

The Impact of Shopping Mall upon the Future of Urban Planning in Greater Amman

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Abstract. Greater Amman in the beginning of the 21st century started an economic reform process that involves enhancing the climate for foreign investment to improve the economy. The emerging international status of Greater Amman, as measured by the economic growth, real estate activity and the building of large shopping malls, is becoming obvious to international and local investors. Greater Amman has developed into a city of regional importance within the global urban economic system of the Middle East.

This research investigates the impact of one of these large scale projects now taking place at Greater Amman, the shopping malls upon social life and urban planning of the city. In 2000, two mega shopping malls have been planned in Greater Amman, the Mecca Mall and the City Mall, each of an area of around 150 thousand square meters. Both of them are located in the western section of the city, only 600 meters apart. Amman Mall, previously the largest mall in Greater Amman, has an area of only 35.8 thousand square meters and was built in 1998. This sudden and huge transfer to the new scale malls that have an area of more than four times the Amman Mall needs investigation and appraisal especially in its social effect upon the residents of Amman and upon the urban planning of the city. This research is taking Mecca Mall as a case study and appraising cultural and social aspects. At end, a number of conclusions are reached in order to improve the shopping malls environments.

Introduction

A shopping mall is defined by the International Council of Shopping Centers in the United States of America as “an enclosed, climatic-controlled and lighted [shopping center], flanked on one or both sides of walkways by storefronts, [anchors] and entrances. On-site parking, usually provided around the perimeter of the center, may be surface or structure” (ICSC, 2004). A mall is different from a shopping center, which is “[a] group of retail and other commercial establishments that [are] planned, developed, owned and managed as a single property, with on-site parking provided. The center’s size and orientation are generally determined by the market characteristics of the trade area served by the center” (ICSC, 2004). As seen from the definitions, the difference between the shopping mall and center is in the structure that contains the mall: The second structure can be open, while the first is closed and climatically controlled. If the shopping center is self-

serviced, it is called a supermarket, as Beddington (1991) claims. She defined the supermarket as “a self-service shopping center operated by a single retailer, trading a wide variety of convenience and comparison goods, food, and non-food. It may be a ‘one-stop’ out-of-town enterprise with extensive car parking, often with restaurants, tire, battery and car accessories bay, and filling station”.

Retail architecture in the world remained small in size and area until 1950, when it started to take a new scale or what is called shopping center or mall. Before this year, several shopping centers started to appear within a classical architectural form. Marshall Field’s in Chicago, built in 1907, and Rockefeller Center in New York in 1935 are examples of early shopping centers in the United States of America (Herman and Leong, 2001). Southdale Center in Edina, Minnesota, built in 1956, was the first enclosed mall in history that exceeded 50 thousand square meters. After that, several shopping malls were built mostly in the United States of America,

such as Del Amo Fashion at Los Angeles, California, built in 1975 with a total built-up area of 200 thousand square meters; South Coast Plaza at Costa Mesa, California, built in 1967, with a total built-up area of 250 thousand square meters, and the Mall of America at Bloomington, Minnesota, built in 1992 with a total built-up area of 390 thousand square meters (American Studies at Eastern Connecticut State University, 2006).

Since the end of the 20th century, the building of large shopping malls has started to shift from the United States of America to other parts of the world such as China and the United Arab Emirates. For example, in the year 2005 alone six large shopping malls were constructed in China. The total built-up area for each one varies from 420 thousand square meters for Grandview Mall in Guanzhou to 922 thousand square meters for South China Mall in Dongguan, the largest mall in the world until now. The Mall of the Emirates, completed in 2005, is the largest mall in Dubai and probably in the Middle East, with a total built-up area of 450 thousand square meters. Several other large malls are still under construction in Dubai such as Waterfront Dubai, the Gardens Mall, the Dubai Mall and the Mall of Arabia with built-up areas of 300 thousand, 350 thousand,

600 thousand and 673 thousand square meters respectively (Department of Tourism and Commerce Marketing, 2006).

Mecca Mall was the first large shopping mall to be built in the 21st century in Greater Amman. It was constructed in 2002 and recently completed its new extension in 2006. It is located (Fig. 1), as are all other shopping malls, in the western side of Greater Amman, in a relatively high-quality residential district (Figs. 2 and 3). City Mall is the second mall to be built in the 21st century in Amman. It is completed in 2008 and is located only 600 meters west of Mecca Mall, in a residential area (Figs. 4 and 5). Mecca Mall and City Mall together occupy around 4.7% of all retail building space in Greater Amman, around 80.6% of the total retail architecture in Bangkok, and around 45.8% of the total retail architecture in Greece. These two case studies of retail area in Greater Amman provide 0.15 square meter per person. Compared to other cities in Asia, it is among the highest rates. The retail area in Amman is obviously beyond the required when comparing it to other cities in the world. This will raise the question of the bad effect of these large retail areas on the Jordanian economy.



Fig. 1. Location of Mecca Mall and City Mall in Greater Amman. Source: Greater Amman Municipality (2006).



Fig. 2. Plan of Mecca Mall. Approx. Scale: 1:2000. Source: Al-Kurdi Group (2006).



Fig. 3. Perspective of the main façade of Mecca Mall. Source: Author (2006).

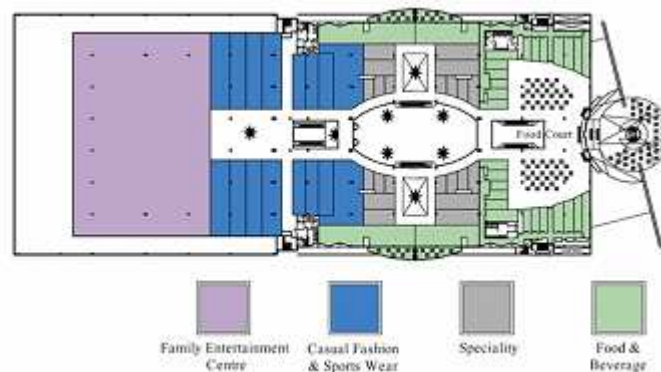


Fig. 4. Plan of City Mall. Approx. Scale: 1:1250. Source: Nabulsi (2006).

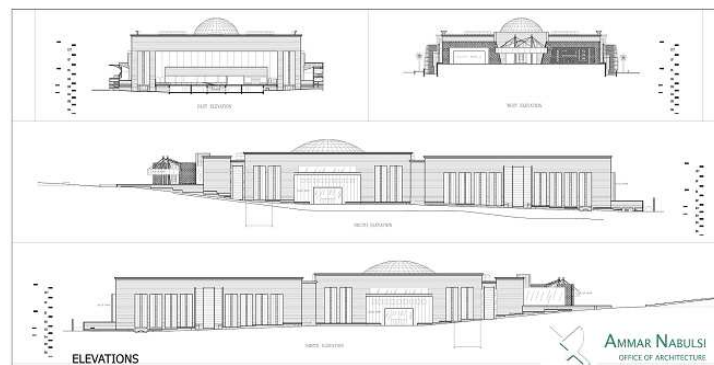


Fig. 5. Main elevation of City Mall. Approx. Scale: 1:500. Source: Nabulsi (2006).

