Revitalised Intersections, VOL. 1

By YP Mudaly

The Social Life of Port Architecture

03.

The development and nature of a seaport and how history and culture influence its public interface

The Social Life of Port Architecture

3.1. Harbour Development in the Global context

3.1.1. Expression of the Port City

There is an association between specific elements of a harbour and port to any architectural design flow, be it technological, conceptual or within the manifestation of building material intervention. There is a commonality of traits which show the exchange of sea-trade and transformation within the waterfront. There is a further operation on the multifaceted nature of port dynamics where there is no single form, pattern in design but there are traits regarding resemblance in design and recognisable characteristics.

Here we find relation between programme of built environment and function of port operations:

i. Emphasis on waterfront as public space.

ii. Taking into account financial and functional needs of the future proprietors, specified the sizes of the lots near the waterfront, creating a landscape of warehouses, wharfs, shops, factories and homes mediating between the sea and the city centre were of importance

iii. Importance of PPP's

iv. Relation of public interests and private investment was established in the workings of the East India Company which still have companies in Durban.

Throughout history, port and city have been closely interrelated in political, economic, and social structures as well as in the built environment. That relationship between port and city has changed dramatically over time, as these examples illustrate, but as of global cargo ship movements, maritime transport continues to be a major element of globalisation

3.1.2. Durban Port Cityscape

Durban has lost its intrinsic essence of a port city as the harbour is as far disconnected as the activities that situate themselves in the site, from this point the author Hein (2012) digs into the relationship between the port and city to state that they are a supporting relationship built on structures that are interconnected. Beyond the port the relation of commercial activity depends on factors such as local conditions, institutions as well as network traders. There is a language of warehouse to planned space as you move outwards from port to city, holding goods to dispensing. The waterfront are shaped by function of the port as she references Philadelphia, London, and Tokyo, three port cities (or ports, waterfronts, and cities) that are very different from each other and that have seen very different development patterns for their harbours and waterfronts (Hein 2012). Through this interface. Local interaction contributes to successful patterns and design for the spaces

3.2. History, Politics, Commerce and Culture

The nature of port architecture is widely and socially commissioned by the dominant political elite and the subsequent consequence created a major architectural language relating to dock development, creation of commercial space which set out to enable a materialisation of the politicians status in prominent urban spaces. These buildings then represented visual representations of local traditions and achievements (Lee 2012).

Factors set out were the following

i. the impact of trading patterns and commercial relationships on the availability and use of raw materials in building construction;

ii. the role of architects in reinforcing the language and materialist imagery of imperial authority;

iii. the processes of wealth creation through commerce and trade and their legacy in terms of the business centres of port cities and the domestic residences of individual merchants;

3.2.1. Establishing a port-city typology

Port city architecture is developed and orchestrated according to port function, relative size, principal trades but at the same time governance, ownership and administration through certain political factors. Previous architectures reflected culture and imperial power which is since outdated but historically relevant. This therefore relates to the quality of urban structuring where the changing pattern of trade influences spatial needs and concepts in the port. How the urban situation is made is from smaller pieces by protecting the port condition through a human scale singularity of grand scale to small scale.

Through these links created by trade and business, new connections were adopted by architectural stylistic queues and practice within the harbour space.

Port cities such as Buenos Aires are successful due to their multi functionality but port cities such as Singapore are successful due to their policy as city states (Lee 2012) backed through economies.

