

# 07

## BANDAR BAGAN DATUK, PERAK: REVIVING PEKAN KOBOI AS A HISTORIC TOWN CENTER

Nurul Azriana Khairuddin, Mazlina Mansor, \*Jasasikin Ab Sani

Department of Landscape Architecture, Kulliyah of Architecture and Environmental Design  
International Islamic University Malaysia

### ABSTRACT

Known as Pekan Koboi by the locals, and it is planned to be developed as a dynamic historic living city. The purpose of this research is to revitalise Bagan Datuk town as a dynamic historic living town centre, with three objectives: 1) to integrate the identity of Bagan Datuk District, 2) to introduce a contemporary living grounded in commerce activities, and 3) to promote sustainable living through smart energy solutions. Among the issues concerning the town are its historical value and identity, potential as a tourism transit, valuable estuary, unappealing and isolated spaces, and security design considerations. The presence of semi-residential, administrative, and public spaces becomes elements of a dynamic living town capable of accepting contemporary approaches without jeopardising its historical built fabric.

**Keywords:** *Town planning, Cultural sustainability*

Corresponding author: jasasikin@iium.edu.my

### RESEARCH / PROJECT INTRODUCTION

At the beginning of its existence, Bagan Datuk town was a gateway for traders, a place of merchandise exchange, and port activities. Tok Kelah, a figure who explored Bagan Datuk, was the inspiration for the town's name. Bagan is a Malay word that translates to "fishing village." People often refer to it as Pekan Koboi because there are only two rows of shophouses and the surrounding area is quiet and calm.

Among the issues concerning Bagan Datuk town are the following:

1. Historical significance and identity: Originally a fishing village, it is now famous for its coconut industry.
2. Tourism Transit: As a tourist rest and relaxation area
3. Important Estuary: Sungai Perak estuary is a social and ecologically valuable estuary.
4. Unappealing and Separate: Addresses the interdependence of the place-making criteria.
5. Security Design: Striking a balance between safety and security measures, as well as mobility.

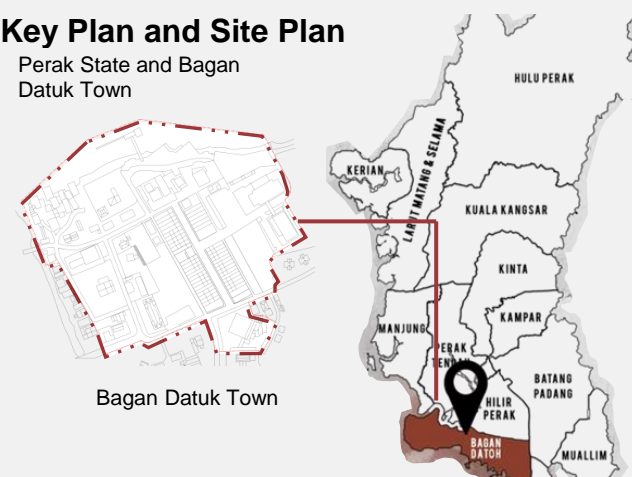
Bagan Datuk town aspires to be developed as a dynamic historic living town centre, with three (3) objectives:

1. To integrate the identity of Bagan Datuk District.
2. To introduce contemporary living in order to strengthen commercial activities.
3. To Promote sustainable living through smart energy solutions.

The 26-acre town is located in Perak State's southern region. It is the last town located by the Perak River estuary before connecting to the Malacca Strait.

### Key Plan and Site Plan

Perak State and Bagan Datuk Town



Bagan Datuk Town

Bagan Datuk town has a long history, dating back to its exploration as a fishing village in 1870 and its transformation into a town centre with the establishment of Bagan Datuk District in 2017.

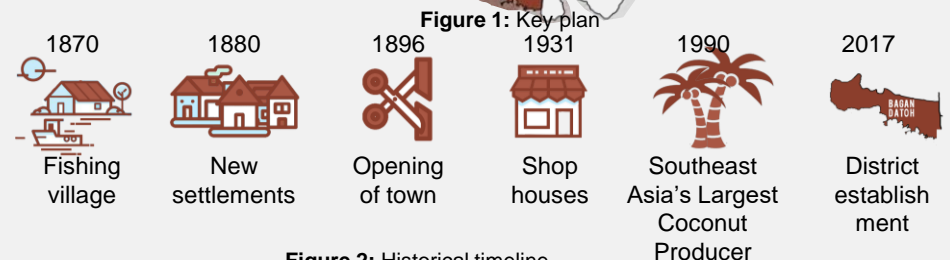


Figure 2: Historical timeline

### LITERATURE REVIEW

#### Historic Town Center

The historic town centre is defined as those active human settlements strongly conditioned by a physical structure originating in the past and recognizable as representing the evolution of its people (Mutal, 2014).

Bagan Datuk, like other early Perak small towns, was originally owned by the Malay before being colonised by the British. The economic activities of these small towns, such as mining and agriculture, influenced their town planning. The town's heritage values must be conserved.

### Conservation Plan

Key features for conserving Bagan Datuk heritage values

1. Foundation of Knowledge
  - Promote interaction with an understanding of unique tangible and intangible heritage assets
  - Introduction of historical assets through a landscape approach
2. Public Realm
  - Improve the quality of spaces and understand the urban landscape and heritage streetscape
  - Making back lanes and alleys more appealing
3. Pedestrian Network
  - Facilitate wayfinding, legibility and ease of pedestrian movement
  - Maximize continuity in the pedestrian network
4. Circulation and Access
  - Reduce dependency on private vehicles and shift transport mode to public transport
  - Priority is given to pedestrians
5. Views and Vistas
  - Preserve historic townscape and important views
  - Define entries and landmarks
  - Define the unique character of a place

### METHOD / PROCEDURE

#### Site Inventory, Analysis and Synthesis

The layering process is divided into three parts: land developability, node suitability, and environmental sustainability.

1. Land Developability: Identifying the actual location with real development potential.
2. Node Suitability: Identifying potential nodes for future planning.
3. Environmental Sustainability: Determining which areas require conservation and development with a focus on the self-sustain environment.

