INTERCONNECTIONS

WHERE LAND MEETS SEA

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Since the middle of the 20th century, due to the development of cities, there has been a search for a new economy. A transition from an industrial economy to a service economy has been created, dramatically impacting the economy and morphology of cities. The search for this new economy and rising awareness of the effects of pollution have pushed industries to move out of the city centers. Little by little, leaving large metal and stone structures abandoned, the ex-industrial zones became isolated areas of the city due to their minor maintenance, lack of intervention, and heavy pollution.

The growing concepts of sustainability and preservation have changed how architecture is viewed, creating more environmentally friendly practices, respecting existing structures, creating spaces better suited to population needs, and encouraging more green areas. To improve the quality of life, there was a need to find new spaces for recreation, education, and reconnecting with nature.

The transformation of the Ex-Corradini in San Giovanni a Teduccio, which is the main focus of this thesis, is a proposal for a new urban intervention that adapts to a multifunctional area with urban life diversity in a post-industrial era. We started our thesis with the main focus of trying to connect the city center with the abandoned and polluted beach, with the use of adaptive architecture that would create new spaces for the community trying to clean and regenerate the polluted zone and preserve the collective memory of the place with the remaining industrial buildings.

With this project, we try to return to the city a space that should have always belonged to it by intervening in certain areas and infrastructures that represented a barrier and integrating into an existing and wild landscape. We also want to incorporate activities that attract people to this new space and help to reactivate the local economy. Overall, the main objective of this thesis is to connect the city with the beach through a unique landscape and activities.

ABSTRACT

CONTENTS

RESEARCH TERRITORY	8-9
01 literature review	
Tangible heritage	12-13
Intangible heritage	14-15
Natural heritage	16-17
Post-industrial society	18-19

02 motivation and definition of the project

Objectives	22-23
03 theorical framework	
Urban regeneration	26-27

Urban regeneration	26-27
Rehabilitation	28-29
Tiers paysage	30-31
Historical time-line	32-33

04 systemic analysis

Infrastructure analysis	36-43
Port of Naples	44-47
Urban tissue analysis	48-57
Landmarks analysis	58-63
Landscape analysis	64-69
Synthesis analysis	70-71
Critical aspects analysis	72-73

05 STRATEGY

Synopsis map Design concept Strategy framework Strategy application on landsca General strategy Middle-scale strategy

06 DESIGN PROPOSAL

- Axonometry Existing and Actua Masterplan Sections and piazzas Railway interventions Landscape interventions
- Building Interventions-Conservation building Rehabilitation building New building
- 07 conclusion and biblio

ape	78-79 80-81 82-83 84-91 92-93
al	96-99 100-103 104-111 115-119 121-127
	132-143 146-165 168-175
OGRAPHY	178-181

76-77





SAN GIOVANNI A TEDUCCIO

Surface area| 2.35 km2 Population 23,839 hab

San Giovanni a Teduccio is located in Napoli Oriental, in the city of Napoli, in Italy, with a population of 23.839 inhabitants in an area of 2.35 km2 with 7km of coast. The limits of the city are in the north with the city of Barra, west with an abandoned industrial zone and a beach, south with the Gulf of Naples, and east with San Giorgio and Portici.

調整ます

The city hosts an important number of industries and ex-industrial areas that now are considered industrial archeology and that in the past were the main economic pillar of the city. Also, the city host one of the most important academies in the area called Apple Academy with the help of Federico II University.

ITALY

Surface area| 301,230 km2 Population 61,095,551 hab

geographically close to the city, but

citizens" -Gianni Solla

Surface area| 1,171.13 km2

Population 3,052,763 hab

Its location makes the city a road belt that connects the city of Naples with the south of the province, arriving at the Vesuvius volcano. For this connection, the railway has a big importance with the principal highway that crosses the city center.



01



LITERATURE REVIEW



San Giovanni a Teduccio was at the centre of the early industry in Naples and produced the first railway in the city. Due to this the area has many industrial archaeology sites such as Cirio, the factory of one of the most important canning industries and Ex Corradini. Also, it has many important places, such as some churches San Giovanni Battista, Church of Saint Guiseppe and Madonna of Lourdes, the church of Saint Maria del Soccorso and a fort which is named Forte de Vigliena. The fort was a historical building but now its only ruins, it was built in 1502 by Juan Fernandez, marquis of Vigliena. Other important places also involve a park with an artifical lake dedicated to the famous actor and film director Massimo Troisi.

ARCHAE



OLOG'

According to UNESCO tangible or cultural heritage in a general sense is both a product and process that provides societies with a wealth of resources that are inher-

"A concerted effort to preserve our heritage is a vital link to our cultural, educational, and economical legacies- all of the things that guite literally make us who we are." -Steve Berry

ited from the past, created in the present and passed to the future. It refers to the material traces left behind, such as archeological sites, historimonuments, cal artifacts, and objects with special meaning.

These resources require development policies and models that preserve and respect their diversity and uniqueness, since once lost they cannot be recovered.

Heritage and sustainable development requires not only protection from adverse environmental conditions and intentional damage, but also constant care and permanent renewal. The sustainability of heritage depends largely on policies and actions that ensure protection of the "fragile wealth" of heritage by responding to the impact of globalization, neglect and overexploitation, and investing in recovery and revitalization processes that establish the right conditions for cultural. heritage to prosper and bear new results, leading to more sustainable forms of human development in the future.

University.

Heritage Conservation

1) Preservation (Sustain existing form and integrity of materials)



2) Restoration (Recreating the elements and materials which were lost)



3) Rehabilitation (Altering and adding current technical and functional elements to historic building)



4) Reconstruction (Reconstructing historic structure through use of new materials and technique)



Drawings taken from Hong Kong Institute of Architecture (2012)

This are the principles and guidelines of the heritage conservation process as outlined in the Burra Charter 1999. This conservation principles acknowledge the long life cycles of the cultural places and objects while at the same time retaining the existing physical conditions, even if they might have reached a point of functional or physical obsolescence (Australia ICOMOS, 2000). In many counties these conservation principles are integrated into planning policies and regulatory frameworks to ensure minimal loss. So this serves as a decision making process.

INTANGIBLE



"Napoli is not a football team, but the mood of a city"

In Naples, football is a real liturgy, a devotion, and a rituality; everything related to the game is full of the character of the southern capital. The origin of the sport starts at the very port of Naples in 1903, due to the commercial exchanges with English entrepreneurs who introduce their new popular game to the humble employees of the port. Football rapidly became a language between local and foreigners, the first international match was played against the English sailors of the Arabic ships.

otball Fo

Football conquered everyone, football pitches were born in every place of the city, with makeshifts doors and improvised players. Football teams began to rise, including the Juventus (of Naples), the Savoy, The Puteolana and the

Internazionale. The game began to be played regularly in real tournaments and in 1926 it's decided to join all into one football team that represents the city of Naples.

Naples football team has had many idols throughout its history, but none made their marks the way Diego Maradona did. The player gave a long-desired success to a football and city community. Maradona becomes the memory of a victory that brought unity to the community.

Maradona, in Naples is known as the God of football: on several occasions, the city has shown its devotion to the Argentine champion, with votive newsstands, theater performances and many murals. One of the most famous portrayals decorates the façade of social building of Taverna del Ferro.

Cuisine

"The land of sun, sea and culture"

Since ancient times Napoli has distinguished for its vast culinary heritage, rich delicacies, and delicious drinks. Napolitan Gastronomy form its roots under the influence of the Greeks and the Romans, they introduced the preparation of dishes with oil and the degustation of fine wine during banquets. Napolitan cuisine makes use of simple ingredients of the earth but also characterizes for more elaborate dishes thanks to the influence of the French and Spanish domination.

Neapolitan cuisine now boasts a very wide range of dishes, the typical products and dishes are pizza, spaghetti, mozzarella and babà and traditional drinks of the region are limoncello, Falanghina del Beneventano and the Aglianico del Taburno. One of the most renown dishes in Naples is pizza Margherita created decades before the 1889.