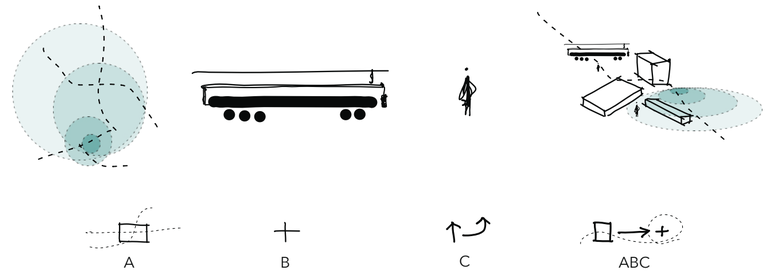


Fig. xiii. Ingredients for a good port city. A - proximity. B - transit oriented access. C - public interface. (Author 2021)

3.2.2. Nature of a Township

As a result of certain seaboard linkages to different parts of the world, there was an expectation of the local condition of a certain seaport to accommodate migrants of different contextual origins who would reside in the waterfront whilst the ship docked. This integration of culture to seaport created international styles which included human scale, port communities and attraction of capital (Lee 2012: 37).

This would circulate people, goods and information and helped accommodate different mix of people shaping the characteristic of a context. The architecture then is able to express "contested and ambiguous national identities" (Lee 2012: 37). This narrative is the introduction of religious monuments or architecture which represented specific migrant groups to reflect their national heritage and continued sense of belonging to certain seaports which were regularly visited.

An example of church identity in Scandinavian/European countries in port cities to preserve national common interest and network associations (Lee 2012).

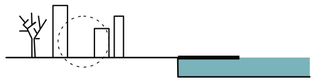


Fig. xiv. Port as it exists without recognisable figure in landscape (Author 2021)

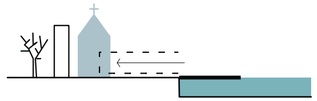


Fig. xv. Adding recognisable figure in landscape (Author 2021)

3.2.3. The Sailor Town

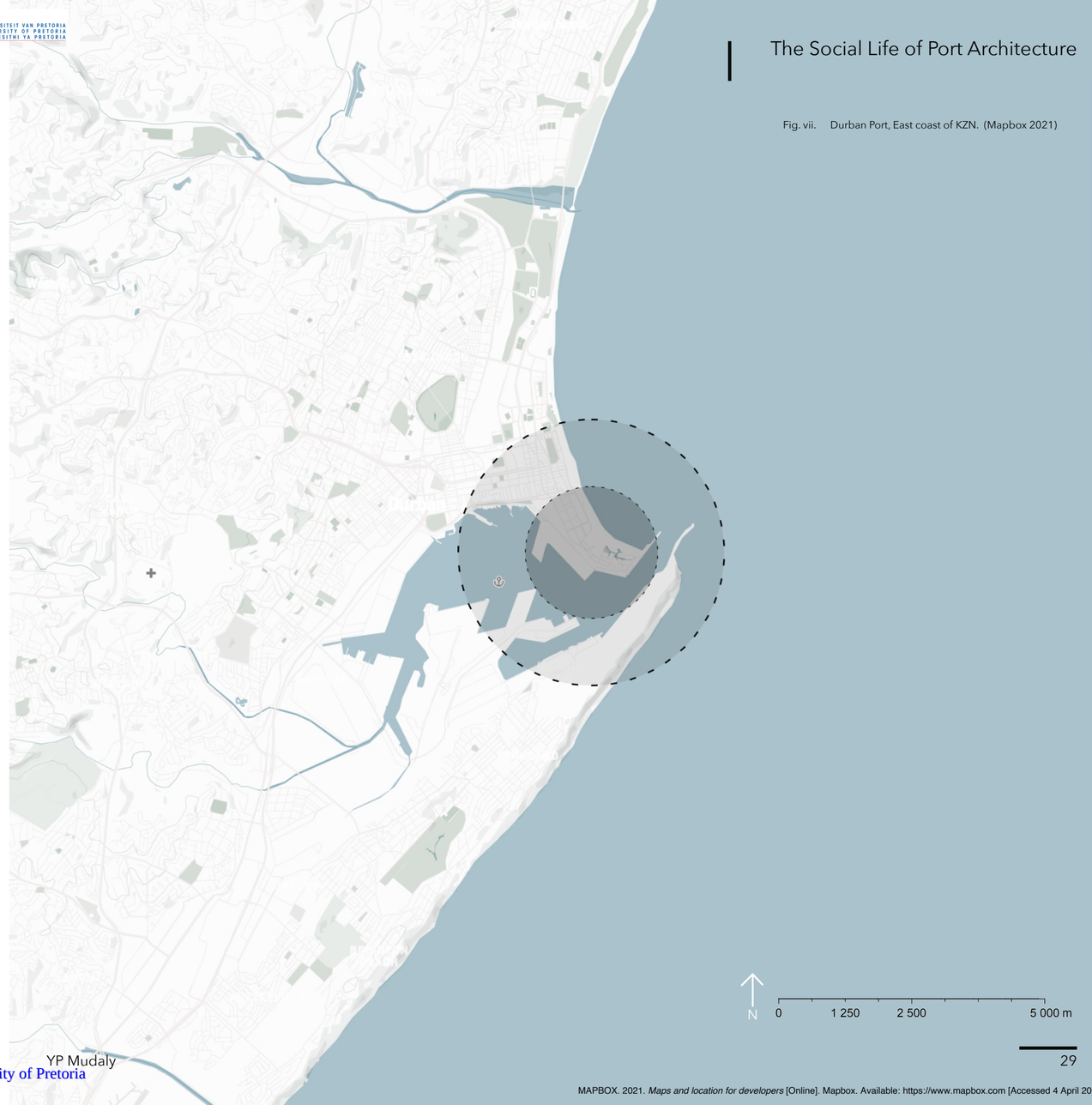
A fundamental characteristic or focal point of many ports was the condition of a sailor town. Apart from recognisable characteristics being the total township in a port-city context, the connection may be purely recreational - where the building draws in users and creates unique enclaves.