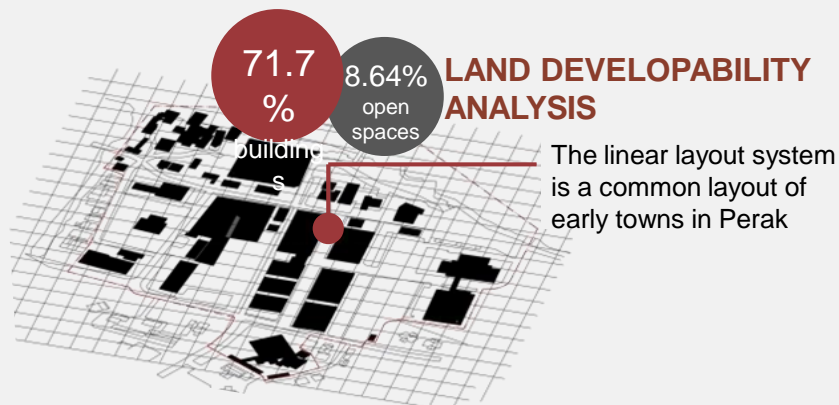


Figure 3: Figure-ground map of Bagan Datuk town

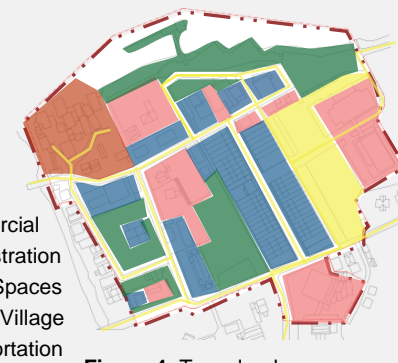


Figure 4: Town land use

Figure 3 and 4 shows the town's land-use division and focus area. 71.7 percent of the undevelopable town area is made up of shophouses, administration buildings, and residential areas. Meanwhile, 18.64 percent of the area is made up of open spaces such as alleys, parking lots, and existing public realms.

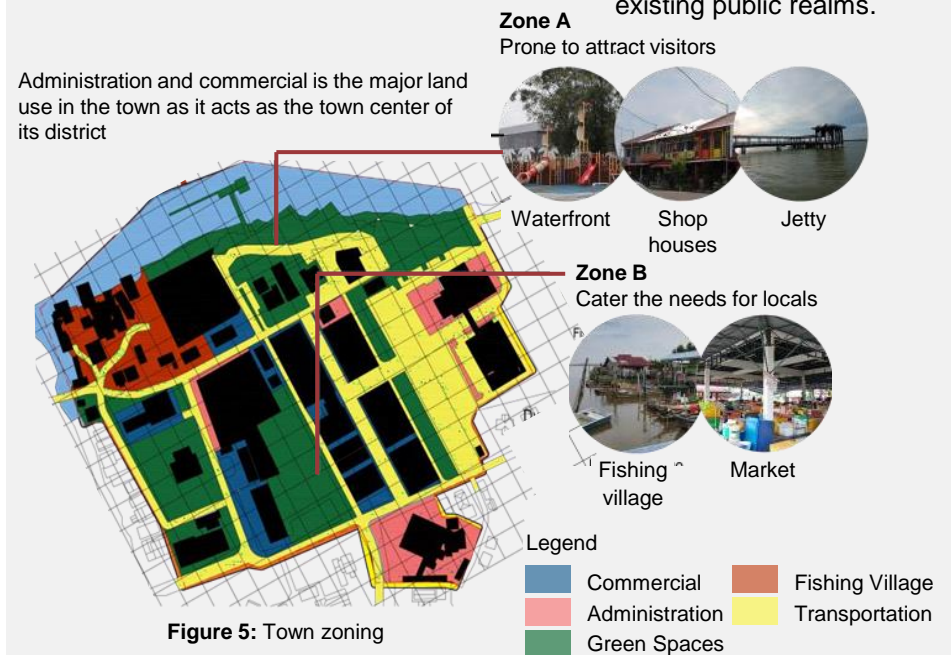


Figure 5: Town zoning

Since the district's inception in 2017, Bagan Datuk town has been outfitted with improved facilities and public realms to serve as the town's population centre. The development of its waterfront has served as a springboard for a more vibrant destination for visitors and local vendors alike. The presence of residential, administrative, and public spaces creates the possibility for the town to be developed as a dynamic historic living city capable of accepting contemporary approaches without jeopardising integrity as a historic town.