Conceptual Framework and Hypotheses of the Research

This study investigates the effect of Mecca Mall upon social life at Amman. It also discusses the effect of building Mecca Mall on the urban planning of Amman. The recent enhancing climate for foreign and local investments in real-estate and shopping malls to improve the Jordanian economy raises the question of whether to continue the strategy of building shopping malls in Greater Amman or to shift to other economy stimulators. Interviewing is the most known and suitable means of data collection of cultural analysis which is used in this study. The face to face individual interviewing that is based on asking each respondent alone a series of pre-established questions, where the main idea is gathering data from separate individuals without others' influences (Marans, 2002) is used in our research. Nearly 235 shoppers are asked to participate in answering the questionnaire (see Appendix). A focused questionnaire is used in order to establish a consensus

opinion from people that do not necessarily know each other (Nicholas *et al.*, 1997). The questions which are used in this research are developed by the authors (see Appendix).

Using survey methodology, this research investigates the social aspect of Mecca Mall. The survey covers users of the mall during weekdays, selected randomly with a response rate of 85%, where finally a total of 200 respondents resulted. The sample is divided into different categories based on income, gender, age, time and frequency of visits and were asked if they would like to participate in the study. The income groups are divided into three categories. The low-income group (represented in all tables from 1 to 6 as 1.00) has an average income of USD 700 yearly (the poverty line of Jordan). The middle-income group (represented in all tables from 1 to 6 as 2.00) has an average income of USD 1,499 yearly (the average individual income in Jordan). The high-income group (represented in all tables from 1 to 6 as 3.00) has an average income of above USD 1,500 yearly.

The gender category is divided into equal percentages of male (represented in all tables from 1 to 6 as 1.00) and female (represented in all tables from 1 to 6 as 2.00). The age group is divided into three categories. The first age group is between 12 and 16 (represented in all tables from 1 to 6 as 1.00), the second age group is between 17 and 24 (represented in all tables from 1 to 6 as 2.00), and the third age group is between 25 and over 70 (represented in all tables from 1 to 6 as 3.00). The day is also divided into four periods according to users' activities. The first period is the morning session between 8 AM and 1 PM (represented in all tables from 1 to 6 as 1.00), the second period is the noon session between 1 PM and 4 PM (represented in all tables from 1 to 6 as 2.00), the third period is the afternoon session between 4 PM and 7 PM (represented in all tables from 1 to 6 as 3.00), and the fourth period is the evening session between 7 PM and 12 midnight (represented in all tables from 1 to 6 as 4.00). The frequency or number of visits in one month is divided into four categories: people who

visit the Mecca Mall once in a month (represented in all tables from 1 to 6 as 1.00), or twice in a month (represented in all tables from 1 to 6 as 2.00), or three times in a month (represented in all tables from 1 to 6 as 3.00), or four times in a month or more (represented in all tables from 1 to 6 as 4.00). The survey was conducted during November 2006 for a period of one week. The SPSS program is used to analyze data collected.

Table 1 represents the frequency analysis for all variables of income, gender, age group, time and number of visits for the whole sample where the percentages of all variables are shown. Table 2 shows the analysis of frequency for all questions with different percentages, where number 1.00 means yes and number 2.00 means no. Tables 3 and 4 show the cross tabs between gender and income variables and between age group and income, and Pearson Chi-Square test for both are demonstrated. Tables 5 and 6 show the cross tabs between time and income variables and between number of visits and income, where Pearson Chi-Square test is also applied.

Table 1. Frequency analysis for all variables of income, gender, age group, time and number of visits

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------|-------|-----------|---------|---------------|--------------------|
| Income | | | | | |
| Valid | 1.00 | 6 | 3.0 | 3.0 | 3.0 |
| | 2.00 | 68 | 34.0 | 34.0 | 37.0 |
| | 3.00 | 126 | 63.0 | 63.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Gender | | | | | |
| Valid | 1.00 | 100 | 50.0 | 50.0 | 50.0 |
| | 2.00 | 100 | 50.0 | 50.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Age Group | | | | | |
| Valid | 1.00 | 26 | 13.0 | 13.0 | 13.0 |
| | 2.00 | 78 | 39.0 | 39.0 | 52.0 |
| | 3.00 | 96 | 48.0 | 48.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Time | | | | | |
| Valid | 1.00 | 25 | 12.5 | 12.5 | 12.5 |
| | 2.00 | 53 | 26.5 | 26.5 | 39.0 |
| | 3.00 | 64 | 32.0 | 32.0 | 71.0 |
| | 4.00 | 58 | 29.0 | 29.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Number of Visits | | | | | |
| Valid | 1.00 | 52 | 26.0 | 26.0 | 26.0 |
| | 2.00 | 78 | 39.0 | 39.0 | 65.0 |
| | 3.00 | 57 | 28.5 | 28.5 | 93.5 |
| | 4.00 | 13 | 6.5 | 6.5 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

Table 2. Frequency analysis for all questions

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------------|-------|-----------|---------|---------------|--------------------|
| Question No. 1 | | | | | |
| Valid | 1.00 | 114 | 57.0 | 57.0 | 57.0 |
| | 2.00 | 86 | 43.0 | 43.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 2 | | | | | |
| Valid | 1.00 | 118 | 59.0 | 59.0 | 59.0 |
| | 2.00 | 82 | 41.0 | 41.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 3 | | | | | |
| Valid | 1.00 | 169 | 84.5 | 84.5 | 84.5 |
| | 2.00 | 31 | 15.5 | 15.5 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 4 | | | | | |
| Valid | 1.00 | 136 | 68.0 | 38.0 | 68.0 |
| | 2.00 | 64 | 32.0 | 32.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 5 | | | | | |
| Valid | 1.00 | 96 | 48.0 | 48.0 | 48.0 |
| | 2.00 | 104 | 52.0 | 52.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 6 | | | | | |
| Valid | 1.00 | 118 | 59.0 | 59.0 | 59.0 |
| | 2.00 | 82 | 41.0 | 41.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 7 | | | | | |
| Valid | 1.00 | 168 | 84.0 | 84.0 | 84.0 |
| | 2.00 | 32 | 16.0 | 16.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 8 | | | | | |
| Valid | 1.00 | 160 | 80.0 | 80.0 | 80.0 |
| | 2.00 | 4 | 2.0 | 2.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 9 | | | | | |
| Valid | 1.00 | 18 | 9.0 | 9.0 | 9.0 |
| | 2.00 | 182 | 91.0 | 91.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 10 | | | | | |
| Valid | 1.00 | 42 | 21.0 | 21.0 | 21.0 |
| | 2.00 | 158 | 79.0 | 79.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 11 | | | | | |
| Valid | 1.00 | 64 | 32.0 | 32.0 | 32.0 |
| | 2.00 | 136 | 68.0 | 68.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |
| Question No. 12 | | | | | |
| Valid | 1.00 | 149 | 74.5 | 74.5 | 74.5 |
| | 2.00 | 51 | 25.5 | 25.5 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

