbanism which addresses the term of (New pedestrianism) tries to solve the problems of social, health, energy, economic, aesthetic, and environmental problems. New pedestrianism is discussed by many authors in neighbourhoods or new towns. This study is trying to investigate it on commercial uses, where the Boulevard at Abdali Project is our case study (fig 1). Abdali project ownership is distributed between the government-owned real estate developer National Resources and Development Corporation and Horizon International for Development Ltd. Co., an international construction conglomerate specialized in investment and development of large scale real estate projects owned by Mr Al-Hariri Family and the United Real Estate Company - Jordan, under the group of Kuwait Projects Company (KIPCO) [[http://www.abdali.jo/index.php?r=site/page&id=4,](http://www.abdali.jo/index.php?r=site/page&id=4)] (fig 2).

The project which is completed in 2016 it took a long time to complete due to the international recession after 2007, which affected Jordan as well. Abdali project is the largest mixed use development project in Jordan. The site consists of three main sections: 1. The office and retail buildings, which exist at the western part of the project that has the highest building in Amman of 220 meters in height. The offices total area is 330,000 square meters, the retail architecture has an area of 406,000 square meters, the hotels and serviced apartments with an area of 226,000 square meters, the medial use of an area of 69,000 square meters. 2. The residential apartments with total built up area of 969,000 square meters or about 48% of the total area of the project 3. The Al-Abdali Mall. The site has a long pedestrian boulevard of 330 meters that extends from west to east and a well-designed plaza within it, with a total number of 2,400 car parking area [[http://www.abdali.jo/index.php?r=site/page&id=6,](http://www.abdali.jo/index.php?r=site/page&id=6) 9-5-2019] (fig2).

Figure 1: The Boulevard of Abdali Project Source:(Author)

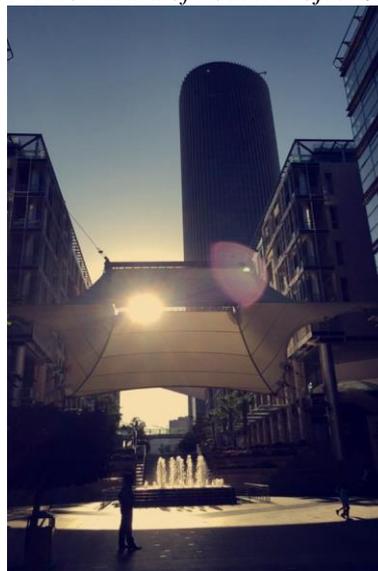




Figure 2: Abdali Project site plan



Source:

https://www.google.com/search?q=abdali+boulevard&rlz=1C1GGRV_enJO771JO771&source=lnms&tbn=isc&sa=X&ved=0ahUKEwi0xu-lgJHiAhVFalAKHTm5AOcQ_AUIDigB&biw=1223&bih=582#imgrc=1ZhYq0S5ofZpfM:visited on 10-5-2019

Sustainability concept

A sustainable city in its simple definition is a city designed with high consideration of environmental impact, dedicated to minimize the required inputs of energy, water and food, waste output of heat, air and water pollution. Sustainability contributes to achieve the dream of liveable city which requires healthy environment, prosperous economy and wide employment opportunities for its citizens. The new urbanism approach raises the concepts of better way to plan and build the new century communities, and if it is supposed to break down to a main idea, it will be through making communities more pedestrianised where more concern and attention is given to the planning and design of pedestrian environment and communities for its multi advantages to public health, sustainability, economy and social life. [Meadows, 1972].