### NODES SUITABILITY ANALYSIS

#### Socio-cultural Topography

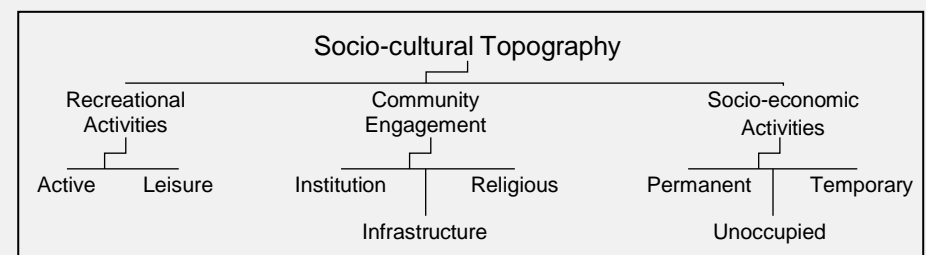


Figure 6: Nodes Suitability Layers

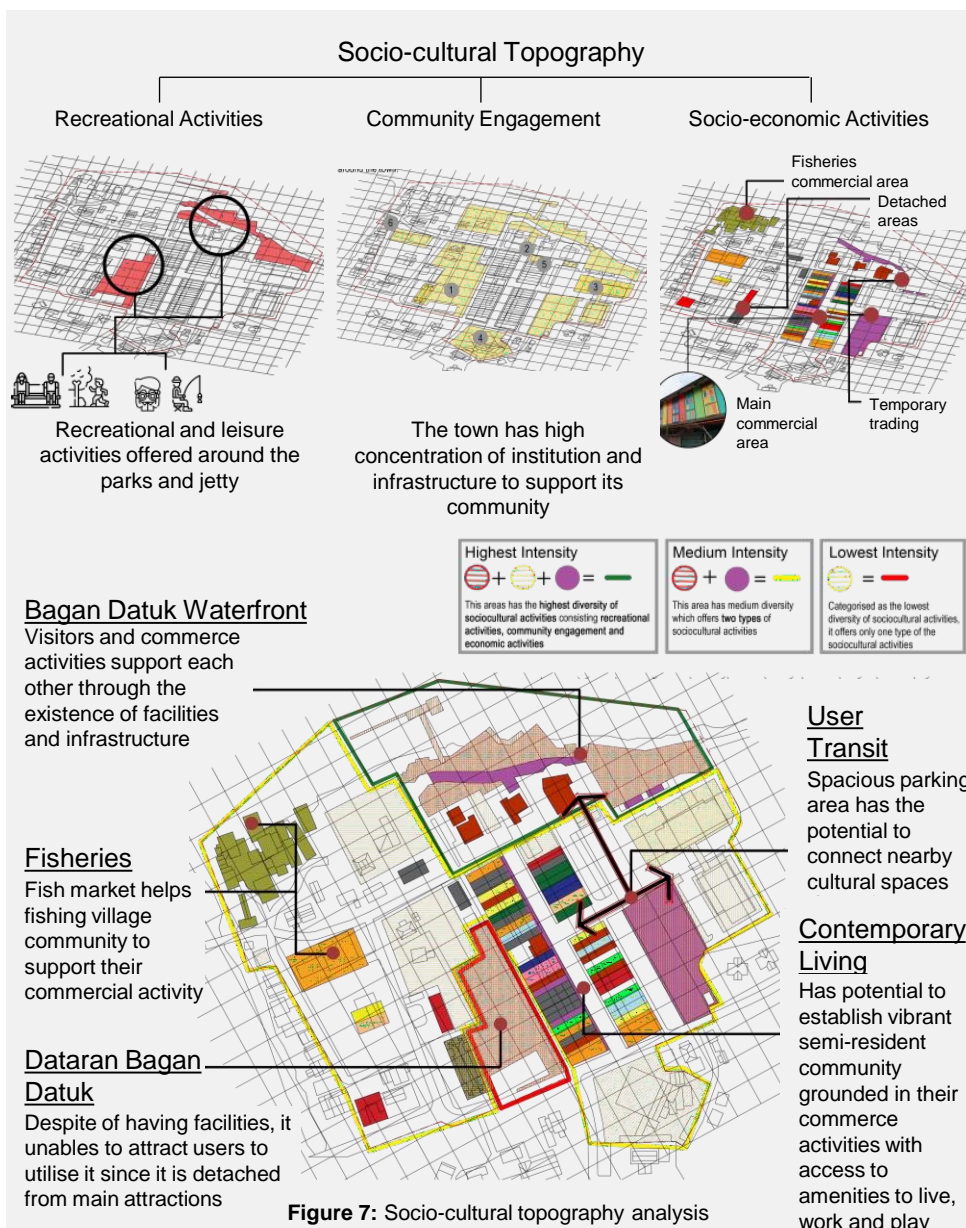


Figure 7: Socio-cultural topography analysis

Figure 7 shows that the waterfront zone has the highest density of sociocultural value in comparison to the other zones. The zone, which serves as the only park in the Bagan Datuk district, provides basic facilities for community engagement as well as a neighbourhood commercial area. The presence of facilities and infrastructure allows visitors and commercial activities to support one another. Meanwhile, areas with a medium density of sociocultural value do not provide recreational activities and instead concentrate on providing institutions and infrastructure for the local community. This area consisting of the fishing village and the shophouses. Finally, the detached area has the lowest intensity of sociocultural value and is unable to attract a variety of activities. The Dataran Bagan Datuk is the only area that falls into this category.

### Open Spaces And Networking

The waterfront and Dataran Bagan Datuk are two existing public realms that have been identified. Walkways and alleys are also regarded as public realms,

and it has been observed that the safety and security of the space located further away from the shophouses area decreases due to the lack of attractions to attract people and clear entrance points for vehicles and pedestrians.

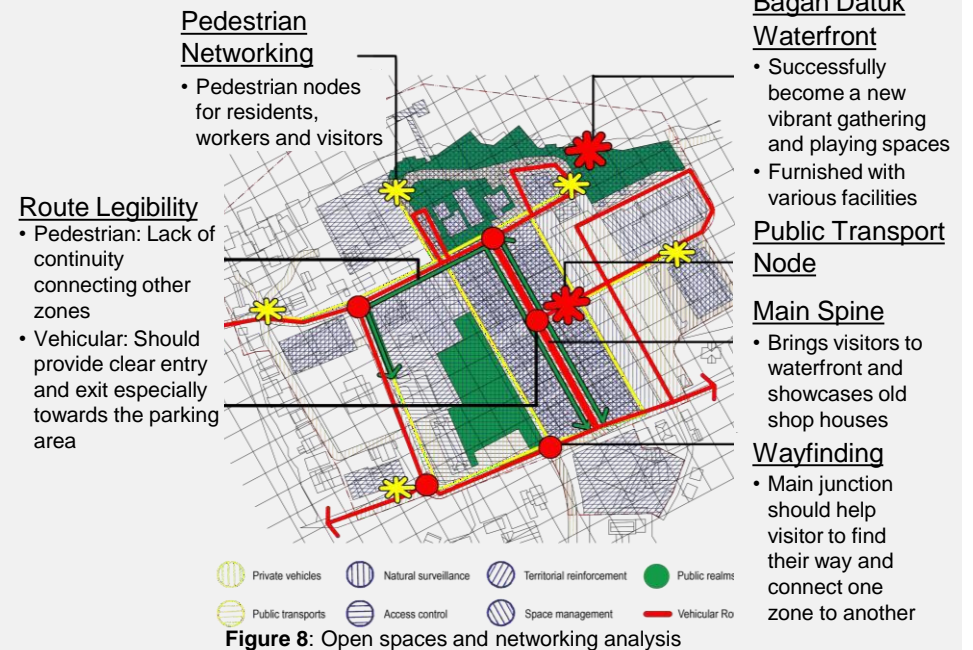
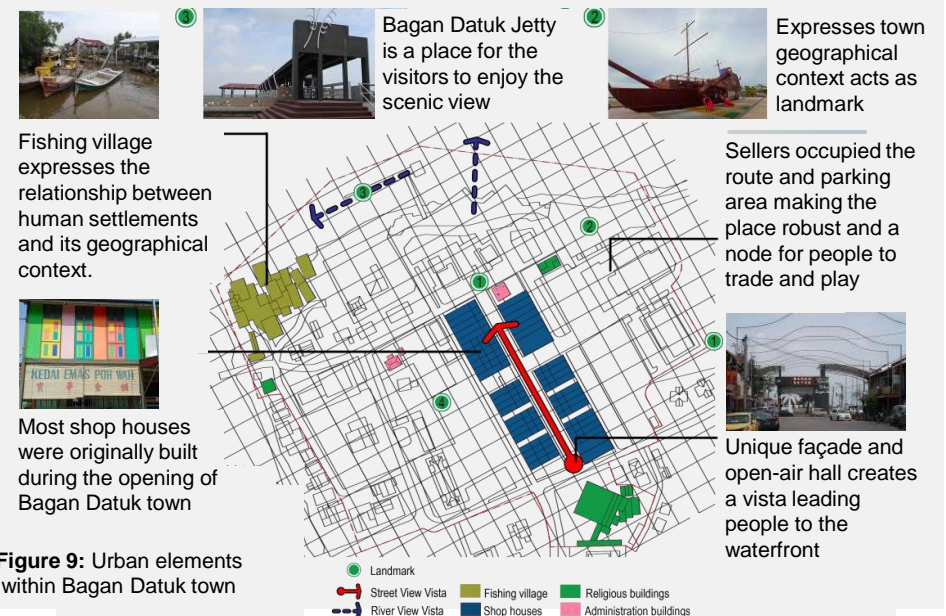


Figure 8 demonstrates the interrelationship of open spaces, circulation and access, and safety and security levels. A location with a high level of safety and security not only has clear legibility but is also well maintained. The spaces, which are equipped with facilities and opportunities for various activities, are capable of attracting more visitors and strengthening the sense of ownership. The waterfront area has the most potential to be developed as the most vibrant destination to attract visitors while also providing better facilities for locals. Circulation and access are critical features of a successful town centre, allowing it to serve as a public transportation hub while also prioritising the pedestrian network.

