The Ports of Tampa and Hamburg and the Qualitative Impacts on their Communities

by

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Abstract

This study researches the past, present and future role of ports, specifically the Ports of Tampa and Hamburg linked to their cities. It examines the legal structures of port authorities which play a major role in their economic priorities and impact their cities’ social, environmental and cultural quality of life. From a humanistic perspective, one can look at a port as a place or space. By animating ports, they may provide “fields of care” over time, and a home with character for the region’s residents. In this case, their success needs to transcend economics, adding qualitative attributes to the region, such as clean air, water, good working conditions, adequate housing, public transportation, recreational provisions, public waterfront access and more.

The Port of Tampa’s corporate style and largely state controlled management team prioritized diversification. As a result, the port essentially remained a feeder port. It depends on shipping phosphate (a non renewable resource), fertilizer, scrap metal, petroleum and other general cargo commodities. The port serves main (hub) and container ports which are more lucrative and environmentally less challenging. The Port of Hamburg, on the other hand, controlled by an elected local Senate, became a container hub port early on, and planned its future accordingly.

Tampa’s traditional housing around the port was dissected; shopping, service and recreational areas around Tampa’s city core deteriorated, when Interstates 275, 4 and the Cross Town Expressway were constructed. Suburbs in rural areas were developed with little regard for public transportation infrastructure, recreation facilities, and pedestrian
and bike paths. Most of Tampa’s waterfront, owned by its Port Authority, is leased out and fenced off to the public access. Redeveloped expensive and mostly empty downtown gentrified residences face parking garages, oil tanks, phosphate stags and scrap yards. Much of Harbor Island, close to downtown, is gated and gentrified.

The Port of Hamburg, in contrast to the Port of Tampa, redeveloped an uninhabited warehouse region of its Port, named it Hafen City, thereby adding 40 percent to the core of the city. This cohesive theme is in the process of providing jobs, housing, public waterfront access, shopping, green spaces, museums a concert hall, a theater and more. Light-rail, subways trams, buses, pedestrian and bike paths link the Hafen City to the traditional city center. Hamburg’s waterfront remains open to the public by law.

A comparison of both port cities shows that the Port of Tampa’s largely state controlled corporate style management team prioritizes short term economic results over an extended future planning at the expense of the region’s social, cultural and environmental climate. The Port of Hamburg’s management team, installed by the locally elected Senate, promotes the City’s economic, social, cultural and environmental quality.

The above findings, suggest that developments of ports and their cities under democratically elected governments may produce various qualitative outcomes depending on the demand and supply curve of their residents’ input.
Chapter 1: The Social Role of Ports

The themes of this thesis, relating to the qualitative impacts of the Ports of Tampa and Hamburg on their communities, begin with the linkage of the past, present and future role of ports. Ports are the qualitative driving force that determine the economic and social quality and performance of port cities and their environs. Ports can be unifying elements in the process of integrating them into the cities and their communities whose characters are diverse, differ and have often changed over time. While this thesis researches specifics of the Port Cities of Tampa and Hamburg, this chapter will introduce the relevance of port locations, their functions and their systems in general. Furthermore, it will address how ports have been studied and utilized. Specifically, port authorities’ functions will be examined in the context of social costs and economic benefits.

A successful port city may add stability to the region, which provides residents with a sense of space and time (Tuan, 1977). Tuan’s observations imply people may want to belong somewhere, and search for a homeland (port city); and personal relationships may create special values through awareness of architectural space over time. Landlocked cities often lack in physical as well as sociopolitical coherence due to their distance from nature (Tuan, 1978). Port cities, on the other hand, are linked to open seas and, as a result, are given the opportunity to retain a natural ambiance. In consideration of the above observation one may question the value of an increasingly artificial world (Tuan, 1978).
Ports and their cities have changed over centuries. Shakespeare’s London, for example, occupied an area of one square mile with some 100,000 people. It had a natural setting, was a pleasant country town with many gardens and broad green fields close to most crowded streets (Tuan, 1978). But take a look at modern London, Paris or New York. The downtown areas appear to be furthest removed from nature. Port cities connect to nature as they depend on the sea ways to exist. By animating them, ports, such as Tampa and Hamburg, take on a life of their own that reflect much spirit of their communities’ past and present. How did they evolve?

**History of Ports**

Ports can play a major role in early urban development leading to spatial interactions with different regions for economic, political, cultural and other purposes. Sea routes existed long before the construction of railroads; humans built ports, and settled around them to prosper from trade. Merchants saw opportunities and clustered around locations that could be linked to world markets by waterways. As a result, people migrated from rural parts of the country to port cities that provided work. On the other hand, the newcomers gave up their self sufficient country living. City farming could have provided local food supply and created jobs, leading to multiplier effects in labor. Much outsourcing of jobs that came later could have been avoided. Did Tampa and Hamburg learn form the past when they developed their port cities?

Broadly, ports are important indicators of wealth because the volumes and patterns of seaborne trade reflect the world distribution of resources, population, location of industries, characteristics of markets, and economic growth rates including political and military factors. Thus, port-related activities extend beyond the regions where they
are located. Yet, they portray the way of life in local communities, their character and their quality of life. This includes working conditions, clean air and water, and an overall social system that provides safety and security. Based on their economic success, ports provide the foundation for the environmental and social fabric in the region. This chapter addresses port locations and functions, their systems and how they have been studied as a place.

**Port Locations and Their Functions**

Looking at ports, one first notices their physical geography. Sea ports are located along bays, creeks, lagoons, rivers, estuaries and on entirely artificial, man-made islands. The number, type and capacity of seaports a country needs is related to the volume of trade and dependence on maritime transport (Cooper, 1983). The Atlas describes a hierarchical structure of seaports at the regional, national and international levels. At one end, there are major international ports handling predominantly foreign seaborne trade, while at the other extreme, minor ports exist that concentrate on domestic coastal trade. Many of the world’s major seaports can be found on the banks of rivers, at inlets or estuaries. Next, one observes ports’ physical changes over time caused by global or regional variations in consumer spending. A factor that may change markets and demographics in different regions of the world, and as a result influence the development of sea ports. Many activities such as mining raw materials, oil drilling or manufacturing have led to the construction and expansion of sea ports. As a result, the size of vessels and the depth of water required to access ports were increased. With the evolution of sea born trade systems in maritime technology advanced due to greater specialization in
shipping. What followed were efficient inland communications by road, rail or inland waterways to hinterlands of high production or consumption.

Cooper (1983) outlines ports logistics: Ports can be found in various locations throughout the world. Their spatial locations are linked to their regional or global access to markets and their logistics. Most major ports handle diverse commodities, although there are a number of more specialized ports throughout the world. Often the traffic of commodities fluctuates, and the form in which they are handled changes. Cooper notes, ports have had to modernize existing facilities or construct new purpose-built terminals. Most ports consisted of the familiar all-purpose general cargo facilities until the early 1960s. They had narrow quays and adjacent covered and open storage areas, handling all types of cargo from dry bulk to timber and break bulk. Since then design and equipment of port terminals have become more specialized. Many general cargo ships have been replaced by cellular lift-on lift-off (LoLo) container vessels with up to 3000 TEUs (twenty-foot equivalent units). These vessels require terminals with large land areas for storage and high capacity mechanical handling equipment, such as gantry cranes to move and stack containers. Roll-on roll-off (RoRo) terminals, originally developed for ships operating in short sea trade, have been modernized to accommodate larger vessels that engage in deep sea trade. The handling of cargo between vessel and quay requires ship or shore mounted ramps. Dry bulk terminals are constructed to handle large volumes of cargoes such as iron ore, coal, grain, phosphate, and cement. These terminals need large storage facilities adjacent to their berths. Liquid bulk terminals are used for shipping of petroleum, bulk chemicals, liquid natural gas and liquid petroleum gas.
In general, ports can be classified as hub (main) and feeder ports. The former often specialize in containerized cargo handling, whereas the latter transport much bulk and general cargo. Main sea ports, just like main airports, are hubs that offer shippers a world-wide linkage. They receive and distribute commodities from smaller ports which typically are feeder ports. A port which handles diversified shipping often concentrates on feeding hub ports. Feeder ports tend to be less dependant on global alliances, though they generally lack the efficient, clean, and lucrative technology of container ports.

**Port Systems**

The methodical planning of ports, their principles and rules etc. are subject to Port Authorities’ plans and implements. The Tampa Port Authority, for example, is a governmental commission in charge of the traffic, regulations, etc. of a port (section 1, June, 3rd, 1991 original page 8, Tampa Port Authority, 1994). Port authorities employ directors and a management team. The directors may be appointed or elected. Their policies determine the port’s future, its priorities and the quality of life in the port since they control the usage of the port real estate. Some ports are an integral part of the city. They are linked to the center by public transport, bike and pedestrian routes and provide housing, waterfront recreation, shopping and service facilities. Others are segregated from the city. These ports often lack housing, convenient transportation provide little recreational space and have restricted public access to the waterfront.

**How Have Ports Been Studied?**

While ports can be studied in many ways, this research will look into their meaning as a place and space to the region.
**Ports as Space or Place**

People make emotional investments where they live, and some geographers have addressed the humanistic perspective of space and place, related to towns, cities, ports, and other regions (Tuan, 1974). Tuan addresses the definition and meaning of place, its stability, various types of places. He argues that symbols from the ancient world and recent times can give an air of significance to localities.

**Public Symbols and Spirits**

One may infer from the literature that a region can rise above a human constructed environment through real or imagined spirits. Tuan notes that spirits are formless except for sites that stand out. He adds that places like human beings, acquire unique signatures over time. Both, human actions and spirits can form, preserve or destroy places (Tuan, 1974).

He points to spirits that populated the mountains and forests of China which were endowed with human pedigrees and carried official ranks. He addresses shrines in ancient Greece, sacred enclosures, an image, a sacred stone or tree throughout neighborhoods. More recently, buildings became symbols: the Houses of Parliament, the Empire State Building. Negative symbols have also formed places and their growth. As a result, a belief system of different cultures evolved that encouraged one to speak, literally, of the spirit of the place. A single inanimate object, useless in itself, can be the focus of a world through experience. Ruins from engaging in war, such as its results that are preserved with the remainders of the Berlin wall are examples. Because Tuan (1974) sees a place as a space combining a sense of position within society from an anthropocentric view, his ideas are useful to analyzing places. This is relevant when observing ports for the
following reason: Their architectural structures are the roots of their social, cultural and economic environment which reflect human activities through generations. The result may lead to fields of care adding some permanence to the region where people reside.

“Fields of care” are specific locations which represent, assuming the have been left in the first place, a return to human dimensions (Tuan, 1974). This suggests that people make emotional investments in different places over time. If Ports are fields of care, their definition includes the position in society of the individual and spatial location of the place. These are explored in both sociology and geography. As time and space are often hard to separate, one seems to be a metaphor for the other. Furthermore, one may consider which meaning is literal and which is metaphorical. More specifically, a port may bear close anthropocentric imprints over time at nearby (regional) spatial locations. But what does close mean?

The definition of close, for example, may be a measure of human relationships but also one of relative distance, such as a chair that is close to the window or town squares that are adjacent to residences (Tuan, 1974). As a result, actors in the “human drama” where they live establish fields of care through repetition of the ordinary, creating a closeness to each other and their physical environment over long periods of time. They are creating a lasting home. A connectivity of ports with their residents, for example, reflect the qualitative social level of port cities over time. Their human drama and the spatial environment interact.

The meaning of place reflects spirit and personality, implying people want to give it a sense of greater emotional power than the mere location or the functional node. “Personality,” Tuan (1974) notes, suggests the unique. Places, like human beings,
acquire unique signatures in the course of time. The prolonged human interaction with
nature has formed faces that result in a personality with two aspects: one commands awe,
the other evokes affection. While there may be fear, excitement, apathy and others, Tuan
(1974) compares the first aspect to a display of nature, such as a mountain, and the
second to something a person wears and grows fond of. A rain coat, he points out, for
example, is for use, and yet in time it gains character imparted by the person who wears
it. A place through long association with human beings can thus be humanized. When
people apply moral and aesthetic discernments to a place, they put a “sense” on a place, a
spirit or personality. Sense of place has different meanings. One is visual and looks at the
beauty where it exists with a trained eye. Another creates beauty to please the eye. Places
like landscapes and buildings have visual impacts and often register on sight. Other
senses, such as hearing, smell, taste and touch, may require longer periods of contact in
order to obtain explicit knowing. It follows that many meanings, visual and others, may
be taken into account when looking at port cities. Finally, one can acquire in time a
profound sense of a place, but to be fully aware of an attachment to it, one may have to
assess it from a distance (Tuan, 1974). Thus, loosely following the theory of supply and
demand, with an increased distance and a prolonged absence from a place, it may
become more attractive and a longing for it may strengthen.

According to Tuan (1974), travel increases awareness, not of exotic places but of
home as a place. To see it from the outside provides stability as it maintains its unique
identity. Further, the emotion felt among human beings finds an anchorage in things and
places. Ports with ships flying flags from different countries may give additional links to
emotions as they provide longing to learn about other places or confirm biases.
Furthermore, residents may appreciate their home port because ships entering it add a variety to the place. This gives strength providing fields of care. They are not easily identifiable as they lack permanence. Dissolution of the human bond from place, for example, can cause the loss of meaning in the material environment and lead to misery. Such examples are parks with old trees that used to be meeting places for generations, now sold to developers, closed fishing piers where people hang out, or an abandoned railroad track and station may give some indications of loss of human bond from place.

Tuan (1974) refers to a case where some place turns morbid to someone who had lost a human relationship there. He points out, “His heart was now darkened by grief, and wherever he looked he saw death” (Tuan, 1974). The attack on the World Trade Center in Manhattan in 2001 would evoke similar emotions on many survivors. Public symbols, unlike places as fields of care, give prominence and an air of significance to localities. Monuments, artwork, streets and towns embody spirit, and the belief system of many cultures encourages one to speak, literally, of the spirit of place. Modern secular society discourages belief in spirit defined separate from matter, but traces of it still linger in people’s attitudes. While places are small worlds and may have public symbols and fields of care, they are essentially places that depend on human emotions.

Fleming (1987) views a port as a “small world” in his research “The Port Community: An American View.” He notes that neither an aerial picture nor a map can fully reveal the microgeography of a port community. He introduces the topic by contrasting the harmony of the community, with thousands of people working for hundreds of private firms and public agencies, to that of a small group of higher level port planners and managers, whose ways of addressing private and public interests
sometimes spread confusion. By dissecting the seaport community, he analyses the
distribution of port-related services. He looks beneath the surface and inside the buildings
to discover who is located where and who owns what. He suggests that explanations of
seaport morphologies by most geographers focus mainly on highly visible trappings of
the port, the waterfront industries and dock facilities, and that little attention has been
given to locational clustering of various port services and their microgeographical shifts
throughout the port city region. He starts his survey with the waterfront.

**Utilization of Waterfront**

According to Maritime Administration reports, 60 percent of the 2,401 major
marine non-military waterfront terminals in the United States were privately owned and
operated until the mid-1970s (Fleming, 1987). After that period, the domain of the public
port authority expanded impressively, especially in the large container ports where each
containership berth requires support space ranging from five to ten hectares, depending
on the method of container storage. But the ownership of private and public land is only
one part of the story, as one needs to look at the intended use and operational control of
the waterfront property and their impact on the port city region.

**Port Services**

Essential sea port operations show patterns of location at and close by the
waterfront, which extend geographically from the waterfront inland to adjacent high
rises. The special logistics depend on specific needs, such as berthing space, fuel
provisions, crew replacements, repairs, immigration formalities and so forth. These
vessel-oriented services have traditionally been located at or close to the waterfront
(Fleming, 1987). While repair yards and fueling facilities, obviously, need to be at the
waterfront, shipping agency offices can be housed further inland. Some operations, such as stevedoring, freight-forwarding, custom work and cargo documentation must be flexible in their choice of location and be available for the visiting vessels. Patterns of proximity of one function to another enhance economics of efficiency. Also curious examples of camaraderie of competitors have been noted (Fleming, 1987). He notes, that the favorite area for steamship offices, freight-forwarders and custom house brokers in Houston in the late 1940s was the Cotton Exchange Building located far from the Houston ship channel. The reason for this unusual choice was cotton. Shippers wanted to stay on top of business and moved close to their good customers, the cotton farmers, and away from the actual shipping facilities.

Like Tuan (1974), Fleming (1987) researches the humanistic perspective of places. His key point is: “The human needs of those who inhabit, work in, or pass through the waterfront district must be considered” (p.334). There are thousands of people employed in maritime services who need food, shelter, recreation, meeting places, union halls, and so forth. In addition, part of the historical seaport scene are the provisions of restaurants, taverns and assorted “recreational facilities” for crews ashore. Fleming describes some picturesque episodes that took place in various ports. An agent for Irish Shipping, Ltd. in New York, for example, was in the habit of collecting crew members from taverns before the ship left port by baiting them with a bottle of Irish whiskey, which was only to be opened when they were safely aboard. Part of Galveston’s seaport culture gave privileges to sailors and dockworkers through the purchase of a lifetime membership for one dollar in one of many ‘private clubs’ that allowed the ‘legal’
consumption of strong spirits. This contributed to Galveston’s seaport culture. Fleming’s (1987) repertoire of such stories helps explain how ports assume an identity over time.

