Urbanism 1 – Final assignment Tamouh Reem Island Block 1

Developed by: Hamda AlHashmi, Noura AlHosani

Within the framework of the Urbanism 1 course, offered by ISOCARP
About the authors

Noura AlHosani
Urban Design Professional
– Landscape Architect

Hamda AlHashmi
Urban Design Professional
– Interior Architect
Block 1 is a waterfront located in the Northern part of the island, overlooking Al Maria and Saadiyat Islands.

The area has one of the main access points to and Al Maria Island.

There are pedestrian, cyclist, and vehicular access points to the site.

The block is also connected through a green network extending from the park in the center of the masterplan.
Site Photos

View from site to Sheikh Khalifa Bridge
Indication of the special features of the site

It is located near the central gathering area of the island
Indication of the special features of the site

Main entertainment hub of the island
Indication of the special features of the site

It overlooks the other Islands, such as Saadiyat Island and Al Maria Island
Indication of the special features of the site

It can be easily accessed by everyone on the Island
Indication of the special features of the site

Provides mixed-use facilities for visitors and residents from all ages and backgrounds
The site, within the structure of the island is located on the **northern tip of the Island**, which provides the site the opportunity of creating view corridors to adjacent developments like Saadiyat Island.

Moreover, The site is of high proximity to the access to the new **financial hub** which marks it as a gateway for the Island, which increases the land value of the location.
The Island is high connected to the surrounding development through 8 major access points.

Pedestrian connectivity is established through the provision of open spaces, connecting green corridors and crossings; however, permeability was not established due to the low connectivity factors.

Different modes of transportation is considered for the development which proves that future change in technology and culture was taken into consideration.
The block is connected to the central open space through pedestrian crossings and green fingers which enhances the accessibility between both the public park and the waterfront. However, connectivity can be enhanced by increasing the connections between waterfront promenade and the central green space on the western side of the block.

Block formation and circulation can be improved to follow principles of place making and provide a more interesting public realm.

The location of commercial activity along waterfront presents a good opportunity.
**Economic and social aspects**

**S**
- Provides a **variety** of residential, community facilities, green area, mixed use, commercial, and public spaces.
- **Access** to open spaces and waterfront.
- Located near the **central gathering area**.

**W**
- Misallocation of the **land uses**
- Lacks an efficient **public realm**
- The site is **isolated** from most residents

**O**
- Create an **interactive public area**
- Connect residents in a healthy social environment (**place making**)
- Encourage **economic activity** along waterfront due to easy access

**T**
- Place-making principles in this area may not be achieved due to the **limited diversity** of users
Urban design and place-making concepts

**S**
- Provided areas designated for place-making
- A variety of public spaces (waterfront, open spaces, promenades)
- Connection of public spaces to the main gathering space using green networks.

**W**
- Lack of connection points between public spaces and other areas in the master plan.
- Vehicle oriented design
- Weak integration of green area with retail and commercial uses

**O**
- Providing holistic approach of the Island’s urban design (analytical + functional + aesthetic)
- Creating an attractive anchor point for the Island’s residents
- Providing a good pedestrian environment

**T**
- Lack of multiuse spaces
- Limited urban design principles applied to public realm
- Inefficient pedestrian networks will limit the interaction of residents
Transportation and public spaces networks

**S**
- Strong vehicular connection to the main road
- Adjacent to one of the main access points to Al Maria Island
- Easy access to and from different public spaces in the master plan
- Great views from the site

**W**
- Integration of roads within the block will result in a vehicular oriented master plan and limits pedestrian movement
- Few & inefficient pedestrian networks
- Wide streets

**O**
- Provide additional green networks that connects the site to all areas in the master plan
- Create a purely pedestrian environment
- Encourage a healthy lifestyle through a proper design of the public realm

**T**
- Vehicular movement throughout the site can present a threat to pedestrians
-Disconnected pedestrian networks will isolate the site and its attractions from users
- Wide, straight streets will result in speeding and more accidents
Implementation of the plan

**S**
- Clear concept plan
- Opportunities for private development
- Consideration of a connected promenade and open spaces
- Provision of commercial activity along waterfront
- Provision of an entertainment hub

**W**
- The concept plan design did not utilize the public spaces provided as much as efficiently as possible.

**O**
- Flexibility in reallocation some of the land uses more efficiently

**T**
- Monotonous end users will result in an ineffective participatory process
- Lack of place making principles due to low diversity
Key present site strengths & weaknesses

S
- Strategic geographic location
- Different modes of transportation
- Interesting views
- Provides residential opportunities
- Connection to Al Maria Island
- Provides water connections to adjacent islands

W
- Not enough connection points between public spaces and other areas in the master plan
- Vehicle oriented design
- Lacks an efficient public realm
Key future site development opportunities & threats

**O**
- Creating an attractive anchor point for the Island’s residents
- Providing efficient connectivity and a successful pedestrian environment
- Create a purely pedestrian environment

**T**
- Low diversity
- Limited interaction between residents
- Vehicular oriented master plan
Conclusions regarding the present development plans for the site