### Urban Elements



Although the Malays were the first to explore Bagan Datuk, the Chinese eventually took over the town and surrounding areas by the river and sea. The Malay moved closer to the centre of the district to work on their agricultural land. As a result, Chinese culture influenced the architectural style, particularly in the commercial and residential areas.

## NODES SUITABILITY ANALYSIS

### Vegetation Distribution

#### Institution Landscape

- Express institution and civic buildings function
- Usage of palms and ornamental trees

#### Rural Landscape

- This areas consists of small portion residential area
- Characterised by natural environment, agriculture activities, settlement pattern and traditional life

#### Dataran Bagan Datuk

- Well planned tree arrangement for aesthetic value and shelter for visitors
- Mainly consists coconut trees to represent district's agricultural value



Figure 10: Vegetation distribution within Bagan Datuk town

#### Waterfront

- Lack of vegetation
- Coconut tree as its historic value is expressed through its facilities architectural style

#### Shop Houses Enclave

- Semi-resident area that consists street planting and five-footway area
- Occupants fill the five-footway with ornamental and cultural potted plants and edible plants such as *Citrus microcarpa* and *Capsicum annum*

Figure 10 shows a few planting concepts found throughout the town. Each concept reflects the environment in which it is located. Existing planting concepts include an institution landscape, a traditional rural landscape, Dataran Bagan Datuk, a waterfront landscape, and a shophouse enclave. It can be determined that the majority of the town area is suitable for being proposed with a visitor-based concept that is grounded in Bagan Datuk's historical context and identity. Another area near the residential area is more suitable for a community-based planting concept, which will strengthen the population's sustainable living.

## SITE SYNTHESIS

Site synthesis concludes two areas for improvement: public realm enhancement and sustainability conservation. Figure 16 demonstrates public realm enhancements that primarily focus on existing and potential public realms such as the Bagan Datuk waterfront, Dataran Bagan Datuk, pedestrian main spine, and back lane and alleys surrounding the shophouses enclave. The waterfront will be revitalised by new activities that are appropriate for the historic built environment, and Dataran Bagan Datuk will become the primary platform for the locals' sustainable living. In terms of town connectivity, the development will prioritise pedestrian networking, user transit, public transportation nodes, and wayfinding nodes. These strategies aim to improve the legibility of the town connection and to provide visitors with clear entry points.

## Public Realms Enhancement

### 1. PUBLIC REALMS PROGRAMS

Its waterfront setting and historic urban pattern and typology offer great opportunities for the creation of public urban spaces.

#### a. Bagan Datuk Waterfront

- Improve Bagan Datuk Waterfront as an active recreational area and enhance its security design and comfort through landscape approach.
- To apply connectivity that links together the conservation of the physical and cultural fabric of the inner town.
- Provide revitalisation in the form of new activities that adapt to the historic built environment.

#### b. Dataran Bagan Datuk

- Dataran Bagan Datuk has the potential to be developed to fulfil the residents' needs in order to avoid holding the same function as Bagan Datuk waterfront.

#### c. Pedestrian Main Spine

- Pedestrian nodes for various users (residents, workers, visitor) become a starting point for pedestrian network.
- Possible incorporation of street markers along heritage trails to increase legibility and wayfinding.
- Design of streetscape to take into consideration the community use of the street.

#### d. Backlane and Alleys

- Upgraded and beautified with appropriate softscape and hardscape.
- The condition shall be enhanced as to provide a walkable path for users.
- Lighting and landscaping shall be implemented for safety and comfort.



Figure 11: Synthesis map of Bagan Datuk town

### 2. TOWN CONNECTIVITY

To make the streets of Pekan Bagan Datuk pedestrian priority and to improve connectivity for the comfort of all non-private vehicle user especially pedestrians.

#### a. Pedestrian Networking

- Minimise conflict between vehicle traffic and pedestrians and giving priority within the road space to pedestrian users.
- Shared Street: Integrating the use of five-footways for merchandise displays while maintaining adequate pedestrian access.
- Pedestrian Nodes: Provided for various users such as residents, workers and visitors to become a starting point for pedestrian network.

#### b. Users Transit

- Parking area that is rarely used can be transformed for user transits while being a weekly market and parking lots at the same time.

#### c. Public Transport Node

- To implement provision for the public mode of transportation rather than private transportation.

#### d. Wayfinding Nodes

- Main junction should help visitors to find their way and connect one zone to another.
- It shall include wayfinding elements such as signage and landmarks to enhance the route legibility.

## Sustainability Conservation

### 1. BUILT HERITAGE

#### a. Historic Buildings

- To restate the historic shop houses facade, materials, terracotta roofscape and drains to its original design.

#### b. Historic Streetscape

- To protect the pathway, five-footway and street furniture.
- Pathway should be in good condition to ensure pedestrians and residents safety and comfort.
- Obstructed or blocked either by shops displays or motorcycles which are parked haphazardly.
- Historic street furniture displays the historic or cultural value of its community.
- Worshipping rituals of a small box that is Chinese community located in front of the often shared the old Pejabat Pos and pedestrian pathway no longer being used and five-foot way.

#### c. Roofscape

- Protect its terracotta roofscape.

#### d. Signage

- Displays unique character to the historic town heritage.

#### e. Open drains

- Typical drain designed to suit tropical climates.

#### f. Facade

- Restore the shop houses facade to its original traditional style.

### 2. NATURAL ENVIRONMENT

Protecting local ecosystem and promote sustainability.

#### a. Objectives

- Protect areas that are considered to have important values for the environment and community.
- Making people smart for a smart and sustainable town.
- Promoting k-knowledge among the communities for economic sustainability.

#### b. Strategies

- Residential areas can be integrated with smart and sustainable technology.
- Publics as researchers in empowering their knowledge to use facilities and contribute to environment, social and economy.
- This technology helps community to become more socially, culturally, economically and ecologically sustainable.



Figure 12: Sustainability conservation of Bagan Datuk town

Within Bagan Datuk town, sustainable conservation emphasises both constructed heritage and natural environment. To strengthen Bagan Datuk's identity, historic buildings and streetscapes in the shophouses enclave should be preserved. Meanwhile, the natural environment must be conserved in order to ensure long-term viability. It instills k-knowledge in communities in order to ensure economic, social, and environmental sustainability.