New pedestrianism concept

City planners dreamed for the utopian city and tried to set many theories and principles to achieve this concept. Fishman in his book "Urban Utopias in the Twentieth Century" in 1977 discussed the early concepts of the utopian cities, where most of these concepts highlighted the issue of pedestrians within the city [Fishman, 1977]. The new direction in thinking and planning about the city has run quickly because of the rapid sprawl in the twentieth century that cities seem to have no limits of growth. New urbanism was developed as a response to many changes among them the large population increase and the high cost of having a house. Grant in his



book “Planning the Good Community: New Urbanism in Theory and Practice” in 2006 sheds light on some aspects and principles for this approach. New urbanism believes in the “human scale” design for neighbourhoods. New Urbanism concentrates its principles around few themes where pedestrianism or walkability is among them [Grant, 2006]. Urban design principles indicate that the comfortable walking distance is approximately equals to 5 to 10 minutes’ or about 500 m. This means providing adequate infrastructure and sidewalks, and a comprehensive environment which is suitable for walking; it needs shaded areas, lighting, and connectivity to other modes of transportation and above all security and safety. [Gehl, 2013]

2. Objectives and methodology

This study examines the Boulevard of the Abdali Project in terms of its design, style, layout, location and its effect on the urban planning. The Abdali Project is within a large redevelopment site, which is one of the mega projects in Jordan that started in the year 2006 and finished in 2016. The Abdali Project which consists of many buildings that surrounded the Boulevard in the middle is considered one of the largest projects at Amman. It is the intension of this research to study the Boulevard of the Abdali Project in terms of its design, layout, social activity, economic aspect and its impact of the design of the whole project.

A survey methodology to investigate the above mentioned aspects is applied in this research. The survey covers users of Abdali Project during weekdays, local inhabitants near and around the Abdali Project and local architects. A standard procedure is followed in administering the questions in numerical order to achieve rational results. The sample consisted of 1000 users, 50 architects randomly selected, with an equal percentage of males and females. The respond ws 81% of the first sample and 90% of the second sample. The questionnaire took almost three weeks to complete, where three trained researchers, in addition to the author helped in its distribution and analysis. Participants voluntarily agreed to fill out the questionnaire as presented in Table 1, were thanked at end. The survey was conducted during the last two weeks of April 2019.



Table 1: Table description

Question	Users		Architects	
	Yes	No	Yes	No
Category: Economic				
1. Do you think that the Boulevard in Abdali Project will facilitate for economic recovery?	72%	28%	85%	15%
2 Do you think that the Abdali Project restaurants will benefit from the Boulevard?	78%	22%	93%	07%
Category: Social				
3. Do you think that the design of the Boulevard will ease for social interaction?	81%	19%	91%	09%
4. Do you think that the Boulevard location inside the redevelopment project of Abdali is an advantage?	72%	28%	88%	12%
5. Do you think that the design of the street furniture in general alongside the Boulevard is a positive element for social interaction?	73%	27%	77%	23%
6. Do you think there are enough benches for sitting along the Boulevard?	42%	58%	33%	67%
7. Do you think the fountain is a positive element in the design?	88%	12%	81%	19%
Category: layout				
8. Do you think that the Abdali Project Boulevard and open spaces are nice?	89%	11%	83%	17%
9. Do you think that 330 meters long of the Boulevard is too long for walking?	50%	50%	64%	36%
10. Do you feel comfortable during walking inside the Boulevard?	75%	25%	60%	40%
11. Do you thing that the Boulevards lacks plantation?	95%	05%	90%	10%
12. Do you think that the Boulevard needs more shading devices?	89%	11%	97%	03%

Source: (Author)

3. Abdali case study

Greater Amman in the beginning of this century started an economic reform process of real estate activity and the building of large shopping malls to stimulate economy. That involves enhancing the climate for foreign investment to improve the economy. Greater Amman has developed into a city of regional importance within the global urban economic system of the Middle East, which led to the construction of the Abdali project and mall [Abu Ghazaleh, 2010]. This study is investigating the Boulevard of Abdali Project in terms of its design, layout, and its effect upon economy, social interaction and urban planning.



