

THE FIFTH ELEVATION: EFFECTS OF DIGITAL GRAPHIC DESIGN AND PRINTING TECHNOLOGIES ON THE URBAN FABRIC IN DEVELOPING COUNTRIES

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Abstract

The paper reports on a study that identifies the effects of current advertising and printing technologies on urban spaces in developing countries. The complexities of these advertising applications form a complicated hierarchical web that requires an investigation of surface-volume-context relationships to minimize the tension between the graphical message and the urban fabric. Regressive application of technology-based graphic design and advertisement in the form of billboards and signage, form a new layer identified as the fifth elevation. The study endeavors for positive consequences of such elevations and differentiates between chaos and complexity. Consequently, the study categorizes various advertising schemes and recommends short-term guidelines to reduce chaotic amalgamation. Several design factors and new advertising schemes are proposed to sustain cultural and visual coherency of urban spaces. When applied, these recommendations could prove useful for many cities in the Middle East due to planning, cultural, economical, and religious, similarities.

Key words: *Graphic design, printing technologies, urban fabric, advertising concepts, billboards.*

1. Introduction

Cities in the developing countries of the Middle East region share a common impact of digital graphic design solutions especially in advertising concepts and its applications in printing technologies. A serious impact is witnessed in those cities by the haphazard formation of advertising schemes, represented in many forms that are changing the nature of their urban fabric.

The study investigated, through an historical and analytical study, how major cities in the USA, Europe, and the Far East were affected by similar intoxication of authentic architecture [1, 2]. However, with the absence of strict regulations in many Middle Eastern countries, the problem of visual amalgamation resulting into a visual chaos is accelerating by the day. Developing Middle Eastern countries differ because they had no previous experiences of such a large scale advertising schemes and rarely had any previous advertising concepts such as light-based concepts (neon, bulbs, LCDs, etc) [3]. Therefore, due to the new technological affordable printing techniques, large scale schemes are competing with each other as well as with the buildings of various heights and uses to satisfy the needs of advertising companies and services in these countries. The study looked briefly at cultural and social issues affected by such development and argued whether it represented enrichment to the cultural coherency of the urban spaces or an identity deprivation of a chaotic amalgamation [4, 5].

The Middle Eastern city of Amman, Jordan, was used as a model of a developing country that lacks proper city planning and advertising regulations; where residential and commercial zones mix and sprawl in an interesting pattern that is worth analyzing and regulating. In these cities, urban and suburban areas are still growing rapidly due to the availability of land, governmental policies encouraging new investments, high levels of birth rates and the financial support of the working women to their families which was an unacceptable custom for a long time.

2. Problem

Regressive application of technology-based graphic design and advertisement in the form of billboards and signage in its various forms, form a new layer which I consider as a fifth elevation. Whether seen from another taller building or an elevated point, the fifth elevation does not necessarily and literally mean the building top. The complexities of these advertising applications form a complicated hierarchical web that requires an investigation of surface-volume-context relationships to minimize the tension between the graphical message and the urban fabric.

The city of Amman witnessed an augmentation of its natural setting into fragmented interventions forming new hierarchies of man-made elevations. Moreover, these elevations of manipulated environment comprise ever changing patterns

altered by new advertising strategies and printing technologies. However, there is a need to identify the positive consequences of such elevations and differentiate between chaos and complexity in our system.

3. Objectives

In the absence of current advertising regulations, which resulted in a chaotic formation of advertising concepts altering the local architecture of the Jordanian cities, the study strived for generating quick and feasible solutions for current concepts. Another goal was to propose guidelines for regulating the overall image of intermingled commercial and residential zones to enhance their visual quality.

4. Methodology

The study classified and categorized all forms of exterior advertising schemes in relation to their contextual setting and their relationship with the architectural identity of various regions within the city of Amman. Eight different classes were identified "Figure 1":

- a. Stand alone schemes either made out of stretched banner (front lit and more common) or illuminated stretched flex (back lit) with an internal fluorescent light source. These schemes are usually small to medium in size and are supported by a metal stand.
- b. Frameless side-wall mounted schemes of stretched banner on commercial building facades with no side openings. These schemes are usually large in size and cover most of the facade.
- c. Stand alone schemes on roof tops of buildings in residential areas close to major roads. Made of stretched banner on a hidden metal frame, they vary in size and are oriented toward car drivers/passengers.
- d. Framed schemes on transformed or mix-use building tops. Made of independent metal structures with stretched flex or banner, they are classified as large scale in relation to the proportions of the building.
- e. Large scale roof top stand alone schemes on low rise residential buildings blocking the views of neighboring taller ones. These large scale schemes make use of good location of such low rise buildings on major roads.
- f. Unframed schemes of stretched banner on low rise buildings next to high rise buildings in commercial areas. These schemes are rapidly increasing in number and filling up roof tops due to inexpensive printing cost and easy assembly/change.
- g. Framed schemes of one-sided fluorescent lit structures on service/fuel stations. In addition to their large scale nature and awkward direction, they tend to fail structurally against high winds.
- h. Schemes of framed stretched banner on low rise buildings at major crossings. They share their presence and compete with similar schemes of rapidly changing advertisements.