This architecture promotes the relationship between inside and outside. As with traditional Japanese architecture, through devices such as transparency and high ceilings there is a tradition of building as context, building as garden or even building as harbour. How to deal with the inside v outside is a very important consequence, but new solutions are required to realise such a blurred boundary. The *'watering holes'* and *'bath-houses'* of Yokohama were well known amongst foreign seamen (Lee 2012) where there was a condition of water but as recreational experience instead of working experience.

This combination of programmes, festivities and inclusive programmes was an important aspect of the social life of port cities. As described within the article by (Lee 2012), this was the main cultural contact zone in waterfronts. In many cases the port contained a distinctly gastronomic and delightful sailor town quality which was the focus for most travellers containing activities such as dancing, drinking and recreation.

As the new Durban cruise terminal is built through the year 2021 there is a lack of cultural hubs where people would interact within the urban quarter.

Fig. vii. Durban Port, East coast of KZN. (Mapbox 2021)



MAPBOX. 2021. *Maps and location for developers* [Online]. Mapbox. Available: https://www.mapbox.com [Accessed 4 April 2021].

ICOMOS

Location:

Buenos Aires

Argentina

Architect:

Weyss und Freitag

Value to Research:

Reuse of existing structures and prototypes in architectural and urban decision making

3.3. Puerto Madero. Evolution of a Warehouse Area

Puerto Madero demonstrated the requirement to use existing infrastructure to remodel and consolidate the waterfront edge using the warehouses of the western bank (Conti 2012: 135). This new architectural interface became the characteristic image for the new developments regarding Puerto Madero. A similar take on the port was the obsoletion of dock systems which inhibited new modern developments that could have employed sufficient infrastructure to maintain and operate the port. The consequence of this was that 10 years after the port was inaugurated, it was abandoned and a new port was created and used.

Abandonment within the port and the surging demand for development brought developers into action to revitalise the area using the existing facades of the warehouse to modernise them using government and local authority action through urban transformation schemes and private-public partnerships (Conti 2012: 136).

Architecturally the interventions were based strictly on the facades and the original materiality of the buildings to respect and maintain the historical character whilst using waste material to create new pedestrian walkways and minor components were restored in the port. Now the programme boasts coffee shops, flats, offices and restaurants and through these establishments, Puerto Madero has become a renowned gastronomic district in the city of Buenos Aires (Conti 2012: 136).