Fleming (1987) continues his investigation of ports, by looking into their cultural needs, such as waterfront parks, paths, public piers, esplanades, benches, historic monuments and more. These lands and facilities, which are usually public property, attract citizens and tourists, workers and loiterers, seamen and landlubbers, nationals and foreigners. All add character to the seaport scene. If a waterfront has become too small, short or impractical for modern shipping, it has often been replaced with various sea-flavored restaurants, taverns and shops. Such places are found at the waterfront of downtown Seattle and many others. Several ports in Washington and Alaska combine commercial fishing with recreational boating to support numerous small boat-building, repair, supply, charter and shelter services. They are elements of seaports’ character, and also provide a variety of jobs.

Having viewed the cultural needs for port residents, Fleming (1987) researches the “lived-in” portion of the waterfront district. What are the favored residential neighborhoods? He discovers that rundown urban properties of the recent past have sometimes been restored to their historic splendor, as is the case in Charleston, South Carolina, and Savannah, Georgia. Long stretches of apartment complexes with marine vistas are found along the Mississippi River in New Orleans. He also addresses tensions within the port community, such as compatibility of human needs with the space and access requirements of the commercial seaport users.
Social Costs and Economic Benefits Considerations

Other considerations are keeping the balance between economic advantages and social costs, between private and public sector control, and between commerce and aesthetics (Fleming, 1987). He notes that the multifaceted port authority should ideally mirror the entire spectrum of port community’s interests. This is a political consideration as a port authority is accountable to an elected government. Consequently, port officials should not develop secret or separate goals that diverge radically from those of the larger port community. Thus Fleming concludes that the port authority is expected to lead, and should do so in the interest of its tax-paying constituents who reside in the port city.

Port Economics and the Environment

Some researchers do not search for human elements and view ports as an item which can be marketed. Baird (1999) provides a planning history of a container port in Felixstowe, England, a part of Harwich that has grown into the fifteenth largest facility in the world. He addresses the cost recovery for private ports, privatized ports and public ports. He concludes that none of them including Felixstowe has recovered the capital cost. Yet he views the port as a success. The port was developed at the right time and at the right place. The free market political ideology of the UK growth during the 1980s encouraged expansion on a green-field site prior to the serious environmental restrictions. Unlike its European competition, it encountered little industrial unrest and doubled its capacity every ten years. Access to cheaper and trouble free port labor was encouraged by local authorities as it increased its multiplier ratio to 5-7:1. This means that the port’s 2000 jobs were estimated to lead to a further 10-14 000 openings (Baird, 1999). The physical and locational infrastructure offers a minimum of 14 m water depth alongside,
allowing the largest containerships to dock. Felixstowe survives on hidden state aid that is allocated to road construction and other port related projects. There are constraints to its expansion because of environmental impact studies. The regional district council opposed the last extension of the port which goes through an area of outstanding natural beauty (Baird, 1999).

There are two greater implications in Felixstowe’s case study to the themes of this thesis. One is that ports’ residents should be aware of the fact that development can lead to the destruction of natural resources. This would imply that a well informed community that exercises its rights can prevent much damage to the environment. “Fields of care” oppose destruction (Tuan, 1974). The other relates to port authorities neglecting their obligations to tax payers residing in the adjacent port city (Fleming, 1987). Felixstowe’s port quality assessment would delineate false (subsidized) prosperity and environmental destruction.

Ports have also been studied from a perspective of business environment that is characterized by globalization of markets, production, finance and distribution. Robinson (2002) discusses new paradigms: ports as elements in value-driven chain systems which are freight movement pathways. Merchandise is shipped between supply and demand locations. A market transaction is satisfied by price mechanisms. This process activates a competitive advantage. Chains or supply chains have, to a large extent, replaced individual firms. His research notes that structural and functional changes are taking place in ports and port authorities. These changes occur in a globalizing market place that link world-wide production sites with rationalized distribution systems. This trend reflects a change in operation and management. In an
authoritarian way, ports are being downgraded to elements in value chain constellations (Robinson, 2002).

The paradigm suggests different future roles of ports: they may become fully fledged partners in the logistic chain, their involvement may be restricted to a supporting role, or they may disappear from the scene entirely. Robinson (2002) defines the role of a port as a place that handles ships and cargo with operational efficiency. They are economic units that use economic principle as framework. The key argument of the new paradigm is that freight moves when it benefits shippers and customers. Service providers who participate in the process retain value from and add value to the movement. Only market focused firms in a competitive environment will add superior value. Ports and other service providers are only one element in the freight movement of end to end pathways. The relevance of this paradigm for the themes of this thesis would suggest the possible disintegration of ports from their city. The creation of a sophisticated industrial shipping complex suggests an increase of monetary profits. It may, however, come at the expense of clean air, water and public attractions that are associated with the waterfront.

The Relevance of These Studies

Tuan’s (1974) broad humanistic perspective of places that is supported by Fleming’s (1987) article make compelling arguments on how to research places such as ports. It suggests that a port is a community within a geographical region comprised of many individual places. Consequently, one can link them together and research them on a micro and macro geographical scale. Next, it becomes obvious that the meaning of place is important because of its position within society, which includes human
dimensions. Doubtless, many places develop over long periods of time and document values created by generations. Also, most regions are not stagnant because nature and human interactions influence their character. To study their structure then is difficult, and it is always changing.

Tuan’s (1974) and Fleming’s (1987) analyses illustrate explicit procedures on how to research places: one must go beyond available statistics and “visible trappings” to get a sense for the task. A look at the layout of many Baltic, North sea and Mediterranean port cities, for example, reveals the spirit, personality and emotional investments that people have made in them over centuries. Sailors, fishermen, boat builders, sail makers, rum-runners and many others have left marks long after they were gone. Furthermore, old buildings’ often well insulated with solid brick walls have protected residents from natural disasters. Of course not all “contributions” were worth preserving. But in many cities old architecture blends in with contemporary designs which indicates the changes of economic prosperity, cultural and social life over time.

Places breathe history when they remain relatively unchanged. Looking at street corners, cobble stoned squares or building facades that reflect the various occupations and life styles throughout centuries can be inspiring. Most seafarers, fishermen or sail makers, for example, lived close to their work and could view their boats and ships from their home or a tavern. Nearby markets provided shopping and other services, and little public transportation was required to get around. Some modern ports have retained historical components such as architecture and diverse residential housing that link communal life to the city center by public transport, side walks and bike paths. These ports have become places of stability.
What is a Place?

Tuan (1974) notes that a street cannot be a place because it is directional and not rooted in a location. This observation relates to urban sprawl which is marked by directional highways and by-passes with never ending repetitious chains of shops (e.g. Mc. Donald’s, Home Depot, etc.) that allow no activities to converge into a place. Street corners and squares, on the other hand, are places, and even streets with festivals can become places. A place, in other words, is a small world. It is very important to humans because it provides a center and a basis for their very existence.

There are different types of places. As Tuan (1974) notes, some have superficial appeal, and the eye judges their meaning. The Grand Canyon or Mount Helena in Montana, while magnificent, appear static, and the eye senses little physical change over time. Others obtain unique faces over time from the experience through long interaction between nature and humans. This suggests that ports command awe as they earn unique signatures throughout the years. A place can be explored through senses of seeing, hearing, smell, taste and touch. The port of Genoa in Italy, for example, is not merely a shipping facility or a money-maker. It has meaning and stability which result from fields of care. Some of them are public squares and narrow streets, surrounded by shops, eateries, and scenic winding hill trails. They appeal to a visual and aesthetic sense. The visual qualities of a place are quickly noticeable. But the town’s characteristic odors, its sounds, the texture of pavement or sudden gusts of winds piping through streets require a discriminating eye, nose and ear.

Tuan’s (1974) finding that a place is a “habit field,” not necessarily one that we can picture, is important because of existing variables. For example, when the sun shines,
roofs look brighter; the sea that is rolling into a harbor at high tide on a stormy day looks more ominous, the different seasons show places in different lights. Yet, they all are part of an established and familiar scene, and in it we can move comfortably. It is a home which needs to be cared for. City ports are such homes for many people.

**Waterfront Considerations**

Fleming (1987) points out that the “broader port community” prefers unobstructed marine vistas, reasonably clear water, protection from noise and pollution, and from excessive commercial traffic. This would seem to prioritize the hierarchical order of port authorities’ obligations to the public. It gives guidelines on how to assess ports from residents’ point of view. While perhaps at odds with commercial interests, unobstructed marine vistas with public access top the list. Therefore, what needs to be addressed is: What happens to waterfront? Do port authorities act in the interest of their community when they distribute real estate? What tenants do they choose? Do developers fence off waterfront for condominiums, restaurants, retail and other constructions? Who benefits from rezoning and variances? How do established diverse residences fare?

Obviously, the performance of port authorities reflects both economics and the overall well-being of the community. This gives port authorities privileges and duties, as they are the entities with jurisdiction to carry out long-range development for the facilities of and traffic through ports. Many port authorities, such as the one in Tampa, have the power of eminent domain. Even if they do not own facilities other than those designated to them, they have jurisdiction over all the land and the shipping in the port district.
Next, Fleming (1987) points out that a waterfront’s sensations can be experienced. This is in line with Tuan’s (1974) findings that a place appeals to senses. The port community’s life revolves around facts and fiction. Fiction should be stressed because it is a vital icon of a seaport: Fleming notes the irrepressible flow of legend, gossip, and exaggeration. This is by no means trivial, because it awakens an impetus in many people around ports. People dream of escaping, and the history of ports is full of stories with humans having left for greener pastures. Thus the port environment can create a positive and optimistic atmosphere which a regional analysis should explore.

There are variables to consider in the assessment of ports. Persistent atmospheric conditions such as fog and grey skies can underline the character of the seaport’s personality. These fundamental elements are often found in the historic architecture in port cities. A comparison between the architecture of different climates supports this. The Port of Hamburg, for example, observes the author of this study who has lived in Hamburg reflects its climatic location with solid red brick and weather resistant grey boulder and rock exteriors on buildings in their design. This may transcend to its resident’s ways of living, their life style, for example, which is rather reserved. Ports in warmer regions, such as Nassau, Honolulu or Singapore, which the author of this thesis has visited as well, constructed brighter looking buildings with less sturdy construction, which may indicate their more relaxed attitude toward life.

As Fleming (1987) notes, a port’s character should be viewed beyond visible trappings. Yet these must be explored as well, as they indicate motives of those who install them. Are the designs and constructions of residences, offices and roads, for example, just functional or also aesthetically pleasing? Do street surfaces drain without
environmental damage (run off into water bodies etc.), or do they only handle traffic? Finally, bringing the port community together sums it up. To find common ground and common purpose calls for coordination between the port authority, the various enterprises and the whole community. At first glance, involving the public in city and sea port relationships sounds unrealistic. Yet a mini patriotism can be cultured. Thus the preservation of sea port heritage, as Fleming puts it well, can bring together those from different segments of the community who share a strong feeling for the past glories or charms of the seaport.

Baird’s (1999) analysis of the port of Felixstowe states that the port was developed at the right time at the right place. This is certainly true for its economic growth. Baird sees the success of the port through the lenses of a free market supporter. There are, in fact, impressive numbers such as the multiplier effect of jobs, and the increase of container traffic handled from 121,000 TEU (twenty-foot equivalent units) in 1970 to 2.25 million TEU in 1997. The port throughput has more than doubled each decade since 1965. The port provides customers with more than 2.5 km of quay, 21 quayside gantry cranes, two rail terminals, and a total developed area of 267 ha. This capacity can handle 11 ocean-going container vessels and stack almost 60,000 TEU. These listings are useful in a quantitative analysis, as they indicate a potential of qualitative influences in the region’s amenities (housing, public waterfront access and others) which Baird (1999) does not address in his paper.

Baird (1999) concedes that the port should not be seen as a specific role model for other ports. This is relevant as valid concerns in the process of its development exist. Cheap labor, for example, was available and few regulations from unions,
environmentalists and local policy makers interfered with Felixstowe’s development. Also, the port was distant from areas of research and development, manufacturing and consumption. With the majority of goods merely passing through, the port’s local employment opportunities remained limited to port related services, regardless of the optimistic multiplier ratio. Further, growing traffic volumes connecting the port to the hinterland may have diminished the quality of life in the region. Essentially, the study’s method gives good ideas on how to look at ports’ economics. Yet, it dehumanizes the region as it fails to address qualities such as waterfront for public use, parks, affordable housing within the port area, shopping and service facilities. Baird did not focus on any architectural integration of downtown Harwich into the port expansion, public transport, sidewalks and or other characteristics that make a port attractive.

**The Port Authority’s Future Function**

Robinson’s (2002) systematic analysis of a new paradigm of ports and their management does not account for emotional investments people make in places. Yet his findings are useful as the changing role of ports in the rapid globalization of market places reflects the outsourcing of port decisions to corporate headquarters wherever they may reside. Conceding that consumers benefit from outsourced cheap (possibly exploitive) production sites, and low cost shipping, the port communities pay a heavy price. If regional port authorities lose their functions, residents will no longer be able to participate in port decision making that impacts their cities.

The traditional port authority, such as in the Port of Tampa, (Tampa Port Authority 1998, 2005, 2006 Directories) consists of a professional management team and an appointed or elected board. Each place, as Tuan (1974) and Fleming (1987)
observe, is unique. It is independent in its organic development. If the new paradigm of ports, with their value-driven chain systems in control, succeeds, it will alter many port regions with the result of colonizing them. As shippers prefer low wage and nonunionized ports, they will flock to regions with few regulations and other incentives. Global port management’s priorities would not likely focus on regional environmental concerns. As a result, there may be a systematic decline in port regions’ characters, attractions and amenities which have been discussed. Robinson’s (2002) findings are limited as he uses rigid scales. He applies an economic quantitative macro scale method exploring possible regularities. But he ignores scales containing crucial micro variables, thereby disregarding beliefs, values and attitudes.

**How to Study the Ports of Tampa and Hamburg**

This research introduces the geographical location and function (hub or feeder port) of the port cities of Tampa and Hamburg. It applies the discussed literature as methodology and analyses port characteristics on different spatial scales. It emphasizes the human dimension of the port regions on a micro-scale, and the efficiency, productivity and marketability on a macro-scale. The reasons for the choice of micro-scales for human dimensions is that societal goals and decisions about them in ports and other places are often best studied at micro-level as scales are not fixed instead develop over time (Smith, 1984, 147). Also, micro-scale approaches take beliefs, values and attitudes into account (Mitchel, 1983, 200). This is useful in the research of the ports of Tampa and Hamburg, which addresses human aspects.

The macro-scale analysis of economics complements this research via the exploration of possible economic regularities (Watson, 1978, 47). While some would
argue against the statement that geographers sometimes have problems comparing different spatial scales because different scales may eventuate in different results (Bird, 1956, 26), scales can mislead. This is exemplified in the following: there is a scalar conflict between national economic growth objectives and the degradation of local environments. The national economic efficiency based on a macro-scale could require short cuts that may involve micro scale measured disadvantages of noise, pollution, congestion and general environmental alienation within local areas. This discord between national interests and local environmental protection raises the question: national growth for what purpose? Part of the answer must lie in the quality of life enjoyed by all citizens at the micro scale. Hence, a confrontation between economic efficiency at one scale (macro) and environmental quality at the other (micro) must be addressed and coordinated within a majority agreed on a legal (macro and micro scale) framework. This assumes democratic principles. Consequently, this study will look into the legal structure of the ports of Tampa and Hamburg in detail on both scales.

Regional geography sometimes argues that if all parts of the earth’s surface are unique then geography cannot fully employ the scientific method (Grigg, 1965, 476-7). But classification and regionalization procedures can show that while regions are unique and relative, they can have much in common. Following this thought, this thesis addresses macro- scale quantitative economics on regional qualitative attributes of the ports of Tampa and Hamburg.

The first part builds on Baird’s (1999) quantitative assessment of the port of Felixstowe. This method is applied to ports’ characteristics such as physical and locational factors, ports origins, history, developments, transitions, expansions,
ownership and legal structures. Types and figures of port throughput, facilities and financial performance are charted, listed and compared. The second section researches the performance of the ports on their function as elements in value driven chain systems (Robinson, 2002) with the emphasis on port authorities’ role in global distribution systems: namely, who are the decision makers in the ports of Tampa and Hamburg, and how independently from global pressure do they operate?

What follows this analysis is a qualitative evaluation based on Tuan’s (1974) and Fleming’s (1987) discussions of places and ports. This part of the study begins with the ports’ position in society and their spatial location. It includes their definition, meaning and stability. This encompasses a micro geography of the communities, viewing fields of care such as interpersonal concern in a physical setting. Conclusions of this section derive from research of port reports, government publications, websites, brochures and fieldtrips.

The discussion covers three parts, which sometimes overlap: 1) port economics, 2) the residential portion of the port city and the waterfront district, and 3) the integration of the port into the city region. The first, evaluates each port’s performance on cargo. Specifically, it will explore port services within the sea port which have patterns and locations extending geographically from waterfront inland and from ground floors upward in port skyscrapers. Do they provide a variety of work, fair wages and benefits, advancement opportunities, and certain protection from outsourcing of jobs?

