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Civic Space: Kuwait

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Abstract 1
Problem Definition
Kuwait City today suffers from an in-cohesive urban image. The city lacks a civic space, a theme, and a pedestrian friendliness. This lacking urban image is the result of disconnected developments and the absence of a comprehensive urban vision. This project proposes the development of a civic space, hoping to ignite an urban renewal desire for a cohesive and vital urban environment.
This civic space will be located at an urban nexus known as the Flag Square. The square marks the north-western edge of downtown Kuwait; it is adjacent to the waterfront on one side, and to residential and industrial zones on the other. This three million square feet plaza was dedicated for Kuwait civic celebrations ever since modernization began in the latter part of the twentieth century. These celebrations include the National Day, Liberation Day, New Year Day, Eid al-Fitr, and Eid al-Adha. However, the square is just an empty lot that does not speak of any local cultural aspiration and does not portray the dignity of this capital city.
The project is to develop this piece of land and transform it to a well designed urban civic landmark that will serve the needs of the Kuwaiti people.

Case Statement
The design will transform an empty lot to an urban artifact. The urban plaza will house local civic events. This plaza will be the largest and most comprehensive civic space in Kuwait.
National Celebrations
Full-use expected occupancy 200,000

Religious Festivals
Full-use expected occupancy 200,000

Political Rallies
Partial-use expected occupancy 10,000 People

Daily Recreation
Minimum-use expected occupancy 500 People
Site Analysis 2
Introduction
Kuwait is located in the north east corner of the Arabian Peninsula. A flat desert surface covers most of Kuwait, with the highest point in the country being one thousand feet above sea level. Kuwait has nine islands, with the largest island Bubiyan connected to the country by a bridge.

Site
This civic space will be located at an urban nexus known as the Flag Square. The square marks the northwestern edge of downtown Kuwait; it is adjacent to the waterfront on one side, and to residential and industrial zones on the other.

Geographic Coordinates
29°30'N, 45°45'E

Area
3000000 SF

Context
The street is adjacent to important buildings. These buildings are Sheraton hotel, Meridian, AL-Mothana mall, Al-Salheyah mall, Kuwait Church, Al-Salheyah cemetery and Sahat Al-Alam.

Edges
The street joins with Fahad Al-Salem Street and Al-Jahra Street through a major junction at Sheraton roundabout.

Accessibility
There are three major highways that lead to the site, they are the First Ring Road, Al-Jahra Street and the Gulf Street. In addition, there are three minor streets which are Abu Baker Street, Monketh Street and Al-Watyah Street.

Visibility
The site has prominent views to Kuwait City and the Water-front.

Landmarks
The street is adjacent to important landmarks. These landmarks are Kuwait Church, hotels and malls, historical gates, Behbahani old houses and Majles Al-Omam.
Views
Climate

The climatic conditions in Kuwait are hot, arid, with minimal rainfall. Hot and dry summer winds are usually experienced for the greater part of the year. The naturally available water in Kuwait is rare and it varies in its quality. The factors of hot and dry weather, soil characteristics, wind speed and availability of local and regional sources of sand allow for the environmental ecosystem balance between the natural elements including the weather, water resources, soil, vegetation and animal life in the desert of Kuwait rather fragile.

Prevailing Wind

The prevailing wind direction in Kuwait is north-western with winds blowing in this direction representing 60% of total wind throughout the year. North-western winds are hot and dry during the summer due to the long distance they travel over the deserts of Saudi Arabia, Syria, Jordan and Iraq. These winds can attain a speed of 19 m/s, which far exceeds the threshold shear velocity that is required to transport a particle of average size. During the spring season, the contribution of south-eastern wind increases to match that of the north-western wind. This change is accompanied by an increase in the high wind velocities. Maximum wind speed can reach 29.5 m/s whilst maximum reported gust speed is 37.6 m/s. Strong south-eastern winds can cause very severe dust storms which can impair visibility to few meters. April is well known for its sudden dust storms, which are accompanied by thunderstorms. During the winter season, the wind is north-western mainly. South-eastern winds over a period up to few days can occur during winter due to the effect of Mediterranean depressions.

Precipitation

The mean total rainfall rate is about 118mm a year. The rainfall in Kuwait has no specific trend. In average eight days of the year can be considered as rainy. Still, the rainy days might exceed 40 days in some years and the mean total rainfall rate can reach 336mm. Rain affects patches in Kuwait rather than the whole country. Rain can start in November and continue very intermittently till April. Occasional rain in October and May can happen sometimes with January being the rainiest month of the year.

Temperature

The average annual temperature is 26 C. In July, the average temperature is 37.4 C and the maximum can reach 45 C. The diurnal range (difference between the day and night temperatures) in the summer is about 17 C leaving the nights unpleasantly hot. The maximum recorded temperature was 50.8 C in June 1954. The weather is warm to hot in October and mild to cold, with thunderstorms sometimes, in November. The weather is coldest in January with temperature ranging about 12 C. Minimum record temperature measured in 1964 of -4 C. During the spring season, the temperature varies substantially and this can happen during the same day.
History of Sahat Al’alam 3
Early Settlement
The population of Kuwait State was concentrated at Kuwait Town, which was known as the settlement spot since the 18th century. The settlement was established due to immigration of people from neighboring Arabian Peninsula followed by other neighboring countries.