1- Urban geology. Relationships between geological setting and architectural heritage of the Neapolitan area (2010). 2- The history of football in Naples, from the beginning to fascism. (2015, June) Federico Quagliobo. 3- Neapolitan and Campania Cuisine: the history of dishes. (2023, Jan). Vesuviolive.it. 4- Naples pizza spinning given UNESCO intangible heritage status. (2017, Dec) Manisha Ganguly. Edition.cnn.com

Construction

The geological setting of the Neapolitan area, dominated by the volcanic districts of Campi Flegrei and Somma-Vesuvius, has played a fundamental role in the urban development since historical times. The volcanic materials have been widely used in the Neapolitan architecture as dimension stones, building stones and to produce plasters, due to their great availability and overall good physic-technical properties.

The main materials used in large buildings in Naples urban areas mainly represented by volcanic plastic products of the Campi Flegrei and, by the Vesuvian and Phlegrean lavas are: The Neapolitan Yellow Tuff, the Campanian Ignimbrite and The Piperno.

The Neapolitan Yellow Tuff and the Piperno represent the most important building stones of the Neapolitan architecture since Greek times. The abundance along with its good physico-mechanical features, allowed the use of the yellow tuff for extensive structural work, low reliefs, and façade application. Both typologies of stone were applied the most out-standing monuments that are still today a marker in the urban setting of Naples.

Naples became a lively city, which manifests itself in a multitude of colors: from the blue of the sea to the grey of the piperno, passing through the white of the marbles of the noble palaces, but the most famous and ancient color connected to the city of Naples is the Naples Yellow, a color that recalls the color of the tuff of the ridge on which the entire city stand

One of the greatest admirers of the yellow of Naples is Paul Cèzanne who quotes it in one of his famous phrases: "Where is your Naples Yellow? Pitch black, Sienna, cobalt blue, burnt lacquer? It is impossible to paint without these colours!

Wild vegetation Volcano Beaches & & Orchads Coastline

The beaches of San Giovanni are identified by the names given to them by their neighbors. You can recognize the beach near the thermal power station and the beach behind the old town hall of San Giovanni. They are connected by a panoramic promenade between the workshops of the Pietrarsa National Railway Museum on one side and the center of Naples on the other, facing the sea.

The beach is covered with rubbish washed away by the sea, but also abandoned by civilization. The abandonment of the City Hall beach has made it an ideal place for illegal activities. In the 1960s, there were oil bottles on the beach and the water turned red from spills. Today, the factories are gone, the refineries are abandoned, the sea is colorless, but the quality is still poor. The coast has been waiting 20 years to restore itself. Today it remains abandoned and floats in a sea that smells of sewage, and the black water continues to cloud.



(5 n

According to UNESCO Natural heritage refers to "natural features, geological and physiographical formations and delineated areas that constitute the habitat of threatened species of animals and plants and

"Our cultural and natural heritage are both irreplaceble sources of life and inspiration. They are our touchstones, our points of reference, our identity "2 -UNESCO

When speaking of plants or plant species, the term "wild" refers to those plants that grow spontaneously in self-sustaining populations in natural or semi-natural ecosystems and can exist independently of direct human activity. The term contrasts with "cultivated" or "domesticated" plants, or plant species that have originated as a result of human activity.

Natural vegetation refers to the plants that grow in an area according to the climatic conditions prevailing in that area and other similar factors.

natural sites of value from the point of view of science, conservation or natural beauty."1

NATURAL

A volcano is a mountain or hill, usually conical in shape with a crater or opening through which lava, rock fragments, hot vapors, and gases are ejected or have been ejected from the earth's crust.

Mount Vesuvius is located in the Gulf of Naples in Campania, Italy, about 9 kilometers east of Naples, near the coast. Its most famous eruption occurred in AD 79. and destroyed the Roman cities of Pompeii, Herculaneum, Oplontis, Stabiae, and many other settlements. More than 1,000 people are believed to have died in the eruption, but the exact number is unknown.

Coastline are land along the coast. Beaches are pebble or sandy shorelines, especially in the sea between high and low tides.

> < Ш OIVUS



"A post-industrial society is a society in which a production-based economy is transformed into a service economy, and this transformation is also associated with the subsequent adaptation of the social structure. Post-industrialization is the next evolution of industrialized

"In an industrial society which confuses work and productivity, the necessity of producing has always been an enemy of the desire to create" 2 -RAOUL VANEIGEM

society, and it is most evident in countries and regions that first experienced the Indus trial Revolution. "1

"According to Bell, a post-industrial society is one in which knowledge replaces property as the central theme and main source of power and social dynamics.

So it's also a social group that sees technicians and professionals as "great" and it's also a service industry."³

Historically, the area was the center of Naples' early industry, including Pietrarsa, the building that established the first railway in Italy and is now a railway museum.

In the past, the factories of Cirio, one of the most important canning industries in the Mediterranean, were also located in this area.

The economy was based on industry, and to this day attempts have been made to move to another type of economy more related to education

San Giovanni a Teduccio is a vivid example of a post-industrial society, as the economy was once based on industrial and manufacturing production. Due to the new methods and pollution, the city decided to remove industry from the area, most of which was closed and abandoned, leaving a hole in the local economy due to unemployment.

Today, many of these industries are still abandoned, and the region and the economy are still waiting for a revival and a change that can improve the quality of life in the region.

One of the solutions proposed by the university was to try to transform the economy from an industrial economy to an educational economy by building new educational centers and rebuilding the now abandoned industrial buildings.



2- Quotes, R. V. (2023). Raoul Vaneigem quotes. BrainyQuote. 3- Post-industrial society. (2023).0xfordreference.com.

1) Industrialization



Economy of the city based on the industry

2)Decay of Industrilization



- Affected economy due to the lack of jobs
- 3) New economy







02

MOTIVATION & DEFINITION OF THE POJECT

OBJECTIVES

PROBLEM DESCRIPTION



The city of San Giovanni a Teduccio has a history that physically and naturally marks the city. Since part of the industry left the city, it left a trace of pollution specifically on the coast accompanied by abandoned historic buildings and with polluted beaches and water. This has created a type of important fragmentation in the structure of the city that is very marked and delimited by the historic train tracks that has led to a strong disconnection between the city and the coast.

To this are also added the economic problems caused by the abandonment of the industry where the city could not find how to replace the economy of the industry with another. This has caused problems such as unemployment, insecurity, waste management problems, low social housing, neglected green areas and vandalism.

LIMITATIONS & DELIMITATIONS

Due that we have certain amount of time in the project site some limitations were present as on site interviews, availability of contacts and the possibility to understand better the social and cultural issues.

The research base project focused in the local context have shown local problems in the moment on designing such as the archeological buildings, contaminted water bodies, contaminated land and industrial ports. These limitations are going to affect directly in the decisions of the final design of the project.

Another delimitation present in the place is related to the economic situation due that San Giovanni a Teduccio use to base their economy in the industry and now is trying to change their economy structure to stop depending in the industry.

RESEARCH QUESTION

How strategies as maintain, reshape and regenerate can recover abandoned and polluted areas with historical value that have turned into barriers between the city and the beach?

AIM

The aim of the project is to try to give back to the city the coast side respecting historical infrastructures and buildings and make them sustainable. Also to try to create new areas for the community in order to attract more tourist to develop a new economy source and to have a new connection between the city, the sea and the people.

MOTIVATION AND DEFINITION OF THE PROJECT





This thesis is mainly focus on the social and environmental aspects of the open and closed public spaces in order to see the relationship between the city and the beach while preserving the tangible and intangible heritage.

Our motivation is base on a sustainable approach by conserving heritage, cleanning polluted areas and by a water treatment. The project will also be focus on integrating recreational activities into an industrial port in order to generate a more dynamic port.







THEORICAL FRAMEWORK

URBAN REGENERATION

Urban regeneration began to appear in the 1960s as part of efforts to tackle problems of decline of cities in industrialized economies. First attempts of urban renewal approaches involved demolition of inner cities to be replaced by modern buildings, mass housing, and transport infrastructure.

