The Temporary Use of Urban Spaces:
The Case of Mina, Saudi Arabia

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"As architects, urban designers and planners, most of our professional training, much of our thinking and many of our strategies are strictly three-dimensional. In reality, of course, the city is four-dimensional, and we need to acknowledge the influence of time in our planning and design strategies”

(Bishop & Williams, 2012)
**Background**

**Usually**
City design has always perceived the city as a permanent form (master plan).

**Yet**
some parts of city is growing temporally as a result of many forces outside and inside the field of the design.
Temporary use occurs:

(A) Without plan or distant goal ... 

“an unusual idea for architecture and urban planning and for the uses proposed for their spaces: usually, planning is for the long term and not for rapid changes in use”

(B) As a main goal of the plan ... 

“Temporary uses are those that planned from the outset to be impermanent. those that seek to derive unique qualities from the idea of temporality”

(Haydn & Temel, 2006)
Background

(A) Without plan or distant goal ...

- The lack of area or space
- Financial crisis and the delay in the planning and implementation procedures
- Use what already exist rather than invent everything anew
(B) As a main goal of the plan ... temporary uses occur often in special cases as a target of some projects, where the main goal of these projects is to be used for a period of time, such as Post-Disaster housing, Olympic cities, expiation cities, or for a social reason (vacations, festivals and religious ...etc.),
The City Of Tents (Mina)

Mina is best known for the role it plays during the annual Hajj pilgrimage, when its tent cities provide temporary accommodation for only three days for 3 millions of pilgrims.
Situada a unos 5 kilómetros al este de la ciudad santa islámica de La Meca (Meca) en Arabia Saudita.

Area: 10 Km²
The History

The Hajj is the fifth pillar of Islam. Able Muslims are obligated to perform Hajj once during their lives.

The history of Hajj goes back more than 4000 years to the time of the Prophet Abraham.

During early times, only few thousand pilgrims used to come to perform the Hajj. With the passage of time, and more and more people converted to the Islam, the number of pilgrims began to grow.

The pilgrims used to came with their own temporary installations (Tents) and doing their worship and then remove those installations at the end of the Hajj season.
The History

Because of the **improvements in the social, economic and security**-related spheres on the local regional and international planes, and also with the marked **improvement in means of transportation between the countries** the number of pilgrims gradually began to increase.

During the last few Hajj seasons, the number of pilgrims has reached **nearly three million**

This rapid and huge increase of pilgrims was not offset by services and appropriate infrastructure to handle **this number causing many environmental and urban problems**. In 1997, when a gas warmers belong to some pilgrims caused **a huge fire broke** out in the pilgrims tents, and left 343 deaths of pilgrims, and injured more than 1,500 others.
The Present

The Mina Improved Tents Project

This project carried out over an area of approximately 2.5 million square meters,

The project provides accommodation for 2.6 million pilgrims, around 60,000 units of tents.
Urban Facilities

- Public Transportation
Urban Facilities

- Health Services
Urban Facilities

- Shopping Centers
Urban Facilities

- Fire Stations
Urban Facilities

- Public Baths
Urban Facilities

- Sewerage and public water
Urban Facilities

- Network of roads and lighting.
Research Problem

- Pilgrimage season
- Outside Pilgrimage season

Despite all these fixed installations, only one week a year be used, and the rest of year is protected and without any form of life, which means Though the crowds are temporary and the infrastructure built to handle them is permanent.
General Structure

- Study of the general concept of **temporality**
- Study the **temporality in Mina**

Hypotheses
Objective
Methodology
Results
General hypotheses could be

“The temporary use of urban space always work as a urban catalyst “.

“the Temporary use is not an option in urban development projects, but must be included in any urban strategy”

“all urban spaces are temporary spaces”.
initial hypothesis

The specific discussion about Mina might be about, How could the situation in Mina contribute to new concept of planning strategy in Saudi Arabia?

Could we find solution for many problems in Mina can be useful inside and outside Hajj season?

And also we can ask, Is it Effective to convert this city from temporary to permanent?

Which uses can be held outside the pilgrimage season?

And the initial hypotheses would be “Exploitation of Mina outside Hajj season can solve many problems inside Hajj season”
General objective

The aim of the study is to examine the **differing aspect of temporariness** in urban taking in our consideration **time element as a unit of measurement**
Specific objectives

1. Redefine the process of urban planning by using the factor of the time dimension as a measurement unit by Study of new ideas about urban planning in view of the factor of time as a measure in modern urban planning.