Figure 1: Categorization of exterior advertising schemes and their contextual settings in Amman.

A historical reference of the advertising schemes was put together from photos of old neighborhoods in Amman. It illustrated the development of graphic design concepts and techniques and the effects of the digital media on recent applications.

Several dialogues took place with my second year graphic design students to find feasible solutions to regulate and redesign existing advertising schemes that have altered the image of most places in Amman throughout the past 5 years only. It was a good educational exercise to think in three dimensions and to bridge architecture, urban design and graphic design disciplines to solve a common problem. Several factors have been identified that should be considered when redesigning existing schemes and/or planning for future schemes.

- Neighborhood, street, and classification. Including residential, commercial, mix use, and service zones. In addition, identifying major highways, roads, and streets.
- Altitude. Elevation of site with reference to sea level and its distant view due to the hilly nature of Amman. Altitudes within the city range from 850 m above sea level up to 1100 m.
- Proximity. Whether in a built up area or an open area with open spaces.
- Building identity. Including architectural style(s), building materials, and scale within the area.
- Night-time image. Including local and surrounding light sources and colors of various advertising schemes.
- Scale and proportion of scheme. The size of the advertising scheme in relation to other schemes as well as the size of the building.
- Structure of scheme. Stand alone schemes faced structural problems due to high winds in winter which resulted in tear up of stretched material and even collapsed structures.
- Material. Current material is inexpensive but more suitable materials exist especially for large size prints and severe weather conditions.
- Color. Framed schemes and structures should be color approved to control the visual appearance of the overall scheme in relation to the building(s).
- Enclosure. New schemes might consider some type of enclosures that would hide water reservoirs on roof tops, solar heat collectors, satellite dishes and air-conditioning units. Lack of daily water supply necessitates the use of water reservoirs on each and every building, while expensive electricity bills calls for the use of solar methods of heating water, and the inexistence of underground cable TV does not solve the problem of numerous satellite dishes.

Some students came up with applicable and creative ideas that were worth presenting "Figure 2" and were classified in four main categories:

- a*. Multifaceted. A scheme based on multiplication/repetition of an existing billboard to be viewed from both front and back sides, hiding the metal structure and creating a new way of eye catching promotional application. It could also form an enclosure
- b*. Modern screen. A scheme based on the theme of advertising on big screens. A modern frame of stainless steel that goes in harmony with the fashionable entrances forms a contrast with the white limestone buildings and holds a double face screen for displaying advertising material. It could be fitted with lighting fixtures for a traditional print or used as a projection screen of various animated advertisement.
- c*. Cube. A scheme works in harmony with the cubic architectural style of Amman and in contrast to the white-washed concrete or white limestone, it hides away unwanted objects, yet when in groups, they create a pleasant addition to the skyline both in day time and at night. Light sources from inside the cube create a modern transformation of the Arabic lantern, an idea that mixes traditional regional styles to serve global international ideas.
- d*. Web. A scheme based on connecting different sized billboards in an interesting manner that preserves the scale and proportions of buildings and schemes in harmony with the contours of the city and the its buildings. This scheme is very flexible when used properly and allows for partial enclosure. It could be classified as a transformation and development of the traditional concept of "Mashrabiya" where people inside the building could see others in the streets without being seen. Such architectural elements could be seen in many Arab countries and are preserved for their historical and cultural value.

Other stand alone structures where also explored but where not represented due to the limited space of the article and their need to be seen visually in context. Most of the categorized proposals were used in the final guidelines as alternative ideas to be used alone or with other schemes.



Figure 2: Four student proposals of redesigning advertising schemes. The letters a, b, c, d, represent the "before" image while the letters a*, b*, c*, d*, respectively, represent the "after" image.

The study concluded by suggesting "before" and "after" digital images of an area within the city demonstrating the use of previously mentioned factors and advertising schemes. New materials, lighting sources and color schemes displayed what could be envisioned as "visually acceptable" as opposed to "visually chaotic" environment.

5. Conclusions

Due to the lack of expertise in coping with such a rapid growth of graphic design applications in our developing layered cities, the study categorized various advertising schemes and recommended short-term guidelines for governmental agencies and policy makers to use at various stages in their quest of planning and preplanning of advertising regulations. When applied, these guidelines could also prove useful in sustaining cultural and visual coherency of urban spaces in the Middle East due to planning, cultural, economical and religious similarities within these countries. Illustrated examples in the guidelines could be stylishly implemented because of the yet-controllable scale of such applications. Therefore, with proper collaboration amongst graphic designers, architects, planners and policy makers some grim visual and contextual disasters could be avoided and many extremely diverse and complex stimuli could be added towards our journey of visual maturity.

Globalization and cultural identity were also discussed as the two main antagonists nowadays challenging both the identity of the city and its inhabitants [6]. However, further collaborative research and dialogue among regional and international experts in related fields is always appreciated.

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