The second part analyses the lived-in portion of the waterfront district, and addresses housing, shopping, service and recreation facilities. In particular, are affordable housing, shopping and service facilities close to the work places? Did
gentrification displace minorities and low income residents in the port areas? Do residents, being part of the broader port community, have unobstructed marine vistas, recreational facilities such as parks, reasonably clear water and protection from noise, pollution and excessive commercial traffic? Is there a balance between human needs of the city port residents and the space and access requirements and the commercial seaport users? Furthermore, this part of the research looks into possible tensions resulting from economic advantages and social costs from competing residential, recreational and commercial land uses.

The third part, that summarizes the purpose and themes of this thesis analyses the integration of the port into the city, evaluating the common ground between the port community and the port authority. To what extent has preservation of the traditional seaport heritage with the existing infrastructure, such as parks, roads, visible symbols of the past, pedestrian and cycle routes, been incorporated in the port development? This section begins with evaluating transport concepts. A port and city must be accessible to different groups and suitable for a variety of different purposes. Ideally, everything must be utilized to its maximum potential. At a minimum, a cohesive network of transportation between city and port would exist. Consequently, this portion of the study looks into coordinates of private and public transport as well as user friendly cyclist and pedestrian routes. Finally, does a top-down bureaucracy dominate the decision making in the region or do residents have an impact on the environment in which they live? As has been addressed by Fleming (1987), port residents have a unique opportunity to live and work at the water’s edge in a functional entity with their city. The question is, in what way have the ports of Tampa and Hamburg managed their interpersonal concerns in their
physical settings? This thesis, then, addresses the qualitative impacts of ports in several ways. Chapter two looks at the Port of Tampa and chapter three analyses the Port of Hamburg. These chapters research the ports’ economic priorities, their administration policies, histories and social, environmental and cultural developments. Chapter four, the conclusion of this thesis, compares the Ports of Tampa and Hamburg based on the information from the previous chapters.
Chapter 2 The Port of Tampa

The Port of Tampa is located at a latitude of 27°36’N and longitude 82°45’W on Tampa Bay, a large natural indentation of the Gulf of Mexico. The map of Florida (Fig. 2.1) shows the port city of Tampa in central Florida, the bay, its market and its relative geographic relation to the rest of Florida.

Fig. 2.1 Map of Florida (www.AAA.com/visitFlorida)

The Tampa Bay region is the largest metropolitan market in Florida and with 4.67 million people the 10th largest consumer market in the U.S. (www.tampaport.com). The Tampa Port Authority official 2005 directory provides the following information: The boundaries of the port district, shown in Fig. 2.2, include parts of Tampa Bay, Hillsborough Bay, McKay Bay (Fig.2.3), Hillsborough River and Old Tampa Bay. Tampa Bay spans nearly thirty kilometers northeasterly from the Gulf of Mexico and extends about eleven kilometers at its widest point. Hillsborough Bay with a length of nine miles and a width of four and a half miles is located at the northeastern end of
Tampa Bay. The city center of Tampa on the Hillsborough River lies less than two kilometers from the Port at the head of Hillsborough Bay, close to sixty kilometers from the Gulf of Mexico. Old Tampa Bay is almost eighteen kilometers long and about ten kilometers wide. Vessels with good ground tackle can anchor offshore and inside the entrance east of Egmont Key and south of Gadsden Point Cut. A Vessel Traffic Advisory System is provided through transmission on radio to assist masters, pilots and persons in charge of vessels in mooring or passing other vessels. Deep draft vessels enter Tampa Bay through the Egmont Relocation Channel, which is approximately 15 meters deep and nearly 230 meters wide. A dredge channel leads through Tampa Bay.

Fig. 2.2 Egmont Channel to Port of Tampa (Tampa Port Authority official map 2005)

The white line in Fig.2.2 indicates the run of Tampa’s shipping lane from Egmont Channel into the Port of Tampa. The following is listed by Tampa Port Authority, 2006 and the Port of Tampa operations manual no. 4 (1992). There are about 130 meters wide and 11 meters deep branch channels that connect the turning basin at the Port of Tampa and the City of Tampa (Fig.2.3). East Bay Channel and Turning Basin, located east of Hooker’s Point (Fig. 2.3), are 11 meters deep and some 900 meters wide at the widest point and about 260 meters at the entrance. The project depth of Tampa Harbor and channels is almost 15 meters. Furthermore, plans exist to improve navigation features
at Big Bend’s entrance channel and berthing areas. The Channel intersects with Hillsborough Channels Cut A and Cut C which runs north to the Port of Tampa.

![Port facilities at Tampa, Florida](image)

Fig.2.3 portrays the Port facilities at Tampa, Florida (Tampa Port Authority official map 2005) The Port Authority owns the green colored areas. The purple colored areas are buildings, and structures and depths of the water channels that are marked from light to dark blue vary from 12 to almost 15 meters.

The landlocked, well protected natural harbor is closer to Mexico, Latin America, and the Caribbean than many hub ports (Fig. 2.4). Furthermore, this port is the closest full service U.S. port within a distance of 1,800 kilometers of the Panama Canal providing access to the Asian Pacific realm.
Fig. 2.4 shows the Port’s position in the Caribbean and its vicinity to Houston, the Bahamas and Jamaica which all have main container ports. Container ports are more profitable and environmentally challenging than feeder ports. Yet, regardless of its proximity to places of growing international trade, the Port of Tampa has essentially remained a feeder port, despite international trade expanding at a faster rate than the world economy generally, and the accession of the People’s Republic of China to the WTO which will integrate about 1.3 billion people into the global economy resulting in a robust growth of container shipment (http://www.hk24.de 2/2005).

The Tampa–Orlando corridor has become, partly due to its climatic conditions and no state income tax, one of the fastest growing regions in the nation. There are 30 million consumers within 500 miles of the Port of Tampa that are reachable by rail and
modern interstate connection. The port claims to be West Central Florida’s largest economic engine. Yet, it has essentially remained a bulk and diversified feeder port serving hub ports such as Houston, Savannah, GA, and Freeport, Bahamas. Why has the Tampa Port Authority not taken advantage of the port’s relative location to develop it into a hub rather than a feeder port?

**The Port’s Policy**

The policy is laid out in Port of Tampa’s Operations Manual No 4 which defines the regulations and practices that govern the port district. Administration, jurisdiction and statutory responsibilities of the Authorities are outlined in section 1 (June 3, 1991 original page 8, Tampa Port Authority). The Port Authority was created by act of the Florida Legislature and is a body corporate and politic by the State of Florida. The Port of Tampa is under the direction of the Port Director who is appointed by and responsible to the Port Authority. There are seven members on the board, which includes five appointed by the Governor, the current Mayor of the City of Tampa and one County Commissioner. State law demands that two Governor appointed members must have significant maritime background (Tampa Port Authority, John Thorington, 2006).

The Port is to some extent an independent entity and not an integral part of the City of Tampa because of its legal status. This fact diminishes democratic regional supervision as shall be explained. The total Port of Tampa occupies, according to John Thorington, Senior Director of Communications and Board Coordination (communication 3/15/2007), about 2,500 hectares and owns about half of that total. The Port Authority has jurisdiction over all of the land and the shipping operations in the port district although the Port does not own the facilities in the port district other than the
facilities so designated as the Port Authority facilities. Most of the terminal facilities in
the port district are owned by private operators, some of whom, however, are subject to
the uniform tariff of the Port Authority.

Section 1 of the Operations Manual No 4 that is issued by the Tampa Port
Authority (1994.8) defines the statutory responsibilities of the Authority, stating that it is
responsible for drafting and carrying out plans for the long-range development for the
facilities within and traffic through the port and the port district. The Authority has the
power of eminent domain if it is required to carry out this responsibility.

Port Authority decisions are made on macro and micro scale levels. The macro
scale activities are mainly accounted for by economic numbers reflecting the ports
operating success in a global market. They impact the region politically, socially and
culturally. Therefore, they will be examined on a micro scale level. It is important to
note that the Port Authority’s activities are linked to its controlling board, whose
majority has been installed by the Governor. This means that decisions regarding the
Port of Tampa are often made at the state (macro) level.

The History of the Port

The Port of Tampa started in the mid-1850 with the first shipment of cattle to
Cuba (2006 Tampa Port Authority Directory). The modern history of Port of Tampa and
its administration has been colorful. It began in 1945 in a “club-like setting” with an
attorney, a WW1 veteran, a realtor, two executives and a dredging operator, who were
appointed by Governor Millard Caldwell. This local procedure was a good start. If
continued, it may have had a positive effect on the Port’s development, as it would have
been handled by individuals with regional interests. Their first project was, to acquire
Closkey’s shipyard at the southern tip of Hooker’s Point from the War Assets Board (Fig.2.3). This suggests a good investment as the War Assets Board, being put out of business, had no further use for it. Then, to get a cash flow, the Port Authority leased the yard to Tampa Ship and Drydock Company. What followed were the Port’s increasing phosphate shipments that began in the 1880ies and the demand for larger vessels with deeper draft that required the deepening of harbor channels to almost 12 meters. This process was authorized by the U.S. Congress in 1950. While the challenge of cargo in large boxes (containers) expanded globally in the fifties, the Tampa Port Authority’s records show that it was more concerned with the phosphate industry’s plan to move south to Port Manatee.

In 1957, the Authority had engaged the consultant Praeger-Kavanaugh to develop a master plan for Hooker’s Point, which had not been utilized. The plan entailed the development of the east side for phosphate and the west for general use. By 1970, two phosphate terminals had been constructed. Phosphate trains were redirected to approximately 200 hectares of terminals that were equipped with a phosphate elevator.

In 1971, some diversification took place at the Holland Terminal on Hooker’s Point. Cold storage facilities for the shipment of fresh citrus were installed, and shipyards were expanded due to a contract to construct five tankers for the Military Sealift Command. Some attention was given to the recreational cruise industry, which was largely operated from Miami and the Everglades. In 1981, the Bahamas Cruise Line successfully introduced seven day cruises to Mexico, leaving from Port of Tampa.

Although the Port of Tampa experienced a phosphate slump in 1982, a diversification toward growth by containerizing general cargo, was put on hold. PRC
Harris, a Fort Lauderdale consultant, argued against the $40-50 million investment based on too little traffic. This assessment set the course of the port’s plans for the next decades. While Port Director Emmet Lee stressed in 1983 the Port’s objective to diversify (Tampa Bay Business, Dec.11-17,1983), its traditional shipments of bulk commodities increased by 13.6 percent while the general cargo portion fell by 16 percent reflecting, 3 percent of the Port’s total tonnage.

Other ports, such as Houston, Savannah, and Kingston, Jamaica, took a more aggressive approach toward general cargo, in particular container shipping. Even Port Everglades in South Florida installed its first giant container crane in the late 1970s. In 1982, the Port of Tampa moved only 3,991 containers, holding 36,649 tons of cargo. In comparison, Miami moved 2.1 million tons of container cargo, followed by Jacksonville with 825,000 tons, according to Container News (1982). In spite of the success of other container ports, Frank Clewis, marketing director of the Port of Tampa in the early eighties, argued that phosphate and related products were the “lifeblood” of the area. Yet phosphate is a non-renewable resource, and Central Florida’s mines will, according to various estimates, run dry within forty years.

**General Cargo Facilities**

The following port throughput facilities for shipments are compiled from the official 2006 Tampa Port Authority Directory: There are eleven general cargo berths at the Port of Tampa with six of them providing container facilities. Berths 201 and 202, face East Bay, north east of Hooker’s Point. These multi user docks provide secure multi purpose cargo facilities, have heavy lift capabilities, and transit sheds of some 27,000 and 33,000 square meters. The berths are equipped for container and general cargo.
handling of close to 45,000 kilograms. An area of almost 12 hectares provides Ro-Ro (roll on and off) access. The berths 208, 209 and 210 provide similar facilities but also handle forest products, vehicles, steel and steel products. Berth 211, another multi user dock, has cargo capabilities for melons, seafood and other chilled and frozen goods. Docks 212 and 213, multi-user docks, handle containerized cargo, vehicles and steel products. They have no Ro-Ro access. Berths 250, 251, 252 are multi user docks facilities. Seventeen berths serve dry, liquid and scrap commodity shipments. Berth 201 is equipped with a Ro-Ro access.

**Bulk Cargo-Dry, Liquid and Scrap**

Opposite of Hooker' Point at East Bay Channel Steel Port of Florida handles scrap and steel products.

![Cargo handling at berths](2006 Tampa Port Authority Directory)

As shown in Fig. 2.4 (Tampa Port Authority Directory, 2006), berth 1 handles scrap metal and steel products. The facility is located opposite Davis Islands. The products are stored, shredded and cut on site.

The adjacent berth is a liquid sulphur facility with five tanks of 8.3 million gallons capacity and a 10” pipeline. A berth, at Port Sutton Terminal Channel, is a multi-user dock with a 12,900,000 gallons tank capacity, one 14” pipeline, one 8” pipeline storing commodities such as liquid nitrogen, liquid calcium nitrate and molten sulphur.
Two berths store molten sulphur, sulphuric acid, bunker, asphalt, anhydrous ammonia and cement. Another berth 30 claims to be a state-of-the-art liquid propane gas terminal with a 26.5 million gallon storage tank. The adjacent berth is equipped for cement, limestone and coal handling. Other berths handle cement products. A terminal, west of Hooker’s Point handles outbound phosphate and fertilizer products at load rate of 1,300 tons per hour. The remainder of the bulk cargo berths accommodate a variety of commodities such as petroleum products, anhydrous ammonia, caustic soda, sulphuric acid and cement building and construction materials.

The Priorities of the Port

The various movements of commodities are compiled from two annual official Port Authority Directories, fiscal 2001 and 2004, listed in tables 2.1 and 2.2. There is a large increase in shipping of commodities such as phosphate and related products as well as scrap metal over the two periods. Containerized shipping, was not prioritized as the following shows. In fiscal year 2004 containerized shipping ranks third after scrap metal and steel products (Tampa Port Authority Directory, 2006). The 2006 Tampa Port Authority Directory also ranks containerized top foreign exports as lowest on a scale of five. The following tables (table 2.1 and 2.2) show the ranking of other commodities shipped.
Table 2.1: Fiscal Year 2001 Top General Cargo Commodities (Tampa Port Authority Official Directory 2002/2003).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Commodity</th>
<th>Total Net Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Petroleum</td>
<td>17,484,220</td>
</tr>
<tr>
<td>2</td>
<td>Phosphate products</td>
<td>17,287,160</td>
</tr>
<tr>
<td>3</td>
<td>Scrap metal</td>
<td>309,589</td>
</tr>
</tbody>
</table>

Table 2.2 Fiscal Year 2004 Top General Cargo Commodities (Source: Tampa Port Authority Official Directory 2006).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Commodity</th>
<th>Total Net Tons</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Phosphate Products</td>
<td>19,100,656</td>
</tr>
<tr>
<td>2</td>
<td>Petroleum</td>
<td>18,155,777</td>
</tr>
<tr>
<td>3</td>
<td>Scrap metal</td>
<td>438,745</td>
</tr>
</tbody>
</table>

The above statistics reflect the Port Authority’s economic priorities which Richard A. Wainio, director of the Port Authority addressed in a publication “State of the Port foundation for the Future” on December 11th, 2005: dry and liquid cargoes have been and will continue to be the core business of the port. He outlines the port’s diversity:

1. the largest single commodity group is petroleum,
2. the port is the “worlds preferred fertilizer port”,
3. millions of tons of building material fuel the area’s construction business,
4. the third leading commodity by tonnage is coal.

There is consensus about priorities among members of the port management. Marketing Manager Greg Lovelace points out that the port wants business with a high
volume, lots of ship activity and generally goes after what the market dictates. According to him, the port cannot be a mainline (hub) port as it is not on a mainline route. By comparison, the port of Houston, also not on a mainline route, handles more than one million containers yearly. This assessment is consistent with The Port Authority’s official directory of 2002/2003 offering the goals of a five year strategic plan:

1. stabilize and support bulk cargo;
2. increase general cargo;
3. attract industrial mixed use maritime tenants;
4. develop container traffic via strategic alliances;
5. increase cruise passengers to at least one million a year.

John Thorington, Senior Director of Government relations, Tampa Port Authority, backs these goals on November 10\textsuperscript{th}, 2004 in his e-mail to the author of this paper: First, the Port of Tampa is the largest port in Florida. In 2003 the Port handled 48.5 million tons. (In 2005, the tons of cargo handled as the above table shows increased to over 50 million tons annually.) Second, The Port’s choice to become a bulk and feeder port and not a hub port is based on its diversification. Historically, container shipping has comprised a very small part of the Port’s total tonnage.

While the development of container business is an integral part of the Port’s diversification, it will essentially limit its shipments as a feeder connection to main hub ports. The Tampa Port Authority Directory of 2006 emphasizes its commitment to bulk cargo handling: bulk cargos are the foundation upon which Tampa has built its global reputation and remain the Port’s number one line of business. Richard Wainio reconfirmed the Port’s goals on December 7\textsuperscript{th}, 2006 in his latest State of the Port address:
even as the port works to diversify, the dry and liquid bulk business remains the cornerstone of this port. The single largest commodity group is petroleum products, with an entry of 19.7 million tons of refined petroleum during 2006. Phosphate and fertilizer including unhydrous ammonia account for 15.4 million ton or cargo or nearly 32 percent of the port tonnage during the year (2006 State of the Port address).