2. Find out the drivers of temporality in urban and how could we control those drivers to produce flexible form of cities.

3. Trying to understand the phenomena of temporality in Mina and how we can make use of such a new theme in nowadays-urban strategies.

4. Add another face of the temporary use of urban space to help the current debates about this subject.

5. Develop recommendations for the exploitation of infrastructure in Mina outside the pilgrimage season.

6. Trying to solve some of Hajj problems related to the urban issue by finding solutions can benefits Mina during and after the Hajj season.
State of Art (General)

Research on the new phenomenon of temporary use of urban space is in very early stage,

although there have been promising works and research about the topic especially in both Germany and UK.

Those projects and researches contribute to the appearance of new forms of urban development where the public would be the initiators rather than professional developers.
approach in to the light trying to compare it with the traditional thinking of the master plan in urban.

provided a series of essays around the topic, and a further 35 case studies of temporary uses in European and North American cities.
have provided a series of example around the world where the structure of those example is temporary.
documented more than 170 desert dwellings, camps and structures of BRC. Black Rock City is a unique urban experiment in the American landscape.

Documents more than 40 such projects about the idea of temporary use in the city of Berlin.
presents informal public space uses and unplanned urbanism, and show how Urban Catalyst (UC) is an interdisciplinary platform for research and projects to foster public discourse on contemporary urban issues and develop new strategies for planners and architects.

This research looks at four very different case studies of temporary use to try to draw general conclusions about the social, economic and political contexts conducive to these projects’ success.

To try to establish a comprehensive view of the process of realizing a temporary project,
Impacts of prefabricated temporary housing after disasters:
1999 earthquakes in Turkey

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Abstract
Temporary housing is a crucial but controversial part of disaster recovery. Disaster-affected families who have lost their homes need a private and secure place to restart their daily activities as soon as possible after the disaster; yet temporary housing programmes tend to be overly expensive, too late and responsible for undesirable impacts on the urban environment. The purpose of this research is to recognize exactly what problems exist with temporary housing in the long term (that is, after 5 years) and identify, using the systems approach, the origin of these problems within the project process for temporary housing. Using the Logical Framework Approach to highlight the projects’ outcomes, the investigation focuses on the case study of the temporary housing programme for the 1999 earthquakes in Turkey and on the four temporary housing projects in Dhiar, one disaster-affected town. It is found that unwanted effects can be reduced through proper facilities management, reuse of the units, and by the initial application of unit designs that are easy to dismantle. Incorporating plans upfront, thus dealing with these problems by anticipation, can minimize negative impacts.

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Keywords: Temporary housing; Reconstruction; Disaster; Turkey; Systems approach; Logical framework approach

Introduction
Temporary housing, especially that supplied by governments and international agencies, has been criticized for being unnecessary, too expensive, too late, too long-lasting and draining resources away from permanent reconstruction (Bolin, 1990; Bolin and Stanford, 1991; Dandoulakis, 1992; Davids, 1976; Geipel, 1991; Gilbert, 2001; Quarantelli, 1982; UNDRO, 1982). However, judging by the frequency of use after recent large-scale disasters, the supply of temporary housing units can be essential for quick recovery of the population and to allow time for safe rebuilding. Ideally, after a disaster, temporary housing would be immediately available, offering a level of comfort consistent with the prevailing standard of living, at a cost proportional to intended length of use and easily eradicated or transformed once it is no longer needed; but in reality temporary

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A City for the Temporary? Political Economy and Urban Planning in Darwin, Australia

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(Rceived 19 Jan 2009; accepted 14 July 2010)

Abstract Darwin, in Australia’s Northern Territory, faces urban planning challenges consisting with those reported in ‘resource peripheries’ around the world. The city has recently experienced rapid population growth associated with resource and construction projects, and an increase in public sector workers sent to address the challenges faced by remote (particularly Indigenous) populations. The Northern Territory Government is determined to foster further growth, and promotes ‘major projects’ in urban development as the key. Analysts of the public debates about two recent major projects (the Waterfront Development and the Larrakia residential development) reveal a planning process consistent with the clumsy observed by Ryan and Howlett (2009) in resource peripheries in Canada. The conclusions are that the marginalization of important local actors and the institutionalization of ‘transpositions’ as the driver of growth. Shifting to a more consultative planning process might help stimulate internal development, but could also put at risk the relationships that the Northern Territory Government has established with external investors.