Table 3. Cross tabs between Gender and Income and Chi-Square test, where a means 2 cells (33.3) have expected count less than 5. The minimum expected count is 3.00

| Cross Tabs | | | | | | |
|------------|-----------------|-----------------|--------|-------|-------|-------|
| | | | Income | | | Total |
| | | | 1.00 | 2.00 | 3.00 | |
| Gender | 1.00 | Count | 4 | 36 | 60 | 100 |
| | | % within Gender | 4.0 | 36.0 | 60.0 | 100.0 |
| | | % within Income | 66.7 | 52.9 | 47.6 | 50.0 |
| | 2.00 | Count | 2 | 32 | 66 | 100 |
| | | % within Gender | 2.0 | 32.0 | 66.0 | 100.0 |
| | | % within Income | 33.3 | 47.1 | 52.4 | 50.0 |
| Total | Count | 6 | 68 | 126 | 200 | |
| | % within Gender | 3.0 | 34.0 | 63.0 | 100.0 | |
| | % within Income | 100.0 | 100.0 | 100.0 | 100.0 | |

| Chi-Square Test | | | |
|------------------------------|--------------------|----|-----------------------|
| | Value | df | Asymp. Sig. (s-sided) |
| Pearson Chi-Square | 1.188 ^a | 2 | .552 |
| Likelihood Ratio | 1.201 | 2 | .549 |
| Linear-by-Linear Association | 1.061 | 1 | .303 |
| Number of Valid Cases | 200 | | |

Table 4. Cross tabs between Age Group and Income and Chi-Square test, where a means 2 cells (33.3) have expected count less than 5. The minimum expected count is .78

| Cross Tabs | | | | | | |
|------------|-----------------|-----------------|--------|-------|-------|-------|
| | | | Income | | | Total |
| | | | 1.00 | 2.00 | 3.00 | |
| Age Group | 1.00 | Count | 3 | 15 | 8 | 26 |
| | | % within Gender | 11.5 | 57.7 | 30.8 | 100.0 |
| | | % within Income | 50.0 | 22.1 | 6.3 | 13.0 |
| | 2.00 | Count | 2 | 24 | 52 | 78 |
| | | % within Gender | 2.6 | 30.8 | 66.7 | 100.0 |
| | | % within Income | 33.3 | 35.3 | 41.3 | 39.0 |
| | 3.00 | Count | 1 | 29 | 66 | 96 |
| | | % within Gender | 1.0 | 30.2 | 68.8 | 100.0 |
| | | % within Income | 16.7 | 42.6 | 52.4 | 48.0 |
| Total | Count | 6 | 68 | 126 | 200 | |
| | % within Gender | 3.0 | 34.0 | 63.0 | 100.0 | |
| | % within Income | 100.0 | 100.0 | 100.0 | 100.0 | |

| Chi-Square Test | | | |
|------------------------------|---------------------|----|-----------------------|
| | Value | df | Asymp. Sig. (s-sided) |
| Pearson Chi-Square | 17.490 ^a | 4 | .002 |
| Likelihood Ratio | 15.498 | 4 | .004 |
| Linear-by-Linear Association | 11.022 | 1 | .001 |
| Number of Valid Cases | 200 | | |

Table 5. Cross tabs between Time and Income and Chi-Square test, where a means 2 cells (33.3) have expected count less than 5. The minimum expected count is .75.

| Cross Tabs | | | | | | |
|------------|------|-----------------|--------|-------|-------|-------|
| | | | Income | | | Total |
| | | | 1.00 | 2.00 | 3.00 | |
| Time | 1.00 | Count | 2 | 10 | 13 | 25 |
| | | % within Gender | 8.0 | 40.0 | 52.0 | 100.0 |
| | | % within Income | 33.3 | 14.7 | 10.3 | 12.5 |
| | 2.00 | Count | 2 | 15 | 36 | 53 |
| | | % within Gender | 3.8 | 28.3 | 67.9 | 100.0 |
| | | % within Income | 33.3 | 22.1 | 28.6 | 26.5 |
| | 3.00 | Count | 1 | 17 | 46 | 64 |
| | | % within Gender | 1.6 | 26.6 | 71.9 | 100.0 |
| | | % within Income | 16.7 | 25.0 | 36.5 | 32.0 |
| | 4.00 | Count | 1 | 26 | 31 | 58 |
| | | % within Gender | 1.7 | 44.8 | 53.4 | 100.0 |
| | | % within Income | 16.7 | 38.2 | 26.4 | 29.0 |
| Total | | Count | 6 | 68 | 126 | 200 |
| | | % within Gender | 3.0 | 34.0 | 63.0 | 100.0 |
| | | % within Income | 100.0 | 100.0 | 100.0 | 100.0 |

| Chi-Square Test | | | |
|------------------------------|--------------------|----|-----------------------|
| | Value | df | Asymp. Sig. (s-sided) |
| Pearson Chi-Square | 9.081 ^a | 6 | .169 |
| Likelihood Ratio | 8.520 | 6 | .202 |
| Linear-by-Linear Association | .017 | 1 | .898 |
| Number of Valid Cases | 200 | | |

Table 6. Cross tabs between Number of Visits and Income and Chi-Square test, where a means 2 cells (33.3) have expected count less than 5. The minimum expected count is .39.

| Cross Tabs | | | | | | |
|------------------|------|-----------------|--------|-------|-------|-------|
| | | | Income | | | Total |
| | | | 1.00 | 2.00 | 3.00 | |
| Number of visits | 1.00 | Count | 6 | 29 | 17 | 52 |
| | | % within Gender | 11.5 | 55.8 | 32.7 | 100.0 |
| | | % within Income | 100.0 | 42.6 | 13.5 | 26.0 |
| | 2.00 | Count | 0 | 25 | 53 | 78 |
| | | % within Gender | 0 | 32.1 | 67.9 | 100.0 |
| | | % within Income | 0 | 36.8 | 42.01 | 39.0 |
| | 3.00 | Count | 0 | 7 | 50 | 57 |
| | | % within Gender | 0 | 12.3 | 87.7 | 100.0 |
| | | % within Income | 0 | 10.3 | 39.7 | 28.5 |
| | 4.00 | Count | 0 | 7 | 6 | 13 |
| | | % within Gender | 0 | 53.8 | 46.2 | 100.0 |
| | | % within Income | 0 | 10.3 | 4.8 | 6.5 |
| Total | | Count | 6 | 68 | 126 | 200 |
| | | % within Gender | 3.0 | 34.0 | 63.0 | 100.0 |
| | | % within Income | 100.0 | 100.0 | 100.0 | 100.0 |

| Chi-Square Test | | | |
|------------------------------|---------------------|----|-----------------------|
| | Value | df | Asymp. Sig. (s-sided) |
| Pearson Chi-Square | 47.825 ^a | 6 | .000 |
| Likelihood Ratio | 49.174 | 6 | .000 |
| Linear-by-Linear Association | 22.291 | 1 | .000 |
| Number of Valid Cases | 200 | | |