Soon this first approach to tackle urban decline gradually became inadequate or harmful for being unable to with the complex social problems caused by de-industrialization, suburbanization, and the ghettoization of poorer neighborhoods.

Urban regeneration strategies were proven to be effective when they addressed local economy and the social problems of area-based initiatives. Spatially concentrated interventions with a broad set of aims including improvement in the housing stock, health and education facilities, training and employment, public realm, etc.

"Comprehensive and integrated vision and action which leads to the resolution of urban problems, and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change."

-Jon Ladd, Chief Executive, BURA.



In general, urban regeneration can effectively improve the urban physical environment, promote economic growth, and protect cultural heritage. Urban regeneration projects include land reutilization, reconstruction of old residential buildings, redevelopment of brownfields, commercial area renewal, and other social and cultural improvements.

The idea that urban areas need regenerating comes from a understanding of the causes of the problems of economic and social decline in industrial cities and of the appropriate policy responses to those problems. The notion of urban regeneration assumes that economic and social problems are not a-spatial, and the character of a location can determine the nature of those problems and compound them. Extensive areas of physical dereliction or inadequate physical infrastructure are likely to deter investment in a locality and make the spontaneous renovation of those areas far more difficult.





The contemporary general concerns of the urban regeneration agenda:

1. Physical environment: urban regeneration has attempted to improve the built environment, concerns which have now embraced environmental sustainability.

2. Quality of life: urban regeneration has sought to improve the physical living conditions, or local cultural activities, or facilities for particular social groups.

3. Social welfare: urban regeneration has endeavored to improve the provision of basic social services in certain areas and for certain populations.

4. Economic prospects: urban regeneration has sought to enhance the employment prospects for deprived groups and areas through job creation or through education and training programs.

5. Governance: there has been a shift from government to governance within urban regeneration, and public policy more generally, which is highlighted by the rise in importance of partnership, community engagement and multiple stakeholders in the process and delivery of urban regeneration

Sustainable

The beginning of the 21st century has brought new holistic and integrated policy that an urban renaissance should be founded on the principles of design excellence, economic strength, environmental responsibility, good governance, and social well-being. Urban regeneration enforces the political dimension of sustainability, recent initiatives s focus on social sustainability and empowering local communities. By definition, sustainable communities are places planned and built to support sustainable living with focus on economic sustainability and environmental sustainability.

Environmental sustainability objectives in urban regeneration seek to increase urban densities and secure compact cities, to better integrate regeneration projects and public transport networks. This emphasized that for communities to be sustainable, they must be offered hospitals, schools, shops, good public transport, and a clean and safe environment. Consequently, inefficient buildings should be refurbished (Mickaityte et al. 2007, 2008) while transport infrastructure fixed. People also need public open space, and the ability to comment how their neighborhood is run. And finally, affordable housing must be provided for people.

re genera tio

3- Urban regeneration for sustainable communities: A case study, Technological and Economic Development of Economy. (2009) Sally McDonald , Naglis

¹⁻ Urban Regeneration. (2015, Dec) Claudio De Magalhaes. University College London. 2- Urban Regeneration in the U.K. 2nd Edition (2009) Andrew Tallon. Malys & Vida Maliene.





REHABIL ITATION

It means to literally make something habitable or useful again. It is a general term referring to a whole range of possible approaches to building preservation. Rehabilitation is the repair or reconstruction of a building to deter physical obsolence. It can involve anything from strict historic preservation to substancial redesign. However, its most commonly used as a process of repair of deterioration and improvement of the basic service systems, while still maintaining the general character of the building. For example, it can be the introduction of new elements such as materials into the existing structure. Rehabilitation also provides many advantages, some of them

ng and the building and the public places saved efficiently is not to say that you can lemolish them. If there is one thing we have ery delicate and selective one and probably

being sustainable, social and economic benefits of preserving the existing building stock and stimulating the redevelopment of an area. The reuse of an inexpensive existing structure, time saving, and the availability of public funds for rehabilitation. As well as the preservation of historical and the cultural heritage of a city.

"The potential benefits to the developer are savings in time, energy, and money (not to mention such intangibles such as civic pride and goodwill). The developer is able to save time through the rehabilitation of an existing structure, through minimizing and standardizing the interior reconstruction, and through faster marketing."

-McLaughlin "Rehabilitating for profit"

The decision to perform an intervention depends on an assesment "in situ" where the status of the building structure will be established and the planning will initiate.

In Naples, Ex Corradini falls apart, this industrial complex located on the seafront of San Giovanni a Teduccio is now reduced to numerous ruins. The first steps taken in the area are eliminating the dangers and securing some spaces after a serious collapse happened. The historic Forte di Vigliena remains in decay and right now a long time is expected before any regeneration plan will take place. Therefore we considered rehabilitation as an appropiate approach in our strategy to restore the historical buildings in the area

Levels of construction

Level	Definition	Control
Permanent 1	Rarely changes: Elements change only in special circumstances for purposes of rehabilitation, safety, code compliance or building efficiency	-Public authorities -Building owner
Semi- permanent 2	Infrequently changes: Elements may be changed, but change is costly, time-consuming or difficult.	-Building owner
Service 3	Feasibly changes: Elements may be changed, if desired, with a moderate degree of effort or expense.	-Resident (outside inspec- tion)
Temporary 4	Readily changes: Elements are easily changed or modified, with a limited amount of effort or expense.	-Resident

Table 1.0

The construction phase of the approach must contend with two main areas: the preservation or renovation of the building structure and exterior shell, and the re design of the building interior. The accomplishment of this will depend upon compliance with the local preservation guidelines and building codes. For the execution of the latter, it is proposed that 4 distinct levels of construction be recognized and clearly demarcated, to facilitate the process of intervention.

¹⁻ Standards for rehabilitation & guidelines for rehabilitating historic buildings. Richmond, CA.

²⁻ Sustainability in Building Rehabilitation. (2022) Hong Kong Building Rehabilitation Facilitation Services. 3- Survey of Sustainable Regeneration of Historic and Cultural Cores of Cities. (2020, May). Mehrdad Chahardowli, Hassan Sajadzadeh, Farshid Aram, and Amir Mosavi.

TIERS PAYSAGE

Thirdlanscapes are neglected areas that are the result of the abandonment of settlements for the development of agriculture, industrial, touristic, etc.

Thirdlandscape corresponds to the development of organisms that create territories without human decision or interventions.



A third landscape refers to the third state, which does not express or submit to power. It is also the result of primitive clusters (areas that have never been developed), brownfields (areas formed by the cessation of an activity) and protected areas (areas protected from human activity by decision).

The third period in landscape design is the careful observation of water bodies, trees and grass, all arranged according to the slope of the terrain, exposure and entry points that will determine the landscape. Also the balance of light and shade its an important factor that can be determined and affected with the height of trees and vegetetation.

"Gardering... demands a certain attitude. It is neccesary to accept the dynamism of vegetation with serenity"¹ -GILLES CLEMENT





The third landscape can change or change for the following reasons:

1. Internal communication (natural dynamics)



2. Communication with the surrounding environment: pollution causes loss of diversity.



3. You can change your style and recommendations with market games.



Images taken from the Manifesto of Third-Landscape by Gilles Clement

These landscape fragments do not resemble a meadow in shape. One thing they all have in common is that they all provide a haven for diversity.

The third landscapes can change both as a result of the territorial development of the spatial organization and through urban axes, new neglected areas and disturbances in the urban network.

There are some precise advantages that can be resume taken from the book of Gilles Clement the Manifesto of Thirdlandscape that show a clear resume of what the city and society can get from the thirdlandscape and those advantages are thatfirst it does not have a scale, it forms an ecosystem capable of sustaining diversity, it is a place where species develop, it is a natural space, a recreation space, an unproductive space and it is a space that defines the environment use.

1- Clement, G. (2023). QUOTES BY GILLES CLEMENT. A-Z Quotes. 2- Clément, G. (2023). Manifesto of the Third Landscape. Trans EQuotes.