2.1 Pedestrianism and commercial envelope

Pedestrianism is associated with high-density mixed land use that leads to more prosperity in the economy cycle. Density is one of the important principles of creating pedestrian communities; higher densities mean more residents within suitable walking distance to services, while low density causes scattered residents over wide distance. Mixed-Use area facilitates for pedestrianism. Residents should find desirable destination to travel to, even they are retails, commercial areas, parks or stations. The pedestrian area should be at human scale proportion, either in its urban design elements, street widths, sidewalks and even building heights and details. This human scale proportion makes the community more comfortable and scaled perfectly to pedestrians. The design of sidewalks should be safe and within the standards of size, crosswalks and buffers. The dimensions of sidewalks in in commercial areas should be accompanied with a buffer zone to separate the pedestrian movement from the automobiles movement. This buffer zone could be a wide strip of plantation or a set of street furniture elements to provide more safety and shading as well. Crosswalks which are the most dangerous points and should be designed in a safe manner; well- marked pedestrian lines and mid- block crossing may ensure safe crossing. The block Length should be about 900 to 1200 m [McNally, 2010].

2.2 The boulevard of Abdali

The Abdali Project which is located at the redevelopment site of Abdali, in the heart of the capital of Jordan, Amman is running from west to east of the complex. It is considered the main spine of movement through the Abdali Project. It is for pedestrian use only and vehicles are allowed to enter. Several levels exist in the boulevard due to the topography of site. Several buildings are around the boulevard mainly for commercial use on the ground levels and offices and residential apartments on the upper levels. A group of restaurants are located along the Boulevard that serves different kind of food (fig 3).



Figure 3: The Boulevard of Abdali Project with many restaurants



Source: (Author)

The Boulevard contains several landscaping features that makes the environment more human and facilitates for social gathering and interactions. The major benefits from this pedestrian spine can be classified into three main issues; environmental, economic and social. It provides healthier and more sustainable quality of life to the residents. By reducing the dependence on vehicles and automobile trips, residents are encouraged to walk to their destination which will lead to healthier environment and more social interaction with the others. This also reduces the consumption of fuel which will decrease the CO₂ emissions and save residents and city's money. It also creates more comfortable and safer environments to the users. It also promotes the vitality of economy in the Abdali Project where high- density and mixed land use organization will provide more business opportunities to users that will lead to a more prosperity in the economy cycle.

A large fountain is located in the Boulevard (fig4) that has a stairs looking over it. Many people gather around it especially in the late afternoon and evening. It is considered one of the main social interaction points at the Boulevard. Even restaurants around it benefits from its location and more visitors to those restaurants are seen. One of the important things that are missing at the Boulevard is the sitting benches. Different areas for sitting, especially on the stairs are provided but this is missing elsewhere along the Boulevard.



Figure 3: The Boulevard of Abdali Project with many restaurants



Source: (Author)



(1)

3 Results and discussion

The survey emphasises the importance of the Boulevard at the Abdali Project. It studies the Boulevard in terms of its effect upon economy, social interaction and layout and design. The first category emphasises the role of the Boulevard in encouraging economy as seen from Table number one question number one, where 72% of the users and 85% of the architects supports an economic recovery due to this Boulevard. The main business around the Boulevard is the restaurants and cafe shops that surround the Boulevard which according to the survey benefits a lot from its existence. Nearly 78% of the users and 93% of the architects supports this idea as seen from question number two Table number one.

In the social category of the questionnaire presented in Table number one question number three, 81% of the users and 91% of the architects support the idea of improving the social interaction at Abdali Project because of the existence of the Boulevard. The location of the Boulevard inside the Abdali Project is a point of advantage as seen from question number four Table one, where 72% of the users and 88% of the architects support this idea. Street furniture of the Boulevard is also an important issue. It is available according to the survey and 73% of the users and 77% of the architects see this according to Table number one question number five. The percentages discussed before from question number five is a little bit low due the few seats benches available alongside the Boulevard as this evident in question number six Table Number One, where 42% of the users and 33% of the architects' samples support this. The fountain at the Boulevard is of great advantage to the street design and layout as seen from Table number one question number seven, where about 88% of the users and 81% of the architect's samples emphasis this.