Retail Situation in Greater Amman

The total retail area in the world is estimated at 2 billion square meters (Chung *et al.*, 2001). The retail area in Greater Amman, which includes all kinds of commercial areas, traditional bazaars, separate and individual shops and shopping malls, is estimated at 6.34 million square meters, or 0.317% of the world total (Building Permit Department at GAM, 2006). The retail area constitutes 11% of the total built-up area in Greater Amman, which is considered high in terms of international standards (Ratcliff, 1974). The highest amount of the retail area is in the United States of America, which holds 772 million square meters or 39% of the world total. Asia follows with 37%, then Europe, with 10%. Comparing the total retail area of Greater Amman to other parts or cities in the world, it is one of the biggest. The whole continent of Africa has a figure of 7.3 million square meters, almost the same as Greater Amman. The former USSR has an area of 29 million square meters, or four times that at Greater Amman (Chung *et al.*, 2001). The United Arab of Emirates has an area of 4.5 million square meters, while Dubai had 0.6 million square meters in the year 2000, much less than Greater Amman's recent figures. These numbers of the United Arab of Emirates retail space are increasing rapidly and are expected to double by the year 2010. In Cairo, the figure is even less than Dubai only 0.45 million square meters and in Beirut it is 0.22 million, much less than Greater Amman (Retail International, 2005). Comparing the area of retail architecture in Greater Amman to all the branches of the world's largest retailer, Wal-Mart, it constitutes 22.6% in the year 2000. Wal-Mart has a total area of about 28 million square meters, which represents half the land surface area of Manhattan, New York (Chung *et al.*, 2001).

Another statistically important figure by which to assess space is the ratio of retail area to the population of the city or country (Table 7). That ratio is 0.3 square meters per person in the world (Chung *et al.*, 2001). The figure is 3.17 square meters per person in Greater Amman, assuming the population of Greater Amman is 2 million and the retail area is 6.34 million at the end of the year 2005 (Building Permit Department at GAM, 2006). In the United States of America, the figure, which is estimated at

2.9 square meters per person, is even less than that in Greater Amman. In other parts of the world, the figure is even less: 0.2 square meters in Asia, 0.4 square meters in Europe, and 0.01 square meters in Africa (Chung *et al.*, 2001). Comparing Greater Amman to other Middle Eastern cities, its retail-to-person ratio is much higher than Abu Dhabi, Dubai, Kuwait and Manama. The figure is 2.59 square meters per person in Dubai and 0.53 square meters in Abu Dhabi, both at the United Arab Emirates. In Kuwait the number is 0.1 square meters per person, and in Manama, Bahrain, it is 0.58 square meters per person (Retail International, 2005) (see Table 7).

The Safeway at Shimesani district was the first shopping mall to be built in Greater Amman in 1986. The Safeway's built-up area is 16.3 thousand square meters, with a completely air-conditioned environment. Majdi Mall followed in 1994, with a gross built-up area of 12.8 thousand square meters. Several other shopping malls were built after that, with Amman Mall, built in 1998, the largest mall until the end of the 20th century. It has a built-up area of 35.8 thousand square meters. All shopping centers are located in the western section of the city. They were erected without any study of their impact on social life or upon urban planning or design of the city. The latest conducting building regulations for Greater Amman stipulates only the car parking percentages: each mall should provide sufficient car parking areas depending on the built-up area of the mall. For each 100 square meters of retail use, one car parking slot should be provided, otherwise a maximum fine of USD 4300 should be paid (Law No. 21, 2005). The car parking area is taking up a large space of undesired material, asphalt. In a master's thesis study at the University of Jordan, the researcher concluded that of the total developed area at shopping malls in Greater Amman, a percentage ranging from 23% to as much as 82% is reserved for car parking (Tarabieh, 2006). Most of the designs of shopping malls in Greater Amman have a large-sized blank facade with no architectural character and no connection to its surroundings. Signs and advertisements are also widely used on exterior facades of the shopping malls. Commercial signs should be studied in terms of size, color, location, height and impact upon urban design, as Venturi and others mentioned in their study of Las Vegas (Venturi *et al.*, 1991).

Table 7. Retail-to-person ratio at different parts of the world

| No. | Country | Square Meter Per Person | Total Area of Retail Architecture in Millions Square Meters |
|-----|------------------------------|-------------------------|---|
| 1 | World | 0.3 | 2'000 |
| 2 | Greater Amman | 3.17 | 6.34 |
| 3 | The United States of America | 2.9 | 772 |
| 4 | Asia | 0.2 | 740 |
| 5 | Europe | 0.4 | 200 |
| 6 | Africa | 0.01 | 7.3 |
| 7 | Dubai | 2.59 | 0.6 |
| 8 | Abu Dhabi | 0.53 | - |
| 9 | Kuwait | 0.1 | - |
| 10 | Manama | 0.58 | - |

Cultural Analysis of Mecca Mall

In this section, a discussion of the results of the questionnaire, used in this study, is carried out with emphasis on social change that accompanied the introduction of Mecca Mall. In order to understand the social change of Amman residents', all variables used in this study are discussed. First, the income variable is investigated. The low-income group whom visit Mecca Mall are minimal as seen in Table 1. They only consist 3% of the total sample investigated in our study. Obviously, the high-income group consists the main visitors with 63% of the total sample as Table 1 shows. The middle-income group covers the rest 34%. As seen from the result analysis of Question No. 7, which is about considering goods at Mecca Mall expensive, almost 84% of the sample answered this question positively as seen in Table 2. This explains why low-income people do not like to visit Mecca Mall and in line with Question No. 1 analysis, which is about the reason of visiting Mecca Mall, where 57% answered for shopping (Table 2). People investigated in this study prefer to buy their goods from a small shop rather than Mecca Mall as seen in Table 2, Question No. 6. The reason is being the prices, the ease of access and the provision of car parking. The percentage which answered positively is 59%, while only 41% prefer to buy from Mecca Mall.

Mecca Mall, as well as other large malls, whether they are in Amman or in any other city, encourage and facilitate for social interaction as seen from Table 2, Question No. 8. 80% of the selected sample answered positively. This is in line with Question No. 3 in the same table which is about the reasoning of visiting Mecca Mall, where 84.5 % of the sample answered for socializing. Mecca Mall contains several places where people can gather, sit, eat, talk, entertain or stand for socializing. It contains several kinds of shops. There are about 25 unisex fashion shops, 20 shoes and bag shops, 3 toy shops, 7 mobiles and electronics shops, 3 computer and games shops, 2

card and accessories shops, 15 gift shops, 5 jewelry shops, 4 home video, DVD and tape shops, 6 home wear and accessories, 7 watch shops and 1 cigar and magazines shop. This is in addition to 20 restaurants, 16 coffee shops, 6 chocolate and nuts shops and 2 ice cream shops, most of them located on the third floor. The 4 entertainment centers, children's fun area and 7 cinemas are located on the fourth floor. This gives us 158 different shops. The new extension recently completed raises the total amount to 203 shops most of them are for women's clothing. This has introduced a new way of life to the residents of Amman. Question No. 2 shows the 59% of visitors use the restaurants, and Question No. 5 shows that 48% of visitors use the entertainment section and go to cinema. 68% of the visitors go to Mecca Mall for window shopping as seen in Table 2, Question No. 4, which is considered a new trend for Amman's residents.