- Pedestrian oriented
- Land use allocation
- Diversity
- Noise
- Overall connectivity
- Building Heights
<table>
<thead>
<tr>
<th>Guideline Requirements</th>
<th>Remarks based on master plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NATURAL SYSTEMS</strong></td>
<td></td>
</tr>
<tr>
<td>Ecological Enhancement</td>
<td>-</td>
</tr>
<tr>
<td>Habitat Creation &amp; Restoration</td>
<td>- Mangroves</td>
</tr>
<tr>
<td><strong>LIVABLE COMMUNITIES</strong></td>
<td></td>
</tr>
<tr>
<td>Urban Systems Assessment</td>
<td>✔</td>
</tr>
<tr>
<td>Provision of Amenities &amp; Facilities</td>
<td>-</td>
</tr>
<tr>
<td>Outdoor Thermal Comfort Strategy</td>
<td>-</td>
</tr>
<tr>
<td>Transit Supportive Practices</td>
<td>- Main pedestrian walkway</td>
</tr>
<tr>
<td>Neighborhood Connectivity</td>
<td>- Vehicles\cyclists</td>
</tr>
<tr>
<td>Open Space Networks</td>
<td>- Accessible\interconnected\walkable\shaded</td>
</tr>
<tr>
<td>Accessible Community Facilities</td>
<td>-</td>
</tr>
</tbody>
</table>
## Level of fulfillment of the ESTIDAMA concept

<table>
<thead>
<tr>
<th>Guideline Requirements</th>
<th>Remarks based on master plan</th>
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</thead>
<tbody>
<tr>
<td><strong>LIVABLE COMMUNITIES</strong></td>
<td></td>
</tr>
<tr>
<td>Housing diversity</td>
<td>- Provide more housing typologies</td>
</tr>
<tr>
<td>Active Urban Environment</td>
<td>✓</td>
</tr>
<tr>
<td>Travel Plan</td>
<td>-</td>
</tr>
<tr>
<td>Regionally Responsive plan</td>
<td>- Sikka/ freej/ baraha</td>
</tr>
<tr>
<td><strong>RESOURCEFUL ENERGY</strong></td>
<td></td>
</tr>
<tr>
<td>Community energy strategy</td>
<td>-</td>
</tr>
<tr>
<td>Building energy guidelines</td>
<td>-</td>
</tr>
<tr>
<td>Passive Cooling</td>
<td>- Oriented streets/ buildings/ wind towers</td>
</tr>
<tr>
<td>Urban Heat Reduction</td>
<td>- Shading/ hadscape</td>
</tr>
</tbody>
</table>
Lessons learnt – which can be used for improving the plan?

- Building Heights
- Connectivitv
- Strong Offshore Breeze
- Weak Offshore Breeze
- Warmer Air
- Cooler Air
- Less Cooler Air
- Passive Cooling
- Shading
- Multi-functional
- Building Orientation
- Street Orientation
- Green Edge
Case Studies: HTO Waterfront

- Urban Sand Beach
- Green Space
  - Toronto, Canada
  - 2.4 ha
- Seasonally adaptive Public art & urban open spaces
- Boardwalk along waterfront
- Activities & recreation
Case Studies: Sydney Harbor

- **Water accessibility**
- **Views preservation**
- **2.5km connected water promenade**
- **Open Spaces**
- **Pedestrian/Cycle friendly**
- **Level changes and grading**

**Sydney, Australia**

2.5 km
Case Studies: ChonGae Canal Point Source Park

- Water accessibility & interaction
- Cultural Festivals
- Continuity & Character
- Public Open Spaces
- Entertainment & Performances
- Level changes

Seoul, Korea

0.9 ha
Lessons Learnt

- Pedestrian oriented
- Economic development
- Public realm
- Public health

- Water accessibility & interaction
- Views preservation
- Level changes
- Continuity & Character
- Public Open Spaces
- Green Space
- Entertainment & Performances
- Pedestrian/Cycle friendly
- Seasonally adaptive
Possible/necessary improvements to the site development plan

- Maintain a **green edge** along the waterfront
- Change secondary road within the block into a **pedestrian only** street and reduce width
- Increase numbers of **green fingers** to enhance permeability
- Integrate **community facilities** within block
Possible/necessary improvements to the site development plan
Green Edge
Skyline Enhancement
Green Corridors
%75 Shading
Precedents

Floating Market

Shaded Pedestrian Cyclists Track

Multi-story Car Park with a Green Roof

Floating Stage

Outdoor Cinema

Precedents
Urbanism 1 – Final assignment
Tamouh Reem Island – Block 2

Developed by:
Latifa AlKetbi
Khulood AlAbdouli
Meera AlRumaithi

Within the framework of the Urbanism 1 course, offered by ISOCARP
1. About the authors

- Latifa AlKetbi
  Planning professional, AbuDhabi Islands planning (UPC)

- Khulood AlAbdouli
  Urban planning specialist (ADEC)

- Meera AlRumaithi
  Planning professional, AbuDhabi planning (UPC)

Background:

- Landscape Architecture

- Urban Planning

- Urban Planning
2. Location of the selected block within the structure of the site

The selected block lies in the **center** of the Reem island.

**Land use?**

<table>
<thead>
<tr>
<th>Open space</th>
<th>Mixed use residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial (office/retail/hotel)</td>
<td>Community facilities</td>
</tr>
</tbody>
</table>

**Central spine**

Connects all

Destination for residents and visitors
3. Indication of the location of the selected block on the Sector 4 plan

Block 2
4. Site photos

- Preservation of mangroves is extremely essential

- Future plans for public transport through the island (Tram line)

- Future bridges that connect the island to adjacent islands/areas

- Commercial/mixed-use/residential opportunities
5. Indication of the special features of the site

The block can be treated as the **heart** of the island bringing together the community and clustering the main uses/services into one area accessible by all residents and visitors of Reem island.

