01 _ DISSERTATION INTENTION

1.1 INTRODUCTION

Water is a natural resource that is fundamental in the development of human settlements. History shows that sites on the coast and navigable lakes and rivers, particularly natural harbours such as the Bay of Maputo, were catalysts to the growth of cities. These sites offered an obvious defence advantage, a convenient trading platform and a means of transportation (Butuner, 2006:1). Today, proximity to the sea or other water bodies creates attractive places for people to live and sources of leisure and recreation.

Major cities of the world developed along navigable water courses. Maputo is such a city. The water surrounding the city was a primary driving force in its early development. This continues to have a profound influence on the city and its people.

Today, the influence of the sea persists. Effective water transportation and accompanying infrastructure remains essential to the commercial and social functioning of Maputo. If citizens are to move easily, safely and cheaply for work and pleasure it is vital that there is a seamless interconnection of the city's different parts.

1.2 AIM OF THE CHAPTER

The aim of this chapter is to outline the intention of the dissertation and to guide the design process that follows.

1.3 THE NEED FOR WATER TRANSPORT IN THE BAY OF MAPUTO

1.3.1 Current situation

Waterborne public transport around the bay is currently managed by Transmaritima SA, a government owned company. At present Transmaritima SA serves two destinations from mainland Maputo. The service transports people, goods and vehicles, ranging from passenger cars to 10 ton trucks. The service is vital to the commuter sector, but also services commercial activities and the leisure and tourism industry.

Six vessels operate on the Bay from the existing terminal at Maputo:

- Two large vehicular and passenger ferries alternate between Catembe and Maputo, one berthed at each location overnight. This scheduled ferry service runs from 05:00 to 23:00 seven days a week, at half hourly rotations. The pair of ferries move an average of 4000 commuters daily, peaking at 5000, with average user numbers being significantly higher in summer months. The ferry is also equipped to carry up to 20 vehicles per trip, peaking at 400 vehicles daily. (fig 1.1)
- Three small vessels provide a flexible water taxi service on the same route between Catembe and Maputo. These boats, called Mapapais, run on a needs basis rather than a regular schedule, operating between 06:00 and 19:00, seven days a week. They are licensed to carry between 10 and 30 passengers.. (fig 1.2 - 1.4)
- A scheduled tri-weekly ferry service to Inhaca Island caters for both locals and tourists. (fig 1.5) There is also a parallel higher cost private service which caters chiefly for the tourist market. This private vessel currently leaves from Maputo Fishing Port (fig 1.6).

fig. 1.1

fig. 1.2

fig. 1.3


fig. 1.4

fig. 1.6

fig. 1.5

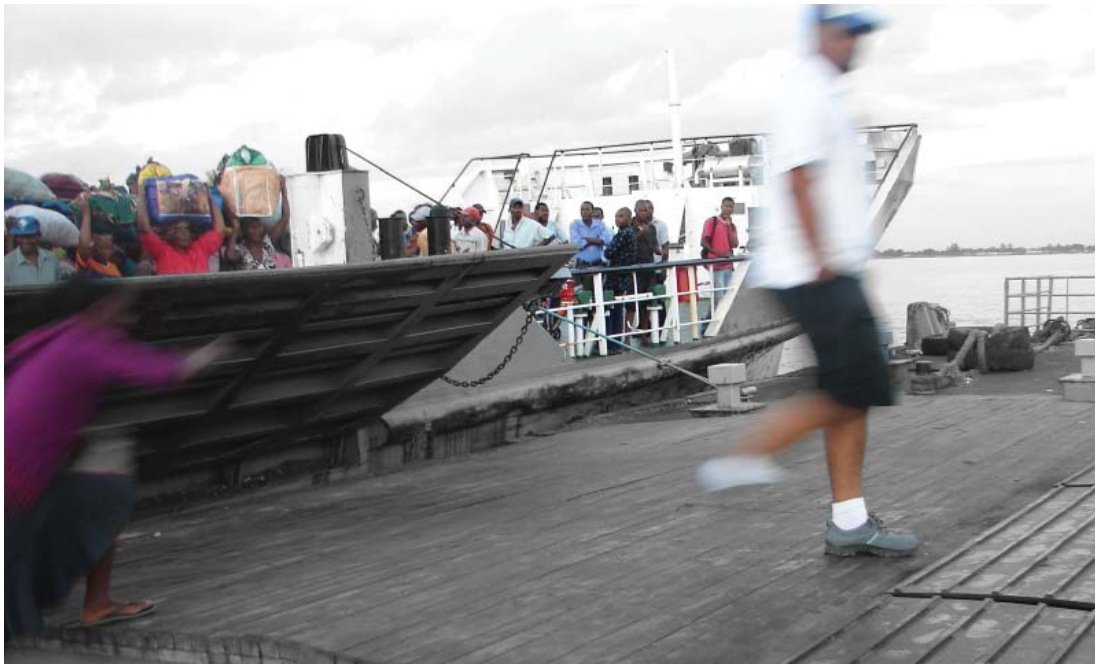
fig. 1.1_ Large vehicular and passenger ferry servicing route between Maputo and Catembe. Photo by author.