The handling of bulk commodities are, according to the Port’s Environmental Director, more challenging than container shipping. Some bulk commodities like special rock for water filtration are relatively clean. Fertilizer, on the other hand, has to be handled very carefully. It is made of phosphate, ammonia, and sulphur and can cause problems if it is released into the environment. The Port does not enforce clean fuel use by vessels which projects future environmental problems for Tampa. The environmental director argues in a personal communication that ships would choose other ports if cleaner fuel use were enforced. He sees this problem as an international issue.

The Port prides itself having an operating income of $16.9 million, up over 15 percent from the previous year. Despite its traditional focus on bulk handling, the Tampa Port Authority now realizes that it may change course towards handling more lucrative commodities. The Port has been working with their Master Plan consultants, Moffatt & Nichol, a group of international port designers, on a comprehensive long term strategy that was supposed to be completed in early 2007, but at this point is far from being final. The market assessment shows, according to Richard Wainio, that the greatest potential for future growth in Tampa’s business is in the container market.

The public and private port facilities encompass about 2,000 hectares of land, and businesses directly employ an estimated 35,000 people (John Thorington, Tampa Port
Authority official directory, 2004, 2007). Also the impact goes beyond the Port as it contributes directly and indirectly to the creation of over 100,000 jobs pumping revenues of $13 billion annually into the seven county region surrounding Tampa Bay (John Thorington, Tampa Port Authority official directory, 2006).

In the context of discussing social, political and cultural effects that are derived from the Port’s economic performance within the Tampa Bay region, it is important to look at the distribution from various cargo handling facilities and their related services within functional location patterns. They represent, according to former Port Director Robert Steiner, 11,000 truck drivers coming to port everyday, people who work in the port, warehouse workers, CSX railroad’s train personnel handling phosphate, bank workers, government workers, and more.

The executive summary given by John Thorington (2006) states the Port activity created nearly $6.2 billion of personal wage and salary income for Florida’s residents. The direct wages and salaries amounted to $827 million from 16,370 port employees earning average salaries and wages of $50,512. The personal state and local taxes that were generated by activity at the Port amounted to $572 million. These numbers do not take into account externalities, that includes the environmental consequences for the region.

**Major Emissions From Port Facilities**

The Port of Tampa, as has been documented, focuses on the storage and transport of bulk commodities. The emissions from pollutants into the air from and water from these processes, may cause concern to the residents.
Trademark Metals Recycling, LLC on 42101 Maritime Boulevard, opposite Davis Island, for example, was inspected by EPC (Environmental Protection Commission of Hillsborough County) staff representing the Air, Water and Waste divisions on March 13th, 2006 and was issued a warning for several permit violations resulting from complaints of smoke and odor that had been noticed by residents on Davis Island.

The inspection centered on wastewater and storm water issues. The facility uses potable water in its shear and dust suppression in its grinding operations to minimize environmental pollution of neighboring residential areas, such as Davis Islands (Environmental Protection Commission of Hillsborough County). But, as complaints of residents suggest, the amount of water used in these activities is insignificant, and therefore most likely not very effective. More water usage, however, may result in an increase of water pollution as the finding states that storm water is the strongest contributor toward water pollution. The Company’s Storm water and multipurpose permits expired on February 23rd 2006, and no renewal of coverage was evident. The facility utilizes the Port Authority’s storm water system. The inspection by the Protection Commission of Hillsborough County (2006) evidenced some poorly defined retention...
area with scrap piles, dusty conditions at the side, and two storm water inlets that were silted in and in need of cleaning and repair. Furthermore, no sedimentation protection was provided.

According to permit No. 0570446-004-AO which was valid until November 26th 2008, Trademark Metals Recycling produces/transfers up to 2.74 million tons of scrap metal per year. It is primarily “shredded ferrous scrap” which is handled outdoors. Although emissions vent directly into the atmosphere without stacks, particulate matter emissions are controlled by adequately wetting the stockpiles prior to transfer. The scrap metal is transported by truck, railcar or barge. Assorted scrap metal (cars and appliances) is fed into a rotary hammer mill. A conveyor belt moves the material to a magnetic feeder to separate the ferrous scrap from the non-ferrous metals. Particulate matter emissions are controlled by adequately wetting the stockpiles prior to transfer and taking reasonable precautions regarding work practices.

Freeport McMoRan, Sulpur LLC handle and store molten sulphur and obtained permit No. 0570100-004-AO with the following general conditions (Environmental Protection Agency of Hillsborough County). Visible emissions from an emission point in the molten sulphur system shall not exceed 10 percent opacity (six minute average) except during periods of ship unloading when visible emissions from the molten sulphur storage tanks shall not exceed 15% opacity (six minute average). Sulphur particulate matter emissions from each storage tank and transfer systems shall be less than one ton per year. In order to limit the potential emissions of sulphur particulate matter, particulate matter, hydrogen sulfide, and volatile organic compounds from individual emission units
and this facility, the maximum molten sulphur throughput for the facility shall not exceed 1.6 million long tons per any 12 consecutive months period.

According to the Hillsborough County Protection Commission, CF Industries, Inc. on 2520 Guy Verger Boulevard has been issued a permit to store and handle phosphate products with a maximum product transport rate of 2400 tons per hour. There are some special conditions. The abstract of some of them list:

A) No more than 500,000 tons of GTSP (Granulate Triple Super Phosphate) and 4,670,000 tons of MAP (Magnesium Ammonium Phosphate) /DAP (Diammonium phosphate) shall be handled at the facility in any given 12 months period.

B) All fertilizer products will be coated with dust suppressant prior to receipt at the Tampa Warehouse facility.

C) For products manufactured by CF Industries at the Plant City Phosphate Complex, records will be maintained on suppressant data and the amount of dust suppressant applied (gallon/ton) for each type of product.

D) Products received from other sources than CF Industries require certification that dust suppressants have been applied prior to receipt.

The hours of operation are not restricted. If the Environmental Protection Commission finds reasons, such as complaints of increased visible emissions or noticeable questionable maintenance of control equipment, to investigate possible violations, it may require the owner or operator to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and provide a report on the results.

Ammonia is loaded into trucks and railcars for shipment offsite. There are two truck loading arms and five railcar loading arms. A propane fired three inch flare is used to flare off ammonia vapors in trucks or railcars, as needed, prior to loading. The storage tank has a propane fired eight inch flare on the roof of the tank to flare off ammonia if the pressure in the tank exceeds 1.1 psi. Propane for the flare is stored in a 100 ton horizontal tank.
According to a memorandum by the Hillsborough County Protection Commission of August 9, 2006 the Ammonia Terminal of CF Industries, Inc. had two accidental releases at its 38,500 ton anhydrous ammonia tank. One was due to a failed truck/railcar transfer line pressure relief valve. The other occurred more recently because of warm ammonia vapors in the transfer lines. The permit now requires annual inspections of all pressure relief valves and purging of the transfer lines to the flare prior to loading. It must also be noted that the chemical processing of phosphate result in phosphogypsum stockpiles. There are according to EPA records about one billion tons of phosphogypsum stockpiled in 25 stacks in Florida.

As earlier outlined, the Port Authority encourages increasing the handling of bulk commodities, such as petroleum, phosphate related products, liquid sulphur, ammonia and scrap metal. The author of this thesis observed that the Port facilities are located within less than two miles from downtown waterfront, a redevelopment area with plans to increase its density for residences. Numerous bill boards advertise various projects. The author of this research visited two residential towers with twenty-six floors that are being marketed for around $ 600,000 per unit with wrap- around balconies that face gypsum piles, oil tanks, scrap metal facilities and parking decks. Numerous residential apartment complexes close to the towers have been completed. The ground floors are laid out for retail and service facilities, the upper floors for residences that offer no views to the nearby waterfront which is blocked by shopping facilities on Channelside Drive. Others, still under construction, offer bankruptcy sale bargains. How did this development evolve?
Housing, Shopping Service and Recreational Areas, Public Transport, Bike and Pedestrian Paths

Obviously, the distribution and the use of real estate in and close to port facilities impact the region economically as they provide employment. This ties into political, cultural and social repercussions that are linked to factors such as the handling of adequate and affordable housing, schools, service and shopping facilities, recreational areas, parks, and public transportation. Furthermore, the installation of bike and pedestrian paths that are safe can lower traffic congestion and pollution. Overall amenities that compensate workers for hours of work they spend at Port related facilities should be made available to them. Also, the issues of clean air, water and safety concerns that may lead to present and future health problems need to be considered. These are some of the reasons why past, present and future administrative development plans and their implementation are relevant, and one may note that City, County and the Port Authority, all share an obligation to safeguard the residents’ quality of life.

Redevelopment Project Studies

The County and City Planning Commission have often addressed housing and land use development/redevelopment projects that border on the Central Business District. One of them is Tampa Heights, an elevated, old subdivision that once equaled that of affluent Hyde Park, adjacent to Bayshore Blvd. Tampa Heights is important because of its proximity to the Port, which employs directly 30,000 people, and the Central Business District of Tampa that provides 65,000 jobs (Central Business District Periphery Housing Study 1990, 1997).
The area lends an historical background to planning philosophies as it grew organically (not planned out on a drawing board) over time. This suggests that Tampa Heights today could house thousands of port and city workers. Furthermore, with many old trees lining the roads close to the Hillsborough River, it could be used for parks and recreational amenities. However, many buildings are dilapidated, windows are boarded and doors show posters “condemned” by the City of Tampa. All this took place years before foreclosures depressed the real estate market.

Tampa Heights housing development began, according to the Central Business Periphery Housing Study of 1990, with a subdivision in the 1880s and 1890s in the neighborhood north of downtown (Fig. 2.5). This expansion was meant to accommodate a growing community and had a convenient location because it bordered on the original downtown and ended at the Hillsborough River, thereby avoiding building a bridge across the water way. The houses were built by individual homesteaders on a higher elevation, adjacent to Ybor City and West Tampa. The population reflected Tampa’s varied ethnic composition of Latinos, Anglos and Blacks.
The nearby downtown Channel District underwent a period of substantial development in the late 1940’s when the majority of water, sewer and storm-water systems were constructed. This benefited new business and improved residential neighborhoods occupied by port workers. The development progress in the area came to an end when Interstate 275 and the Crosstown Expressway were constructed dissecting neighborhoods (City County Planning Commission study conducted in October 1990). This encouraged unconstrained suburban sprawl for the following reasons. Large areas of agricultural land were available and low priced. It was rezoned for residential development, and county and city received increase property taxes. Low gas prices made commutes affordable.

Although Tampa Heights houses rank among the finest examples of their particular style, the area continued to decline before it had reached its potential (Channel Business District Periphery Housing Study, 1990, 1997), meaning it could have been upgraded, and prevented residents from moving. One may argue that most that was needed, was paint, plywood, shingles and some pride of residents in the region. Yet, the situation stimulated new opportunities for redevelopment because of the area’s proximity to the Port.

A lengthy process of downtown waterfront redevelopment planning began that would last decades. This research will refer to three studies, the Central Business District Periphery Housing Study of October 1990 (background research), the Central Business Periphery Housing Study of October 1990 (technical report), and the Channel District Study of December 1997. The studies resulted in a strategic action plan for the Channel District Redevelopment Area that was based on the City’s Comprehensive Plan. This
A state-mandated legal document is adopted by governments to guide a long range growth and development over twenty years.

There had been numerous downtown waterfront redevelopment plans by the Hillsborough County/City County Planning Commission before. They were symbolic in content as they lacked financial details in implementation, and included little public input from port employees. Yet, the region had potential for improvement.

Opportunities for Waterfront Peripheral Redevelopment

Opportunities for waterfront peripheral redevelopment were evident from census data that were gathered for the years 1980 to 1985. A trend analysis suggested a pending shortage of affordable housing (Hillsborough County Planning Commission Background Research, Periphery Housing Study, 1990, p.7).

Furthermore, at that time the area had many vacant lots that were suitable for redevelopment as many homes had been condemned and demolished, a process executed by city inspectors following ordinances to safeguard occupants from living in hazardous structures. A more sensible ordinance would require the owner of the property to make it structurally safe, thus providing adequate housing in the area. As very few houses were rebuilt, the housing supply did not meet the demand which was related to the work force of the nearby port. Also one-third of the residential units were overcrowded, suggesting a pending shortage for affordable housing and foreshadowing massive displacements of residents.

Yet, due to condemned and demolished residences and the availability of undeveloped lots, scope for housing existed. Nearly 45 hectares of residential property were available that accounted for almost one-third of the total land usage. In addition to
that, in 1990, one-fifth of the Downtown North area was vacant, indicating that there was land available for new affordable housing construction. The housing market was depressed. This set the stage for real estate speculation because properties were reasonably priced due to low rents and underutilization from declining port-related businesses (Central Business District Periphery Housing Study, 1990, 12). A number of them created a potential of large parcel land assembly such as the Ybor Channel Subarea, part of the Channel District, which became the target of developers.

The Channel District comprises approximately 80 hectares adjacent to the Port of Tampa’s Ybor and Garrison Channels along the eastern side of Tampa’s Central Business District. Because of its waterfront, it became a priority to development plans with the City, County and the Port Authority (Fig. 2.6). The Channel District is defined by the Crosstown Expressway on the North, the Ybor Channel on the East, the Garrison Channel on the South, and the Meridian Street on the West (the Planning Commission Channel District 1997, 4). The Channel District Council is a group of property and business owners, residents, and other interests who claimed desire to rehabilitate the Community Redevelopment Area (CRA) into an attractive place to live, work and play. Yet, workers in the district were not represented in the Channel District Council.

The workshops in 1990 (Central Business District Periphery Housing Study) and 1997 (Channel District) provided observations that focused on viable neighborhoods. Both workshops were preliminary to Tampa’s comprehensive redevelopment plan of 1998 which was required by Florida legislation. The reason for the meetings, as the planning commission stated, was to get things moving and to put emphasis on previous
efforts that had produced attractive but impractical ideas. To implement them, money was needed.

**Creative Financing Options for Redevelopment**

There are various ways to finance redevelopment of real estate. One was introduced in the meeting of 1997 (Channel District, 19) Dana Crawford, a special guest from Denver who had pioneered successful conversions of derelict warehouses into mixed use neighborhoods, offered some creative ideas for financing. She referred to her own involvement in a “loft movement” with wood floors and brick walls. Those upper stories of warehouses that were usually not portioned off into rooms were cheap enough to purchase. Yet, once the lofts were pre-sold the remainder of the buildings were re-developed through financing from Fannie Mae. For Channel District re-development and similar projects funding could have been raised the same way or through municipal and corporate bonds.

A local option would have been a grass root oriented creation of bartering forming a regional service exchange based on supply and demand. An article, Bartering by Jack Schacht (The Sideroad, 2007 [http://www.sideroad.com](http://www.sideroad.com)), a Blue Boulder internet Publishing site, Ontario, Canada) explains how the system works. The simplest form of bartering is where one swaps a good or service for another. Business or service providers list a good or service for trade through exchange. In return, the participant receives a trade credit based on the dollar value of the good or service. The business or service provider can then use its trade credits to purchase goods or services offered by other members. Could bartering finance re-development of mixed neighborhoods such as The Channel District, Tampa Heights and other downtown areas?
Hypothetically, it would start within the region with supply and demand of housing. Both are or were available in the above areas. Affordable housing, for example, has been in demand for years because of port related jobs, and supply has been available in form of labor, derived from a diverse population that has been or can be trained in fields, such as construction, tile, carpentry and others. Furthermore, building material, plumbing, electrical supply companies and many others would do well on the supply side in the area partly due to favorable zoning and low property prices.

The next step, would require forming a community involved grass root movement. It would include supply offers from local retailers, service facilities, restaurants, and tradesmen and labor from present and future residents. Banks could provide loans based on and secured by bartering qualifications (accounts). Instead of outsourcing the work to developers with high overhead expenses and mark ups, reconstruction by locals would by more cost efficient. Furthermore, the acquisition of goods and services would require less cash flow as an exchange of both could be conducted by using surplus of inventory and service facilities. This process would attract a variety of marketable skills to participate in the region’s economy. Accountants, for example, could offer services for meals in restaurants in return, lawyers, office workers, nurses, babysitters could barter with technical skilled residents such as carpenters, electricians plumbers and many others. Yet, none of the above options were considered and traditional financing was chosen.

The Distribution of Waterfront and Downtown Real Estate

Thus, private developers became involved in financing, and therefore the distribution of waterfront and other real estate assets was left to them. The Mayor of
Tampa at that time encouraged a Master Plan (The Planning Commission, The Channel District, December 10th, 1997 P 20) which included Tampa Port Headquarters and new upscale residential efforts at Harbor Island. As no guidelines for public utilization were brought up, it meant that those who had the resources would have the largest say in what, how, and where to construct these facilities.

Fig. 2.8 Channelside waterfront has been privatized. (2006 Port Authority Directory)

What followed was the construction of the Mariott Hotel, the Ice Palace (St. Pete Times Forum), the Channelside District Entertainment shopping complex that houses restaurant chains, bars, a movie theatre and a number of docks for cruise lines. All projects target visitors and spectators for sport events with the goal to make them spend money which in most cases is outsourced to out of state investors. This suggested little community spirit, such as to keep the funds in the region leading to a multiplier effect in creation of jobs.
Harbor Island, part of the overall project became a beacon for the affluent, while original residential neighborhoods which had been occupied by blue collar workers and the lower middle class since the 1920’s were either abandoned, condemned or deteriorated. This occurrence was surprising as past plans had tried to address diverse housing.