- Residential area from the right
- Active waterfront from the left
- Opportunity of extension of open space to northern area of island
6. Comprehensive analysis of the site

- Regional and city-wide context
- Local context
- Existing planning scheme
- SWOT analysis of the site
- Best practices that can be used to improve the site planning concept
- Level of fulfillment of the ESTIDAMA concept
6.1. Regional and city-wide context

The site is located strategically close to the main new development centers and nodes of Abu Dhabi.

- Mina Zayed
- Saadiyat Island
- Maryah Island
- Sheikh Zayed street
- Current CBD – Hamdan street

Al Reem island will bring the opportunity for people to live and work close to the financial and business centers as well as enjoy a lifestyle and a sense of community altogether.
6.2. Local context

- Planned future bridges to and from the island allow for connectivity with neighboring busy spots (Maryah Island, Mina Zayed)

- This part of Maryah island acts as a central destination between adjacent islands (Maryah from the left and east Reem island from the right)

- Opportunity to create a live-work-play close to the main areas of the city.
6.3. Existing planning concept

- Land use proposed in the block mostly consists of wide open central space.

- At the very end of the open space lies a public facility that can be integrated with the open space.

- Commercial and Mixed use residential units form a ring around the space indicating a shared space accessible to multiusers.

- LRT passes through the open space making it a low impact, easy access, car free zone.

- Considered one of the most attractive spots for investment and gathering.
6.3. Existing planning concept

- AlMaryah island’s development as a financial center could change the vision for AlReem island (pressure/competition?)

- As a new business center, there is a risk for overdevelopment and traffic congestion

- Neighboring waterfront developments planned, how does that affect the current waterfront development? The programming needs to be tailored to the vision of the island.

- The business district (CBD) might shift from central AbuDhabi to the Reem island/Maryah island.

- Variation in land prices in comparison to adjacent islands and in turn controls investment opportunities

- Developments in progress so overall vision for the area is not completely clear
6.3. Existing planning concept

**P R O S**

- Central
- Accessible by most
- Large open space
- Transportation proximity
- Economic value

**C O N S**

- Crowd control
- Space not distributed evenly
- Expensive accommodation
6.4. SWOT analysis of the site – economic and social aspects

<table>
<thead>
<tr>
<th>S</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Interest of economic stakeholders/developers</td>
<td>• Lack of tourism facilities</td>
</tr>
<tr>
<td>• Multitude of options for siting economic activities</td>
<td>• Developer have the upper hand, no government involvement</td>
</tr>
<tr>
<td>• Attracting local and foreign investment</td>
<td>• Less social interaction due to climate changes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>O</th>
<th>T</th>
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</thead>
<tbody>
<tr>
<td>• Supporting the public-private partnerships in areas of public investment</td>
<td>• Incompatible uses in residential zones: high rent or not suitable for certain families</td>
</tr>
<tr>
<td>• Introduce concepts of sustainable development</td>
<td>• Avoiding walking due to the climate changes which cause less human interactions</td>
</tr>
<tr>
<td>• Employment</td>
<td></td>
</tr>
<tr>
<td>• Promote multiculturalism</td>
<td></td>
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</tbody>
</table>
### 6.5. SWOT analysis of the site – urban design and place-making concepts

<table>
<thead>
<tr>
<th><strong>S</strong></th>
<th><strong>W</strong></th>
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</thead>
<tbody>
<tr>
<td>• Incorporation of new areas</td>
<td>• Lack of connected transportation networks and Poor pedestrian environment</td>
</tr>
<tr>
<td>• Efficient land management to reduce the rise of sealed land</td>
<td>• No Territorial Reinforcement as well as the Lack of Natural Access Control</td>
</tr>
<tr>
<td>• Demographic growth of the area</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th><strong>O</strong></th>
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</thead>
<tbody>
<tr>
<td>• Expansion of green space</td>
<td>• Climate change: Summer season in Abu Dhabi; too hot for pedestrians and cyclists</td>
</tr>
<tr>
<td>• Implementation of new technologies</td>
<td>• Pressure for development</td>
</tr>
<tr>
<td>• Introduce a new urban design structure and compatibility of the area that gives the Place identity and sense of community</td>
<td></td>
</tr>
</tbody>
</table>
## 6.6. SWOT analysis of the site – transportation and public spaces networks

<table>
<thead>
<tr>
<th>S</th>
<th>W</th>
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</thead>
<tbody>
<tr>
<td>• Interest of local population in improving public spaces</td>
<td>• Existing cultural mentally toward using other public transportations than cars</td>
</tr>
<tr>
<td>• High settlement density and compactness reduces demand for streets, force people to walk and introduce accessibility</td>
<td>• Enclosed limited sites: Public space, no future expansions possible if needed</td>
</tr>
<tr>
<td>• Growing environmental awareness; Public transportation: Less impact in the environment, less cars used</td>
<td>• Mult-transportation options: not choosing the pedestrian pathways to walk as an option. No connectivity between area unless using transportation system</td>
</tr>
<tr>
<td>O</td>
<td>T</td>
</tr>
<tr>
<td>• Modern environmental infrastructure</td>
<td>• Pollution</td>
</tr>
<tr>
<td>• Enhanced steering towards qualitative and sustainable development</td>
<td>• Parking Traffic flow</td>
</tr>
<tr>
<td>• CPTED “crime prevention through environmental designs”</td>
<td>• Safety and security in controlling open spaces and public transportation</td>
</tr>
</tbody>
</table>
6.7. SWOT analysis of the site – implementation of the plan