## CONCEPTUAL AND SCHEMATIC

### CONCEPT DEVELOPMENT

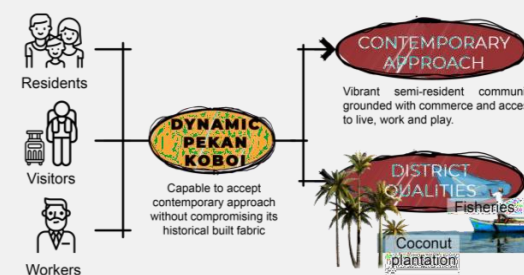


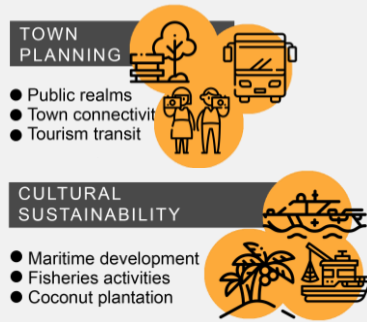
Figure 13: Dynamic Pekan Kobo concept development

Figure 13 shows a dynamic living town with residential, public domains, and civic structures that are always changing in terms of functional usage, social structure, political environment, and economic development.

## THEME

Dynamic Pekan Koboï is grounded by the theme of the dynamic historic living city. It shall focus on such matters;

1. Town planning: Public realms, town connectivity, and tourism transit
2. Cultural sustainability: Maritime development, fisheries activities, and coconut plantation



## DESIGN IDEAS

### Public Realm Enhancement

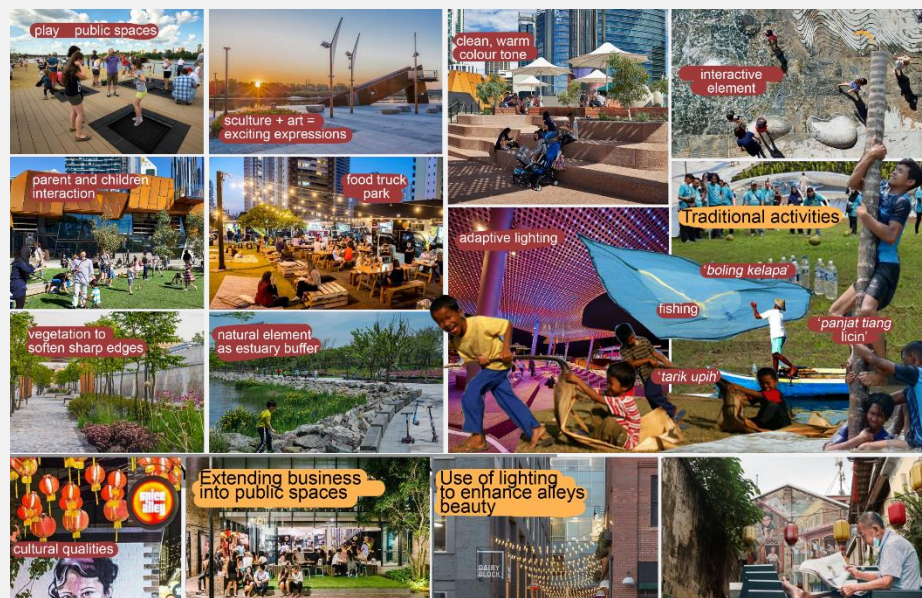


Figure 14: Public realm enhancement design ideas

### Environmental Conservation



Figure 15: Environmental conservation design ideas

## Town Connectivity



Figure 16: Town connectivity design ideas

## DESIGN STRATEGIES

The design strategies, which are based on the findings of the site synthesis, are primarily focused on improving public realms, conserving the natural environment, and strengthening town connectivity. The following are the design strategies:

1. Public Realm Enhancement
  - Contemporary Approach: Incorporated into public spaces as catalysts for urban renewal.
  - Cultural sustainability: incorporating local identities into public spaces.
2. Environmental Conservation
  - Sustainable Living: Provides a platform for knowledge sharing and promotes k-knowledge.
  - Stormwater Management: Improve stormwater management by taking a more ecological and low-maintenance approach.
3. Connectivity in the Town
  - Prioritization of pedestrians: Consider walking to be the foundation of a transportation system.
  - Public Transportation: Prioritizing highly productive modes of transportation, such as transit, as the key to efficient, long-term mobility for district residents.

## SPACE PROGRAMMING

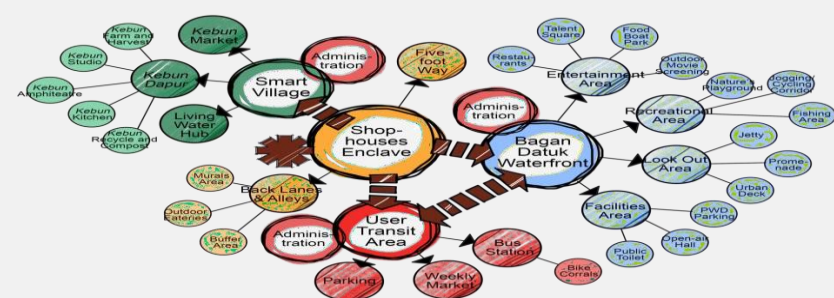


Figure 17: Space programming of Bagan Datuk town.

Figure 17 shows there are three main spaces in Bagan Datuk town which are the Shophouses Enclave, User Transit Area, Bagan Datuk Waterfront and Smart Village.

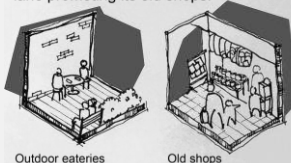
## SCHEMATIC PLAN



Figure 18: Schematic plan

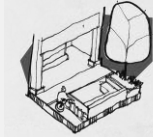
### A. Shophouses Enclave

Historical shophouses become the identity of Pekan Kobo and it brings visitors down to its childhood memory lane promoting its old shops.



Outdoor eateries

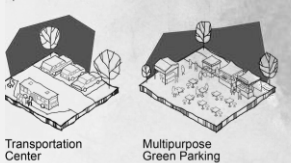
Old shops



Parklets and Bike Corrals

### B. User Transit

The node for both private and public transportations that provides shelter for buses and bicycles, and a multipurpose parking that acts as the weekly market plaza



Transportation Center

Multipurpose Green Parking

### C. Bagan Datuk Waterfront

Catalyst for urban renewal that provides destinations for event and festivals, recreational activities, entertainments and business opportunities.

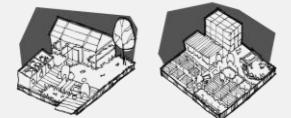


Fishing Wharf

Playing Zone

### D. Smart Village

Platform for knowledge sharing that promotes K-knowledge for social, environment and economic sustainability through smart and sustainable technology.