SYSTEMIC ANALYSIS



ANALYSIS INFRASTRUCTURE

Analytical Map







Railway Network









on the Italian peninsula. The section was inaugurated on October 3, 1839 with the departure from Portici. Ferrovia Napoli- Portici Today known as one of the two lines of the "Cumana"). Its construction lasted 3 years. It was the first underground railway in italy. Ferrovia Napoli- Pozzuoli-Torregaveta It allows the trains of the Rome-Naples line to head to the central station of Naples, thus completing the network of the Neapolitan railway node. Villa Literno- Aversa connection On 3 March the company "Metropolitana di Napoli" was founded. Subsequently, 51 percent passes into the hands of Mm, the Milanese Metro.

Was the first railway line built

Metropolitana di Napoli

One of the main Neapolitan public transport, was inaugurated in 1925. In 1997 the new Municipal Transport Plan assigns the line the numbering of Line 2 in the Naples metro

> Ferrovia line 2 + FS regionali

San Giovanni-Barra station is a train and metro station in Naples located on the Naples-Salerno line. It serves San Giovanni a Teduccio, an eastern suburb of Naples.

Station San Giovanni-Barra

Tram urban and extra -urban line

1839

1875

1889

1927

1928

1964

1972

993

1997

In operation since 1875, the network has changed over the years, and is now growing once again. The first tramways were horsecar lines.

Ferrovia extends- Piazza Garibaldi to Gianturco

The underground service extends from Piazza Garibaldi to Gianturco, and from Pozzuoli to Villa Literno. Runs through the tunnel under the city.

Napoli Centrale Station

The new large central station in Naples was completed, with the construction of the new skyscraper, the covering of the underground stop and the pedestrian connection.

Ferrovia Line 1

The M1 Series are a series of metropolitan electric cars in service on Line 1 of the Naples Metro. They traveled in the composition of three UDs (6 total motor vehicles)

Ferrovia line 4

The Naples-Vesuvius section of the Naples-Ottaviano line will be converted into Line 4 of the Metropolitan Network.

INFRASTRUCTURE TIME-LINE



HISTORICAL RAILWAY

The Naples-Portici railway was the first railway line built on the Italian peninsula. It was commissioned by King Ferdinand II of the Two Sicilies, the line was inaugurated on October 3, 1839. It had two tracks and a length of 7.25 kilometers. When the railway was first inaugurated some problems arose, since the Naples al Carmine station was not ready yet, they decided that the journey would take place with departure from Portici. On August 1842 the section branched off to Castellammare and was inaugurated and two years later in 1844, the continuation to Pompeii, Angri, Pagani, and Nocera. In 1846 they added the extension to San Severino and Avellino.

This historical railway section has suffered a lot of damage over the years. The Napoli Bayard station operated until 1866 and then it was downgraded to a service plant. In 1943 it was also half destroyed by the explosion of the ship Caterina Costa, which was loaded with war material. And finally, it suffered a partial collapse of the villa d'Elboeuf in Portici, located next to the railway line, it resulted in the closure of the line in 2014, until April 2015, to allow for reparations. Nowadays, the railway is still in use under the name of Line 2 for rapid transit and Line FS Regionalli for the Italian state railway.

This railway is very important to San Giovanni a teduccio because its the only main public connection it has to the city of Naples, all the other transports are secondary, it brought the industrial revolution with it to this area, and the industrial areas were created having it as its axis. This railway brought an investment of 15 billion euros in the Campania Region, due to its good connectivity and its optimization of the use of infrastructure and avoiding concentrations on the Naples node. So this project is due to be finished by 2030, and it plans interventions to double the railway sections and speeds up the line. It will be possible to travel 250km/h with an increase in the offer of rail transport which will connect Puglia and Campania to the high-speed network. This will reduce travel times and increase the levels of accessibility to other potential territorial areas. The project will also involve streets, new trains, buses, and the creation of a hub dedicated to logistics.



1- Naples -Portici railway. Italian Railways. (1971) Kalla-Bishop. Pp.15-16.







SECTION C-C







The sections depict the current mobility situation of our area of interest in three segments through the main mobility axis. The graphics show the transportation methods used on the axis, such as the railway, car street, and a tram line that ends at the train station. The many options of transportation on a single axis generate constraints for pedestrian mobility in the area.

The most evident factor acting as a constraint is the railway, which marks the division between the area of ex-Corradini and the city. Another factor is the saturation of mechanical mobility produced by the tram line and car lanes. Altogether generate a lack of pedestrian connections available to reach the waterfront. It is also visible in section C how the main street starts to become more narrow and the pedestrian loses space to transition the street. The main cause behind this problem and is a factor we can also see in other sections is that the car lanes are being occupied as parking spaces. After analyzing the mobility it became clear how much the city prioritizes car use over pedestrian mobility, another example of this problem is how many other spaces that could be used as potential transition spaces are also being occupied by cars. Our main goal is to produce strategies that prioritize pedestrians over cars and to generate connections that allow the conservation of the historical railway while still unifying the waterfront and the area of ex-Corradini with the city.

PORT OF NAPLES

The ancient Greeks founded Naples as a city port; its advantageous position in the Mediterranean basin allowed it to become a busy and important port. Initially worked as a military port, but over the centuries transformed into a maritime traffic. The port of Naples is one of the most important in southern Italy for traffic of passengers and one of the most important for goods transportation.

The port of Napoli is a complex system that self-organizes in different categories of services such as military, transportation, commerce, and industry. Due to the economic boost generated by the traffic containers, the municipality planned an expansion of the terminal on the waterfront of San Geovani Teduccio. The port authorities of Naples plans to continue expanding the industrial terminal in the future.

Until the nineties, the port area kept close contact with the city; after the enlargement of the city port, only the marina side established a permeable relationship with the consolidated city. The commercial and industrial area of the port has became a barrier marking distance and separation for the sprawl city development.

The current city planning of Naples is focused on the economic development of the harbor while denying the waterfront to the city and failing to integrate the community. We envisioned a port intervention combined with urban strategies that tackle the social, cultural, and ecological aspects of a marginalized fragment of Naples.

-Size: 60 sqm. -Vessels: 100.000 vessels -Traffic of containers: 650.000 TEUS.

Port activities Container ship Passenger ship O Passenger General cargo Sailing Vessel O 0il / chemical tanker Pleasure craft Houseboat Fishing O Yatch



















WATER CONDITIONS AT NAPLES PORT



The large-scale seaport of Naples is currently producing a major impact on the marine environment due to the large shipyard activities and remaining chemicals of the disused industrial areas now occupied by containers. According to a study there are many chemical sediments on the water, from visible pollutants such as plastic litter and oil spills to invisible pollution such as microplastics, underwater noise, chemicals, and nutrients.

The results on a study that tested samples of water showed that the main contaminants present are Hg > Cd > Zn > Pb > Cu > Cr (in order of magnitude). Both inorganic and organic, according to the study the traffic oil-related products represent a major source of pollution. While Petroleum hydrocarbons and Polycyclic Aromatic Hydrocarbons are a permanent pollution source due to combustion processes of fossil fuel and release of unburned oil products. High levels of contamination were discovered with the study and only increases our concern of the future effects of the contamination that can translate into the increase if water temperature, water acidification, rising sea levels, and more frequent and intense flooding and erosion.

1- Coastal and Maritime Strategy, (2017) EU https://ec.europa.eu/oceans-and-fisheries/system/files/2021-03/swd-2017-126_en.pdf 2- Protecting the environment and oceans with the Green Deal (2021) – EU https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/protecting-environment-and-oceans-green-deal_en

3-Contamination and ecological risk assessment of the seaport of Naples (2020).

46





Spatial distribution (interpolated map) of Cadmium, copper, chromium and zinc, in the port of Naples; graduated colors are classified in percentiles.

One of the main objectives of this thesis is to mitigate the impacts on oceans and coasts inflicted by the industrial sector of Naples. Considering the growth of the cargo activities at the port, it becomes mandatory to integrate a blue economy, which aims to build a resilient economy and a respectful attitude to the ocean. This means businesses that use or generate renewable resources, preserve marine ecosystems, reduce pollution, and increase resilience to climate change. Blue economy can contribute to carbon neutrality by developing offshore renewable energy and by greening maritime transport and ports.