In the layout design of the Boulevard most users and architects like its design features and location as seen from Table number one question number eight, where 89% of the users and 83% of the architects support this. The distance of length of the Boulevard of 330 meters is adequate for nearly 50% of the users and 64% of the architects' samples as evident in Table number one question number nine. Some old people see this point as disadvantage point in the design of the Boulevard. The users and architects feel comfortable during walking through the Boulevard of Abadli due to its design and the surroundings design also, as seen from Table number one question number ten, where the percentages are 75% and 60% respectively. The Boulevard contain several trees and some plants at different point, where nearly 95% of the users and 90% of the architects support the minimal use of plantation at the Boulevard as seen from Table number one question number eleven. Plantation is useful as shading elements besides its pleasant appearance. This is seen from Table number one question number twelve, where 89% of the users and 97% of the architects' samples see the need for new shading devices, either achieved by plantation or by erecting new structures inside the Boulevard.



4 Conclusion

From the previous results and discussions, it seems that the design of the Abdali Boulevard is successful. It is the first project at Amman that has been built with pedestrian route inside for commercial use. The whole design of the Abdali Project, which is completed recently, almost years ago, suffers from low usage of its functions mainly the office and residential sections due mainly to its high rate. It is considered the most expensive project at Amman [Abu Ghazaleh, 2010]. The figures for renting a shop vary from US\$500 to US\$700 for each one square meter, and for renting a restaurant from US\$800 to US\$900 for each one square meter, which is considered very high comparing to other malls in Amman City.

From economical point of view the Boulevard eased for economic recovery where the good business of resultants and coffee shops is the evident. The laying out of the most of the restaurants and cafes alongside the Boulevard encouraged the users to use them. The visitor the Boulevard can see that clearly.

From social aspect of life the Boulevard encouraged the social interaction between people and visitors. It is widely clear that most people from different parts of Amman come to this area for socializing. Street furniture, which is of great importance to users are sufficient at the Boulevard except for seating benches, which should be increased. The design and location of the fountain is also of great importance to the design of the Boulevard. It is a pleasant element that most people gather around.

From layout design point of view, the design of the Boulevard is good in terms of its length and proportion. The shading devices should be increased either by planting more trees inside the Boulevard or by erecting new structures at certain point.

At end this Boulevard is considered by many users and architects as a positive element that encourage pedestrian to use it. Several projects at Amman have been tried in the past to convert dome streets from vehicular usage to pedestrian but failed due to several factors among them the way of design. It is much easier to design a new project for pedestrian use than converting existing one.



References

- [1] Abu Ghazaleh S., (2010) “Global economic forces, effect upon urban planning: Greater Amman case study”. Journal of Urban Planning and Development, American Society of civil Engineers, Volume 136 Number 2.
- [2] Digby Hall, (2013) New Urbanism vs. New Pedestrianism, Green Futures.
- [3] Fishman, R. (1977), Urban Utopias in the Twentieth Century, New York: Basic Books
- [4] Grant, J. (2006), Planning the Good Community: New Urbanism in Theory and Practice, New York: Routledge Taylor & Francis Group.
- [5] Gehl, J. (2013), Cities for People, 1st ed., Washington: Island Press.
- [6] McNally, K. (2010) Design Guidelines for Walkable Communities . University of Detroit, Niehoff Studio
- [7] Meadows, D. H, Meadows, D.L, Behrens, William. (1972) The Limits to Growth , (1st ed., New York: Universe Books
- [8] <http://www.abdali.jo/index.php?r=site/page&id=4>, 11-5-2019.
- [9] <http://www.abdali.jo/index.php?r=site/page&id=6>, 9-5-2019.