Keywords: Resource peripheries, Darwin, urban planning, temporariness, clientelism

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In Thailand (2008); Iran (2003); Israel, Turkey (1999); Armenia, Colombia (1999); Korea, Japan (1995); Florida, United States (1992); Lima, Peru, California, United States (1999); Kalahari, Greece (1996); Mexico City, Mexico (1985); Bristol, Italy (1976); Lisbon, Turkey (1975); Monastir, Nigeria (1972); Skopje, Macedonia (1963).

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A city without citizens: The 2010 Shanghai World Expo as a temporary city
Sophie Houdart
The paper discusses the 2010 Shanghai World Expo, held from May to October 2010. The focus of the study is on the city as a temporary city, examining the design and implications of such an event. The paper explores whether the city can be considered as a city without citizens and what role it plays in shaping the contours of the modern world. The paper concludes that the 2010 Shanghai Expo was a significant event in shaping the contours of the modern world.
Ephemeral Landscapes
A case for temporary landscape design in a changing society
by Allan Correy

This talk was given on 28 May, 1978 at the Utopian Technology Fair, University of Sydney.

Most of us delude ourselves that our world is a permanent thing. We are brainwashed with advertisements for permanent building, society, permanent home improvements, permanent insurance companies, and women even fool themselves into having permanent waves.

If we examine our environment more closely, however, we find that the only thing we can be certain of is change. The weather changes, the seasons change, fashions change, society changes its values and we all change our minds. Nature, however, is never static, but is a dynamic system of forces where all sorts of things are constantly cycling in and out of very complex ecosystems. All living things go through a life cycle where they are born, grow, die, and decompose. Even great cities, which are often described in biological terms, evolve, develop and decay. Consider, for example, Jane Jacobs' famous book, The Death and Life of Great American Cities, which graphically illustrates urban changes.

The planet earth has always been in a state of change. Various forms of life have evolved, developed, adapted to change or have become extinct. Some have survived, in many cases. Some cities, for example, in the province of this phenomenon. Man, himself, is only one small part of this whole evolution. We are a process, and I see nothing, at present, to convince me that he will remain a permanent feature in the future.

When we stop and think that many new buildings are designed to have a useful life of only thirty years, few motor cars last even forty years, whole neighborhoods can be demolished in a few weeks, mining companies can strip the earth bare of nothingness without a trace, then we begin to realize what a "throw-away" society we live in and just how rapid change has become.

So, when we understand that nothing is really permanent, neither economics, nor cities, nor man, then it is possible to start to think in terms of designing ephemeral environments for transient populations. For a long time now planners and designers have talked about the need for flexibility and I suggest that landscape design tools must be flexible enough to allow changes to take place, in fact to encourage change, and perhaps even to initiate change.
The Hajj Research Institute (HRI)
The local authorities of Mecca established in 1980 the Hajj Research Institute (HRI) to develop and propose researches, studies and analyses related to Hajj issues such as crowded management, health of pilgrims, problems solve and security control...etc.

Until now there are no studies about the concept of exploitation of Mina outside Hajj season

"currently we don't have study about the exploitation of Mina outside Hajj season, but we may do" (Mohammad, 2006).
### State of Art (Specific)

**The multiplier floors of tents in Mina**

**The crowded movement in Mina**

**The housing design Stranded in Mina**

**The relation between the capacity and land use of Mina**

**Land use of Mina**

**The capacity of Housing in Mina**
State of Art (Specific)

Documentary book of the historical development of Mecca and Mina during King Abdulaziz Life

Is a doctoral thesis about Mina and its urban form, the thesis explain the history of the Hajj and the development of Mina and its impact on the Hajj image in 1980, yet the image of Mina between 1980 and now is completely different because of the huge development project during last ten years.
The study discussed the problems of the current situations of Mina and proposed some urban solutions, but the study proposed to convert the Tents with High rise tower *which is unacceptable in authority regulations and thinking.*

“Pilgrims Housing in Mina between the current situation and the proposed project” by Dr. Abdullah Al-Mosnid (2007),
Mina Borders

Mina: The history and the worship

Mina: Geographic and urban study
Automatic extraction of tents during Hajj from airborne images to support land use optimization