fig. 1.2 - 1.4_ Water taxi vessels servicing route between Maputo and Catembe on a flexible schedule. Photo by author.

fig. 1.5_ Passenger ferry between Maputo and Inhaca Island. Photo by author.

fig. 1.6_ Private ferry servicing route between Maputo and Inhaca Island. Photo by author.

fig. 1.7_ Passenger movement - disembarking from the ferry at Maputo



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"It is a safe and affordable transport system that creates an environment for social interaction and the interaction of people of different income groups."

Wright & Hooker, 2007:86

1.3.2 Development and its influence on the need for increased Water Transport in the Bay of Maputo

Two factors indicate a potential growth of water transport in Maputo:

- the projected growth of commercial and industrial activity of the working port, and
- the projected growth of the tourism industry in Maputo and surrounds.

Growth of commercial and industrial activity

In the ten years leading up to 2007, Mozambique had an average annual growth rate of 9% per annum, making it one of Africa's strongest performers. (Newton, 2011:9) Although this growth was from a low base, it is evidence of a country on the rise. Maputo remains the powerhouse behind that growth. Projections indicate a boom in harbour activity in Maputo as well as its sister port of Matola, with trade volumes expected to double in the next four years (Jacka, 2011:41).

Monetary investments alone are indicative of the projected rapid growth of these ports. This will result in massive development in the cities supporting the ports. This growth and development requires an ever greater need for reliable and efficient water transport infrastructure to move people around the bay, as job opportunities spread to these ever increasing sites.

Growth of the tourism sector

While tourism was traditionally predominantly concentrated in the northern provinces, tourism to Maputo is on the increase. Research conducted by the Netherlands Development Organisation SNV indicates that 300 000 tourists visit Maputo every year. These figures are predicted to rise if improvements are made to services provided to tourists. Although the water transport service is not focused primarily on tourists, it is fair to say that tourists seek the authenticity associated with activities and places used by locals.

In addition to the local, regional and foreign tourists there is also a steady increase in business people visiting Maputo, as the city is the business capital of the country. Experience in other business centres shows that business visitors often include tourist activities in their itinerary, which, in this case, would involve water transport around the bay.

1.3.3 Conclusions

Through the increase in trade volumes, associated commercial activity and job creation, it can be assumed that public infrastructure such as transport will need to be expanded and upgraded to meet the needs associated with these projections. Simultaneously, attraction of the tourism sector will require a facility capable of efficiently catering to tourist needs.

1.4 URBAN INTENTION

The macro urban intention for this dissertation is two-fold. Firstly, it involves the effectiveness of transport on the bay as a whole, and secondly the effect of the transport system on the Baixa precinct.

1.4.1 Connection to the wider Bay context

The preceding analysis indicates that an increase in ferry stops and the upgrading of existing stops around the bay will be required as a result of the predicted expansion. Thus this dissertation sits within a larger framework of water-borne mass transit redevelopment, expansion and upgrade.

1.4.2 Connection to the Baixa

Industrial development and the subsequent privatisation of Maputo's waterfront led to a disconnection between the previously public nature of the water's edge and the adjacent historic core of the city.

The urban intention of this proposal is to redefine the waterfront's role in the city context, aiding the revitalisation of the Baixa. The water-borne mass transit facility will act as a catalyst by reintroducing a public layer to the currently industrialised waterfront precinct. The area will redefine a social connection for the city's people to the sea, thus re-establishing the Baixa precinct as the heart of the city.

fig. 1.8_ The badge representing Transmaritima SA, the Government -run ferry company in Maputo

1.5 CLIENT

The client is the City of Maputo, with funding from central Government. The funding will be supplemented by stakeholders in a public private partnership, as part of a larger waterfront redevelopment initiative.