Waste Management

Urban Farm and Livestock

### E. Administration

Civic buildings and administration area help to assist the district as a town center and provides public services for communities.



Outdoor Eateries

## FUNCTIONAL DIAGRAM

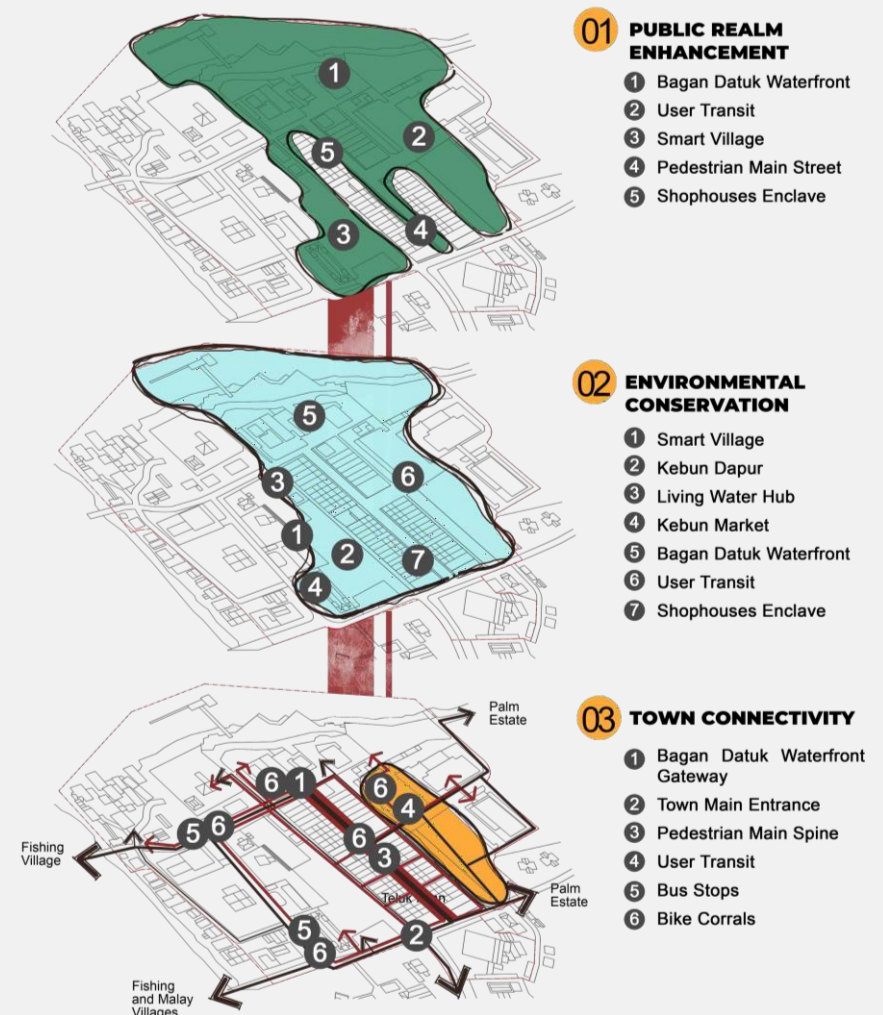


Figure 19: Functional diagrams

## FINDINGS



Pekan Bagan Datuk is the town center of the latest district of Perak State, Bagan Datuk District.

Known as Pekan Koboï or Pekan Mati by the local folks, the Dynamic Koboï Town is injected with contemporary approaches without jeopardizing its historical value.

## PRELIMINARY MASTERPLAN

### PEKAN BAGAN DATUK: THE DYNAMIC LIVING PEKAN KOBROI

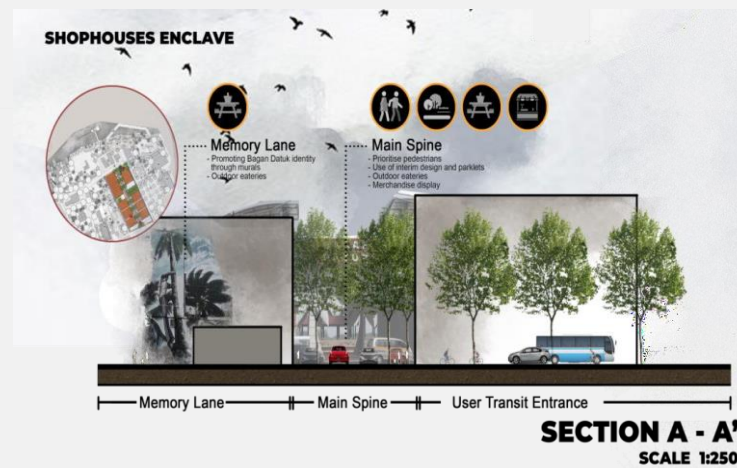
PRELIMINARY MASTERPLAN 1:750



Figure 20: Preliminary masterplan

- A SHOPHOUSES ENCLAVE**
  1. Pedestrian Main Spine
  2. Memory Lane
  3. Post Office Vintage Cafe
- B USER TRANSIT**
  4. Bus Transit
  5. Green Parking
  6. Market Plaza
  7. Public Hall Plaza
  8. Multipurpose Court
- C BAGAN DATUK WATERFRONT**
  9. Waterfront Gateway
  10. Restaurants
  11. Jetty
  12. Fisherman Wharf
  13. Urban Deck
  14. Scooter Plaza
  15. Rental Center
  16. Interactive Ship Plaza
  17. Food Boat Park
- D SMART VILLAGE**
  18. Kebun Dapur
  19. Kebun Farm and Harvest
  20. Kebung Market
  21. Kebun Cafe
  22. Kebun Amphiteater
  23. Kebun Livestock
  24. Kebun Glasshouse
  25. Recycle and Compost Center
  26. Living Water Hub
- E ADMINISTRATION**
  27. Masjid Al Qura
  28. Dewan Dato Lope Hashim
  29. Tourism Complex
  30. Marine Office
  31. Custom Office
  32. Veterinary Clinic

## SECTIONS



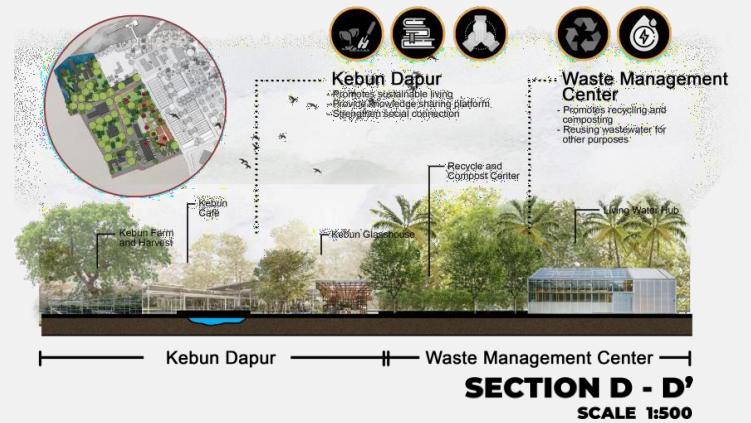
SECTION A - A'  
SCALE 1:250

## PERSPECTIVES



Bagan Datuk Waterfront plaza is transformed into business and entertainment spaces for all generations.