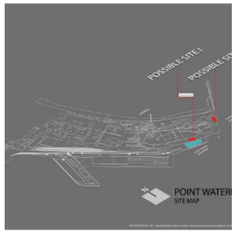
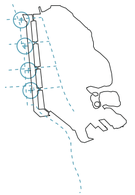


Fig. i. Images from CONTI, A. 2012. Puerto Madero, Buenos Aires, Evolution of a Warehouse Area. ICOMOS, 54, p.134-139.

Conclusions and relevance to Port of Durban

The conclusions made about the urban and architectural revitalisation strategy are therefore successful economically as the land has been reformed and the heavy influx of pedestrian traffic sustains businesses around the area. Consequently from a heritage point of view the preservation according to author Alfredo Conti (2012: 137) regarding the example as partially complete of preservation.

Application to Durban Port: the existing waterfront age requires an economic and urban transformation and the chosen sites are mainly ruined buildings left abandoned and desolate. The Author (Mudaly 2021) is required to consolidate options of the master plan and development to state which would be a better preservation, of site or heritage spaces, and how this may add value and resilience to a site needing remodelling.



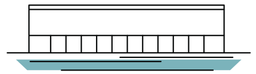


Fig. xvi. Puerto Madero (Author 2021, Mapbox 2021)

Location:

Rotterdam

Netherlands

Architect:

Various architects

Value to Research:

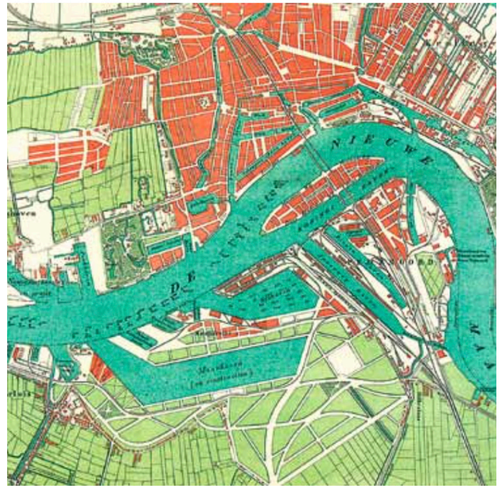
Conversion of port into transit oriented access through maritime infrastructure

ICOMOS

3.4. Rotterdam, Port City to Harbour Landscape

When compared to other grand port cities with the dock yard typology and wharf design, Rotterdam, sways away from such design. According to the author Paul Meurs (2012: 109), from 1895 onwards, to the harbour landscape significantly changed and like the Durban Port, tied its connections to the city. From this direction, there was dereliction of infrastructure and developments were needed to uplift the site. Through the use of raw materials and new rhetorics, Rotterdam became a transit harbour instead of soft commodity import/export.

The banks of the river were mixed with various quays and warehouse upliftment which kickstarted new linear parks and green public spaces. The new landscape became a functional asset dug out of the land and the water edge was covered with infrastructure for *"quays, rail, roads, storage areas and warehouses"* (Meurs 2012: 109).



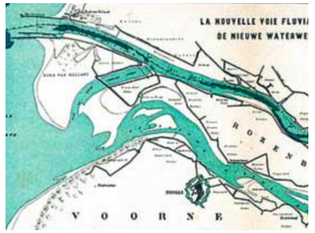


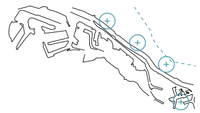
Fig. i. Images from MEURS, P. 2012. Rotterdam: from Port City to Harbor Landscape. ICOMOS, 54, p.109-112.

Conclusions and relevance to Port of Durban

As a comparative port to Durban this is where the direction of the port is going as the coal and hard commodities are moving towards the southern basin dig and the Richards Bay port. Durban is thus becoming a Transit orientated harbour which would hopefully yield success.