There had been opportunities to enhance the residential development in portions of the downtown waterfront in 1967 when the City leaders proposed a series of developments that included government offices, commercial, high-density residential, and high rise office buildings. In 1983 the Community Redevelopment Area which comprises 60 percent of the Central Business District was created with tax incentives for projects. The majority of them would be carried out by investors ignoring the residents’ priorities.

A City of Tampa and Hillsborough County Planning Commission meeting (1990, p.17) ranked factors which influence the choice of where to live. Fig. 2.7 lists areas by census tract where people like to reside.

![Fig 2.7](image)

**Fig 2.7** Potentially desirable residential areas near the Port of Tampa (Central Business Periphery Housing Study, 1990)

The area (Fig. 2.7) would need an evaluation of security, price of housing, roads and public transportation, closeness to work and available shopping facilities. The
Channel District plan of 1997, as has been pointed out, pertain to land use and development. While port workers were not represented, there were discussions with dozens of interest groups including one board member of the Tampa Port Authority who owned much of the land. The Planning Commission Report (1990, 4) pointed out that the CBD periphery areas have significant untapped redevelopment potential, and affordable housing cannot be achieved without the provision of private and public subsidies and incentives. Housing should be targeted to a broad spectrum of lifestyles and income groups to appeal to as large a segment of the population as possible. However, these ideas did not match the Port Authority’s goals.

The Port looked after its economic interests, and had bought more land in the 1980’s to accommodate cruise lines and tourism at the Garrison Channel which borders on the Convention Center at the west and ends at Cruise Terminal 2 at the east end (Fig. 2.6). The Port Authority encouraged development and concentrated on commercial projects. This was in line with the creation of the community redevelopment area which encompassed sixty percent of the central business district. As a result, developers obtained, without community approval, large parcels of prime waterfront at the Channel for hotels, restaurants and retail shops. There was no referendum, no public outcry and no opposition. The chain link fence (Fig. 2.8) prohibits public access to the water. The chain of eateries on the left have water view for patrons only.
Other examples of failed strategies are the market place on Harbor Island that opened in 1985 and went out of business after a few years of operation. What followed was the construction of Harbor Island residences which began in 1991. This upscale development is largely gated and has no public spaces. Its public monorail transport system, that connected it with down-town Tampa was, abolished. The redevelopment plan for the Channel District was completed in 1993.

The above demonstrates the influence of developers on regional environmental planning. No attempt is made to consult or involve present or future residents in the process of planning. Corporations who are foreign to local issues determine where people should live. They also decide on residents can shop in the area, and in what stores, as chains and anchor stores dominate the Channel District. Small local retailers and service providers have been driven out of business due to high rents. For those who cannot pay
for downtown living, there is “gated suburbia”, spread out subdivisions with what some would call a ghetto like atmosphere. Public transport for commuters is inadequate.

Attention must be drawn to the fact that the region’s residents were not adequately represented in this process. Two reasons which will be discussed in more detail contributed to this outcome. One was that the Port operates as an entity with eminent domain which may lead to a conflict of interests between the Authority and the residents. Second, as Terry Eagan, Librarian of Hillsborough County City Commission suggested during my visit in his office in 2005, both city and county compete for power at the expense of the micro region’s residents. As result, the community that works in the port region did not organize, did nothing to defend its “home” and became disenfranchised.

**Opportunities at the Ybor Channel**

Opportunities for integration of waterfront, residences and retail and shopping facilities still exist in some sections.

![Fig. 2.11 Ybor Channel Real Estate Opportunities (Tampa Port Authority Directory 2006)](image-url)
The Garrison Channel (Fig.2.9) is linked to another deep water channel, the Ybor Channel, which defines the northern end of the port and houses the Tampa Port Authority, Cruise Terminal 3 and the Florida Aquarium at the south. Both channels embrace downtown Tampa at Channelside Drive at the west and Adamo Drive at the north.

These channels are close to the City of Tampa’s Central Business District and real estate is available. Numerous land lease opportunities are being marketed at present through the Florida Gulfcoast Commercial Association of Realtors according to Peter Ferri, the Port Authority’s Director of real estate. Some 7 hectares of Ybor Channel real estate, north of the Authority’s headquarters along Channelside Drive, are available for lease to developers. Up to 60 hectares undeveloped or “greenfield” hectares at Port Redwig, near Big Bend west of U.S. 441 are offered. In addition, a total of 36 hectares in seven separate tracts on Pendola Point at Port Sutton, south east of Hooker’s Point, combining 41 contiguous land parcels are on the market for lease. Then there are nine parcels totaling 45 hectares on Hooker’s Point. When these parcels are being developed, will there be sufficient housing for employees, parks and recreational areas supplied?

The Channel District Plan of 1997 had outlined some useful ideas. They make sense, but there is no plan in place to bring these ideas to fruition. The plan suggests the creation of a Channel District park system. While a park will attract the City’s residents, there is no provision for free parking. Also the planners want to foster an environment that will attract artists to both live and work here, but details how to finance this project are not given. This plan, though, could be implemented through bartering. Artists could potentially finance their housing with their art work. It was also brought up to revitalize
the waterfront. This idea may have introduced an opportunity to open concession stands for food, picnic areas, fishing docks and boat ramps and canoe and kayak rentals. But specifics were not addressed. Another proposal suggested to create an integrated lifestyle of living, working and playing within the Channel District. But no details of social infrastructure, such as affordable housing, schools and more were addressed. and this would require affordable housing, schools and playgrounds. There were no provisions in the plan to provide this infrastructure. The vague propositions continued with the recommendation to prepare an integrated Master Plan for the Channel District and Central Business District, create a tax increment financing district and implement the master plan. For the plan to succeed, a funded, a staffed Channel District organization with professional management and volunteer efforts would have to be established to promote, market and cultivate the development of new Channel District business. However there were no provisions about the preservation of symbols or historic elements of the Port.

Some goals materialized according to a Strategic Action Plan of the Channel District Redevelopment Area. Some are pending, and others are planned. The approximately 80 hectares adjacent to the Port of Tampa’s Ybor and Garrison Channels have been influenced by its location and the historic dependence upon port related activities. Different properties have been identified by their current status.

- Committed projects are in the planning stages and have received zoning and site development approval and may have started construction. They amount to more or less 10 hectares.
• Uncommitted lands which include about 28 hectares remain in an underdeveloped existing condition and are developable.

• New or renovated projects of approximately 16 hectares have been completed or upgraded and tend to support their long-term retention.

• The remaining lands of nearly 30 hectares include public right of way and open water within the District boundary within Garrison and Ybor Channels.

Developers are prepared to carve up the last section of downtown waterfront.

**Development of the North Ybor Channel**

The North Ybor Channel property has been evaluated and analyzed by Wilson Miller, Inc. and Mechanik Nuccio Hearne & Wester, P.A. at the request of Gibraltar Developers (North Ybor Channel Comprehensive Plan Amendment, 2007).

Fig. 2.12 North Ybor Channel Real Estate (Tampa Port Authority Directory 2006)

This area within walking distance of downtown, merits attention because of its re-development potential.
The above developers proposed in March 2007 comprehensive plan amendments based on existing conditions and character in that area. There are several parcels at the north end of the Ybor Channel with a total of 21.43 acres.

It is primarily occupied by the Intercontinental Ship Repair Company. The future land use classification on the site is Heavy Industrial and the zoning is a mixture of Industrial Heavy and Channel District 1 (CD1), for that portion of the property within the Channel District CRA (Fig. 2.9). The property borders are close to the Crosstown Expressway and Adamo Drive to the north, 19th Street to the east, Channelside Drive to the west, and Harbor Street, Ybor Channel, and Sahlman Drive to the south. The surrounding parcels are primarily office or light industrial in use. The Planning Commission’s existing land use data show a mixture of light commercial and heavy industrial uses in the surrounding area, including Portland Cement to the north east of the site, and vacant industrial warehouse facilities to the east along 19th Street. The south of the property along 19th Street houses a petroleum storage facility. About forty percent of the site acreage is part of the Channel District CRA. To the south along Channelside Drive is the future location of Tampa International Technology Center which recently submitted a request for rezoning the land for hotel and residential use.

According to a study of the North Ybor Channel Comprehensive Plan Amendment, 2007, there are few, if any, remaining parcels along the urban waterfront left that could be considered suitable for urban mixed-use development. The North Ybor Channel Plan Amendments list a variety of references, such as the City of Tampa Community Redevelopment Agency (1988) and the Hillsborough County City-County Planning Commission (1998). Both have addressed land use development designations.
None of them has shown a cohesive integration effort to unite the Port City. It would be simplifying the cause of the problem to blame just these authorities. After all, the residents elected their officials. Their knowledge, education, or lack of it, and interest pertaining to the fate of their environment were also instrumental to the outcome of the area’s redevelopment, which despite decade long re-construction plans, and their implementation has not raised the region’s quality. The ideas laid out in the Hillsborough County City-County Planning Commission (1998) and The Tampa Community Redevelopment Agency (1988), which Gibraltar Developers use as a base for redevelopment of the North Ybor Channel District, are a copy of failures that were evidenced in the development of the Channel District.

The above research has been a documented investigation of the Port’s past and present economic, social, cultural and political environment. At this point, a practical analysis of the region will be used to support the above findings which is done by car, bike, and kayak and includes a walk around the Port City’s waterfront.

A Field Excursion Into the Port City in March, April and May 2007, by Car, Bike, Kayak, and on Foot

The car ride starts at Ballast Point Park, the southern tip of Bayshore Boulevard where the pedestrian walkway that faces the waterfront ends. Driving north on Bayshore Boulevard, a six miles stretch, which introduces itself as a linear park on Hillsborough Bay. First, one notices unobstructed views of phosphate mine stacks to the east across the bay. They are hilly, sandy and sometimes greenish remains from phosphate processing, and there are no signs of residential development as the soil has been contaminated.

According to the Environmental Protection Commission of Hillsborough County explains
phosphate Gibson stacks are still being used for depositing by-products from phosphate chemical processing for fertilizer. The active yellow stacks are expanding to the south and contain phosphogypsum the use of which has been banned since 1989 based on the trace amount of radioactivity it contains. They are permitted to reach a height of 200 feet.

Northeast, the skyline of the Central Business District Tampa glimmers in the setting sun. The drive continues north toward Davis Islands that stretch to the east, and cranes (not birds) at Hooker’s Point appear at the horizon. The water view is replaced with concrete structures after one has passed a small marina. Both the Tampa Convention Center and the Mariott waterfront hotel on Channelside Drive block the view to the Garrison Channel. To be able to look beyond this development, one parks at a 24 hour enforced meter and walks to the waterfront behind the Tampa Convention Center which is close to downtown and City Hall, the core of the City of Tampa.

Taking a Walk

Fig. 2.13 Port City’s Waterfront. (2006 Tampa Port Authority Directory)
At 7 pm on a Friday evening in April 2007, the exploration of the Port City’s waterfront continues with a walk on a stoned sidewalk that is illuminated behind the Marriot Hotel (Fig. 2.11). The stretch is short and ends at the St. Pete Times Forum after I have passed a number of expensive, well maintained docked motor yachts, a few empty benches and one couple with a child. No other pedestrians or bikers are visible. A short distance before the St. Pete Times Forum, things change. There is a sport event going on, and the area fills up with cars and people. The traffic lasts until the event begins. Now one has two options. One is to walk across the bridge to Harbor Island, the other is to turn north on Garrison Street into Channelside Drive. Choosing the first, one enters Harbor Island, a privately owned development. Among completed apartments, boat docks, restaurants and service facilities, signs stand out that advertise residences between $900,000 to over $2 million. Most of Harbor Island has been gated and closed to the public, and it takes less than five minutes to walk across the bridge which used to be serviced by a monorail, called the people mover, transporting them to downtown and back. The second route leads along Channelside Drive (in 2009 part of Riverside Walk has been extended running a few hundred feet parallel to Channelside Drive ending before the shopping mall) to the Port Authority Complex. Using a sidewalk next to an electric streetcar that moves by with much noise at about five miles per hour, one passes a parking complex and arrives at the core of the Channelside District.

The fenced in Starship Dinner Cruise Terminal, the Channelside Shopping Mall, Cruise Terminals, the Aquarium and the Port Authority Administration Building loom to the right, all within a distance of less than a mile. There are benches, no rain shelters, no picnic tables, and no traditional port ambiance, such as stalls selling fresh fish, fruits and
vegetables. The air smells of gas fumes from the parking garage on the left. There are no ship stores where one could buy a docking line, anchor, compass or sextant, No traditional bars with old tables, lamps, sea charts or paintings interfere with the urge to shop and consume. However, the commercial limits are drawn somewhere: no hint of sin, no red light district, a characteristic part of many ports, can be detected. The area toward the water front is fenced off with “No Trespassing” signs.

To look at the Channel one needs to enter one of the bars. The view becomes overwhelming in a maritime Disney World sense, a bit like Las Vegas. The cruise ships when they are docked on Sunday afternoon, for example, tower over the two story shopping mall. The ships, except for their numerous life boats, resemble residential structures with multi-lit floors, balconies and glass windows. The walk through this humanly constructed environment passes the aquarium and finally the Tampa Port Authority building. There are some side roads toward the waterfront which end in fenced in areas that are controlled by the US Customs Authorities.

The walk which has been duplicated by bike on side walks and roads (no bike routes are available) continues on Channelside Drive along the Ybor Channel toward the Cross town Expressway. As has been pointed out, this area is planned for re-development. At present, it looks dilapidated with ship repair facilities and empty store houses.

Back to the parked car at the Convention Center, one turns northeast and crosses a bridge entering Davis Islands. The only public waterfront of the island is located at the southeast facing Harbor Island at the north and port facilities at the south. Here one looks at piles of scrap metal and appliances processed by Trademark Metals Recycling that
emit smoke into the air. One also observe sandy hills of building material stored by Florida Rock. The area has two dog parks, an air port landing strip built on abandoned oil tanks, a sandy beach south of the Port Cut D Channel, and a boat ramp. The field trip on land ends here, and the exploration continues by kayak.

Paddling between a variety of anchored boats, around the tip of Davis Island Yacht Club, one enters Cut D Channel toward Harbor Island which is surrounded by three channels: Sparkman, Seddon and Garrison. Avoiding sea-going vessels in the relative narrow Cut D Channel, one keeps to the right or left of the markers, passes Trademark Metals which on this Sunday belches yellow smoke into the atmosphere. In order to avoid collision with commercial and pleasure crafts, it is advisable to stay close to the coast which houses a sheriff station, sulphur storage facilities, oil storage tanks, and docks for bulk commodities. There seem to be no guidelines as to how close one may go toward these facilities.

If one paddles toward one of the barges in the channel, a coast guard cutter may approach one with flashing blue lights and a machine gun. The crew will tell you to stay a few hundred feet away from ships and barges. The trip north on Seddon Channel is more relaxing, not so choppy due to less water depth and no commercial shipping. The waterfront is accessible to the public. There are people walking and fishing. A sea wall and a green belt with oak trees line the road toward the west of the Channel which houses the US Coast Guard, a marina, a park with little league facilities, and tennis courts.

There are no restaurants, shops or service facilities to accommodate the residents who live opposite the area facing Seddon Channel. Opposite, one finds expensive residences but no sidewalks or public facilities on Harbor Island. At the end of the island
and this channel at the southern edge of the Convention Center, one enters Garrison Channel under a bridge (Fig. 2.11). At this section, Harbor Island accommodates a few boat slips, a bank, eateries and some high end service facilities which are accessible by car. Nearing Ybor Channel that houses the described Channelside Drive facilities, one turns south into the Sparkman Channel. After passing Florida Rock, Citco, Central Oil Company and Gulf Sulphur, the kayak enters Cut D Channel which faces more bulk and liquid facilities, the trip ends at the ramp.

The field trip observes some of the residents’ exposure to the environment that has been created by their government and Port Authority. It also tries to point toward areas that are still open for redevelopment, such as the North Ybor Channel. This raises the question of decision making on Port waterfront real estate. the involvement of members of the community with local officials, the legal structure and the resulting social implications for port residents. While this will be addressed in chapter 4 in a comparison analysis between Tampa and Hamburg, chapter 3 researches the qualitative impacts for residents of another port, the Port of Hamburg. It evaluates its location, history, policy and priorities. It includes the port’s geographic real estate distribution, its economical philosophy and its public transport system that links established and re-developed neighborhoods.
Chapter 3 The Port of Hamburg

Hamburg’s port is located at a latitude of 53 degrees N and a longitude of 09 degrees E at the mouth of the Elbe river. Hamburg is situated at the crossroads of Europe’s main traffic routes. Practically, all the main industrial conurbations of central Europe are accessible within 24 hours by road or rail. The total area of the port, including Upper and Lower Elbe, equals approximately 11.5% of the total area of the Free-State Hamburg. It totals approximately 8,000 hectares which includes some 5,000 hectares of land and close to 3,000 hectares of water. The port utilizes about 3,500 hectares of land and 3,000 hectares of water (Hamburg Port Authority, 1997).