Mecca Mall encourages people for social interaction because of its pleasant atmosphere during the whole days of the year. It is well air-conditioned day and night. This creates a welling environment for people to gather and socialize especially during hot summer of Amman where the temperature reaches almost 39°C in some days. The world's first shopping center to be air-conditioned was Abraham & Strauss Department Store in New York in 1919. Air-conditioning was used to provide comfort for consumers, keep merchandise and shops clean, improve employee appearance and consequently lengthening the shopping period and hence increase sales (Leong and Weiss, 2001). Mecca Mall consumes in a month an amount of electricity for artificial light and air conditioning equal to the amount spent by a whole Amman neighborhood (Al-Kurdi Group, 2006). Traditional old bazaars of the Middle East, where the roof of the main pedestrian walkway is covered by ventilated domes, might be the answer here to overcome the climatic conditions without the need for air-conditioning systems. A study by Gruen in 1964 stated that in a highly

attractive, completely weather-protected and artificially air-conditioned environment, or shopping mall, people can walk for 20 minutes or travel as far as 1.5 kilometers without getting tired, while in a highly attractive but not air-conditioned environment, both the period and the traveling distance are shortened to half that amount (Gruen, 1964). Shopping mall design is based upon creating an artificial luminous interior environment, day and night, to keep the consumer shopping, for as much time as possible shopping. This concept is successful at Mecca Mall, where customers stay for long time inside the building as seen from our observations.

Way-finding in large shopping malls, as well as our case study of Mecca Mall, is very difficult even for experienced persons. Way-finding is a very important issue, especially in large-scale projects such as our case study. It is an integral part of our everyday life. We usually rely on our memory to find our way in which meaningful and recognizable patterns of visual information are stored (Lam, 1977). Way-finding is defined as "the process of orientation and navigation. The overall goal of way-finding is to accurately relocate from one place to another in a large-scale space" (Gluck, 1991). We usually pick out a particular pattern which enables us to find our way, as the shopping mall contains so much visual information that we cannot remember it all. This is called the spatial cognition, which depends on the knowledge representation people learn in childhood and through time (Johnson, 1987). Way-finding is a spatial problem that involves identifying a current location, then maneuvering through a route to reach the desired shop. It consists of a behavioral attitude to find a destination. If the desired location is not reached, this means there is a problem in the design of the shopping mall (Gluck, 1991). People develop a cognition map in their heads to navigate through space. As they use the space more frequently a better image is developed in their minds, and an easier way to find their desired shop is achieved (Kuipers, 1982). Shopping malls pay attention to the interior environment rather than the exterior, which directs the contemporary urban consuming experience (Venturi *et al.*, 1991). Historically, shopping centers have directed inwardly, such as the bazaars, arcades and other earlier shopping centers. This type of retail architecture shares the following characteristics: the extreme massive exterior facades that have no openings, the large area of car parking around the building, the sparseness of exterior events, and the absent integration between the retail building and its surroundings (Douglass, 1991). Question No. 9 in Table 2 shows that 91% think that the landscaping

around Mecca Mall is not pleasant. Both Mecca Mall and City Mall incorporate atriums in their design, which is a nice volume generated in shopping arcades, as Giedion claims (Giedion, 1976).

Way-finding in shopping centers depends greatly on the signage system used in the scheme, the mapping, and landmarks. It depends on the spatial perception of the shopping mall, which is verified by our senses; vision, hearing, touching and others (Freska, 1991). Shopping malls also need easy and fast mobility inside, whether horizontally or vertically, to facilitate movement and way-finding. A steady and fast flow of customers and goods are essential. The use of escalators and elevators soon started to accompany the erection of shopping malls. The first escalators were first installed in the Siegel Cooper Department Store in New York in 1896. People in shopping malls prefer escalators to elevators, since the elevator is ideal for a person with a mission, while the escalator is based on flow and continuity (Koolhaas, 1993). At Mecca Mall, the number of escalators is 16. This number is considered sufficient, as each escalator is able to move 7,000 people per hour (Weiss and Leong, 2001), so the escalators in Mecca Mall can move the two million inhabitants of Greater Amman over 16 hours. Question No. 10 in Table 2 shows that only 21% of visitors can find their way to a specific shop easily without looking at any map or asking somebody. Question No. 11 in the same table shows that only 32% prefer to shop from Mecca Mall when he/she in a hurry because of difficulty of way-finding.

Mecca Mall is located in the western part of Greater Amman, only few meters from the Airport Road, which connects Greater Amman City to the Queen Alia International Airport. Four other malls, named City Mall, C-Town Sweifieh Mall, Safeway Sweifieh Mall and Cozmo Mall, are also located on the Airport Road. Many other real estate developments are also situated along this road, such as Jordan Gate, towers around 150 meters high (Gulf Finance House, 2005); the Andalucia neighborhood site of around 0.8 million square meters (Andalucia, 2006); and the Bonyan Group Association, five high-rise buildings (Bonyan Group Association, 2006). In addition are other Jordanian private sector investments in housing, such as the Green Land project, located on the Airport Road, which will consist of 1,100 residential units on a land area of 110 hectares. The Royal Village, also a private investment project on the same road, will be a massive housing project, but the design is still under revision. These new mega-projects are proceeding without first being studied carefully in terms of their effect upon the urban design of the whole city, as Ford (1998) recommended.

Discussion of the Problems of Shopping Malls

The sample of this study, which is divided into different categories based on income, gender, age, time and frequency of visits, are analyzed in Tables 3-6. The income groups are divided into three categories according to the income in Jordan. The gender category is divided into equal percentages of male and female and studied in relation to income groups for easier comparison as seen in Table 3 that shows the cross tabs between gender and income. The low-income group has the lowest percentages in visiting Mecca Mall, with 4% male and 2% female. The middle-income group consists the second category of using Mecca Mall with percentages of 36% for male and 32% female. Obviously the high-income group consists the main users with percentages of 60.0% male and 66% female. Pearson Chi-Square test in Table 3 shows a value of 1.188 to two cells less than 33.3% whom have expected count less than 5, where the minimum expected count is three.

The age group which is divided into three categories is investigated and compared with income groups and is shown in Table 4 that shows the cross tabs between age group and income. The first age group which is between 12 and 16, the middle-income group presents the highest visitors with a percentage of 57.7%. This may be due to the good entertainment section existed at Mecca Mall and its reasonable price compared to other places at Amman. In the second age group, which is between 17 and 24, and the third age group, which is between 25 and over 70, the high-income group presents the higher number of visitors with percentages of 66.7% and 68.8% respectively. Pearson Chi-Square test in Table 4 shows a value of 17.490 to three cells less than 33.3% whom have expected counts less than 5, where the minimum expected count is 0.78.

The day which is divided into four periods according to users' activities is analyzed in relation to

income groups as in Table 5 that shows the cross tabs between time of visit and income. The first period which is the morning session between 8 AM and 1 PM has the lowest number of visitors with 12.5%, where the high-income group consists the highest percentage of 52%. The second period which is the noon session between 1 PM and 4 PM comes next with 26.5%, and the high-income group consists the highest percentage of 67.9%. The fourth period which is the evening session between 7 PM and 12 midnight comes after that with 29% of which 53.4% visitors are from the high-income group. The third period which is the afternoon session between 4 PM and 7 PM comes last with 32%, with a percentage of 71.9% from the high-income group. Pearson Chi-Square test in Table 5 shows a value of 9.081 to four cells less than 33.3% whom have expected counts less than 5, where the minimum expected count is 0.75 (see Table 8).