## SMART VILLAGE



SECTION D - D'  
SCALE 1:500

# DETAILED DEVELOPMENT PLAN

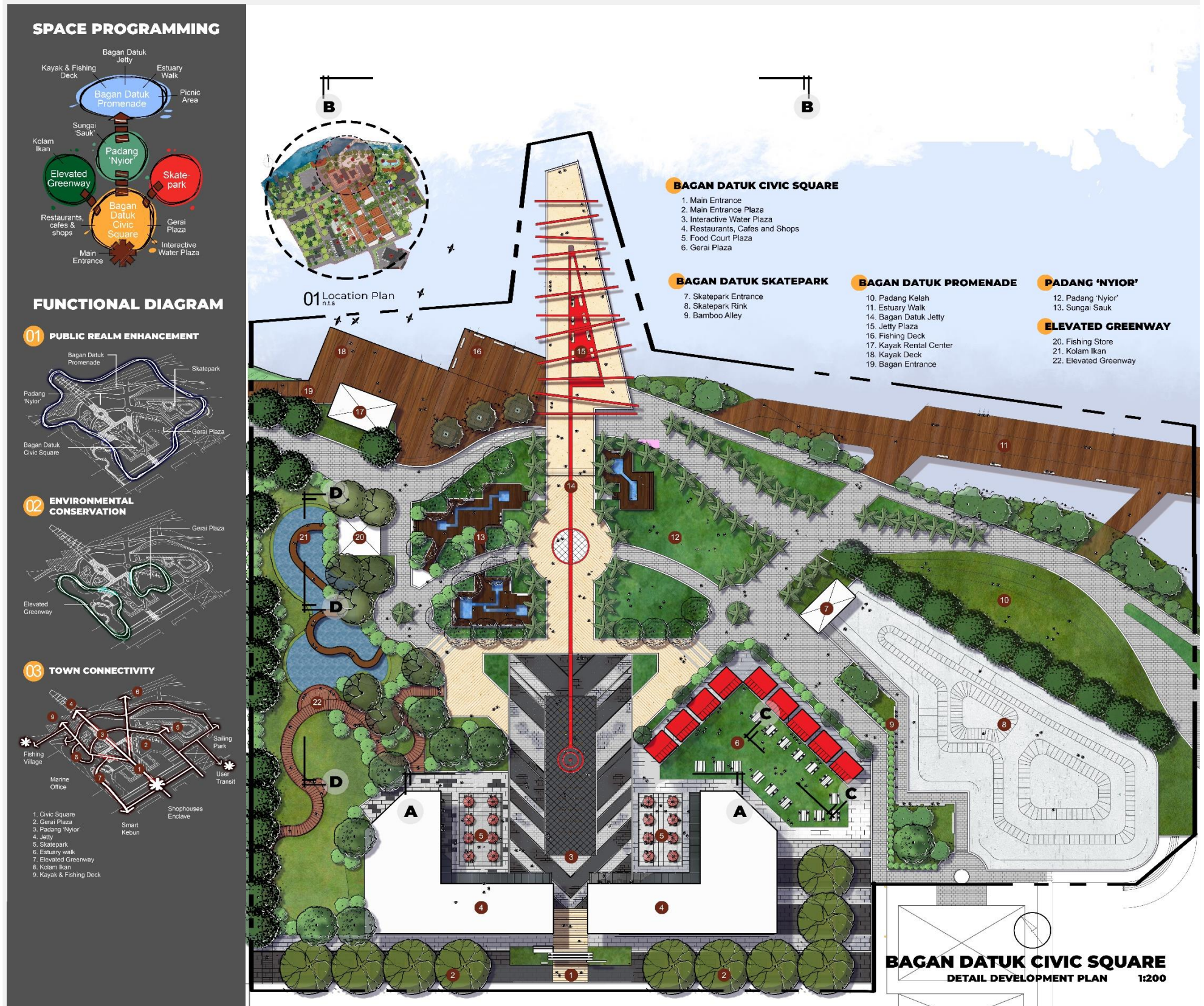
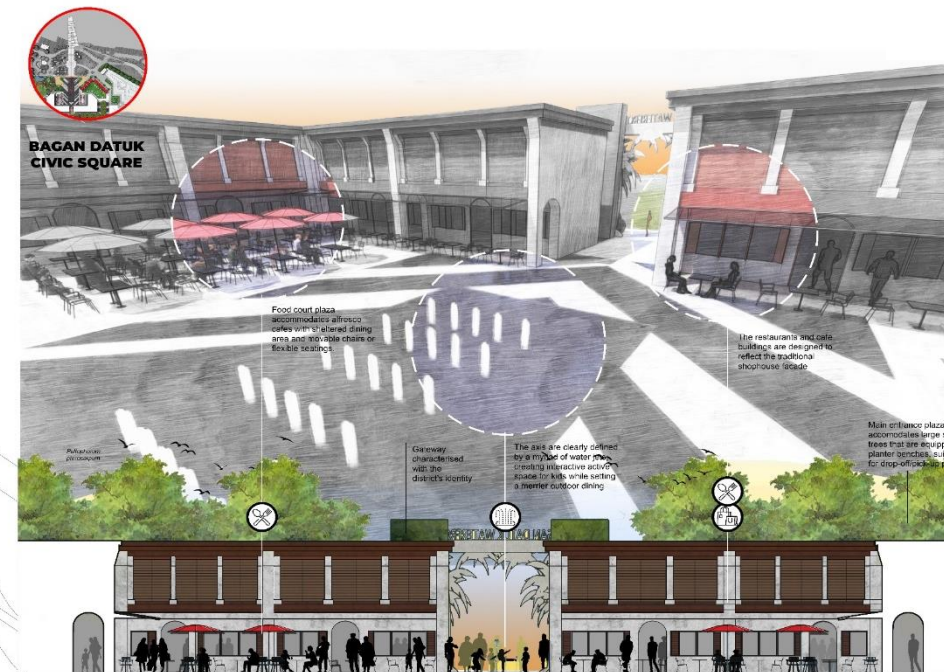