As a precedent based more off an example where change in infrastructure can yield success, this proves the rationale that a transit oriented programme to facilitate and assist the new cruise terminal built by MSC.

Durban needs to further use the existing infrastructure along the main Mahatma Gandhi Road which ties to the new programmed space along the developmental edge. Durban therefore contains all the same ingredients Rotterdam did to change its harbour operations and thus the landscape became resilient through the changing spaces.



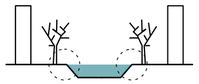
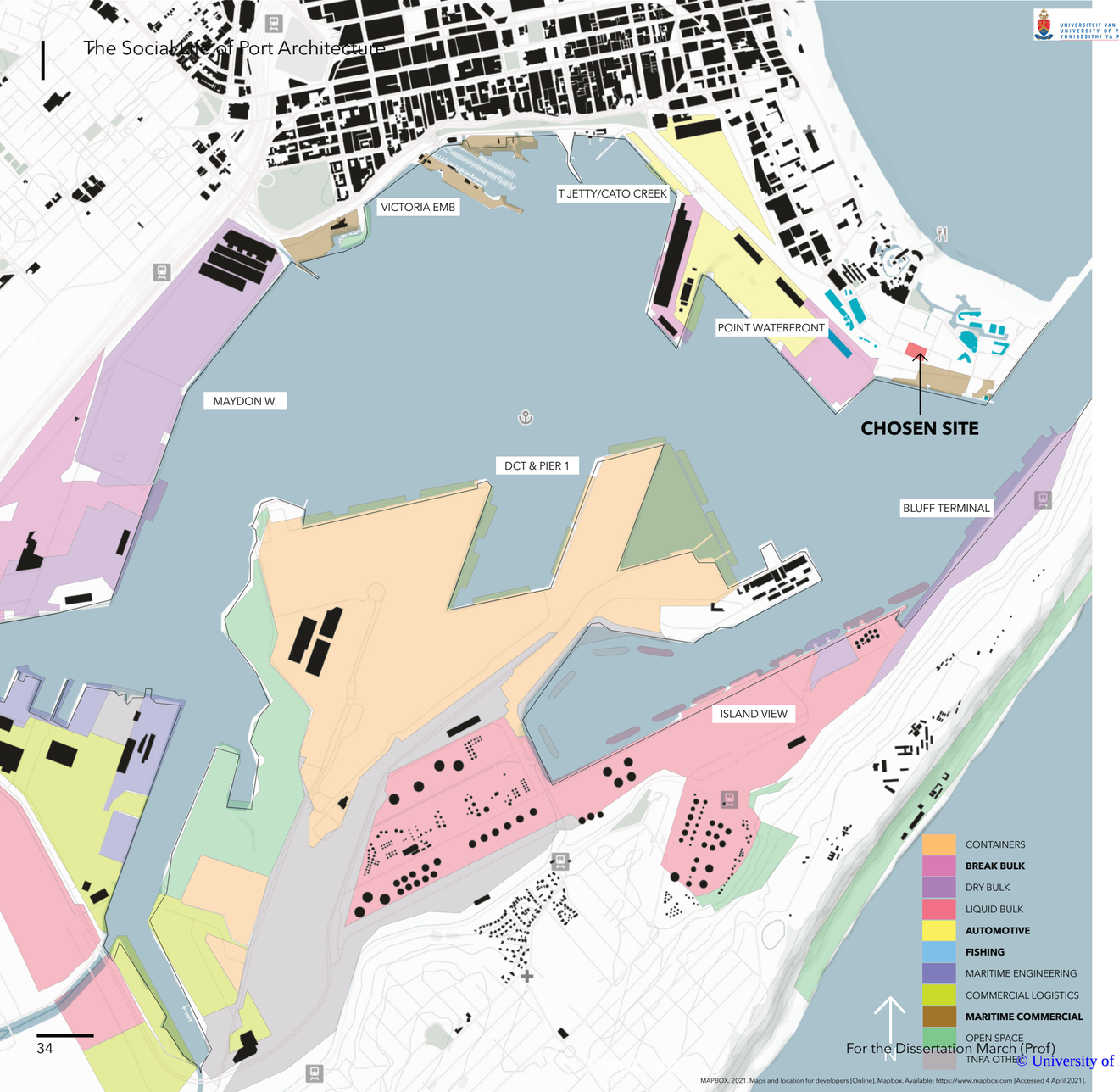
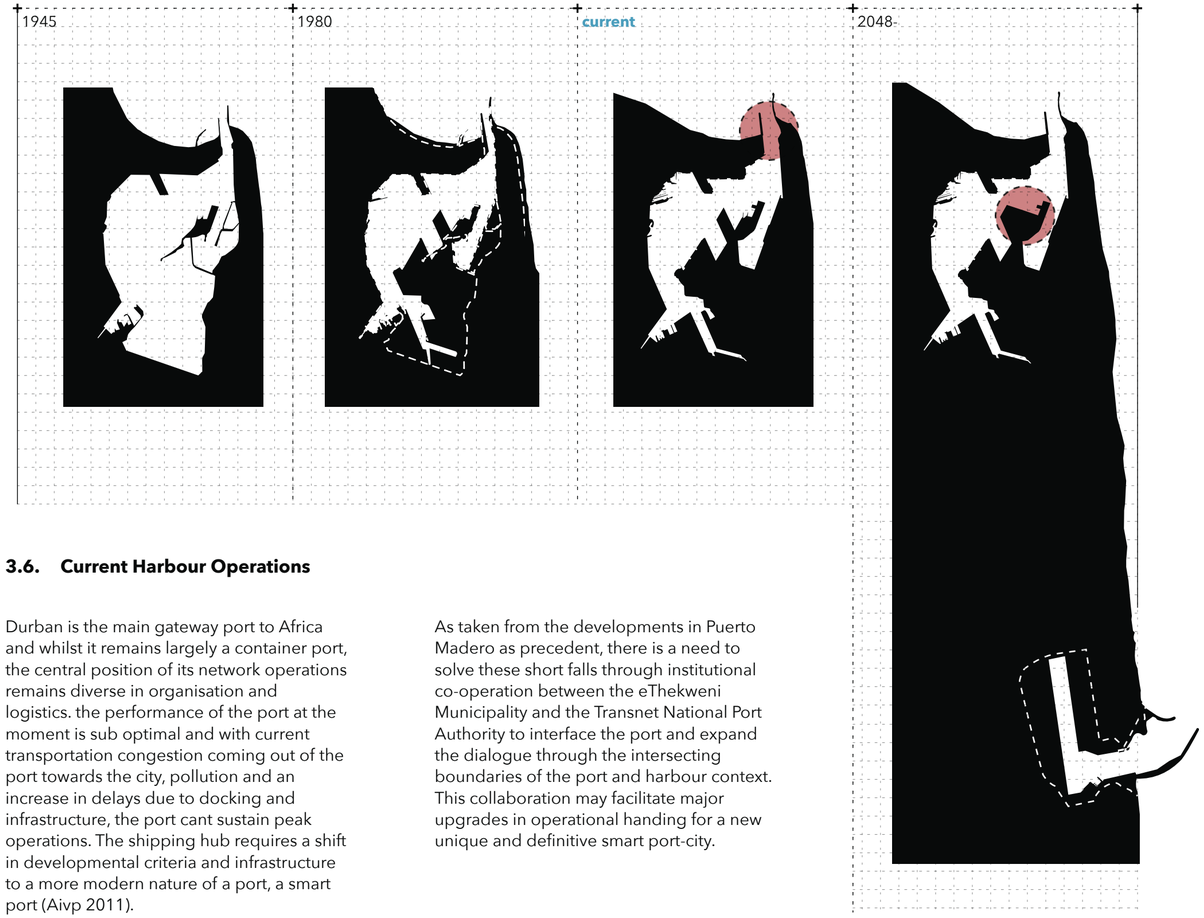


Fig. xvii. Port of Rotterdam (Author 2021, Mapbox 2021)



MAPBOX. 2021. Maps and location for developers [Online]. Mapbox. Available: https://www.mapbox.com [Accessed 4 April 2021].