<table>
<thead>
<tr>
<th>S</th>
<th>W</th>
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</thead>
<tbody>
<tr>
<td>• Focus of settlement development in areas where a sufficient social infrastructure is already existing</td>
<td>• Poor design that is exacerbating the traffic problem (e.g. Difficulty with pedestrian and bicycle movements, low number of parking spaces, low use of public transport)</td>
</tr>
<tr>
<td></td>
<td>• Lack of pedestrian and cycle network &amp; Less coordination between the existing different transport modes Ex: Increasing use of private vehicles</td>
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<table>
<thead>
<tr>
<th>O</th>
<th>T</th>
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</thead>
<tbody>
<tr>
<td>• Creating a distinctive identity of the area through accessibility - Ex: multimodal transportation</td>
<td>• Traffic management and enforcement</td>
</tr>
<tr>
<td>• Economic advantages: mixed use land use</td>
<td>• Pedestrian avoiding walking: no shading which will lead to no communication between people</td>
</tr>
</tbody>
</table>
6.8. Key present site strengths and weaknesses

<table>
<thead>
<tr>
<th>S</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>The presence of mangrove next to the block</td>
<td>Lack of community facilities</td>
</tr>
<tr>
<td>Special Location : next to ADI and al maryah island</td>
<td>Safety &amp; Security - E.g.: Residential plots and mixed used are near the main roads</td>
</tr>
<tr>
<td>Decentralization the pressure of Abudhabi island</td>
<td>Limited land use</td>
</tr>
<tr>
<td>Clear development directions: UPC development review and the building code AD Municipality</td>
<td>Not pedestrian friendly!</td>
</tr>
<tr>
<td>Improve mobility and accessibility</td>
<td>Open space is not gradual, all centered</td>
</tr>
<tr>
<td>Future development opportunities: Alreem island is considered as one of the main important developments in the city</td>
<td>One internal roads that links the area</td>
</tr>
<tr>
<td></td>
<td>No direct access to the waterfront</td>
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</tbody>
</table>
6.9. Key future site development opportunities and threats

<table>
<thead>
<tr>
<th>O</th>
<th>T</th>
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</thead>
<tbody>
<tr>
<td>• Potential ability of preventing pollution</td>
<td>• Heavy traffic because of the transport system</td>
</tr>
<tr>
<td>• Increasing the importance of tourism</td>
<td>• High risk of a possibility of pollution</td>
</tr>
<tr>
<td>• Improving public transportation system</td>
<td>• Environmental problems in management</td>
</tr>
<tr>
<td>• Spatially differentiated developments</td>
<td>• High residential costs</td>
</tr>
<tr>
<td>• Long-term vision of regional development with consequent implementation</td>
<td>• Climate changes</td>
</tr>
<tr>
<td></td>
<td>• Parking challenges</td>
</tr>
<tr>
<td></td>
<td>• Difficult accessibility to the residents</td>
</tr>
</tbody>
</table>
7. Conclusions regarding the present development plans for the site

The site has potential to become a community oriented space that brings life to AlReem island, however it could be improved to become a better area that connects well to the surrounding areas and neighboring buildings.
### 8. Level of fulfillment of the ESTIDAMA concept

<table>
<thead>
<tr>
<th>Credit title</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outdoor thermal comfort strategy</strong></td>
<td>- Shading in primary and secondary pedestrian pathways</td>
</tr>
<tr>
<td>- Orientation</td>
<td>- Sikka environment between buildings</td>
</tr>
<tr>
<td>- Shading</td>
<td></td>
</tr>
<tr>
<td><strong>Active urban environments</strong></td>
<td></td>
</tr>
<tr>
<td>- Landscaped areas for recreation</td>
<td>- Water strategy to deal with open spaces/lawns</td>
</tr>
<tr>
<td>- Playground areas/sports field areas</td>
<td></td>
</tr>
<tr>
<td><strong>Public transport</strong></td>
<td>- LRT passes through site</td>
</tr>
<tr>
<td>- Metro</td>
<td>- Location of metro stops within 350m of any entrance of central open space</td>
</tr>
<tr>
<td>- LRT</td>
<td></td>
</tr>
<tr>
<td><strong>Bicycle facilities</strong></td>
<td>- Provide bicycle parking spaces</td>
</tr>
<tr>
<td>- Minimize greenhouse gas emissions</td>
<td>- Rent/use bicycle activity</td>
</tr>
<tr>
<td>- Encourage a healthy lifestyle</td>
<td></td>
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</tbody>
</table>
8. Level of fulfillment of the ESTIDAMA concept

Principles of Designing Green Public Space

- **Green Infrastructure**: Use Naturalized system to treat water to its source
- **Complete Streets**: Create bicycle and pedestrian friendly streets
- **Place Making**: Generate a strong sense of place
9. Lessons learnt – which can be used for improving the plan?

- **Holistic approach**
  - Balance function and design, heritage and change, vision and reality

- **Inclusion and diversity**
  - Design a place attractive and usable to all ages, ethnicity, gender, physical abilities.