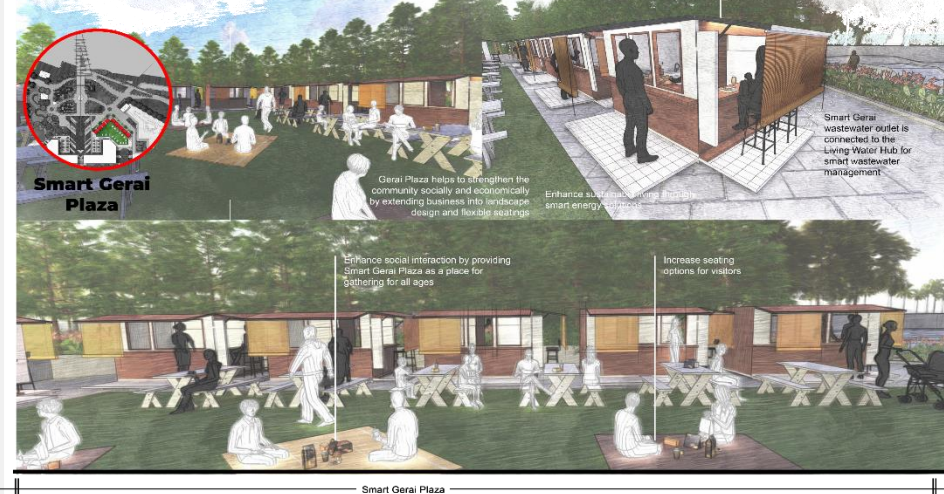
Figure 21: Detail Development Plan



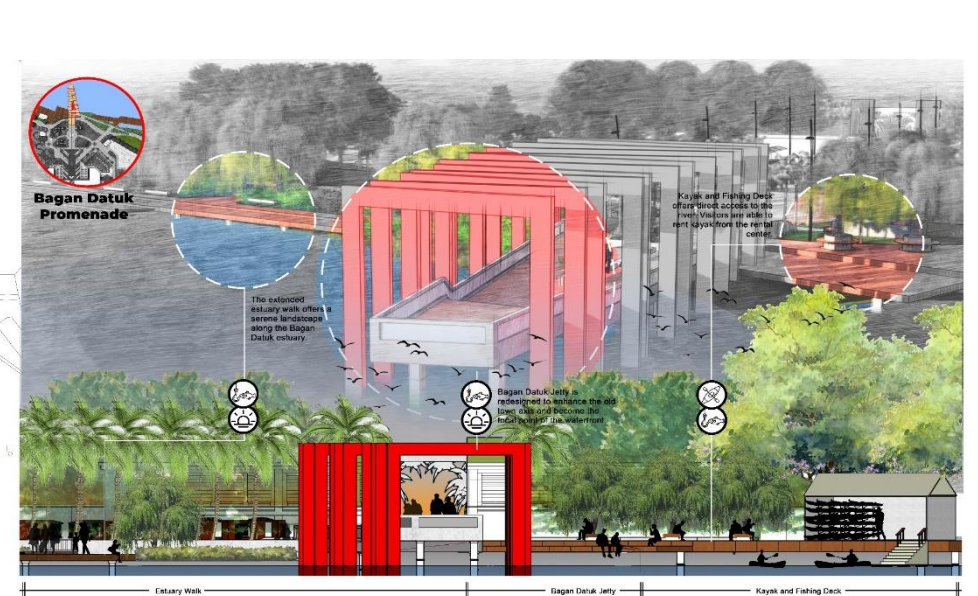
## SECTION AND PERSPECTIVES



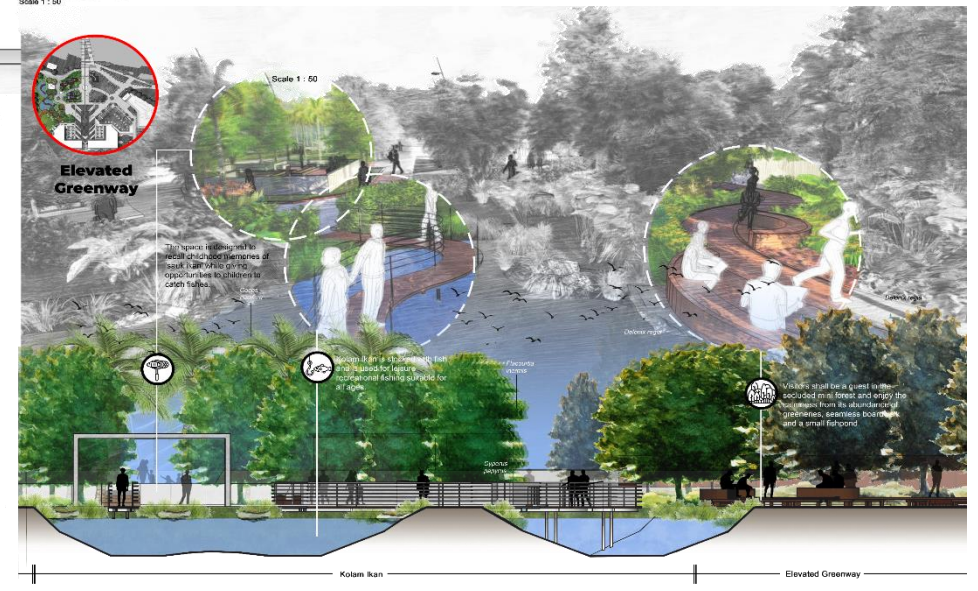
**SECTION A - A**  
Scale 1 : 50



**SECTION C - C**



**SECTION B - B**  
Scale 1 : 50



**SECTION D - D**  
Scale 1 : 50

## CONCLUSION

Bagan Datuk town, as important as historic urban landscape conservation is, also requires immediate action to strengthen its contemporary approaches. Vibrant and diverse programmes should be offered to improve opportunities for locals to enjoy themselves and to support commercial activities. Bagan Datuk's waterfront will become a new catalyst for contemporary activities without jeopardising the town's historical identity.

## REFERENCES

- Said, S. Y., Zainal, S. S., Thomas, M. G., & Goodey, B. (2013). Sustaining old historic cities through heritage-led regeneration. *WIT Transactions on Ecology and the Environment*, 179, 267-278.
- Beyard, M., Kramer, A., Leonard, B., PAWLUKIEWICZ, M., Schwanke, D., & Yoo, N. (2007). Ten principles for developing successful town centers. *Urban Land Institute*. Washington, 30.MPTI. (2020). *Rancangan Tempatan Daerah Bagan Datuk 2035*.
- Mamat, M. J., & Aziz, M. F. A. (2018). Early town planning system of small towns in Perak. *PLANNING MALAYSIA*, 16(8).
- Hamamyolu Urban Deck. (n.d.). Retrieved October 28, 2020, from <http://landezine.com/index.php/2019/07/hamamyolu-urban-deck-by-yazgan/>
- Henriksdalsamnen. (n.d.). Retrieved October 28, 2020, from <http://landezine.com/index.php/2020/09/henriksdalsamnen/>