Our thesis will apply nature base solutions to mitigate the chemical residuals on water, at the same time it will focus on proposing water functions of low impact that can integrate the waterfront of our area of interest to the platform of Darsena di Levante which will be completely occupied by containers. When the nature base solutions become effective, we expect to restore the biodiversity and lost ecosystems of the coastline of Naples.





ANALYSIS URBAN TISSUE

Analytical Map







Consolidated city

Productive

city



Center & Historical nucleous



Airport



								A Real Prop. name and a real of
								THE REAL PROPERTY AND ADDRESS OF
Port								

URBAN GROWTH

Napoli San Giovanni a Teduccio 1907



San Giovanni a Teduccio is a district of the eastern area of Naples. Autonomous municipality until 1925. According to some historians in the Pazzigno district there was the villa of Theodosia, daughter of Theodosius, the great Roman emperor. Then it would be call the villa of Teodosia, a term that over time would then be transformed into Teduccio. From here the whole district, over time, took the name of S. Giovanni a Theodocia, a term which, with the passage of time and the succession of languages and dialects, became the current San Giovanni a Teduccio. The area was aggregated to the city of Naples under Fascism, while until 1925 it was an autonomous municipality, built on the ancient Via delle Calabrie.

Napoli San Giovanni a Teduccio 1964



It was also a victim of the building speculation that took place in the city starting after the Second World War, but unlike most of the outlying districts of Naples, it has retained part of its village characteristics, as evidenced by the area around the Mother Church of San Giovanni.

In the past, the area was the seat of the most important canning industry in the Mediterranean such as Cirio, Russo, Paudice, Reale and of the first railway industry in Italy, serving the Naples-Portici section, with the famous Pietrarsa factory.

Napoli San Giovanni a Teduccio 2022



neighborhood.

There was a decline of the industry sector and during time there are less and less industrial area. In order to transform the city, the economy and this abandoned areas the city is trying to bring new education facilities with the creation of Apple Academy. The main road axes are Corso San Giovanni a Teduccio, and Corso Nicolangelo Protopisani.

The factory ceased its activity in 1975, but in the following years it was transformed into a railway museum. The employment opportunities of the factory have not yet been fully compensated by other economic activities and in fact unemployment is one of the biggest problems in the

LAND-USE MAPS



ANALYSIS OF RESIDENCES

Most of the houses in the area are of a medium scale that few of them have a mix use of having housing in the last floors and commerce in the first floors specially the ones in the city center that in fact are in the main street.

There is also a clear decay of small houses and the ones that exist can be informal housing located next to areas that are abandoned or really old houses.

Big scale buildings are not so common in the area but in the last years we can see that there are more of these buildings starting from the construction of Taverno del Ferro that the main goal is to have a massive housing area.

We can see how the housing is spreading without any specific order absorving abandoned areas that use to be occupied by industrial areas or fields

ANALYSIS OF INDUSTRIES & COMMERCE

San Giovanni a Teduccio is a clear example of an industrialized city in decay because it use to be an area with a lot of industries that the economy of the area relay on them and now these areas are less and less common. Few of them were replaced by commerce buildings and others are still waiting for some use.

We can tell that there is an increase of different types of commerce related with the still existing industries in order to grow next to them, but others have other functions and are growing in the main street where there is a big fluency of people.

There is also an important area in the city that are the abandoned industrial areas that some of these infrastructures are now considered industrial archeology and the goal is to protect them but also regenerated these abandoned areas.

ANALYSIS OF FACILITITES

In San Giovanni we can see that there are several facilities that are scattered in the city without any order or connection between them.

We can see that there is a lack of leisure places like plazas or sports fields and instead there are several parking lots around the city.

One of the goals of the city is to try to create more educational areas so we can see an increase in the construction of these buildings but to reach the goal of making education a new economical support for the city is still something far away to see in the city.

ANALYSIS LAND USE Analytical Map

Esc 1:7500 500m grid

San Giovanni a Teduccio is the representation of a post-industrial city that is trying to leave behind the industrial area and to create new commercial and residential areas. As we can see the industrial area is desapearing through time and a new commercial area is growing in this zone.

There is a clear division between the commercial area and the residential areas that also show that facilities are growing just in the residential areas.

There is a lack of green public areas in the city and there is a lack of commerce, facilities and residential areas in the coast.

Services Industrial Schools Factories Churches Commercial Areas Abandoned Orchads Industrial Areas Parking lots Field sports

Low Density

ANALYSIS INDUSTRIES PRODUCTION

Analytical Map

Esc 1:7500 500m grid

In order to understand the changes of the city throught time in terms of morphology, economy and socio-cultural aspects we have to start from the Industrial decade.

San Giovanni a Teduccio was an industrialized city that was growing more and more due to factories like Cirio, Fiat, Steel factories and others that were supporting the economy of the city and giving jobs to a lot of people.

After the decay of these factories most of them were shut down and abandoned creating unemployment that till these days the city is still trying to recover.

We can see that mainly these factories where growing a long the train railways and a long the coast creating a polluted beaches.

Now a days there are some industries but with different productions that don't need to be close to the coast.

	_
Plastic	

Industries

Ex Industrial Areas

Containers Areas

Industries

Industries

Industries

ANALYSIS

Analytical Map

Esc 1:7500 500m grid

San Giovanni a Teduccio is an area with several important buildings that represent the history and evolution of the area.

Starting from years of war to a decade of industrialization and finalizing in new cultural buildings.

All of these buildings have a story to tell and represent also the culture, traditions, economy and social life of the area.

These landmarks are mostly located next to the train lines, the main street and the coast of San Giovanni a Teduccio showing that in the past this area was important but also in the evolution of San Giovanni a Teduccio. The main concern is try to protect these buildings in order to keep the identity of the city and of the people. Some of these landmarks are really old but others have been added throught time and these ones are mostly trying also to represent the new evolution and regeneration of the city that is one of the main goals for the people.

New Landmarks

PRESERVED LANDMARKS

FORTE DI VIGLIENA

This fort was build in 1706. Was built to protect the city with the orders of the knig in that moment. Till now this is a symbol of the city that shows what San Giovanni used to be in the past

TRAIN STATION SAN GIOVANNI A TEDUCCIO

This was one of the fisrt train stations in Italy and was used to connect Napoli to the south areas. Now a days is still working for trains and for metro.

CHIESA DI SAN GIOVANNI

This was the first church build in 1598. Till now a days is a great religion symbol that shows the religion of the people and also about the culture. This church can be considered an identity symbol of the place that would not be removed through time.

SANTA MARIA DEL CARMINE CHURCH

This is also a symbol of the culture and identity of the people in the area that shows their religion. Is the second most important church in the area and is a building that would be hard to remove from the city.

REGENERATED LANDMARKS

POWER PLANT

Was build in 1924 in order to supply energy to the city. Now a days is still wotking but can be regenerate in order to avoid the pollution of the beach.

EX CIRIO INDUSTRY

Was build in 1928 in order to create the tomate sauce. Now a days half of the building is abandoned and the other half was regenerated in order to create a facilitie.

THE EX CORRADINI INDUSTRY

These small buildings that create an industrial area in the coast was build in 1838. Due to the high demand of industrial buildings this place was build and used to give work to thousands of workers. Now this area is completely abandoned and ready to be regenerated.

INDUSTRIA SIDIRURGICA

This was one of the most important industries to be built in 1840 in order to create metalil parts. This industry was abandoned and creating and empty area in the city that is just closed but can be regenerated respecting the industrial archeology of the area.

TAVERNA DEL FERRO

Taverna del ferro was build in 1982 in a project for social housing due to an earthquake. The murals of these buildings were painted by Jorit and express the identity of the area with the face of Maradona in one mural and Che Guevara in the other.