The frequency or number of visits in one month, which is divided into four categories, is tested versus income and presented in Table 6. The people who visit the Mecca Mall twice in a month come in the first category of the visitors with 39%, where the high-income group presents 67.9% of them. The people who visit Mecca Mall three times a month comes secondly with 28.5%, where the high-income group presents 87.7% of them. The people who visit once a month come in third place with 26%, of whom 55.8% are from the middle-income group and 32.7% from the higher-income group. This may be due to the prices at Mecca Mall that middle-income people cannot shop or visit the mall more than once a month. People who visit Mecca Mall four times in a month or more represent the lowest percentage of 6.5%. Despite this low percentage, the middle-income group generates the higher ratio in this category with 53.8% due mainly to visiting the entertainment section of the mall as observed in the survey. Pearson Chi-Square test in Table 6 shows a value of 47.825 to five cells less than 33.3% whom have expected counts less than 5, where the minimum expected count is 0.39.

Table 8. Survey of the average distribution of users (average 4,280 daily users) at different times of the day during the weekdays without weekends

| | Morning 8 AM - 1 PM | Noon 1 PM - 4 PM | Afternoon 4 PM - 7 PM | Night 7 PM - 12 midnight |
|---------------|------------------------|---------------------|--------------------------|-----------------------------|
| 12-16 male | 4 | 68 | 180 | 85 |
| 12-16 female | 7 | 75 | 197 | 78 |
| 17-24 male | 6 | 112 | 117 | 362 |
| 17-24 female | 13 | 118 | 98 | 284 |
| 25-70+ male | 38 | 225 | 241 | 213 |
| 25-70+ female | 856 | 348 | 320 | 235 |
| Total | 924 | 946 | 1,153 | 1,257 |

Shopping malls raise a number of problems for the city. From the economic point of view, large shopping malls create greater expense for the city municipality, due to the total cost of the services provided for these centers in terms of electricity and other infrastructure facilities. Shopping centers create jobs that require only minimal skills and consequently provide low salaries, so cities with large shopping centers usually suffer from high family poverty rates, which started to appear at Amman. The malls force other small shops out of business in the neighboring areas, raising the percentages of unemployment rate in the city (Chung and Palop-Casado, 2001). From an environmental point of view, shopping malls increase the demand for water and sewage services, cause noise and air pollution, and increase traffic congestion, as evident now near Mecca Mall. These problems are expected to increase after opening the City Mall next year. Shopping malls cause Greenfield consumption due to the large area of asphalt for car parking, undermine the livability of the area, especially its open space, and minimize the pedestrian movement in the surrounding streets (Maryland Department of Planning, 2001).

In some countries, a number of regulations started to appear aiming at limiting the effect of building large shopping malls. For example, in the United Kingdom, the Development Control Policy Note No. 13, in 1977, stated that if any development leads to erecting a large new store, a careful study of the pattern of established shopping centers in the area and the new store's effects upon the whole district must be first undertaken. In 1986, the Secretary of State of the United Kingdom for the Environment Circular No. 21/86 addressed the scale of the new shopping center and suggested studying its effect upon the vitality and viability of a nearby town center. Furthermore, the local planning authorities were required to notify the Secretary of any proposal for a shopping mall that exceeded 25 thousand square meters in the area before planning permission would be granted. In 1993, the Planning Policy Guidance in the United Kingdom Note No. 6 encouraged building shopping malls of reasonable size in town centers only, and discouraged out-of-town retail development. In Norway, in 1999, the government prohibited building shopping malls outside central areas of cities with areas larger than 3.3 thousand square meters. Furthermore, all shopping malls built prior to this date with a net floor area of more than 7.5 thousand square meters would have to submit an environmental impact assessment. In Italy, from the year 1971, the Law No. 426 stated that any department store larger than

1.5 thousand square meters would have to obtain a permit from the regional authority. In Germany's post 1985 development, any retail store on the outskirts of cities could not exceed 1.2 thousand square meters. In France, since 1973 any retail store over 1.0 thousand square meters requires local government approval and spaces over 10.0 thousand square meters require central government approval (Chung *et al.*, 2001).

Although the above mentioned regulations started from the 1970s in urban planning, it was in some municipalities in the United States of America that authorities established further regulations regarding architectural and urban aspects of shopping malls which happened later in the 1990s. For example, in architectural character regulations, it is forbidden for any facade of a shopping mall to exceed 30 meters without any interruption. Windows and arcades should consist an area of not less than 60% of the facade's length. External finishing should be of high quality, such as brick, sandstone, or wood, and must avoid concrete. Entrances must be made visible by canopies or arcades. Elements of color and texture must repeat at intervals of not more than 10 meters horizontally or vertically. On an urban design level, new shopping malls should incorporate in its surroundings sitting areas, water elements or a plaza, and they must connect the mall entrances to the streets nearby by pedestrian walkways of ample landscaping features and benches of not less than 50% of their length. The car parking areas must be divided into modules that are separated by landscaping (Duerksen and Blanchard, 1998).

A new trend appeared by the end of the 1990s in shopping malls, named "Greyfield". The expression was coined by Price Water House Coopers (PwC) and the Center of the New Urbanism (CNU) to describe failing shopping malls, those with annual sales per square meters less than a specific amount of capital or one-third the rate of sales at another successful shopping mall. This death of shopping malls is happening at an incredible rate, especially at the United States of America (Jencks, 2002; Molly, 2003). A fifth of Americans' 2000 large shopping malls have been dying recently. Other shopping malls' tenant rents are declining in the United States of America (Gatzlaff *et al.*, 1994). Abdun Mall, one of the large malls in Amman built in 2000 with a total built up area of 24 thousands square meters by the same owner of Mecca Mall, started to die after the opening of Mecca Mall as the annual sales of their shops show. Most of the owners of shops at Abdun Mall opened new branches at Mecca Mall, and they will do the same thing after the City Mall opens next year.

There are limits to the growth and size of shopping malls, as Charles Jencks stated: "There are limits of growth and economies of size, a point reached when bigger means worse" (Jencks, 2002). There is an upper limit for a shopping mall in size, as in any other building type based on the consumer's comfort and movement distances (Saxon, 1986). For international standards of shopping malls, the maximum length of the building should not exceed 200 meters, and the maximum distance from the car parking to the building should not exceed 100 meters (Reimers and Clulow, 2004). Amman malls exceed these limits. In Mecca Mall, the length of the façade is calculated to be 225 meters, while the maximum traveling distance from the car parking to the main gate exceeds 100 meters.

Currently the 1987 comprehensive plan of Greater Amman is still used, though obviously it is seen by many local planners and architects as outdated. The last building regulation of Law No. 21 for the year 2005 does not regulate or organize the erection of new shopping malls. The main principles of Jordanian planning for shopping malls depend on the 1987 master plan, which does not provide any guidelines in terms of location, size, architectural character, solving traffic and car parking congestion, reduction of air pollution, consumption of Greenfield, or type of finishing of new shopping malls. The lack of public participation in the planning process is also one of the problems of the 1987 comprehensive plan.