- **Public space**
  - Facilities, flexibility, safety, combination of land use

- **Transportation**
  - Multi-Modal transportation systems
10. Lessons from other sites – that can be used for improving the plan

**Jumeirah Beach Residence (JBR)**

- 1.7 kilometers long
- Largest single residential development in the world
- Contains 40 towers (35 are residential and 5 are hotels)
- Restaurants, clothing stores, boutiques, department stores, cafes and gyms.

Dining

“The Walk”

Destination
10. Lessons from other sites – that can be used for improving the plan

La Rambla (Barcelona, Spain)

• 1.2 km long street in Barcelona
• Frequent by locals and tourists
• Street performers, artists, cafes, souvenirs, fruit and fish market, musicians, shops, open plazas and squares

Social
Interactive
Options for everyone
City main attraction
11. Possible / necessary improvements to the site development plan

- Asymmetric approach to design of open space
- Ensure views are not obstructed across island
- “Stick” open space to buildings and ensure integration
- Create a dynamic environment by providing several focal points
- One long path with several “checkpoints” marking a certain activity/use – ease of way finding for users
- Allow connection/expansion with waterfront
11. Possible / necessary improvements to the site development plan

Pedestrian connectivity solutions:

1. Underpass
2. Paved public plaza
3. Midblock crossings
4. The pedestrian “experience”: Levels and grading
5. Central lawn
6. Stairs
1. Large open space
2. Circulation space/linear plaza (fully pedestrian)
3. Facilities in open space
4. Views from buildings into open space
12. Conclusions

- Provide a diversity of uses, functions and forms
- Create a strong sense of place
- Engage the community from the start
- Promote walkability and cycling
- Plan for evolutions and change over time
- Plan for long term
- Design for social interaction
- Safe and secure
- Innovative
- Landmark
- Dynamic
- Preserving the Mangrove
- Start Small and slow
- Block 2
Urbanism 1 – Final Assignment
Tamouh Reem Island – Block 6

Developed by:
(Al Harith, Hajer, Abdulla, Abdulaziz).

Within the framework of the Urbanism 1 course, offered by ISOCARP
Table of Content

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- Introduction
- Site Analysis
- Concept Plan
- Street/ Promenade Sections
- Lessons Learnt
- Conclusion
1. Authors

Al Harith Ahmed
   Architectural Engineer

Abdulla Al Hosani
   Transportation Engineer

Hajer Al Ameri
   Urban Planner

Abdulaziz Al Shkeili
   GIS Analyst
2. Location

- Block (6) located on the East side of Al Reem Island, surrounded with mangroves, sea & view of the high modern towers, in addition to the view of the new implemented bridges.

- Roads are not yet planned in the area, where also bridges that leads to P6 is not yet implemented.

- No implemented developments (B6).
3. Indication of the Location

Wind direction  View  Natural Mangroves  Existing Developments
4. Site Photos (Mangroves)
4. Site Photos (Existing Buildings)
5. Indication of the Special Features of the Site

- Block 6 it is one of the most potential Blocks in the Island, where it covers the features of “
  1. Open view,
  2. mangroves,
  3. sea view,
  4. surrounded islands,
  5. wind direction, and sun rise ..”

- The potential features will allow the plan stand up.
6. Comprehensive Analysis of the Site

- Regional and city-wide context
- Local context
- Existing planning scheme
- SWOT analysis of the site
- Best practices that can be used to improve the site planning concept
- Level of fulfillment of the ESTIDAMA concept

Source of photos: Google
6.1. Regional & City-Wide Context

- By crossing to the other side of the sector it is close to Al Maryah island which is now developed as the Abu Dhabi’s future financial hub & known with the most important part of future CBD.

- It is surrounded by Abu Dhabi Island, Al Maryah, Al Meena, Sadiyaat, and future Umm Lafina Island.
6.2. Local Context

- The site is adjacent to natural tree habitats, “the mangroves,” which gives it’s waterfront a big advantage.

- Plus to that it is close to the open space from its west and by its waterfront it is connected to open space in the north side of the sector.

- It is connected with other parts of the sector by public transport. And the metro station is not far which gives it the connection to outer parts.

Source of photos : Google
6.3. Existing planning concept

- Landuses proposed are predominantly low to medium density residential.
- Close to the open space area that can give a big opportunity for urban design to create unique open space.
- A part of the waterfront is planned as mixed use & on the other part is planned only for residential. Which allows diversity of different choices.
- Not everything around the block is within walking distance.

Source of photos: Google & ISOCARP
Concept plan

Source of photos : Google
Example - Street Sections
Promenade Section
6.4. SWOT Analysis of the Site  
Economic & Social Aspects

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
</table>
| 1. Highly connected area with all services available | 1. Only one type of housing  
2. Only high income people can be in the area |
| 2. prime sea location highly demanded by the investors and public |                                                                        |

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create some kind of family getaway area where the area are very quite and suitable for such development</td>
<td>1. The area would be segregated from the rest of the island where some of mid income people live</td>
</tr>
</tbody>
</table>
6.4. SWOT Analysis of the Site
Economic & Social Aspects

Strengths
- prime sea location highly demanded by the investors and public

Weaknesses
- Only one type of housing

Opportunities
- Create some kind of social calm getaway area suitable for all society

Threats
- The area would be segregated from the rest of the island where some of mid income people live
6.5. SWOT Analysis of the Site
Urban design & place-making concepts