PARK TROISI

PARK TEODOSIA

Was build in 1985 in order to create social areas in the city and to try to solve the lack of green spaces. Now a days the park is more abandoned do to the lack of maintainance. This are is also part of another social housing project.

APPLE ACADEMY

Was build in 2016 with the help of the university Federico II in order to try to regenerate the city and to change the concept of a post industrial city to a city of innovation in education.

This park was build in 1981 as part of the taverna del Ferro social housing and in order to give to San Giovanni a Tediuccio a big green area in the city. In the middle of the park is located a water mirror that with time and lack of maintenance looks abandoned and vandalized.

ANALYSIS LANDSCAPE

Analytical Map

Recreational parks

Potential areas

Woods & Forests

Green areas

ANALYSIS GREEN & BLUE INFRASTRUCTURE

Analytical Map

Parks

Urban green areas

Orchards

tree area

Wild vegetation

Sewage system

Potable system

EXISTING VEGETATION

The wooded surface of the crater floor is characterized by the presence of more demanding plants in terms of water, spontaneous or introduced by man in the last 150 years.

Mesophilic mixed forests are forest formations of various tree species that grow mainly where the climate is cool and humid, favoring the mountain belts.

In the Vesuvius National Park mesophilous forest formations are mainly present on the Somma side, more humid and cooler than the Vesuvius one, and are mainly characterized by Chestnut.

TREE SPECIES

Carpinus Betulus Hornbeam

Quercus Rubra Quercia American Rose

Ostrya carpinifolia Black Hornbeam

Quercus Oak tree

Cercis Siliquastrum Juda's Albero

Thuja Citrus Grove

The term Mediterranean maquis indicates plant formations made up of shrubs and small trees (maximum 4-5 metres), generally evergreen, sometimes perfumed, which create a dense and intricate vegetation, with a highly variable floristic composition due to the type of substrate, climatic and topographical factors and human activities.

The maquis is however typical of the regions bordering the Mediterranean basin, characterized by temperate-humid winters and hot, dry summers.

The maquis is typically not very dense, mainly made up of Broom; where the slope is accentuated.

MEDITERRANEAN BUSH

Ulmus Glabra Hawthorn tree

Arbutus unedo Strawberry tree

La Macchia e i Boschi. (2018, may 30). Parco Nazionale del Vesuvio.
Di Napoli, C. (2023)Flora e fauna.Extracted from: www.comune.napoli.it.

The characteristic that makes this wooded area special is the "VEGETATION INVERSION"

Laurus nobilis Bay Laurel

Ostrya carpinifolia Oriental hornbeam

Myrtus Myrtle

Fraxinus ornus Flowering ash

ANALYSIS SYNTHESIS Analytical Map

Esc 1:7500 500m grid

Through the previous analysis, we can conclude that there are many barriers between the city and the coast, some of them being the pollution, the industry, walls, railway, and Ex-Corradini that lies abandoned on the coastline. However, we also have potential connections, and abandoned spaces that can be used to improve the axis.

San Giovanni a Teduccio is fragmented, having scattered green areas, parks, and commerce, it lacks an efficient soft mobility system relying more on the train, buses, and cars. The main connections coming from the city to the coast end on the railway, and don't cross, and the few that do cross are due to them going into an industrial working area.

The coast has a beach that is polluted with trash and wastewater, and a pier that they use for shipping containers. A platform was created for the purpose of storing these containers but it was never finished.



ANALYSIS CRITICAL ASPECTS Analytical Map

Esc 1:7500 500m grid

In this map, we can observe that on the city's coastline, the pier is only being used as a storage area for deposits. And that the industrial area is the only one benefiting from it. Also, the coastline has many archeological industrial spaces that are abandoned and have turned into ruins, and a lot of trash and overall pollution is situated in this area, on the beach and water. The sewage canal unloads in the Gulf of Naples, which is a problem because now the water is too polluted for any use.

We have some residential high-density areas on the other side of the railway, facing the city, but nothing is connected to the side of the coast. The flooding risk is low to medium and the danger area is all of the coast and the area between the railway and highway. We have scattered wastescapes and greenhouses. A lot of graffiti is observed in the streets and residential areas, and barriers such as fences are placed around some public spaces to prevent vandalism. Not many residents go out at late hours, due to the sense of danger at night.



| 73







STRATEGY

SYNOPSIS MAP

The research about San Giovanni a Teduccio conducted in discover several aspects and significant factors that influenced and changed the city's conditions of now a days. We discover several issues that have been influenced by the socio-politic and socio-economic factors that need to be taking into account in a really detail and precise way in order to find the most convinient contemporary approach of landscape and urbanism.

The history of the city is mainly important to undestand the actual problems of the city and discover the remarkable historic value of the area. The rapid industrialized growth of the area in the past left several consequences for the future in multiple degradation levels such as neglected and abandoned areas, negleted identity areas and heritage that affect the value of the city, irresponsible polluted beaches and water, illegal and informal settlements, infrastructural chaos, lack of public spaces, abandoned landscapes, abandoned beaches and not planned growth of the city creating massive housing buildings.

The urge of trying to regenerated the city in order to recovered the lost beaches areas that the industry in the past left polluted and abandoned is one of the main goals for the city in order to give more public spaces and quality life to the citizens. Changing the economic base of city is also an important aspect to manage in order to make a more self sustainable city that create more job opportunities and to decrease the levels of insecurity and socio-economic problems in the area.

After the analysis we can tell that San Giovanni a Teduccio is a city with historical value and with an important heritage that needs to be protected like the industrial archeology, the railway, churches and the forte di Vigliena. All these areas mixed with buildings that express the culture and tradition of the place are our focus points in the moment of protecting the city in order to take care of the identity of the area an of the people that like living here. The connection between the old city, new city and the beach is a goal that focus in to improving social life, economic life and protecting the heritag





Connect urban and natural landscapes through regeneration. Connect past, present, and future through the rehabilitation of historical buildings.

for people.

BUT HOW TO ACHIEVE THIS GATE?



BREAKING THE BARRIERS. To connect city and coast the visual and physical barriers need to be demolished, this includes the walls along the railway.



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CULTURAL ACTIVITIES. To integrate the younger community, we need spaces for them to be distracted and put their talents to good use, as well as learn and socialize.

Connect the people to the city through educational, cultural, recreational and spaces.

Connect the city to the coast by making the Ex-Corradini a GATE



To achieve the connection, we need to bring the pedestrian into our site, the best way to do this is to implement soft mobility and direct accesibility.

ACCESIBILITY.

SUSTAINABILITY. To bring local people into our gate we plan on making it sustainable, by creating job opportunities, community activities such as the orchards and active commerce.



GREEN AND RECREATIVE AREAS. A good quality of life includes doing sports and relaxing, the best solution for this is the creation of recreative parks.



SAFETY. This area was originally unsafe, to provide safety we plan to create housing to bring people here at all hours, as well as by creating spaces with good visibility.

STRATEGY FRAMEWORK Climate risks

A Flooding

Since our site is in a coastal area, we have climate risks of flooding, this can be due to the water levels, alluvial, colluvial and anthropic deposits

The beach and sand areas have become victim of erosion, therefore the risks of flooding The increases. riparian and soil areas in the coast line are very small.

Pollution С

B Erosion

D De-natura lization

We can observe the loss of green areas due to the industry and the agriculture. Many open spaces have changed from green to devoid of vegetation or brownfields.

The pollution found

in the area is critical

noise pollution and COS2 pollution, visual pollution in

the means of trash

in the sea coast and

soil pollution in

some wastelands.