Fig. 3.1 Port of Hamburg (Free Port City Hamburg, Department of Commerce, 1997)

The Port of Hamburg collaborates with neighboring or associated ports as a hub within the transport chain. The Port provides more than 320 berths and over 45 kilometers of quay walls for ocean-going ships with some 200 partly computer-controlled container bridges and cranes, grab-cargo cranes, and siphons for all types of liquid commodities.
Some 100 kilometers from the open sea, the Port is accessible even to the largest ships. Bulk carriers of more than 300,000 tonnes that handle up to 135.00 tonnes of cargo call at the Port (Freie Hansestadt Hamburg, Wirtschaftsbehoerde, 2002). It services the world’s largest container ships as hub port. An uninterrupted chain of radar stations and buoys as well as the availability of tug and pilot assistance guarantee navigability at night and in poor visibility. Hamburg is linked to approximately 1,000 ports throughout the world by nearly 200 regular liner services covering 300 different routes. The port railway network consists of over 600 kilometers of tracks linking dock storage, terminals and industrial plants in the harbor. Professor Dr. Erhard Rittershaus, the 2nd mayor of Hamburg and president of the “Wirtschaftsbehoerde” (commerce department) introduced in January 1997 the Port’s future logistics (Freie und Hansestadt Hamburg, Wirtschaftsbehoerde, 1997).

The commerce department reports 140,000 port related jobs in 1997 that impact the total region. One third of them, 46,500, depend directly on the Port. Some 48,500 people find employment in industry and service related to the Port (Freie Hansestadt Hamburg, Wirtschaftsbehoerde, 1997). They work in ship building, shipping agencies, brokerage firms, trading companies, banks, insurance offices and others. About 47,500 workers depend indirectly on the Port engaged in public works, road construction and investment programs that are related to Port economics. Furthermore, the Port’s employment structure has been enhanced by its attraction as a place containing human bonds and fields of care. A multiplier effect from the Port as an employer has created a tourist industry with hotels, restaurants, retailers and media.
The City State and Port of Hamburg - Organizational Structure and Port Jurisdiction

The organizational structure and port jurisdiction of the Port of Hamburg differ from the Tampa Port Authority’s legal domain. The Free and Hanseatic City of Hamburg’s parliament and senate control the Ministry of Finance and the Ministry of Economic Affairs (Data Communication System, Port of Hamburg, Marketing, Freie Hansestadt Hamburg Wirtschaftsbehoerde, 1997)). Both are in charge of the following departments: Real Estate, Budget Planning, Services and Economic Infrastructure, Planning Division. This chain of command provides port planning, port development, infrastructure, restructuring and extension.

The city of Hamburg and its Port’s commercial activities are linked, as the Port’s day-to-day operations are the responsibility of the City’s Ministry of Economic Affairs. This local decision structure enhances the design of port development, the building and maintaining of infrastructure, the fixing harbor dues, estate rental, traffic regulation and conservancy as these are not delegated to an outside body. Furthermore, Hamburg’s Port estate is owned by the City. This may foster local pride in ownership due to the process: The residents elect the City’s Mayor, the Senate and Representatives They appoint the administrative body who can, on a regional level, determine the fate of their Port. It can control the Ministry’s land policy.

The City State of Hamburg, while it must abide by Federal and European Law, is governed by a Parliament (the citizen’s ruling body with 121 representatives) and the Senate who elect the Ministries of Finance and Economic Affairs. Both essentially control Port planning, port development, restructuring and extension. There remains a
regional aspect in the Port of Hamburg’s development that has resulted in the largest urban planning project in Hamburg, Harbor City. It is regional because, as will be explained, it is structured on historical background of the City and is unique as a process, implemented through the organizational structure of the Port City with local control on how to plan an extension of a city center (www.HafenCity.de, 2005).

**History of the Port**

The Port’s present and future character reflects its historical background. When Mayor Foscherau of the Free Hanseatic City of Hamburg presented a vision of Hafen City (Harbor City) to the public in 1997, he referred to the area of approximately 155 hectares that contains 55 hectares of water (http://www.HafenCity.de/index). Shown enclosed by in Fig. 3.2, Hafen City, is surrounded by water, located south of the traditional Hamburg city center and within a walking distance of one kilometer from City Hall, and the central railway station. This is noteworthy, as the station is the core of Hamburg’s public transport system with bus, tram, subway, elevated local rail and long-distance rail service. The station also houses dozens of shops such as bakeries, butchers, delicatessen and bars, liquor stores and more. Furthermore, it is used as a passage by tens of thousands of pedestrians daily on their commute to work. Now the city center is in the process of expansion to the south (http://www.HafenCity.de, 2005). As will be addressed, the plan for its infrastructure is flexible and more importantly based on much local impetus.
Fig. 3.2 Hafen City’ Extension (circled) to the Elbe River and down town Hamburg. (http://www.HafenCity.de, 2005)

Fig. 3.3 Historical background of Hafen City and Sandtorhafen’s (Sand Gate Port Basin) docking facilities, 19th century (HafenCity.de/index. 2005)
The Elbe Region

Fig. 3.3 depicts Hafen City’s activities and industrialization based on port development through the use of canals which wind through the area now being re-developed (Free City of Hamburg Department of Economics, 1997). The Elbe region has an interesting historical background dating back centuries. The planning of a modern port, however, began in 1862, when Johannes Dalmann, the executive director for water related Port constructions (Wasserbaudirektor), erected quays on the banks of the Elbe River, thereby opening up the North Elbe for shipping on the banks of the Elbe (Fig. 3.4). Additional areas were developed over years or are in the process of being upgraded according to the plan of 1997.

Fig. 3.4 Hamburg City at the north, facing Port development at the south. (Freie Hansestadt Hamburg, Wirtschaftsbehoerde (Free City of Hamburg Department of Economics, 1997)

The green areas in Fig. 3.4 show the finished Port projects, the yellow ones are under construction and the pink sections are planned for future development.
Port Development and Consequences on Region

According to Hamburg’s Ministry of Transportation, the Port construction and its extension had far reaching consequences for the Port City of Hamburg. Residential developments at the waterfront from the Altstadt (Old City) to Altona (Fig. 3.4 north) followed Port related employment. To accommodate the demands of the industrial age, Sandtorhafen (Fig. 3.3), the first modern tide open Port basin, was developed from 1862 to 1866 (www.HafenCity.de). The figure shows how ships could dock at the quay. For further transport of commodities innovation was needed.

A Hafen Info Center publication, 2002 observes that 1872 began the transfer of commodities from ship to rail. This created opportunities for distribution of goods. The customs free status for the entire City of Hamburg helped because it meant goods could be stored without being taxed before they were sold (www.HafenCity.de, 2005). It attracted international shipping. The situation changed in 1881 when the “Freie Hansestadt Hamburg (Hamburg Free City) was pressured by the German Reich to join their customs union (www.HafenCity.de, 2005). As a result, between 1881 and 1888, the duty exempt status of Hamburg which had included the entire city was down sized, duty free ware houses had to relocate to the port area and “Speicherstadt” (Storage City), which became the largest duty free storage complex in the world. The separation of Speicherstadt from the city center had consequences for many residents.

Much of the “Free Port area” became uninhabited, due the extension of Speicherstadt (www.HafenCity.de, 2005). It caused 20,000 residents to lose their homes which were torn down and replaced by warehouses. The isolation of the Port from the City stopped the Port City’s organic development as the City could no longer access the
Elbe River which isolated it from free international trade. The separation remained despite the growing trade volume of the city and the expansion of the harbor area in subsequent decades. While the Port was thriving, Hamburg’s city center had lost its direct access to the Elbe, and it would take almost 100 years to regain it.

Hafen City is an important addition to the core of Hamburg because it is located adjacent to its traditional center at the north (Fig. 3.2). The redevelopment of Hafen City can provide an organic growth of the Port City. Fig. 3.5 shows the integration of the new area into the center: From west to east one notices a cohesive theme (not cut off by highways) of the shopping district Gaensemarkt (Goose Market), the Binnen Alster (Inner Alster River) surrounded by side walks, the Rathaus (City Hall) and other central areas ending at Hauptbahnhof (Central Railway Station).

All places are within easy walking distance to Hafen City. Alternatively, one can bike there, take a bus, a subway or the elevated local rail (S-Bahn). The accessibility of public transportation enhances the community’s togetherness.

One may assume that residents, who commute on public transport systems, for example, often spend regular time together. This may form a camaraderie and sometimes friendships. Commuters may discuss politics, whom to vote for, and other things which concern them. They participate in their environment.
The old center and Hafen City are connected by bridges (Fig.3.5). Hafen City begins at Dalmankai at the west end as shown at the bottom on the left (www.HafenCity.de, 2005). The new area will be linked to the old city by various bridges sharing pedestrian and cycle routes. Speicherstadt with its red brick buildings is located at the north east end of Hafen City.

At the end of the 1960s, container handling facilities were installed at the South of the Elbe. They lend a picturesque background to the overall ambiance of the Port. But, unlike many European port where traditional sites were erased, the Port of Hamburg maintained much of its historical character.
Fig. 3.6 Container handling facilities (http://hafen-hamburg.de, 2005)

Fig. 3.7 Landungsbruecken (front) Elbtunnel (building on right) (Orbis Verlag, 1990)
Landungsbruecken, the historical passenger docks were opened in 1910. They were utilized by many migrants leaving the country during times of war and depression. The Elbe-Tunnel in St. Pauli, an underground passage, was opened in 1911, and the winding trails through the park-like setting between the elevated Elb-Chaussee and waterfront remained (Orbis Verlag, 1990). The Elbtunnel, St. Pauli, Landungsbruecken (Landingbridges), and Ueberseebruecken, (Oversea Bridges) for passenger liners are depicted in Fig. 3.8. Also note Hafen City before its development embedded by Grasbrookhafen, Sandtorhafen, Magdeburger Hafen and Strandhafen. The U and S signs (Fig.3.8) indicate subway and light rail stops of commuter trains that run approximately every five minutes during the day until midnight. All trains connect to the central railway station.

Fig. 3.8 City of Hamburg, Altstadt (Old city) and redevelopment sites to south linked by bus service, U- and S-Bahn (subway and elevated trains) (Orbis Verlag, 1990)
The city of Hamburg (Fig. 3.8) has an unusual infrastructure. Tuan’s (2004), definition of space and place can be noted as most non linear of streets in Hamburg turn directions into places. As a result, many areas attain a regional character. Furthermore, the mixed residential and commercial zoning makes areas user friendly. No interstates or expressways dissect neighborhoods.

Port areas close to the City center between St. Pauli and Oevelgoenne at the northern edge of the Port showed potential for redevelopment (City Development, article & item: Department of Transportation, Senate, 9/22/2005, HafenCity.de, 2005). According to Hamburg Action: A Field Guide by Ava Bromberg and Brett Bloom (www.Journalofaestheticsandprotest.org, 10/25/2007), a grass root movement was started in 1994 when a small open patch of land in that area, with views from the St. Pauli neighborhood to the Elbe River, came under threat of being sold by the city. The city wanted the space developed into high-rise corporate offices, but the people living in St. Pauli preferred their space and river view to remain unobstructed. The Park Fiction group, named after the project, called for a “collective wish production,” a process whereby the desires of the people of St. Pauli could “take to the streets” (Hamburg Action: A Field Guide, 2005). Park Fiction opened a participatory design process for the contested open space. According to participant Sabine the project was in a broader sense about the privatization of public space, about community conferences and democratic planning procedures.

The Park Fiction group which grew over the course of eight years consisted of artists, neighbors working with social institutions, squatters with a long history of “activity” in the neighborhood and shop and café owners (Hamburg Action: A Field
Guide, 2005). A planning container on the site stored an archive of desires, a garden library, and an “action kit” that was portable and could be taken to apartments in the neighborhood. Later Park Fiction’s work was financed by the Art in Public Space program of the municipal culture department of Hamburg. In 1997 the Senate decided to enlarge the inner city by 40 percent. This plan became instrumental to the integration of Hafen City into the center of the city. To begin with, the local public transport system that starts at the core of the city had to be linked to Hafen City.

The construction of the new underground railway line, the U4, will begin in 2007 (www.HafenCity.de, 2005). The completion of this line will integrate Hafen City into the Hamburg underground rail network. The new line will run from the U2 station at Jungfernstieg under Alsterfleet, Binnenhafen, Sandtorhafen and Grassbrookhafen to the heart of Hafen City. Furthermore, there are several new bus routes planned to complement the new underground railway system. The integration of these new routes into the existing system will create an efficient public transport network providing access to the city center, Hamburg’s railway station, and the rest of Hamburg. From the main railway station there are numerous regional and long distance rail services available. Unlike Tampa which offers no light rail and depends on cars, this infrastructure provides port and city workers with convenient and fast transport from their residences to work.

It must be noted that the Port’s marketing philosophy contrasts with that of Tampa. Dr. Juergen Sorgenfrei, Chairman, Port of Hamburg Marketing e.V. points toward the Port’s future in his editorial (Port of Hamburg Magazine 4/2002). He stresses the importance of container traffic, and his assessments in shipping differ vastly from Tampa’s Marketing Manager’s Greg Lovelace’s who promotes Tampa as a diversified
feeder port. Dr. Sorgenfrei addresses the shipment of 5.2 million TEU (twenty-foot equivalent units) by container and promotes shipments to the Far East, the Baltic and new cargo routes from and to the Americas.

He points out that the City of Hamburg’s Senate passed a speedy resolution to apply for federal funds for upgrading and deepening the lower Elbe river. New container facilities and the Altenwerder Terminal will bring the total cargo handling capacity to nine to ten million TEU. Hamburg is the sixth largest container port worldwide. More than forty international shipping lines make the Container Terminal Burchardkai a gate to all continents. Advanced gantries, straddle carriers and nearly three kilometers of quay facilitate container dispatch worldwide.

**Completed and Future Expansion**

There are a number of expansion projects currently in progress which will enable the Port to handle more than double its 2001 throughput by 2010 (http://www.hafen-hamburg.de, 2005). This study will focus on Altenwerder although Moorburg to the south are included in future Port expansion plans.

Work began on the new Altenwerder terminal to the south of the city and the Port estate. The first stage of construction was designed to handle 700,000 boxes annually (equivalent to 1.9 million standard 20’ containers) The complex will provide a container terminal capable of handling 1.9 million TEU a year, approximately 65 hectares of storage and distribution facilities that are associated with over 160 hectares for transport, transshipment processing and associated activities.
The container terminal will be highly automated using a double rail mounted gantry system. All container movements within the terminal will be carried out by remote control. The terminal will feature 14 double-hoist double trolley type container cranes on an almost 1.6 kilometers quayside with a stacking area that can accommodate 30,000 TEU.

**Container Gantry Cranes**

Fig. 3.9 shows a section of the terminal seen from the water. Clearly noticeable are four container bridges, the adjoining circulation area for AGVs (Automated Guided Vehicles), the yard with DRMG (Double Rail Mounted Gantry) cranes, and in the background the rail station. The new cranes can lift weights of up to 63 tonnes including spreader weight which is fifty tonnes under the spreader. Ships of the super-post-panmax generation with twenty-two rows of containers on deck can effortlessly be spanned by jibs sixty-one meters long while landside outreach also extends to as much as sixteen and a half meters.

**Automated Vehicles for Horizontal Transport at Altenwerder**

Transport of containers, for example from the yard behind the quay wall, will be operated by automated, unmanned vehicles. These diesel-hydraulic carriers with rubber
tires are capable of handling two 20’ standard boxes simultaneously (Dr. Thomas Koch, project manager, HHLA Container Terminal, July 29th 2002). About sixty of the vehicles will circulate in an area with a radius of one hundred meters behind container gantry cranes which will be completely closed to human access once commissioning is completed. According to Dr. Koch, the vehicles will navigate with the aid of a network of electronic markers set in the ground that are read as the vehicles pass.

The Altenwerder container terminal will be supplemented by special storage facilities for dangerous goods and tanker containers, for handling general cargo or oversized consignments. There will be an adjacent holding area for empty container on the south side of the facility. Adjacent to the terminal operations there are areas for repairing and cleaning containers. The terminal will also have a container yard for 30,000 TEU in a total area of 220,000 square meters. Space will be provided in 22 storage blocks. In addition to the above installation the terminal provides truck and rail handling.

Fig. 3.10 Truck handling (http://www.hafen-hamburg.de)
The container terminals of Altenwerder and Burchardkai are quite flexible as they can accommodate all kinds and sizes of vessels and containerized commodities. While the Port obviously prioritizes container traffic, how diverse is the Port? Furthermore, on what assumptions are the above projects based?

**The Port of Hamburg’s Diversification**

The 2005 Port Development Plan (http://fhh.hamburg.de/stadt, 2005) laid out an overall strategy. It states the following: “The Port will remain a universal port. A wide range of maritime services will be a complex factor in the metropolitan region.” This is an important statement as it emphasizes the Port’s importance as part of the overall city. The plan also demonstrates that a whole series of local authority responsibilities are also carried out within the Port, such as energy supply, waste water treatment or waste recycling. It is noteworthy that Senate policy of the City will take all these aspects into account in a procedure to delegate the accountability. The Port of Tampa, on the other hand, has no such provisions as it operates in an independent domain with the majority of its board members being installed by the state.