**Strengths**
1. Waterfront Promenade
2. Downtown Avenue
3. Connected to the other public spaces
4. Metro proposal

**Weaknesses**
1. Promenade next to residential areas
2. Parks does not accommodate all population
3. Park catchment area
4. High rise towers (blocks the view)

**Opportunities**
1. Mangrove eco park
2. Mix use Diversity
3. Urban living community

**Threats**
1. Bridge devides the residential/land use
2. Commercial land use distribution
6.5. SWOT Analysis of the Site
Urban design & place-making concepts

**Strengths**

- Waterfront Promenade

**Weaknesses**

- High rise towers (Blocks the view)

**Opportunities**

- Mix use Diversity

**Threats**

- Introduction of bridges introduces segregation between zones

Source of photos : Google
6.6. SWOT Analysis of the Site
Transportation & Public spaces networks

**Strengths**
1. Pedestrian friendly design
2. Streets connected to all land uses
3. Water taxi bay
4. Cycling track connections
5. Connected water front promenade

**Weaknesses**
1. Walking distances to other parts of sector
2. Public transport stations far
3. Lack of road safety

**Opportunities**
1. Cable car over mangrove
2. Bus routes
3. Cycling in the mangrove wild life
4. Under passes for multi uses

**Threats**
1. Adjacent to regional road
2. No bus stops planned
3. Bridge effect natural mangrove
4. Water quality effected by boats
6.6. SWOT analysis of the site
Transportation and Public Spaces networks

**Strengths**
- Cycling track

**Weaknesses**
- Not within the walking distances

**Opportunities**
- Alternative modes of transport

**Threats**
- Bridge effect natural mangrove

Source of photos: Google & ISOCARP
6.7. SWOT analysis
Plan Implementation

**Strengths**
1. No restrictions on the site
2. Clean subsurface from utilities
3. No retrofitting plans required which saves in costs

**Opportunities**
1. To have this place as a new benchmark for new places
2. One of the first arrival projects in the region

**Weaknesses**
1. There is no existing studies that can be benchmarked

**Threats**
1. What you planned for as development might not happen as you predicted
2. Mangroves damaged during implementation
6.7. SWOT analysis
Plan Implementation

**Strengths**
- No restrictions on the site

**Weaknesses**
- There is no existing studies that can be benchmarked

**Opportunities**
- To have this place as a new benchmark for new places

**Threats**
- Mangroves damaged during implementation
6.8. Key present site strengths & weaknesses

**Strength**

1. Existing Mangrove
2. Wild life
3. View of the sea
4. Empty Land
5. View of the buildings & Islands
6. Opportunity to build new feature/ unique
7. Near CBD/AD island

Source of photos: Google & ISOCARP
6.8. Key present site strengths & weaknesses

Weakness

1. No planned roads
2. No planned utilities
3. Access to the site (Limited)
4. Type of soil
5. Costly to plan for new roads & utilities
6. Absence of proper study can cause unsustainable plans
7. Costly to develop the area

Source of photos: Google & ISOCARP
6.9. Key future site development opportunities and threats

**Opportunity**

1. Unique features can be introduced to the mangroves
2. Waterfront view
3. Multi modes can be introduced (PT, Water taxi, PV, etc..)
4. It can introduce multi-activities

Source of photos : Google
6.9. Key future site development opportunities and threats

Threat

1. Costly to introduce utilities & roads
2. Not having a proper study may affect the island
3. Type of soil can limit developments

Source of photos : Google
Vision

“To create an iconic sustainable urban attraction that reflects the beauty of the mangrove’s natural habitat”.
7. Conclusions regarding the present development plans for the site

- Add trees buffer between water front promenade and residential buildings

- Occasional attraction to other societies, example:
  - Kayaking Kids club
  - Professional photography club

Source of photos : Google
8. Level of Fulfillment of the ESTIDAMA Concept

To include the, Environment, Economic, Social, and Cultural aspect in design, and consider all three phases of the project:

- **Design;** The irrigations strategy, bicycle tracks, shaded walkways

- **Construction,** Effect on environment

- **Operation;** the type of vegetation planted weather or not it is local so it will not consume a lot of water, the materials used, lighting...
9. Lessons learnt
Which can be used for improving the plan?

- From module 3: Evolution of Urban Form
  - Garden City Movement of the 3 Magnets
  - Urban Sprawl Awareness – needs to be considered – solutions
  - Growing cities such as; Amsterdam, Paris, etc..
  - Understand the global problems examples; less developed regions, Businesses, Schools separations, facilities, etc...

Source of photos: Google
9. Lessons learnt
Which can be used for improving the plan?

- From module 6 & 7: Urban Design- Place making and Open Space

The urban designer should structure the open space to make it more public friendly.
(feature of the private that feels like a the public)

Source of photos : Google
9. Lessons learnt
Which can be used for improving the plan?

- From module 8: Transport and Mobility
  Switch regional road to Complete local streets
  Which enhance:

<table>
<thead>
<tr>
<th>Movement</th>
<th>Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrians</td>
<td>Shopping</td>
</tr>
<tr>
<td>Cyclists</td>
<td>Socialising</td>
</tr>
<tr>
<td>Buses</td>
<td>Walking</td>
</tr>
<tr>
<td>Cars/HGVs</td>
<td>Siting</td>
</tr>
<tr>
<td>Deliveries</td>
<td>Events</td>
</tr>
<tr>
<td>Parking</td>
<td></td>
</tr>
</tbody>
</table>
10. Lessons from other sites
That can be used for improving the plan

Parc de Bagatelle (1777)

Copenhagen Master Plan
(Promenade)

Source of photos: Google
10. Lessons from other sites – that can be used for improving the plan - Bridges

- The Helix at Raffles Avenue and Bayfront Bridge, Singapore

- Rest and viewing areas...