"The City of Maputo with the support of Central Government is committed to ensure transport of quality in the main crossings throughout the country."

allafrica, 2009

1.5.1 Brief

In general terms the facility should provide infrastructure relating to the water transport industry, as well as providing a place where trade and recreation can take place, and so create a civic destination for city dwellers. The intention is for a cross-programming of facilities allowing for interaction between diverse types of people of different cultural and income groups. The facility should respond to the layers of formal and informal trade prevalent in the area, as a means of reactivating the waterfront.

The need expressed by the client is firstly for an appropriate site to be identified where the infrastructural needs for an expanding transport service can be provided. This need is based on projected growth estimates indicating the need for an improved facility for water transport.

Secondly the appropriate site should allow for the consolidation of fragmented water-borne transport into a facility that integrates more effectively with the downtown Baixa and related land transport systems.

Finally the facility must be part of a larger urban rejuvenation intervention. This will include a waterfront redevelopment which will reintroduce the city dwellers to the sea. Through such integration the water transport service shall better serve the city.

1.5.2 Program

The building is chiefly an infrastructural intervention, merging transport needs with recreational functions. The intention is to provide for fundamental formal support requirements, after which a platform for informal activities occurs.

The following functions are included:

- A ferry terminal catering to large vehicular ferries, commuter ferries and water taxis.
- Trading space for formal trade and allowing for informal appropriation of space
- Restaurants
- Storage facilities
- Waiting shelter
- Parking
- Information
- Offices and retail
- Public ablutions
- Leisure space

1.6 PROJECT AIMS AND OBJECTIVES

The aim of this dissertation is to establish a water-borne public transport facility in a proposed waterfront precinct of downtown Maputo. Pragmatically, the building will facilitate transport efficiency and connectivity. From a social perspective, the intervention provides public recreation space at the water's edge. Large numbers of people and degrees of movement introduced at this place aim to aid in the regeneration of the area.

Three objectives support this aim.

1.6.1 Maputo's water-borne transport infrastructure

The first objective is to consolidate Maputo's water-borne transport infrastructural needs into one facility that logically connects with land transport systems.

1.6.2 Linking the bay with the rest of the city

The second objective is to create a public environment that encourages social interaction. The building shall thus act as a seam connecting the bay to the rest of the city. Simultaneously the site provides a threshold or point of arrival and departure, for commuters and travellers, and a destination point for urban city dwellers.

1.6.3 Contextual design

The third objective is to design with sensitivity to the social, economic, cultural and historic context of the area. Maputo is a city rich in cultural and social dimensions, which are interconnected in areas such as the Baixa. This is an important aspect to guide the design process, as the focus of the building is to provide optimally for the user.

These aims and objectives will be realized under the banner of resource efficient design, whereby contextual, climatic and material-sensitive guidelines will inform design decisions.

1.7 DESIGN CHALLENGES

From the aim and objectives, a number of design issues need to be addressed architecturally.

The first is to define the building as the *link between land and water.* The current infrastructure does little to facilitate this transition.

The second is to design for *orientation and interaction* between the varying pedestrian users of the facility through architectural resolution. Commuters, tourists, traders and general public must all be considered.

The third design challenge is to mediate between formal infrastructure and the informality prevalent in Maputo. Herein the design will investigate its role in facilitating a revival of day/night expansion in the downtown Baixa of Maputo.