**Container Handling**

Again it must be stressed that a major policy of the Port of Hamburg focuses on the broad-based container handling segment and its related logistic services. This platform guides the Senate to encourage the provision of sufficient space, aiming to guarantee an appropriate growth in container handling in a period of dynamic international trade expansion (Fig. 3.11).
Two zones have been charted for future development; Zone one, Moorburg and Altenwerder southwest of the Unterelbe adjacent to Harburg; and Zone two, located south of Finkenwerder. Fig. 3.12 and 3.13 show the location of the Port area to the City and the terminal within the border of the port area.
Fig. 3.12 The Port of Hamburg and City (Freie Hansestadt Hamburg, Department of Commerce, 1997)

Fig. 3.13 Expansion Areas south of the city and north of Harburg (Hamburg Wirtschaftsbehoerde (Department of Commerce) 1997)
Fig. 3.13 shows Zone 1 and Zone 2 which are Port expansion areas south of the city and north of Harburg. The shaded areas around Altenwerder are re-development sites that have been approved by the Senate through a special investment program (http://fhh.hamburg.de/stadt, 10/26,2005). Growth in the volume of container traffic is being coped with by development of larger ships. Eco-friendly adaptation of the navigation channels in the Lower and Outer Elbe must match the development in container ship construction. Cargo handling facilities need to be adapted to load and unload the largest container ships. Handling of larger container ships increases the stacking sequences and requirements for container storage slots. Therefore, new areas must be made available by redeveloping suitable old sites in the Port expansion zone. They are, for good reasons, located in spacious areas that have relatively little exposure to residential developments, parks and recreational facilities. Yet, they will become part the overall Port scene because of the view from different public places on Hafen City.

**Container Handling and the City**

Container handling becomes part of the City as illustrated in Fig. 3.13. The old City of Hamburg (Altstadt) toward the north, future Hafen City and Altenwerder (container terminal) south of the Elbe are connected and can be viewed from numerous public places in the Port City. The picture below shows some of the Port logistics in Altenwerder. The expansion plans include a rail road station, service facilities, container terminal expansion, central storage, workshops and administration buildings.
Fig. 3.14 Port related activities on the Elbe viewed from public spaces, (Free City of Hamburg Commerce Department, 1997)

Fig. 3.14 illustrates the Port’s real estate facilities that are numerically listed before the re-development plan of 1999, all being integrated into the new development at Altenwerder.

Fig. 3.15 Real Estate at Port in 1997 (Free City of Hamburg Commerce Department): 1. Landungsbruecken (landing bridges), 2. services close to city logistics, 3. shipbuilding facilities, 4. raw material processing industries, 5. and 6. container handling, 7. storage and service, 8. conventional and container cargo handling, 9. raw material industry and related trade, 10. automobile shipping, oil tanks, and mineral oil processing, 11. small industrial production and trading, 12. mixed industrial use.
It is noteworthy, that the listed Port services have remained within the Port region and not been outsourced which means that they have been functionally prioritized close to city logistics. Potential polluting and noisy industries are largely distanced from residential areas (development plan, 2005). Port related systems, such as the use of computerized loading and unloading of container ships (Fig. 3.16) and truck handling (Fig 3.9) have been added. In extension to that, the 2005 Port development plan prioritizes the growth of container traffic accommodating larger ships, cargo handling facilities with larger container handling gantry cranes, eco-friendly adaptation of the navigation channels in the Lower and Outer Elbe to match developments in container ship construction, a central prerequisite for Hamburg’s growth potential.

Fig. 3.16 Container computer specialist overseeing loading and unloading processes (http://www.hafen-hamburg.de).

As has been addressed, the handling of large container ships increases the stacking sequences and requirements for container storage slots. This will increase the productivity at the quay edge and requires maximum performance of terminal operators as shown in Fig. 3.15.
Work Environment and Port Performance

The independent body “Gesamthafenbetrieb Hamburg m.b.H” (Total Port Operations Hamburg Ltd), formed in 1951, was based on the purpose to create an agreement between employers and trade unions to set up a special “Harbor Employer” for harbor workers in the Port. The 2006 report of the “Gesamthafenbetriebs-Gesellschaft m.b.H. Hamburg”, whose jurisdiction is acknowledged and who has board members representing employers and unionized employees, touts the performance of the Port’s 90 million tonnes containerized shipments in 2006. These record numbers reflect the work environment that is linked to the qualitative and quantitative personnel performance who handles the shipments. The association represents 5,884 highly specialized workers, such as container bridge drivers, van-carrier drivers, reach stacker drivers who handle containers at the Port (Gesamthafenbetriebs-Gesellschaft m.b.H. Hamburg, 2006)

Fig. 3.17 The Port is the ninth largest container port in the world (http://www.hafen-hamburg.de/content).
The organization, Operations Hamburg Ltd., points out that its training program offers opportunities leading to permanent employment, continued education and retirement benefits. Container operations increased from 129,000 to 139,000.

Based on the Port of Hamburg statistics of 2007 (http://www.hafen-hamburg.de/content) the cargo turnover developed as shown in table 3.1.

Table 3.1 (www.hafen-hamburg.de, 2007).

<table>
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<th>Year</th>
<th>1990</th>
<th>2001</th>
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<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<tr>
<td>Bulk (metric tons x 10^3)</td>
<td>32.8</td>
<td>39.2</td>
<td>37.5</td>
<td>39.4</td>
<td>37.8</td>
<td>40.0</td>
<td>42.7</td>
</tr>
<tr>
<td>Liquid (metric tons x 10^3)</td>
<td>15.3</td>
<td>13.6</td>
<td>11.4</td>
<td>11.6</td>
<td>12.2</td>
<td>13.1</td>
<td>14.2</td>
</tr>
<tr>
<td>Suction (metric tons x 10^3)</td>
<td>4.9</td>
<td>6.8</td>
<td>6.2</td>
<td>6.7</td>
<td>4.3</td>
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<tr>
<td>Grabber (metric tons x 10^3)</td>
<td>12.6</td>
<td>18.8</td>
<td>19.9</td>
<td>21.2</td>
<td>21.3</td>
<td>21.2</td>
<td>22.2</td>
</tr>
<tr>
<td>No. of 20’containers (units x10^6)</td>
<td>1969</td>
<td>4688.7</td>
<td>5374</td>
<td>6138</td>
<td>7003</td>
<td>8100</td>
<td>8862</td>
</tr>
<tr>
<td>Containerized % of general cargo</td>
<td>68.6</td>
<td>93.7</td>
<td>95.1</td>
<td>96.1</td>
<td>96.5</td>
<td>96.8</td>
<td>97.2</td>
</tr>
</tbody>
</table>

The overview of cargo turnover according to a 2007 (www.hafen-hamburg.de, 2007) report is noteworthy. Table 3.1 shows that the degree of containerization in percentage of general cargo in the year 1990 amounted to 68.6 percent and increased to 97.2 percent by the year 2006. The number of 20 foot units almost doubled in the same period. Liquid cargo turnover dropped in the same period approximately ten percent. The transport of environmentally challenging commodities and oil related products decreased. It must be noted at this point that Hamburg’s focus on container shipping started early. In
1990 the port shipped 2,000,000 TEU containers. In the year 2004 the total turnover over TEU containers had reached 7,000,000 (Table 3.1). As has been outlined, there are a number of expansion projects currently in progress that will enable the Port to handle container shipping at a growth rate of seven percent through the year of 2010. How do these developments affect the lives of the City’s residents?

**Housing, Shopping and Recreational Areas and Public Transport**

The City and the Port are two entities that belong together historically, influence and compete with each other (http://www.hamburg.de, 2007). This understanding is expressed in the Master plan of Hafen City which will increase the center of the city by forty percent. It is designed to have an urban development concept returning Hamburg’s City Center to the Elbe (Ortwin Runde, First Mayor of the Free and Hanseatic City of Hamburg, Introduction of the Master Plan 2000). This original plan was flexible and has been updated over the years. For good reason, as many cities had created a generic environment in their attempt at re-development by disregarding specific elements of their regions.

It could be argued that many city re-developments resulted in boring environs as they were drafted in laboratories that did not know the characteristics of city centers. Some became largely mono functional cities that are formed by trade and commerce. Unlike developments through the nineteenth century that created cosmopolitan vitality with lively quarters that had evolved over generations, the perfect shopping office design in modern cities became an alien element to cities’ original function: a place to work, and to socialize, to reside, to relax, to entertain and to visit. Hafen City has incorporated the
ideological concept of the past when it refers to the guidelines of the Port of Hamburg’s qualitative growth (www.HafenCity.de, 2005).

The fundamental structure of Hafen City along with its integration with adjacent parts of the City contains the following guidelines that were established in a town planning competition (www.HafenCity.info): Speicherstadt (the historic warehouse district) is seen as a southern extension of the former city walls and will have a symbolic effect as a cornerstone for the development of Hafen City. Magdeburger Hafen harbor will be a key arrival point and link to the City Center at Jungfernstieg. The quay areas will be transformed into wide promenades open to the public. Each quay area design will depend on its neighboring commercial and residential outlay. Elevated ground floor zones with respect to tidal water level variations will make the Hafen City waterside accessible for relaxation, recreation sports and games. The plan stresses that part of the experience of living and working on the waterfront lies in the use of water itself as transport medium. Thus, there are provisions to establish a scheduled public ferry system for Hafen City. In contrast to the aquatic Magdeburger Hafen harbor, the elongated green area between Brooktor and Baakenhafen will be developed into a public space with a distinct city atmosphere. This will include an extension of the historic city fortifications to the shore with its waterside network of footpaths along the River Elbe.

Integration Into the City

Hafen City and the present day city center will form a cohesive central district from the former city walls to the Elbe. Furthermore, connections to Hammerbrook, Rothenburgsort and Veddel around Baakenhafen harbor will enhance the access to the eastern end of Hafen City. To integrate new and existing populations, schooling
education facilities are being planned (www.HafenCity.de, 2005). A gradual
development of up to 1,500 dwellings west of Magdeburger Hafen harbor will not require
to build a new elementary school. The demand can be absorbed by extending the existing
school “Bei der Katharinenkirche”. For new housing ranging between 1,500 and 1,800
units a buffer of nearly 0.8 hectares will be set aside for additional educational demand.
To provide sufficient school capacity for further residential development for the rest of
Hafen City, an elementary school with four classes in each year/grade will be required.
Based on 5,500 dwellings in Hafen City, a permanent high school with three classes in
each year/grade will be needed. For that purpose the construction of at least five storey
high buildings on about two hectares of land not including outdoor sports space would be
a prerequisite. In addition, a two acre plus buffer will be set aside for peak demand.
Newly constructed schools in Hafen City will not provide their own outdoor sports
facilities because fully equipped gymnasiums can be reached within a few minutes.
While the plan sounds promising, it also contains potentially problematic variables.

Environmental Considerations for the Planning of Hafen City

In the summer and autumn of 1998 the ecological situation on land and in the
water was evaluated at the Hafen City site (www.HafenCity.de, 2005). Ecological points
of interest for redevelopment were found in the old brick quay walls at Grasbrookhafen
harbor and Magdeburger Hafen harbor as habitats of many rare lichens, mosses, ferns and
other vegetation. As the Master Plan aims to preserve ecologically valuable areas, most
basins and canals, including their embankments, will be retained. This would include the
conservation of reed beds, hemlock water-fennel, fish habitats in water basins and mussel
beds. The study also showed that all land had been artificially elevated in the past when
the area was converted into docks. As a result, no original soil was investigated in the entire area. Some land has been reclaimed. In addition to the ecological background, the Master Plan of Hafen City evaluated the noise levels (www.HafenCity.de, 2005). No clear assessment of noise levels from dock activities, road and traffic in the area were established. As a result, current emissions will be measured and recorded in the dock areas south of the North-Elbe. Furthermore, the current noise emissions to the south of Hafen City do not appear to represent any theoretical and practical problems for the development if they are based on all conceivable day time levels. Yet, the plans of Hafen City will have to take into account that there is an existing industrial area which operates day and night. Some theoretical solutions are noise-reducing technologies and noise restrictions through regulating dock activities. A more realistic plan is for housing to face away from noise sources. Even now, in all probability current noise levels are already within acceptable limits. It also is noteworthy, that many hotels, in France for example, are built close to the runways of major airports. Their outside walls and windows provide excellent noise insulation.

The development master plan of 2006 also had to deal with a research of potential soil contamination. The plan pointed out that in the past, relatively few soil tests were carried out in the development area because there were mainly individual concerns at the time. At an early planning stage of Hafen City, an investigation into the area’s history was conducted. A total of 169 sites at Hafen City were scrutinized because of its land use history. According to current information and present land use, there is no evidence of any human health risk (Editorial 2006 : Masterplan). Also a large proportion of the ground surface is sealed. The Environmental protection Authority and the Hamburg Port
Area Development Corporation (GHS) have identified certain areas (Ericusspitze, Kirchenpauerkai and Grasbrookhafen, a former gas work site) as potential sites with contamination which may have to be attended to. An ongoing risk assessment that is based on the intended land use will be needed. Finally, between 1987 and 1999 the Environmental Protection Authority investigated air pollutants at six locations. According to current information, the overall pollution caused by copper, lead and cadmium contaminants is at an acceptable level for all intended land uses (Editorial 2006: Masterplan).

**Specific Projects at Hafen City**

Essentially fifteen quarters are in the planning. The most interesting ones are: 1. Elbe Philharmonic. 2. Magellan Terraces. 3 Marco Polo Terraces. A. Dalmannkai, B. Sandtorkai, C.Brooktorkai, D. Strandkai, and E. Ueberseequartier (Oversea Quarter).

![Fig. 3.18 Projects at Hafen City. (www.Hafencity.de, 2005)](image-url)
The territorial exploration will begin at Dalmannkai which forms a peninsula between the Sandtorhafen at the north end and Grasbrookhafen harbor basins at the south. The projects of which some are completed and others are under construction lend an interesting diversity to Hafen City’s character for several reasons. One is the construction of the new philharmonic concert hall on the roof of the historic Kaispeicher A (Fig.3.17) which was decided on by the Senate of Hamburg in July 2005. It will soon become a reality with its ground laying that took place on April, 2nd 2007 (www.HafenCity.de, 2009). Two concert halls (2,150 and 550 seats) will top the monolithic shaped historic Cocoa storage facility. “We will provide a program for every body,” states Christoph Lieben-Seutter, its future director and former secretary general of the Vienna Concert House rejecting cultural privileges from the elite. The state run NDR (North German Radio) Symphony Orchestra has been elected as regular performer and is scheduled to begin from summer.

Another reason for The Dalmannkai Quarter’s qualitative level lies in its waterside construction projects (Fig. 3.17, 2 and 3). The Master Plan gives special attention to the design of public waterfront Magdeburger Hafen harbor will play an important part in developing public areas. Hence, the quay areas will be transformed into wide promenades open to the public. The Magellan Terraces at Sandtorhafen experienced their grand opening on June 10th, 2005. Another cultural impetus near Dalmannkai Quarter is the conversion of the historical Kaispeicher B warehouse.

This oldest warehouse which was built in 1878/79, will accommodate the International Maritime Museum of Hamburg (www.HafenCity.de, 2009). It is located at the point where Magdeburger Hafen harbor and Brooktorhafen harbor converge and
creates a unique gateway to the Ueberseequartier (Overseesquarter). Kaispeicher B remodeling began in 2005 and will retain the distinctive architecture of the historic warehouse and from 2008 on, the Peter Tamm Collection will be on display on about 14,000 square meters gross floor space. The collection includes 27,000 model ships, 35,000 construction plans, a large number of nautical instruments, paintings and maps. Furthermore, the Maritime Museum will contain the Peter Tamm Institute for Shipping and Marine History, a library and archive and an outdoor terrace. To enable convenient access to the Museum a pedestrian bridge across Brooktorhafen harbor will be constructed.

**Transport-Shared Pedestrian and Cycle Routes**

Transportation for pedestrians and cyclists throughout Hafen City and the traditional City Center started in 2002 with the construction of the Kibbelsteg bridges. An ensemble of bridges has a total length of 220 meters on two levels, open on top and sheltered from the weather underneath. Their design was inspired by historic predecessors. Cyclists will have the option to choose their route according to their preferences.
It is worth noting, that the routes connect to the traditional city center. Furthermore, the high-end residential areas around the elevated waterfront to the north, such as Elbchaussee, and the adjacent main stream housing facilities in Altona, Bahrenfeld, Ottensen and Lurup are linked. The quay sides will be an important part in the network. The areas will be made accessible to different groups with lower gradients for disabled people.

**Local Public Transport**

Hafen City will benefit according to the Master Plan from various forms of public transport. The new underground railway line, the U4, on which construction began in 2007, will run from U2 station at Jungfernstieg under Alsterfleet, Binnenhafen, Sandtorhafen and Grasbrookhafen to the Ueberseequarter (Overseas Quarters) the heart...
of Hafen City. The completion is scheduled by fall 2011. The second line will run to the east of Lohsepark.

![Fig. 3.20 Public transport: U = underground railway, H = bus stop](http://www.HafenCity.de, 2005)

There are several new bus routes planned to complement the subway system (Fig. 3.19). Furthermore, numerous regional (S-Bahn) and long distance rail services run from the main rail station. As a result, most of Hamburg’s suburbs can be reached within one half hour. The overall concept of plans and projects is based on the idea that the City can only grow if the “living accommodation on offer is diverse, and new construction sites are available, particularly for families at the right time and price” ([http://www.wachsendestadt.hamburg.de/intgrafikversion/projecte/wohnbauflaechen](http://www.wachsendestadt.hamburg.de/intgrafikversion/projecte/wohnbauflaechen), 2008). In fact, more than fifty projects, ranging from 20 to 850 accommodation units, are under construction or are being mapped within the City limits. All of them are linked by a convenient public transport system. Obviously, Hamburg’s and Tampa’s qualitative social, economic and environmental concepts differ. How they compare will be addressed in chapter 4.
Chapter 4 Comparison of Both Ports

The themes of this thesis relate to the quantitative economic impacts on their social, cultural and environmental quality of life. Therefore, the ports of Tampa and Hamburg will be compared by their return to human dimensions in the region. The comparison will show, how the geographical characteristics of the land were commercially developed and modified by humans. This discussion will show that the economic development of container or feeder ports are linked to the region’s social and environmental well being. The methodology used in this comparison follows Tuan’s and Fleming’s observations of place and space.