3.5. History of the Durban Port



3.6. Current Harbour Operations

Durban is the main gateway port to Africa and whilst it remains largely a container port, the central position of its network operations remains diverse in organisation and logistics. the performance of the port at the moment is sub optimal and with current transportation congestion coming out of the port towards the city, pollution and an increase in delays due to docking and infrastructure, the port cant sustain peak operations. The shipping hub requires a shift in developmental criteria and infrastructure to a more modern nature of a port, a smart port (Aivp 2011).

As taken from the developments in Puerto Madero as precedent, there is a need to solve these short falls through institutional co-operation between the eThekweni Municipality and the Transnet National Port Authority to interface the port and expand the dialogue through the intersecting boundaries of the port and harbour context. This collaboration may facilitate major upgrades in operational handing for a new unique and definitive smart port-city.

Fig. xviii. Existing port operations - Durban Port. Map exited from (Author 2021, Mapbox 2021)

Fig. xix. History of the Durban Port 1945-2048 onwards (Lumby 1992: 110-111, Transnet 2019: 31, Author 2021)

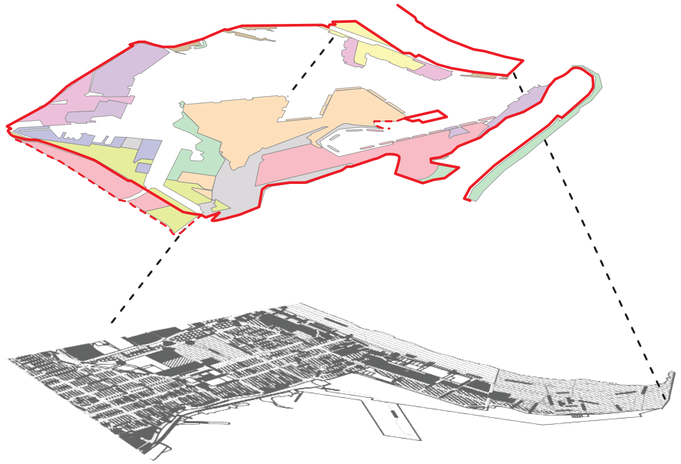
The Social Life of Port Architecture

3.6.1. Harbour services

MOORING | LIFTING | LIQUID BULK | FMCG | PASSENGER SERVICES | WATER WASTE RECYCLING | SOLID WASTE COLLECTION | PILOTING

3.7. Community who uses the Port

Worker	Citizen	Traveller
TRANSNET	The daily commuter	The international traveller
MSC	The weekend commuter	The local traveller
Shipping/logistics worker	Recreational user	
Shipping/logistics management	families	
	The elderly	
	Women and children	
	Marine users	
	Yachting, boating and craft users	



TRANSNET

PORT-CITY

OPERATIONAL

CITY

IDEOLOGICAL VIEW

WORKING PORT

MIXED USE

RUN BY COUNCIL

Fig. xx. Alove: Layering of Transnet development plan (Transnet 2019:31, Author 2021) and City Plan (Openstreetmap 2021)

3.8. Mediating the TNPA and the City through programme

As part of the research, although the community is the main recipient of the port, there is a requirement to merge both actors being the TNPA and the city.

All users are to merge within the identity of the new urban scheme which is safe and feasible for recreation, work and play.

> *"There is little connection where the port has not realised the understanding between public interface and the working port. The expansion realises this digression and hopes to solve it but apart from such there are no other linkages available. The promenade is the only link from the city towards the harbour. LAP and TNPA plans don't synergise."* (Allopi 2021).