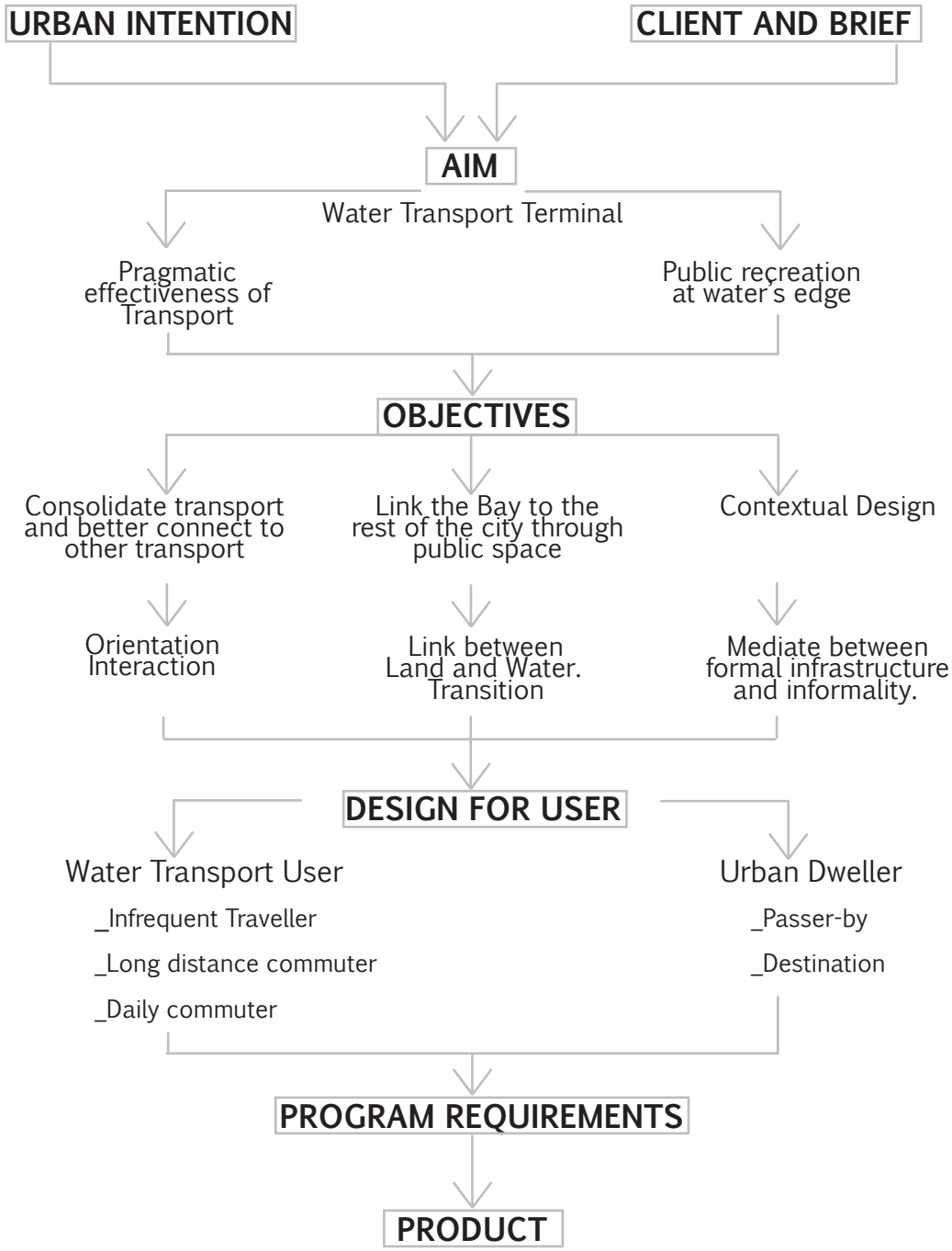

fig. 1.9 Diagrammatic depiction of intentions

1.8 DESIGN APPROACH

The design approach focuses on the user, thus providing for two broad categories of user: The first is the water transport user who arrives at and departs from the facility. The second is the urban dweller who appropriates the waterfront's larger scale intervention without the specific intention of using the transport services available.

The category 'water transport user' is further broken down into three umbrella categories of traveller:

The infrequent traveller, who is more than likely a tourist. This category will be looking for orientation, after which they may engage in recreation.

The long distance commuter may be using the facility for regional travel. These people will be looking for smooth and convenient passage through the facility, but may have more time and so may be looking for enjoyment.

The third category is the daily commuter. This category is the vast majority, using the facility on a daily basis. This category of traveller requires a smooth and convenient passage through the facility with no unnecessary delays.

The urban dweller will intentionally arrive at the building for recreational purposes, or may simply be a passer-by who gets drawn into the building out of curiosity.

1.9 RESEARCH METHODOLOGY

The research methodology involved a grounded approach focusing on gaining as thorough an understanding of context as possible. This was undertaken through:

- On site observations and assimilations
- Interviews with relevant people (Maputo Port staff; Transmaritima ferry staff)
- Literary research into similar developments, programmatic and theoretical precedents
- Literary research into the context
- Discussions with other students from three universities involved in the Maputo masters studio
- Analysis of the requirement and latent potentials of the facility and site
- Reference documents relating to the target area

Further, the research approach was to progress from the general to the specific. A clear understanding of the broader context of the site ensured a solution of optimal fit.