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Accepted 26 February 2006

Abstract

With the huge number of pilgrims performing Hajj (Islamic Pilgrimage), the use of urban space is a major concern for engineers, urban designers, and urban planners. Pilgrims must stay in the Holy Ann (Arafat) for one day as part of Hajj rituals. For this reason, pilgrims are housed in lightweight temporary structures: tents. In Arafat, these tents are constructed before each Hajj season. The arrangement of these tents differs from year to another and from location to location. For the spatial and temporal constraints of rituals happening in Arafat, space optimization is an important issue. The intensive demand for a rapid, automatic and high quality algorithm for feature extraction has been the subject of much recent research. In this paper, we present an approach for detecting and extracting tents using airborne images. The approach is used to calculate the areas covered by tents. It utilizes the intensity in digital images in two stages. First, it classifies tents from other features in Arafat's environment. Second, it calculates the number of tents based on image matching similarities. This can evaluate the design and planning of tent layout and space optimization. Using this automatic approach, the number of pilgrims in a tested area can be estimated according to the average capacity of one-metre square covered by tents. Moreover, services, utilities, and transportation needs can be determined more precisely. An actual sample area in Arafat during the Hajj season is used to test the approach developed in this research.

Keywords: Feature extraction; Image understanding; Hajj; Land use optimization; Image matching

1. Introduction

Hajj is one of the five pillars (central duties) of Islam. It is a set of acts of worship to be performed in and around Makkah at least once in a lifetime by every Muslim who satisfies certain conditions. The nature of today's Hajj (Islamic pilgrimage) requires substantial planning and effort to provide support and infrastructure [1]. Hajj is one of the world's largest annual events. Over two million pilgrims gather every year at the same time to perform their religious duty within a circumscribed urban space.

An important challenge facing Makkah's local authorities during this time is providing adequate temporary housing for pilgrims in the Holy Ann near Makkah, including Arafat and Mina. Pilgrims have to spend two or three days in Mina, and one day in Arafat. According to Islamic literature, staying in Arafat is one of the pillars of Hajj. Pilgrims must stay in Arafat part during the ninth day of the twelfth month of the lunar calendar named Thul Hijjah. These spatial and temporal constraints require pilgrims to stay in lightweight structures (tents) (Fig. 1). However, with the increasing number of pilgrims and the limited space of Arafat, space utilization is a serious concern. Several years ago, the Saudi government constructed fixed tent structures in Mina; in Arafat the tents are erected and taken down annually. The design and planning for a tent camp vary from year to year. In some cases, spaces are not utilized efficiently or the design causes overcrowding without providing adequate space for circulation and services.

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Developing a Web-Based GIS for Hajj Traffic Plan (HajjGIS.Net)

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Abstract

A major challenge facing urban planners and designers in the city of Makkah, Saudi Arabia, is planning the movement of vehicles and mass transit during the period of Hajj (Islamic Pilgrimage) when a huge number of people come from all over the world for religious activities. Every year, local authorities need to provide a traffic awareness plan that can be implemented during Hajj to avoid traffic congestion. A traditional means to distribute awareness of the traffic plan is to publish hard copy maps and distribute them to local authorities and the public before each Hajj season. This method requires extensive time and resources. This paper demonstrates how the web-based Geographic Information System (GIS) can be utilized to provide broader and easier distribution of the traffic plan. Such a system will facilitate understanding and ease the following of the traffic plan. Awareness of the plan will help implementation and reduce traffic congestion due to unawareness. In addition, urban planners and urban designers can easily access the annual Hajj traffic plans to support research and investigation.
## Working Plan

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Feasibility

I expect to have ideas and recommendations for using and exploiting the high quality infrastructure of Mina outside Hajj season by solving some of its problems during Hajj season.

This research would be presented to Mina authorities and other local administration to see about the possibility of applying the research recommendations.

by sheering this research with researchers from outside could help to make them understand one important issue of Islamic Culture, which motivate them to do some research and study about other issue related to the Islamic culture.

by investigating about Hajj issues helping me to create sufficient acknowledgement about it and that helps me to develop my carrier to work with the Hajj Researches Institute after Having my Doctoral Degree.
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HIGH DENSITY AND LIVING COMFORT | CHINA – AUSTRIA 2013

INTERNATIONAL CONFERENCE IN GRAZ (AUSTRIA)
MARCH 21. - 23. 2013

ACCEPTANCE OF PAPER AND INVITATION

The applicant’s paper has been evaluated by the scientific board.
We are glad to announce that this paper has been accepted.
We herewith officially invite Mr.

AYMAN IMAM

with his paper

THE CITY OF TENTS:
HIGHEST DENSITY OF HUMANITY IN THE WORLD

... to participate in the above-mentioned International Conference.
We request Ayman Imam to register online
not later than Thursday, February 28, 2013

Graz, 24th of January 2013

Roger Reine

Ferdinand Oswald

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