STRATEGY TOOLBOXES

Sustainable development goals



3.4 By 2030, reduce by one third 3.9 B premature mortality from reduce non-communicable diseases through prevention and treatment and promote mental health and well-being

C|D|



6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

SUSTAINABLE CITIE AND COMMUNITIES CIDI

11.2 By 2030, provide access to 11.4 safe, affordable, accessible and sustainable transport systems world's for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

protect heritag

12.2 By 2030, achieve the 12.4 enviror sustainable management and ment o efficient use of natural resources throug

15.1 By 2030, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations species under international agreements

A | B | C | D |

5 ON LAND

CI

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamina- tion		
6.6 By 2030, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.b Support and strengthen the partic- ipation of local communities in improving water and sanitation manage- ment	
11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	11.6 By 2030, reduce the adverse per capita e n v i r o n m e n t a l impact of cities, including by paying special attention to air quality and munic- ipal and other waste management	11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities
12.4 By 2030, achieve the environmentally sound manage- ment of chemicals and all wastes throughout their life cycle, in accordance with agreed interna- tional frameworks, and signifi- cantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products
15.5 Take urgent and significant action to reduce the degrada- tion of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	15.9 By 2030, integrate ecosystem and biodiversity values into national and local planning, d e v e l o p m e n t processes, poverty	

reduction strategies

and accounts

STRATEGY APPLICATION ON LANDSCAPE

NBS solutions | Nature-based solutions are living solutions inspired by, continuously supported by and using nature (European Commission, 2015).





GENERAL STRATEGY INFRASTRUCTURE Esc 1:30000 Sconserved infrastructure New infrastructure New infrastructure Restoration of infrastructure Areas of historical value



GENERAL STRATEGY MOBILITY



Esc 1:30000

INFRASTRUCTURE



Conserved infrastructure



Restoration of infrastructure



Areas of historical value

MOBILITY



---- Underground railway



____ Main street connection

Boat routes

SLOW MOBILITY

······ Trecking paths





Pedestrian connections



Bicycle paths



GENERAL STRATEGY LANDSCAPE				
	(
	Esc 1:30000			
NFRA	STRUCTURE			
	Conserved infrastructure			
	Major area of interventior			
	Restoration of infrastructure			
52	Areas of historical value			
10BILITY				
	Underground railway			
	Tram line			
	Main street connection			
	Boat routes			
SLOW MOBILITY				
	Trecking paths			
	Pedestrian connections			
	Bicycle paths			
ANDS	SCAPE			
	Green corridor			
	Green areas			
	Third landscape			
	Orchards and community gardens			
	Wetlands			
	Water bodies			
	Water pond			



GENERAL STRATEGY SYNTHESIS Esc 1:30000 INFRASTRUCTURE Conserved infrastructure Major area of intervention Restoration of infrastructure 57 Areas of historical value MOBILITY ---- Underground railway _____ Tram line _____ Main street connection Boat routes SLOW MOBILITY ······ Trecking paths Pedestrian connections Bicycle paths LANDSCAPE Green corridor Green areas Third landscape Orchards and community gardens Wetlands Water bodies Solution Water pond



MIDDLE-SCALE STRATEGY

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4

E	C 1:4000	
L	50 1.4000	
SITE TRACES		
Underground railway	∢ >	
Avenue/ highway	<>	
Tram line	\longleftrightarrow	
Connection axis	\longleftrightarrow	

BUILDING STATUS

Building in good condition	
Insignificant damage	
Collapsed horizontal structure	
Collapse building	
New building	
Conserve building	
Conserve structure	
Demolish	
Recreational facilities	
Plazas and squares	
Container terminal	
Port	

BLUE & GREEN

Orchards	
Parks	
Third landscape	
Beach	
Wetlands/ Reedbed	
NBS new green	
New green	93

INTERVENTIONS

ACCESIBILITY





To free the horizontal axis from its barriers we decided to move the railway underground and let the axis be focused in pedestrians. The axis will now hold a pedestrian sidewalk, bicycle path, a tram line and green areas with conserved local flora.

CULTURAL AREAS



PLAZAS





GASTRONOMIC AREAS



HOUSING





The municipality of the area allocated funds to create new guest houses and university residence. Our target is to create sustainable housing through the use of shipping containers, so the prices are more accesible to the people, and this attracts them to the site

EDUCATIONAL AREAS







Projects are projected to free up inaccessible spaces in the city and open them up to create new spaces for music. We plan to create new spaces for art and music with the aim of keeping young people off the streets and providing them with spaces where they can express themselves.



To bring intangible heritage into our project we plan to have a gastronomic shop area and a gastronomic market where local production and cuiscine can be sold. On weekends the market plaza will be open immitaing Portobello flea market, to give opportunities to local entrepeneurs.

University of Naples Federico II now owns part of the Ex-Corradini, therefore we created education areas to integrate them into the project. Some areas will be student exclusive but others will be public so they can mix with the community, such as the library, plazas, and exhibition areas.

PARKS AND RECREATIVE AREAS



The municipality allocated funds to regenerate Ex-corradini and create spaces with expressive, cultural and sports activities for the people. Football is an intangible heritage of this area, therefore our target is to create more football courts in the recreative spaces

TOURISM PORT









The aim of the community orchards is to bring the community together. They are good for people and wildlife. The fruits and vegetables produced are a source of income to help sustain the orchard. We will offer workshops on managing orchards at the start of the project so the project is succesful.

WATER TREATMENT



RESTORE LANDSCAPE





It is proposed to create spaces that respect the environmental and landscape heritage. This means that in all the green intervention we will conserve the existing green or relocate it. And in the case of any new addition, all proposed vegetation will be local of Naples.

ELECTRIC POWER PLANT







We plan to create a port to facilitate the connection between San Giovanni a Teduccio and Naples. This port will be centered around people, so its focused on tourists and only small boats and the ferry will be able to use it.



Our objetive is to restore the beach, to do this we will expand the sand area and extendend the waste water pipeline to avoid the polluted water. To clean the current situation we will use saltmarshes, seaweed and duckweed to oxygenize the water.



The existing electric power plant Tirreno Power is one of the last thermoelectric plants in Campania. The aim is to integrate this new, less polluting gas plant by restoring and expanding its green areas, and changing the solid walls that surround it to a see through fence, to open the narrow view.





2 Art canvas





When the platform of Darsena di Levante is reactivated by the port authorities, the port will increase considerably its capacity for the traffic of containers. This opens the challenge of ensuring the commercial activities at the port can mantain eco-friendsly with the environment. Our approach intends to achieve this goal by prolonging the life cycle of the shipping container. The idea is to take advantage of an available resource that can be turned into built infrastructure. Recycling the containers will give us the opportunity to our project to build infrastructure with low-carbon emissions. DESIGN APPROACHES SHIPPING CONTAINERS







06



DESIGN PROPOSAL







2

The strategy is to connect the city to the beach through better accessibility. For us, accessibility entails the physical and visual aspects of the paths connecting both.

Our design entails two main horizontal axis and four main vertical ones. For the first horizontal axis, we decided to move the existing railway underground to liberate the street, convert it into a soft mobility path with a tram line, and conserve the historical train tracks and third landscape. For the second axis, we created a direct path next to the beach so people can walk next to it. The vertical axis is plazas we designed to connect the city and the train station to the coast, these plazas offer a direct view and access to the landscape and the port, they also connect with the horizontal axis creating a grid, that allows people to walk through all our site.

Besides accessibility, another existing barrier is the current contamination on the beach. Therefore to treat this problem we proposed NBS solutions and global challenges. Some of them are; extending the wastewater pipeline so the waste doesn't affect our area, restoring the water using salt marshes, and adding seaweed to the water to oxygenate it and allow life to grow in it again.

As for our buildings, we value the tangible and intangible heritage of Ex-Corradini, so we decided to conserve what we could conserve and restore it, rehabilitate the buildings in bad shape that need improvements, and create new crucial buildings such as the train station. For the new buildings beside the station, we used cargotecture which means we re-used the existing shipping containers in our platform to create new architecture and social housing.