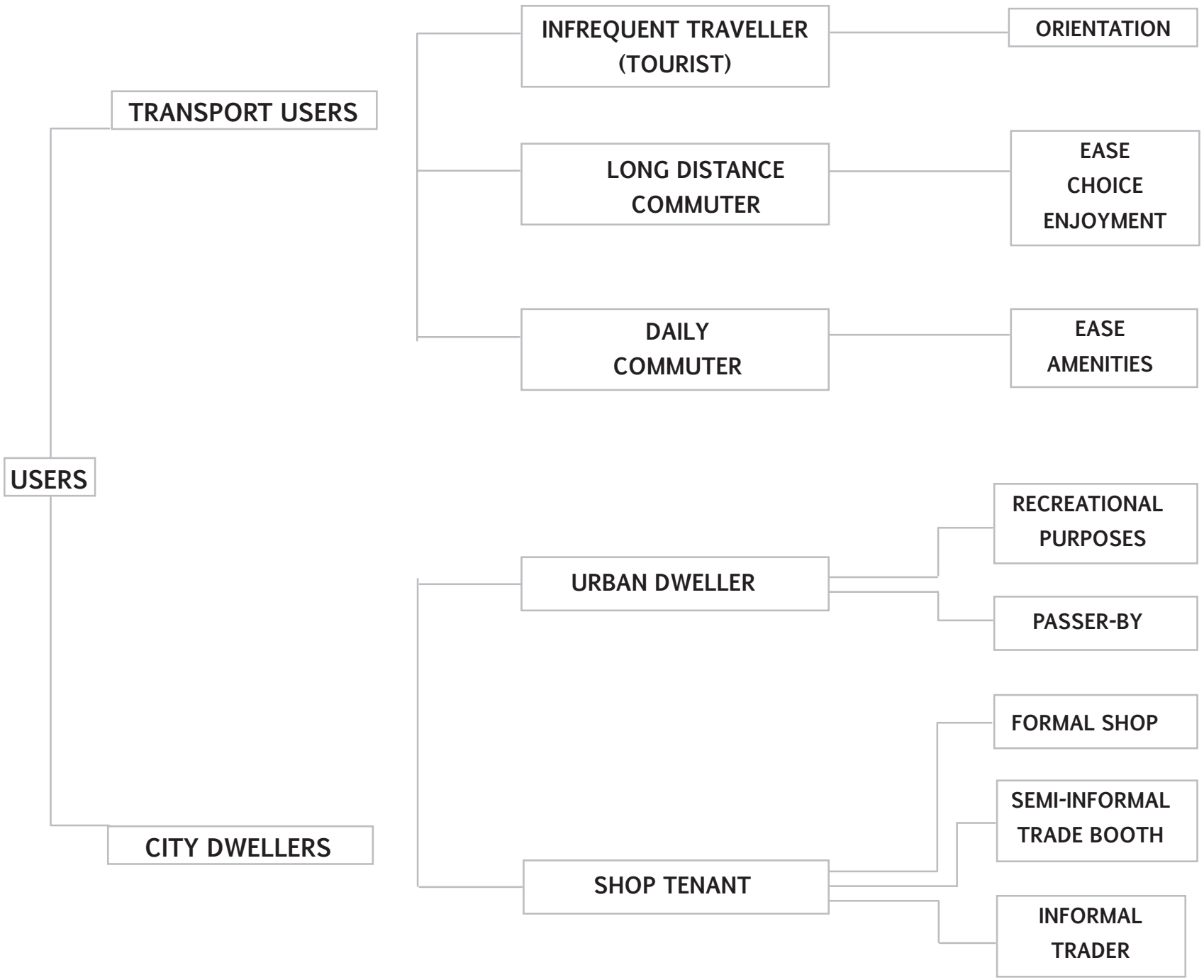

fig. 1.10
Graphic depiction of users

1.10 DELIMITATIONS AND ASSUMPTIONS

With respect to City Planning:

- It is assumed that the proposed redevelopment of a main vehicular connector within the downtown Baixa, Av. Samora Machel, into a pedestrian boulevard, as per the City Planning scheme of 2010, will be implemented.
- It is assumed that the development of the waterfront strip adjacent to the downtown Baixa district is approved, allowing for a public interface with the water, from the fishing harbour in the east, to the train station on the western boundary. The design proposal will fit into this broader vision.
- The proposed pedestrian route through the waterfront precinct in an east west direction is realized as part of the public nature to be reintroduced to the precinct, as per the proposed Urban Design Framework for this dissertation.

With respect to this dissertation:

- It is assumed that the new harbour is approved as part of the waterfront redevelopment initiative.
- It is assumed that the site, a concrete slab wharf on piles, can structurally take the weight of the building.
- Based on available information, it is assumed that the piled jetty extends 30m inland, after which groundfill occurs. The pile spacing is on a 5 x 5 metre grid.