Economic Activities
Work in the past was directly related to the sea. Such work included fishing, diving for pearls and trading. In addition, there were the handcraft work that included shipbuilding and maintenance, diving equipment manufacture and maintenance, and other related products that were needed by the people at the time. Also, there was active trade dealing with the nomadic tribes coming through the desert from North and South.

Urban Structure of the Town
The growth of the town took an oval shape as a result of its location on the peninsula. The town was divided into three sectors, which are coastal, commercial and residential. A wall extending from the western side of the sea to the eastern side surrounded the town. The purpose of the wall was to protect the inhabitants from attacks from the desert tribes. The wall had a number of gates with cemeteries located outside the wall.

Population and Town Expansion
There were no recorded population statistics, except what has been mentioned in historical references that the population was 10,000 in 1765 and increased to 75,000 by 1950. Due to the gradual expansion of the population the surrounding wall was rebuilt three time.

The Economic Upheaval
In the late forties, oil became the main source of income in Kuwait. A demand called for a change from the traditional life pattern from random growth to deliberate planning.

The Image of the City
In its earlier attempts to catch up with modernity the local image was lost. The Western image of the modern city replaced the Kuwaiti local image. The old city was demolished and replaced by the prevailing international trends.

Green Belt
In 1952, British Architects Anthony Minoprio and Hugh Spencely were commissioned for a master plan for Kuwait. The plan was to demolish the old Kuwaiti wall but keep the gates. The wall was replaced by a green belt that acted as a cultural center and a buffer zone separating Kuwait city from the residential area.
Program 4
1952 1965

Population
- 160,000 467,339
- 20,000,000 217,600,000

Oil Revenue (KD)
- $12,917* 187,360

Price for Property (KD Per Square Meters)
- 1952
- 1965

Stakeholders
- Main stakeholder
  - Legally owns the development
  - City of Kuwait
- Direct stakeholder
  - Defines the programs of the development
  - Visitors
  - Kuwaiti citizens
  - Employees
  - Schools
- Indirect stakeholder
  - Benefit from the development
  - City of Kuwait
  - Community
  - non-profit organizations
  - Businesses
  - Tourism
  - Economy
- General stakeholder
  - Impact the development
  - Environment
  - Cultural Context
  - Urban Plan
  - Adjacent buildings
  - Building Codes & Zoning

Demographic Profile
- Population
  - 2,691,158 (2009)
  - includes 1,291,354 non-nationals
- Age structure
  - 0-14 years: 26.4% (male 361,150/female 348,518)
  - 15-64 years: 70.7% (male 1,219,075/female 683,587)
  - 65 years and over: 2.9% (male 49,163/female 29,665)

Median age
- total: 26.2 years
  - male: 28.1 years
  - female: 22.7 years

Population growth rate
- 3.547%

Birth rate
- 21.81 births/1,000 population

Death rate
- 2.35 deaths/1,000 population

Net migration rate
- 16.02 migrant(s)/1,000 population

Urbanization
- urban population: 98% of total population
- rate of urbanization: 2.5% annual rate of change

Sex ratio
- at birth: 1.04 male(s)/female
- under 15 years: 1.04 male(s)/female
- 65 years and over: 1.66 male(s)/female
- total population: 1.54 male(s)/female

Total fertility rate
- 2.76 children born/woman

Ethnic groups
- Kuwaiti 45%, other Arab 35%, South Asian 9%, Iranian 4%, other 7%

Religions
- Muslim 85% (Sunni 70%, Shia 30%), other (includes Christian, Hindu, Parsi) 15%

Languages
- Arabic (official), English widely spoken

Literacy

* This price is for 1952, not 1962. All the data above comes from Kuwaiti Urban and Economic Geography 1971.
Structure-Cor10 steel
Arabesque: the screen

The screen is inspired by Mecca patterns which is part of the Islamic heritage. The patterned mandala evokes the three sides of the garden that are exposed to the oblique sun and creates an architectural visual shadow. The pattern creates a shadow while also creating a dynamic play of light and shade in the interior space. Also, the designs of the pattern are smaller openings in the lower part and larger openings in the higher parts allowing warm air to move fast above the head and slow in lower parts. This provides a significant amount of air moving in the space without causing it to be uncomfortable.

Auxiliary Structures

Auxiliary structures are known in character and generate energy as surrounding emerging. Each individual structure keeps in character with the style of nearby buildings. These structures are located at prominent locations within the open space. Some of these auxiliary structures have minor commercial uses like sheds and kiosks, others serve as site elements for general public use along the lagoons.
Different Events
Hardscape Grid

Date Palm Tree Opening
Ancillary Structure along the waterfront.
Physical Model