Conclusion

The low-income group who visit Mecca Mall consists the lower percentages due mainly to the prices of goods at the mall. Obviously the high-income group consist the main visitors. The middle-income group make use of the entertainment section mainly due to relatively reasonable prices of games if compared to other places at Amman. People in general prefer to buy their goods from a small shop rather Mecca Mall. This study concludes that despite the high prices of goods at Mecca Mall, it encourages and facilitates for social interaction because of two reasons. First, it contains several places where people can gather, sit, eat, talk, entertain or stand for socializing, where restaurants, entertainment section, cinema and window shopping are the main activities people pay attention. Second, it has a pleasant atmosphere during the whole days of the year because of its well air-conditioned day and night that creates a welling environment for people to gather and socialize despite its large consumption of electricity for artificial light and air

conditioning. Traditional old bazaars of the Middle East that provide a good environmental atmosphere are forgotten in the design of Mecca Mall as well as other large malls in Amman.

Way-finding at Mecca Mall is very difficult even for experienced persons. Way-finding is an integral part of our everyday life. Mecca Mall's interior design lacks landmarks and has a very weak signage system. Maps for locating the required shop or area are poorly positioned. The spatial cognition, which depends on the knowledge representation, can be improved if a complete new signage system with some landmarks at certain spaces is designed. Way-finding, which is a spatial problem that involves identifying a current location, then maneuvering through a route to reach the desired shop, is observed at higher percentages at teenagers in this study. People who develop a cognition map in their heads to navigate through space and use the space more frequently result in better image that is developed in their minds and an easier way to find their desired shop is achieved.

Greater Amman has one of the largest retail areas in the Middle East. The 6.34 million square meter figure is obviously the largest in the region until now. This dominance may continue in the future, with the only possible exception coming from the United Arab Emirates and especially Dubai, which might reach Greater Amman's retail area by the year 2010, as estimated by other researchers. As seen in the introduction, Dubai has recently completed building its Mall of the Emirates, which has a built-up area of 450 thousand square meters alone. The other four malls under construction in Dubai have a total area of 1.87 million square meters. This totals 2.92 million square meters of retail area in Dubai by the next two years. Amman's retail area-per-person, which is 3.17 square meters, is the largest in the world and is not needed. Comparing the area of retail buildings to population, it is the highest in the world, which may raise the question of whether to build future shopping malls. Before proposing any new shopping mall in Greater Amman, the municipality and investors should pay careful attention to what is called a Greyfield, the death of a shopping mall, which is spreading in the United States of America at an incredible rate. Greyfields are already emerging in some shopping malls in Greater Amman.

The British concept of erecting shopping malls in the center of a city or town may provide a better environmental quality. The current location of our two case studies is within a residential neighborhood,

causing many problems to inhabitants and users. The location of the Mecca Mall and City Mall is only 600 meters apart in a residential area, which will obviously cause great problems. They will form the largest congestion area in the city in the year 2007, after the opening of the City Mall. The planning department at the Greater Amman Municipality should think seriously about how to solve this problem, perhaps by separating the two malls by a buffer zone of trees without allowing the movement of public and private traffic between them.

The already existing projects alongside the Airport Road, such as C-Town Sweifieh Mall, Safeway Sweifieh Mall, Cozmo Mall, Mecca Mall and City Mall, are increasing the volume of traffic dramatically. In addition, there are more proposed mega real estate projects, such as Jordan Gate (two 150 meters high office towers), Andalucia neighborhood (800 thousand square meters neighborhood), the Bonyan group (five high-rise buildings), the Green Land neighborhood project and the Royal Village neighborhood. These projects will cause serious traffic and urban planning problems. They should be studied carefully in terms of the effect of their location and size upon the urban design and planning of the Airport Road. It is obvious that this road cannot continue to serve all these massive projects. According to a study made by the Ministry of Transportation in 1996, a total of 15,000 vehicles per day use the Airport Road. The same study estimated that the number will reach 35,000 vehicles per day by the year 2020 (Ministry of Transportation, 1997). As the number of cars has doubled since 1996, the previous study's numbers will no longer be valid in the future (Department of Vehicle Authorization, 2006). A new construction of another road parallel to the Airport Road might be the answer to the increasing traffic.

There is an upper limit for a shopping mall length, 200 meters, based on the consumer's comfort and movement distances. The longest façade at Mecca Mall is 225 meters, and is 220 meters at City Mall. Although these distances seem to fall within the maximum range, still the distance from the car parking to reach entrances of these two malls is too long, and exceeds the maximum distance of 100 meters, stated before, according to Reimers and Clulow (2004). Mecca Mall, City Mall and all other new shopping malls in Greater Amman might incorporate in their surroundings a plaza with landscaping. The designers of the car parking areas might take into consideration division into modules that are separated by landscaping. The revival of the old bazaar concept, where a thoroughfare pedestrian

route to overcome the disadvantage of the climate, might help in reducing the bills of electricity in future shopping malls.

The city needs to revise the 1987 comprehensive plan of Greater Amman and the last building regulation "Law No. 21 for the year 2005" to accommodate and regulate the recent construction of shopping malls. The main principles of Jordanian planning for shopping malls should be developed much further in any future master plan for Greater Amman. A guideline for shopping centers that specifies standards for location, size, architectural character, traffic and car parking congestion, reduction of air pollution, consumption of Greenfield, and type of finishing should be introduced soon before any new shopping mall proposal. The Municipality of Greater Amman and the Jordanian Architects Association might encourage a development in a local architectural prototype for shopping malls, or may be an alternative of shopping malls such as shopping centers that combine the old and the new forms, to try to put some guidelines on the scale of signs and advertisements and characteristics on main facades. The public participation in the planning process might also be encouraged to overcome the social problems of shopping malls. Public opinion of locals should be taken into consideration in future Municipality of Amman projects. The recent situation of ignoring their participation cannot continue, as these people will be the main users in the future.

References

- Al-Kurdi Group.** *Annual Report of 2005.* Amman, (2006).
- Andalucia.** *A Gated Community, Unique in Location, Architecture, Services and Facilities.* Unpublished Report, Amman, (2006).
- American Studies at Eastern Connecticut State University.** *Introduction to Large Shopping Malls.* Hartford: Connecticut State University Press, (2006).
- Beddington, N.** *Shopping Centers: Retail Development, Design, and Management,* Oxford: Butterworth Architecture, (1991).
- Bonyan Group Association.** *The Towers of Amman Report.* Unpublished Report, Dubai, U.A.E., (2006).
- Building Permit Department at Greater Amman Municipality.** *Annual Report of 2006.* Amman: GAM Press, (2006).
- Chung, C. and Palop-Casado, J.** "Resistance." In: C. Chung, R. Koolhaas, and S. Leong (Eds.), *Harvard Design School Guide to Shopping.* Cambridge: Taschen, (2001).
- Department of Tourism and Commerce Marketing.** *Shopper's Paradise.* Dubai: Department of Tourism and Commerce Marketing Press, (2006).
- Department of Vehicle Authorization.** *Annual Report of 2005.* Amman: Ministry of Interior Affairs Press, (2006).
- Douglass, L.** "Regional Shopping Centers." In: J. De Chiara and M. Crosbie (Eds.), *Time-saver Standards for Building Types.* New York: McGraw Hill, (1991).