The Ports of Tampa’s and Hamburg’s Economic Priorities

There is a consistency in Tampa Port Authority’s preferences and marketing ideas for economic gains and growth. It is laid out in the latest three Port Authority Directories and various State of the Port Addresses by CEO Richard A. Wainio. Bulk business, such as petroleum related products, phosphate, scrap metal and coal, remain the cornerstone of the Port (Fig.4.1). Tanks and processing plants have been installed over the years within view of the city center. Yet less exposed Port owned real estate was available at other locations, such as Hooker’s Point. Considering that a lack of planning and uncontrolled growth diminished unobstructed marine vistas and thus some of the meaning of its sea port, Tampa’s Port Authority ignored basic human needs in its community.
The 2005 Port Development Plan issued by the Port of Hamburg also set directions for its economic goals. They are based on Senate Policy that recognizes Hamburg as a universal port but prioritizes a broad base of container handling segments and its related logistics services. As a result, containerized cargo increased, liquid commodity turnover and the transport of agricultural bulk and oil related products decreased. Unlike Tampa, bulk handling and storage facilities were planned out and are located away from the city center (Fig. 3.14). This Port succeeded in its lay out of real estate for bulk facilities.

Based on its current forecast of cargo handling, the Port of Hamburg can expect future increases in container revenues. The Port of Tampa’s economic future, in contrast, is uncertain. Present revenues, gained from dry and liquid cargo handling, do not reflect future earnings. Phosphate handling, for example, the Port of Tampa’s prime commodity, will diminish, as it is a non renewable resource. Its supply may last for few more decades. Nevertheless, no replacement that matches the turnover of this product is in sight.
By-products from its mining have left stretches of prime Bay-waterfront uninhabitable. The long term handling of phosphate products and the environmental contamination have not served the Port community’s interests.

Yet, Tampa’s Port leaders have not learnt from their phosphate past. Unlike Hamburg’s concept in which the Senate asked the Hamburg Ministry of Economics and Labor to carry out a survey of future land requirements for the logistics sector and to develop a coherent land management for the “port and logistics” cluster, Tampa’s Port Director Wainio voices his frustrations over bureaucratic unnecessary red tape from the environmental sector. In his 2008 State of the Port Address, he calls for a state intermodal advocate to be installed by the Office of Tourism, Trade and Economic development (OTTED) to expedite important economic development projects. As his idea violates the port authorities’ function, namely, to mirror the entire spectrum of port community interests (Fleming, 1987). the Port Authority has failed in bringing the community together.

More bulk projects have been announced in 2008. They include a new contract with International Oil Trading Terminal of leasing approximately a 17 hectares for new storage tanks and related infrastructure. Furthermore, expanded petroleum facilities are on their way to completion (2008 State of the Port Address). The exposure of scrap metal handling and its storage is a visual landmark from much of Tampa’s waterfront. Scrap metal handling exceeded three times the amount of container shipping in 2006 when the Port of Hamburg has succeeded by applying a holistic consistency in its economic priorities. It focused early on containerization which it increased to 97.2 percent of its
total cargo by the year 2006. Their loading and unloading processes are visible from much of the elevated Port City’s waterfront turning the area from a direction into a place.

The Ports’ of Tampa and Hamburg’s Social and Cultural Integration into Their Communities

If the essential character of cities is their distance from nature (Tuan, 1978), one may look at them as a home with space and place, and as a perspective of human experience. Finding the common ground and common purpose, bringing the community together, is one of the port authority’s essential functions (Fleming, 1987). This consideration will serve as a basis for the social and cultural comparison of both ports, their successes and failures.

The Port of Tampa employs an estimated 35,000 people (John Thorington, Tampa Port Authority official directory, 2006) and provides port related jobs for nearly 100,000 workers. The Port of Hamburg provides jobs for around 124,000 workers in Hamburg. As a result, both cities need social infrastructures, one of them being affordable housing.

Residences in Tampa, close to the port and the city center, were available before Seminole Heights, Tampa Heights, and Downtown North deteriorated, essentially through the construction of two interstate highways and the cross town expressway. All three dissected established neighborhoods. No preservations of heritage from different segments of the community who may have had strong feelings for the past of the Port were addressed.
Many traditional buildings in the region (Fig. 4.2) were destroyed or condemned, with them the human experience which connects over long periods of time. Had they been maintained, upgraded and kept affordable to own or rent, they could have become “fields of care.”

Fig. 4.2a Downtown neighborhoods dissected by Interstates 275, 4 and the Expressway (Periphery House Study, Planning Commission Report, 1990)

Fig. 4.2b Typical buildings close to downtown Tampa cut off by Interstate Highways (Photos by Becker, 2010).
The buildings depicted in Fig.4.2.b are two of many in a neighborhood close to downtown Tampa that has been cut off by the Interstate Highways. Areas adjacent to the center, such as Harbor Island, and sections of Ybor City were gentrified, thereby exclude diversity. Overall, however, elected officials encouraged developers to build “laboratory cities” in rural areas, where displaced families found housing, but few cultural and education facilities. The Port City’s housing policy had failed.

The Port City of Hamburg constructed no expressways or interstates through its center. It retained the chain of neighborhoods facilitating bringing the community together. Apartment houses and homes, many of them built on winding non directional streets more than a century old (Fig.4.3) were restored.

Fig. 4.3 Two typical Hamburg neighborhoods (Orbis Verlag, 1990).

Other residences, which were destroyed during World War 2, were rebuilt. Rents remained reasonable, as they were capped by the owner’s maintenance and improvement cost increases. As a result, many residents live in their homes for decades. Some of them pass them on to their children.
Old wharves at the Port, south of the center, were annexed to it, restructured and became Hafen City. They will provide homes for 10,000 to 12,000 people. The Port of Hamburg’s housing policy deserves credit. The region maintained historical residences, grown through time and complement the demand for new residences in adjacent Hafen City (Fig. 4.4). All add wealth to the region’s culture and recreation.

![Fig.4.4 Hafen City’s Residences and public Waterfront Access (www.hafen-city.de, 2005)](image)

Apart from housing, an efficient transport system, safe side walks and bike paths are social attractions to city life. Public transport systems, for example, not only carry passengers to their destination but also create human kinship and share a common purpose. This is noticeable in New York, San Francisco, Sao Paulo and smaller cities, such as Chapel Hill, North Carolina. Safe side walks and bike paths throughout the center and adjacent neighborhoods lower traffic congestion and connect people. Paris and Amsterdam offer public bikes to their residents.

Tampa’s transportation infrastructure did not follow this suggested concept. No trams or subways run through the dismembered sections of the city. Subdivisions, far
from the city, are linked by express ways and expanding highways. Transport remains limited to the automobile (Fig. 4.5).

Fig. 4.5 Channelside Dr. Transportation system (Photo by Becker, 2008)

Oversized buses often block traffic lanes. As many locations are not linked by direct bus service, riders are advised to call in for schedules and bus routes.

The above demographics do not encourage an efficient light rail system that depends on a regular high number of riders. No bus or other public transport serves Tampa International Airport. Furthermore, individual transport options throughout the city are limited, as few safe bike and pedestrian paths link neighborhoods. Overall, Tampa’s transport system fosters communal isolation and a waste of resources with mostly one passenger per vehicle on route. Projects, such as light rail from downtown Tampa to the University of South Florida and a bullet train to Orlando are being discussed.

Hamburg, on the other hand, is linked throughout the City with its suburbs by an extensive public transport system (Fig. 4.6).
Subways (Fig.4.6) Schnell-Bahns (fast light rail) trams and busses connect suburbs and the central railway station. Passenger ferries run on the Alster and Elbe rivers. They arrive and depart within minutes from sunrise to midnight. The S Bahn connects the City’s International Airport. The various option of conveyance lend opportunities to riders to interact with each other, form friendships, initiate grass root movements, read or prepare for work.

Subway and bus services now extend to Hafen City which bikers and pedestrians can reach via convenient paths and bridges. Road signs indicating short distances in kilometers to various central locations, encourage walking and biking. Participating in Hamburg’s traffic system is a homecoming in itself, as it offers it riders options, such as to watch the scenery, meet people, initiate grass root movements or simply read or study. Therefore, Hamburg’s connectivity between people and places turned out successful.

Other social elements, which attract people towards cities, are their integrated architectural designs and their usage. Since the 1970s, downtown Tampa has encouraged corporate high rise constructions without residential sections. Lately, condominiums are
being marketed viewing the cross town expressway. Yet, the city center is a ghost town after business hours and on weekends. Many of the traditional retail and service facilities closed down.

Tampa’s Port Authority was instrumental to the privatization of waterfront which it owns (Fig.2.6). It leased the land to the Channelside District Entertaining shopping complex, which closed the public access to the waterfront from the Riverside walk on (Fig.2.6). The Port Authority’s Administration building to the north was constructed on waterfront property as well. If both projects had been erected across from the street, and had the waterfront been revamped in a design similar to that of San Francisco’s Fisherman’s Wharf, the sea port’s spirit would have been enriched.

The few remaining parcels of waterfront at the North Ybor Channel that have been analyzed by developers, suggest no new ideas as they refer to the City and County studies of 1988 and 1998. This leaves few expectations for maritime events with celebrations, parades and large assemblages from every part of the port community. Overall, the utilization of Tampa’s center and its adjacent waterfront failed the interests of its residents.

Hamburg maintained its historical architecture, thereby creating an evolution of consciousness throughout the City (Fig. 4.7). The first picture expresses the humanistic perspective of joy by carrying an emotional charge which is greater than the location or functional node. This means residents turn a direction into a place In contrast to Tampa’s yearly pirate festival which as a two class parade (government officials in floats watched by the standing and walking public) does not reflect Tampa’s historical past, Hamburg’s Landungsbruecken appear animated. Obviously, residents and visitors identify with the
City. The other scene defines the center’s harmony of traditional buildings with unobstructed public waterfront access. The vision of the City is determined by water: the Binnen Alster (Inner Alster), part of the inner City (Fig.4.8), is linked to the Aussen Alster (Outer Alster) and its surrounding residences. The Alster rivers are interwoven with numerous canals that lead to the Port. The city claims a total of 2,284 bridges which exceeds those of the cities of Venice, Amsterdam and London together.

Fig.4.7  The Port City of Hamburg’s architecture and waterfront (Obis Verlag, 1990)

Hafen City, within a walking distance of 800 meters to the Rathaus, (City Hall) adds approximately 40 percent to the City. The Senate approved in 2000 to built an area of 1.6 million square meters to provide 20,000 jobs, gastronomic and leisure facilities, shops parks and open spaces (Fig. 4.9).
The above observations give the City’s man made environment high ratings. It carries a unique signature in the course of time, lending stability to its residents through their cycle of work during the day.

If the human personality is a fusion of natural disposition and acquired traits, then a place is a composite of natural endowment and the modifications wrought by successive generations of human beings (Tuan, 1974). Therefore, loosely speaking, a city’s cultural and recreational assets depend on the accretion through prolonged interaction between nature and man.

Planners, responsible for Tampa’s cultural and recreational wealth disagreed. The city’s and county’s nearly two million residents find themselves without preservation of their Port’s illustrious history which could tell a continuous story. Furthermore, residents find no significant imprints associated with art shows, exhibitions or festivals experienced in many great parks without social barriers. There are no signs of bringing the Port community together. Instead, fragments of parks spread through neighborhoods that are not “neighborly” having been disconnected by highways. The downtown library is a popular hangout for many homeless people. The City lacks a specific concert hall.
with the usual acoustical design for musical performance. The absence of scenic outdoor grounds for regular plays, musical programs and communal gatherings, add to the cultural deficit. Worse still, one senses no themes of present or past symbols that relate to a sea port.

Hamburg, on the other hand, underwent a process of cultural awareness of its Port City treasures through centuries. There are fireworks on New Year’s Eve at the historical Landungsbruecken that draw thousands of residents to the Port’s waterfront, and “Hamburgers” shows their patriotism by celebrating its birthday every year (Fig.4.8). Weekend outings are frequented by families strolling through hilly parks and winding streets from St. Pauli or to the banks of the Port (Fig 4.10). From the waterfront, public domain by law, one can watch ships come and leave and enjoy reasonably priced crab and fish sandwiches, sausages, beer and “schnaps,” made out local grain.

Fig.4.9 Landungsbruecken at the bottom left (Orbis Verlag, 1990)
Across a bridge from Landungsbrücken (Fig. 4.8) to Hafen City, the scene opens with open spaces and squares. Unlike Tampa’s Channelside Drive, basins, parks and promenades, all facing the water, provide public access. The Marco Polo Terassen (Fig. 4.9) are built on three levels in a park like setting and slope toward the water ending in a wood covered side walk. Close by Magellan Terrassen (Fig. 4.11) cover an area of 5,000 square meters and resemble the terraced or stepped design of a classic amphitheater, serving as a stage for cultural events.

An unusual preservation of sea port heritage evoking a cultural identity exhibits the Elbe Philharmonic on the roof of Kaispeicher A (Quay warehouse A) shown in Fig. 4.11. In a “Shakespearean” way Hafen City has endorsed a cultural mix for the elite and masses, as it claims to provide a program for everybody.

Fig. 4.10 Elbe Philharmonic on top of old warehouse B. (www.Hafencity.de, 2009)

Another multifaceted cultural spectrum suggesting the hear, see, feel or smell of the sea, surfaces at Kaispeicher B, built in 1878/1879. As the oldest warehouse in Speicherstadt and Hafen City, it will retain its distinctive architecture and be converted into the “International Maritime Museum of Hamburg.”
Finally, the experience of Hamburg’s culture can be a very personal thing as it touches the mind and the heart (Tuan, 1987). It is something shared that cannot be duplicated elsewhere, and the experiences are never quite the same.

**Environmental Priorities**

The social and cultural qualitative performance of cities must be linked to their government’s environmental priorities. Port Cities’ emissions of pollutants from facilities, for example, can cause present or future health problems. The Port of Tampa stores and transports bulk commodities close to residential areas and has, as has been documented by the Environmental Protection Commission of Hillsborough County, violated numerous permit codes. Furthermore, scrap metal permits seem to be liberally issued, allowing emissions to vent directly into the atmosphere without stacks. Phosphogypsum which keeps being stockpiled across from Bayshore Boulevard may project unknown health issues. The Port Authority has set no standards limiting contaminating fumes emitted from ships entering, docking at or leaving the Port. Also tug boats leaving trails of black diesel fumes in the air, while maneuvering ships and barges through channels are part of every day’s picture from the few public waterfront locations. Overall, Tampa’s Port related environmental priorities are reason for concern to its residents.

Hamburg’s environmental policies are structured by an attempt to balance the Port’s economic purpose with its residents’ quality of life. Terminals for commodities, such as oil and chemical products, are distanced from residential areas. Cruise ships, for example will reduce their carbon footprint when in port through the use of land supplied energy (http://www.hamburg.de/Green-Technology, 2010). Instead of trucks, the Port of
Hamburg uses waterborne container taxis for environmentally friendly transfer between terminals. In June, 2009 Hamburger Hafen and Logistik AG and 11 of its subsidiaries joined the voluntary Hamburg Environmental Partnership to improve the environmental energy efficiency ([http://www.hamburg.de/Green-Technology](http://www.hamburg.de/Green-Technology), 2010). The Hamburger Hafen and Logistik plans to containerize a disproportionate increase of CO2 to channel it back for re-use of energy. Hafencity’s residence constructions and waterfront lay-out is largely removed from facilities that cause noise and pollution. As the above analysis demonstrates, priorities that port authorities set vary and effect residents’ quality of life and closes as follows:

The cities of Tampa and Hamburg are governed by similar democratic principles, yet they provide different social and cultural spaces for their communities. This suggests the importance of local commitment toward communal affairs and informed decision making whom to elect. Thus it is noted, that one place disregarded humanistic spatial values the other preserved them.

The research has specified Tuan’s and Fleming’s broad concepts of place and space by researching societal distinctions of two port cities on qualitative micro scales. The regions’ heritages were animated for the purpose to understand the implications of economics on human values that have become shared experiences over time. As places have physical and mythical geographies, the comprehension of reality is no absolute. As a region benefits from emotion and thought that result in social acts, each generation is also responsible for the environment it leaves behind.
Conclusion

- Ports are important driving forces to the quality of live in their entire region.
- Feeder ports (Tampa), are less profitable than container hub ports (Hamburg).
- Tampa’s and Hamburg’s ports have impacted their social, cultural and environmental levels for the following reason:
  - The Port of Hamburg is controlled by its residents. This powerful local tool promotes the city’s economic, social, cultural and environmental quality.
  - The Port of Tampa’s largely state controlled corporate style management team looks at short term economic numbers, thereby ignoring the region’s social, cultural and environmental quality of life.
- In summary, a port city’s qualitative economic, social, cultural and environmental equilibrium mirrors the supply and demand curve of their residents’ input.
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