Source of photos: Google & UPC
11. Possible / necessary improvements to the site development plan

- Building Height
  - High rise tower could be low rise for mangrove view & other parts of the island to see the beauty on the east side

- Create natural buffers
  - Around the regional planned streets for noise isolation
  - Isolate the high rise towers from the promenade

- Mix Use
  - Balance the retail shops along the residential high towers.
12. Conclusions

- Proper study must be conducted before implementation
- Plans to reserve the natural mangroves
- Buffer around the proposed promenade for isolation (noise, privacy, etc.)
- Unique features are required to avoid duplicated plans/visions

Source of photos: Google
Thank You! 😊
Urbanism 1 – Final assignment
Tamouh Reem Island – Block 4
Developed by:
(Sultan Al Ramahi and Noura Al Alawi)
Sector 4-Reem Island
• Sultan Al Ramahi – Planning Professional (Abu Dhabi Mainland – Urban Development Department)
• Noura Al Alawi – Planning Professional (Al Ain & Al Gharbia – Urban Development Department)
2. Location of the selected block within the structure of the site

- Block 4 is located on the North/West side of Sector 4, with the view of the Reem Island Financial District, As well as a view of the Sheikh Khalifa Bridge and the future Saadiyat Cultural District.

- It is bound by roads on one side, and the water edge/promenade on the other. A bridge connects the sector to Al Maryah Island.
3. Indication of the location of selected block

Sector 4 – Mixed Use/Commercial
5. Indication of the special features of the site

- Close proximity & View of the Financial District (Al Maryah Island).
- View of the Saadiyat cultural district, Saadiyat Marina, and NYUAD.
- LRT Station
- Direct access to promenade and water edge.
- Close proximity to Metro Station as well as Reem Island’s Central Green Space.
- Major Retail Center close by.
6.1. Regional and city-wide context

- The Island of Reem Island is in very close proximity to the CBD, most of Abu Dhabi Island and Saadiyat. The Mainland is a 15 min drive away.
- It has extensive connectivity with Al Maryah Island and the rest of Reem Island.
- Mina Zayed is being advertised as a future creative hub for the city, while Saadiyat is being pitched as a cultural destination.
- Reem Island itself will be transformed into a high density self-sustaining distinct neighborhood of Abu Dhabi
6.2. Local context

- The site is a mix of low-high rise blocks. Allowing residents views of the financial districts as well as the mangroves.
- There are many public transportation links in close proximity.
- Close proximity and connections to Al Maryah Island.
- Close proximity and connection to proposed ‘central park’ area.
6.3. Existing planning concept

- Landuses are a mix of high-density residential and retail. There is some open space however much of the major public space is located next to the site.
- Landuse assignment could be modified as proposed high density plan becomes less dense due to use of podiums and wide streets.
- Most provisions such as utilities are provided outside specific site.
- A lot of transport options available on and close to the site.
Interpretation

• High rise mix use that runs parallel to the high rises on Al Maryah Island.
• Walkability all around sector, including access to promenade and central open space.
• Lack of distributed community facilities.
• Oversized plot boundaries & inefficient plot coverage
• ROW acts as barriers
Promenade Level
Commercial / Retail
Residential
Green Open Spaces
Promenade Level
6.4. SWOT analysis of the site – economic and social aspects

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Close to Financial District- Easy Commute and employment</td>
<td>1. Low Density</td>
</tr>
<tr>
<td>2. Close to public transportation networks.</td>
<td>2. Far from Community Facilities-could discourage participation</td>
</tr>
<tr>
<td>3. Close to public green space</td>
<td>3. ROW- uninviting</td>
</tr>
<tr>
<td>4. Major retail center in sector- variety in land use's.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Water Transport is not yet utilized.</td>
<td>1. Not much privacy as sharing space with major retail center, major</td>
</tr>
<tr>
<td>2. Positive integration between variety of public transportation.</td>
<td>boulevard and public green space.</td>
</tr>
<tr>
<td></td>
<td>2. Podium could be wasted space</td>
</tr>
<tr>
<td></td>
<td>3. Land uses could change</td>
</tr>
</tbody>
</table>
6.5. SWOT analysis of the site – urban design and place-making concepts

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Close proximity to financial district</td>
<td>1. No Community Facilities provided</td>
</tr>
<tr>
<td>2. Close proximity to transportation links</td>
<td>2. All High-rise, no human scale.</td>
</tr>
<tr>
<td>3. waterfront-property values</td>
<td>3. Plot coverage will create a non-inviting location for residents and visitors</td>
</tr>
<tr>
<td>4. View of surrounding landmarks sites and mangroves</td>
<td>4. Wasted space due to plot coverage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High Density planning would allow for better utilized spaces.</td>
<td>1. Potential blockage of view of mangroves</td>
</tr>
<tr>
<td>2. Equal distribution of facilities will result in better neighborhoods</td>
<td>2. Lack of unity could the future build-out of Reem island</td>
</tr>
<tr>
<td>3. More variety in buildings</td>
<td></td>
</tr>
</tbody>
</table>
## 6.6. SWOT analysis of the site – transportation and public spaces networks