- Duerksen, C. and Blanchard, R.** *Belling the Box: Planning for Large-scale Retail Stores*. National Planning Conference, New York: AICP Press, (1998).
- Ford, L. R.** "Midtown, Mega-structure and World Cities." *The Geographical Review*, Vol. 88, No. (4), (1998), 528-547.
- Freska, C.** "Qualitative Spatial Reasoning." In: D. Mark and A. Frank (Eds.), *Cognitive and Linguistic Aspects of Geographic Space: Behavioral and Social Sciences*. Dordrecht, Netherlands: Kluwer Academic Publishers, (1991).
- Gatzlaff, D.; Sirmans, G. and Diskin, B.** "The Effect of Anchor Tenant Loss on Shopping Center Rents." *The Journal of Real Estate Research*, Vol. 9, No.1, (1994).
- Giedion, S.** *Space, Time and Architecture: The Growth of a New Tradition*. Cambridge: Harvard University Press, (1976).
- Gluck, M.** "Making Sense of Human Wayfinding: Review of Cognitive and Linguistic Knowledge for Personal Navigation with a New Research Direction." In: D. Mark and A. Frank (Eds.), *Cognitive and Linguistic Aspects of Geographic Space: Behavioral and Social Sciences*. Dordrecht, Netherlands: Kluwer Academic Publishers, (1991).
- Gruen V.** *The Heart of Our Cities*. New York: Simon & Schuster, (1964).
- Gulf Finance House.** *Jordan Gate Report*. Unpublished Report, Kuwait, (2005).
- Herman, D. and Leong, S.** "Scale." In: C. Chung, R. Koolhaas, and S. Leong (Eds.), *Harvard Design School Guide to Shopping*. Cambridge: Taschen, (2001).
- International Council of Shopping Centers.** *ICSC Shopping Center Definitions: Basic Configurations and Types for the United States*. New York: ICSC, (2004).
- Investment Unit Institute.** *Annual Report of 2005*. Amman: Ministry of Commerce and Industry Press, (2006).
- Jencks, C.** "How Big is Bad?" *Theory of Architectural Review*, (August 2002).
- Johnson, M.** *The Body in the Mind: The Bodily Basis of Meaning Imagination and Reason*. Chicago: University of Chicago Press, (1987).
- Koolhaas, R.** "Globalization." In: R. Koolhaas and B. Mau (Eds.), *S, M, L, XL*. New York: Monacelli Press, (1993).
- Kuipers, B.** "The 'Map in the Head' Metaphor." *Environment and Behavior*, Vol. 14, No. (2), (1982), 202-220.
- Lam, C.** *Perception and Lighting as Form Givers for Architecture*. New York: McGraw Hill, (1977).
- Law No. 21.** *Building Regulations in Greater Amman*. Amman: Government Press, Issue No. 4700, (2005).
- Leong, S. and Weiss, S.** "Air Conditioning." In: C. Chung, R. Koolhaas, and S. Leong (Eds.), *Harvard Design School Guide to Shopping*. Cambridge: Taschen, (2001).
- Marans, R.** *Measuring Quality of Life Using Subjective and Objective Indicators: The Metro Detroit Experience*. Baltimore ACSP, (2002).
- Maryland Department of Planning.** *Big-Box, Retail Development*. Maryland, (2001).
- Ministry of Transportation.** *A Study of the Middle Region Transportation Problems*. Amman: Ministry of Transportation Press, (1997).
- Molly, A.** "What to Do with Dead Malls." *Preservation*, (August 21, 2003).
- Nichols, A. and Zumbo, B.** *Public Services and Quality of Life*. Prince George: Canada University of Northern British Columbia Press, (1997).
- Reimers, V. and Clulow, V.** "Retail Concentration: A Comparison of Spatial-convenience in Shopping Strips and Shopping Centers." *Journal of Retailing and Consumer Services*, Vol. 11, (2004).
- Ratcliff, A.** *An Introduction to Town and Country Planning*. London, (1974).
- Retail International.** "Middle East Shopping Center Report." *Overview*, Vol. 14, No. 1, Dubai, (2005).
- Saxon, R.** *Atrium Buildings: Development and Design*. London: The Architectural Press, (1986).
- Tarabieh, A.** "Architecture & the New Scale Economy: The Development of Retail Architecture in the City of Amman." *Unpublished Master's Thesis*, Amman, Jordan, (2006).
- Venturi, R.; Brown, D. and Izenour, S.** *Learning from Las Vegas: The Forgotten Symbolism of Architecture Form*. Cambridge: The MIT Press, (1991).
- Weiss, S. and Leong, S.** "Escalators." In: C. Chung, R. Koolhaas, and S. Leong (Eds.), *Harvard Design School Guide to Shopping*. Cambridge: Taschen, (2001).

Appendix

Questionnaire

- Question No. 1: Do you visit Mecca Mall for shopping?
- Question No. 2: Do you visit Mecca Mall for eating?
- Question No. 3: Do you visit Mecca Mall for socializing?
- Question No. 4: Do you visit Mecca Mall for window shopping?
- Question No. 5: Do you visit Mecca Mall to use the entertainment section and cinema?
- Question No. 6: Do you prefer to buy goods from a small shop?
- Question No. 7: Do you think that goods are expensive at Mecca Mall?
- Question No. 8: Do you think that Mecca Mall facilitates and encourages social interaction?
- Question No. 9: Do you think that the landscaping around the building of Mecca Mall is pleasant?
- Question No. 10: Can you find your way to a specific shop easily?
- Question No. 11: Do you prefer to shop from Mecca Mall when you are in a hurry?
- Question No. 12: Do you like to see another large shopping mall such as Mecca Mall in other places in Amman?

أثر محلات التسوق على التخطيط الحضري لمدينة عمّان الكبرى

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(قدم للنشر في ١٦/٧/١٤٣١هـ؛ وقبل للنشر في ٢٩/٤/١٤٣٢هـ)

ملخص البحث. لقد بدأت مدينة عمّان الكبرى تحولات اقتصادية منذ بداية القرن الحادي والعشرين وذلك عن طريق فتح المجال للاستثمار الأجنبي مما انعكس ذلك على النمو الاقتصادي وذلك بزيادة الاستثمار في المباني والإسكانات والمحلات التجارية، وأصبحت مدينة عمّان الكبرى ذات موقع إقليمي وعالمي.

يلقي هذا البحث الضوء على أحد العناصر المعمارية والتي شهدت تطوراً كبيراً وسريعاً خلال العقد الماضي ألا وهي الأسواق التجارية الضخمة. ففي عام ٢٠٠٠م شهد بناء مكة مول، وهو محل تجاري ضخم تزيد مساحته عن ١٥٠ ألف متر مربع في غرب مدينة عمّان. كما شهد نفس العام بداية تصميم سيتي مول بالقرب من مكة مول وعلى مسافة لا تزيد عن ٦٠٠ متر. قبل ذلك كان أكبر محل تجاري في عمّان لا تزيد مساحته عن ٣٥,٨ ألف متر مربع

إن هذا التحول الكبير في مساحة المحلات التجارية في عمّان يدعو إلى دراسة أثر هذه الظاهرة على النواحي الاجتماعية والتخطيطية للمدينة. وقد قامت هذه الدراسة ببحث هذه الظاهرة على مكة مول وخلصت إلى نتائج عديدة.