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LRT network station and line is in sector</td>
<td>1. Little private Green or open space</td>
</tr>
<tr>
<td>2. Access to Public Promenade on waterfront.</td>
<td>2. Huge ROW’s become uninviting.</td>
</tr>
<tr>
<td>3. Close proximity to metro line</td>
<td>3. Still no suitable water access and transportation plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Metro Line close by, with possible station in Sector 4</td>
<td>1. ROW- huge boulevard that is uninviting, and possibly dangerous.</td>
</tr>
<tr>
<td>2. Possible Water Transportation</td>
<td>2. Bus stations still not placed or planned</td>
</tr>
<tr>
<td>3. Great Public space and connections between promenade and center</td>
<td>3. Potential for Traffic congestion due to major retail and bridges</td>
</tr>
</tbody>
</table>
## 6.7. SWOT analysis of the site – implementation of the plan

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mix between high and low-rise. Mix-use and variety of retail</td>
<td>1. Community facilities are centered in one area. They should be spread out</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>Threats</td>
</tr>
<tr>
<td></td>
<td>1. Potential of less variety in land use and height.</td>
</tr>
</tbody>
</table>

## 6.8. Key present site strengths and weaknesses

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Connections to public transportation</td>
<td>1. Far from Community Facilities</td>
</tr>
<tr>
<td>2. Short commute times for potential employees in Al Maryah Island</td>
<td>2. No private green space</td>
</tr>
<tr>
<td>3. Major Retail</td>
<td>3. Lost space</td>
</tr>
<tr>
<td>4. Public Transportation</td>
<td>4. View of mangroves blocked</td>
</tr>
<tr>
<td>5. View of Water and Al Maryah Island</td>
<td>5. Lacks Originality</td>
</tr>
<tr>
<td>6. Promenade (Walkability)</td>
<td></td>
</tr>
</tbody>
</table>
6.9. Key future site development opportunities and threats

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Large Podium Spaces could be great if utilized correctly.</td>
<td>1. Low density plan for Sector 4 and all of Reem Island.</td>
</tr>
<tr>
<td>3. Connection to different islands (Yas and Saadiyat)</td>
<td>3. No Private Green Space</td>
</tr>
<tr>
<td>4. Mangroves reserve</td>
<td>4. Land Use change</td>
</tr>
<tr>
<td></td>
<td>5. No diversity</td>
</tr>
</tbody>
</table>
7. Conclusions regarding the present development plans for the site

- Main factors such as the Metro, Mangroves and being close to the Financial District, Saadiyat and Yas.
- Not enough Community facilities.
- Lost space between buildings.
- Need to improve, not only in specific site but possible land use configuration of Reem Island.
- Inefficient plot coverage.
- Building heights.
8. Level of fulfillment of the ESTIDAMA concept

- Pearl Building Rating System:
  - All Mandatory Credits will be applied.
  - IDP-1: Life Cycle Costing.
    To maximize the efficiency of the buildings.
  - LBo-1: Improved Outdoor Thermal Comfort.
    Providing shaded structures in public spaces and walkways.
  - LBo-2: Pearl Rated Communities.
    Encouraging buildings to be built within Pearl Rated communities.
  - LBo-3: Accessible Community Facilities.
    Reduce the use of cars by locating in the block services and a mix of uses.
  - LBo-4: Active Urban Environments.
    Encourage active lifestyles by providing recreational public open spaces.
➢ **LBi-8: Views.**

Provide visual connection to the outdoors, such as the CBD and the Mangroves.

➢ **SM-3: Design for Flexibility & Adaptability.**

Increasing the life of the building by making the design easily adaptable to other uses.

➢ **IP-1: Innovative Cultural & Regional Practices.**

Incorporating the building designs to be inspired by cultural and regional practices and that contributes to the buildings environmental performance.

➢ **IP-2: Innovating Practices.**

Positive impact in relation to any of the four pillars of Estidama.(Cultural, Economical, Social, and Environmental)
9. Lessons learnt – which can be used for improving the plan?

• Activating Public Space.
  – Service and amenities.
  – Ex. Highline

• Public Private Partnership.
  – Create active Metro/LRT Stations.
  – Ex. Dubai Metro
10. Lessons from other sites – that can be used for improving the plan

• Dubai Marina
  – Pros: Active/ Diverse/ Services
  – Cons: Traffic/ Congestion.

• Linked Hybrid: China
  – Pros: Connection between buildings/ Facilities and Community Centers/ Green buildings/ Open spaces.
  – Cons: Isolated/ Closed private community.

http://www.archdaily.com/34302/linked-hybrid-steven-holl-architects/
http://michaelrcruz.com/?tag=dubai-marina
https://robertacucchiaro.wordpress.com/2011/12/22/beijing-linked-hybrid/
11. Possible / necessary improvements to the site development plan

• Make sure building heights are appropriate and set to a more human scale, ensure that views are not blocked.
• More efficient plot coverage.
• Community facilities are provided for residents and visitors.
• Water access plan.(transportation nodes)
• Good usage of LRT and Metro.
Conclusion

• Increase the number of community facilities throughout the sector.
• Better integration of the podiums.
• Plot Coverage
• Better integration of active private green space.
• Suitable Water access and transportation plan must be provided to neighboring islands.
• Provide green fingers that shall allow safe movement between opposite sides of the island.