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MASTERPLAN



| 105



CURRENT SITUATION



DESIGN PROPOSAL





Green areas Section A-A´ Esc: 1:750



Entrance Piazza to Ex-corradini Esc: 1:500

Tiles



Market Piazza Esc: 1:500

Asphalt Deck

Sea



Section C-C`



SECTIONS AND PIAZZAS



Tiles Section E-E` Esc: 1:750 Indoor Tiles Green Areas

Tiles

Indoor Tiles

Tiles



Piazza Ex-corradini Esc: 1:500



Piazza student residences Esc: 1:500



Green Areas

Tiles

TYPE 1: From a compact mosaic with the presence of more solid pavement preserving few green areas and adding new small green areas base on what is existing in the place



TYPE 2: The mosaic is becoming more flexible and less compact. Here there is a higher presence of existing green areas and new ones where added to expand the green on the piazza



TYPE 3: A compact mosaic due to the presence of existing pavement of the piazza and of buildings mix with some existing greenery and few new pavement.



TYPE 4: The mosaic begings to lose due to the presence of a more wild vegetation an because there are not more buildings around this piazza.







MATERIALS



Existing greenery of the area. Maintaining the original vegetation of the place adjusting it to a mosaic

New green areas Adding new vegetation to the mosaic

New Pavement Adding new pavement to certain areas that need it.

Old Pavement keeping the old pavement under some mantenance.



RAILWAY INTERVENTIONS







RAILWAY CONNECTION TO THE BEACH.

The railway is very important in our project due to its heritage and accesibility value. It however represents a visual and physical barrier for the City of San Giovanni A Teduccio when facing the Coastline and beach. The accesibility along the railway is blocked due to the walls surrounding it, which doesn't allow anyone to cross over or see the other side, which is a pity since its the sea.

Therefore our solution was to move a specific part of the railway underground in order to create direct access to the Coastline. This way the ground level area can be used for soft mobility only, and we can move the tram line to this section, to bring more people over. No cars will be allowed in this section.

Even with the new accesibility proposal we intend to conserve the railway track as it was, and just remove small pieces in critical areas, we are also planning on using all of the existing situation and just restore it and provide new paths. Therefore pedestrians will be able to apreciate the historical tracks and walk next to them while they are crossing over.



Railway is a physical barrier.



By moving it underground the open space increases,



Through our design we are opening paths to the beach.



Lineal track lanes just for the use of trains that cretate a barrier between the city and the beach



















LANDSCAPE INTERVENTIONS



FAUNA



REED BED/ SALT MARSH

This area has a high risk of erosion, due to this the level of the site goes in a slope towards the sea. Its location is right next to the sewage canal disposal point, therefore taking advantage of this location point we decided to turn it into a Salt march, to help clean the sewage water by trapping sediments and filtering runoff; protect the shoreline from erosion by buffering wave action; and reduce flooding by slowing and absorbing salt and rainwater. The idea is for the salt water to enter through the slope, be retained by the wet areas, then the water will be filtered through the selected vegetation, and finally go back.





LANDSCAPE ZOOMS



Citrus grove



Calidris ferruginea



tinus



arborea



valentina L.

Sciurus

vulgaris



Coccinellidae

RECREATION PARK/ BIRD OBSERVATION.

The existing site is wild vegetation and soil, therefore we decided to design a park here due to its closeness to the library and its accessibility point between the coast and the city. The idea of this park is for it to be multifunctional, it can be used for recreational activities but also leisure. The visibility was a very important issue since local people don't frequent low visibility areas, therefore the trees are scattered in exisiting and new locations, and the rest is low vegetation such as shrubs. Next to the main paths there are sitting areas and concrete areas for multifunctional activities.



Bird Watching Pavillion



FAUNA



COMMUNITY ORCHARD

This is an existing abandoned green area. We decided to transform it into a community orchard to involve and attract our local community to our main project axis. This is not a private space but rather a shared resource for the local people, where they can cultivate, cook and eat their own harvest through their own effort. The idea is to bring people together through these activities, and generate a safer and more friendly environment. The soil area is to cultivate local fruits and vegetables, and the greenhouses are for more delicate plants and herbs. The community kitchen is a space where people can cook and eat together.









LANDSCAPE ZOOMS



Quercus ilex



Lullula arborea

Coccinellidae

Cornus





nivalis



spinosa



NATIVE PARK

This is an abandoned tree area. We didn't want to cut local aged trees without a reason, therefore, we decided to conserve as many plants as possible, and convert this area into a third landscape. A plaza passes in the middle due to accessibility purposes, but the rest is kept the same. Vegetation was tamed at the edges of the plaza, and we defined the green perimeter. In the existing green, we just added more grass and shrubs and integrated a playground and park paths in the low grassland areas.

Playground











BUILDING INTERVENTIONS

























BUILDING CONSERVATION

















CURRENT STATE



AFTER INTERVENTION

LEGEND



Conservation

New








Gialla stone

Roof tile

Polycarbonate









1. Restaurant 2. Open air sitting space 3. Lobby 4. Cafeteria 5. Bathrooms

- 6. Greenhouse

- 7. Kitchen 8. Orchad 9. Thirdlandscape

Section Esc 1:350







AFTER INTERVENTION



LEGEND



Demolish





New

149





Gialla stone



Steel

Steel sheet



1. Exhibition area 2. Open sitting area 3. Ruins Exhibition





Section Esc 1:350













BUILDING REHABILITATION

















AFTER INTERVENTION

LEGEND



Conservation

New









Concrete

Glass

15

14

Steel







- 1. Offices
- 2. Administration
- 8. Bathrooms
- 9. Old books safety room 10. Cleaning room 11. Maintenance room 12. Bookshelf area

- 13. Terrace
- 14. Sitting space 15. Childrens books
- 16. Shop



Section Esc 1:350







AFTER INTERVENTION

LEGEND













Gialla stone

Concrete



Roof tile

Glass



Steel



- 1. Administration Offices6. Reception offices2. Employee Offices7. Reception3. Bathrooms8. Free study hall4. Audiovisual room9. Sitting areas5. Private meeting rooms10. Private study areas

Esc 1:350







AFTER INTERVENTION

LEGEND



Conservation

New

| 169



- 1. Gallery 2. Conference area
- 3. Administration offices

- Administration onces
 Common meeting rooms
 Kitchen
 Cleaning rooms
 Bathrooms
 Private Meeting rooms





Gialla stone



Perforated cooper panel



Roof tile



Glass

Steel



Section Esc 1:350





AFTER INTERVENTION

LEGEND



Conservation



| 173









Gialla stone

Roof tile

Polycarbonate



Steel







1. Principal Classroom 2. Private study area 3. Open study area 4. Bathrooms

- 5. Service areas 6. Meeting Room 7. Conference Room 8. Study area

Floor plan Esc 1:500

Section Esc 1:350





















NEW BUILDING





Brick







Tram Station
 Deposit
 Mechanical workshops
 Electrical room
 Repair whorkshop
 Tram offices

Glass

Roof tile

Reinforced concrete







- 7. Secondary entrance 8. Shops 9. Main hall 10. Offices 11. Bathrooms 12. Cafeteria

Floor plan Esc 1:750



Section Esc 1:350



- 1. Fruit market 2. Bathrooms 3. Vegetables market 4. Flexible markets 5. Lobby 6. Meat market 7. Fish market 8. Bigger Flexible market 9. Market internal piazza







Re-used shipping container



Aluminium flooring



Glass railing



Steel





Esc 1:350





Re-used shipping container



Extruded polystyrene (EPS)



Plywood flooring



Steel



Entrance/ lobby
 Student residence Apt type 1
 Student residence Apt type 2
 Student residence Apt type 3
 Family apartment with 1 main bedroom, and 2 secondary.







07



CONCLUSION & BIBLIOGRAPHY



How strategies such as maintaining, reshaping, and regenerating can recover abandoned and polluted areas with historical value that act as a barrier between city and sea? The answer would be through interconnections. Ex-Corradini is a heritage that represents the industrial era, however, through urban regeneration, we will connect the past and present, by keeping the metal shells and the memories but changing the uses and the land. Through these changes, we plan to reconnect with the rest of the local community by opening an emotional and physical path for them to come to the coast and feel at home.

The main interventions used to promote and make possible this interconnection were: by moving the railway underground we broke the main physical and visual barrier between the city and the beach; this also brought better accessibility, since without the railway we focused on the pedestrian and implemented soft mobility. The creation of green recreational spaces, to offer a better quality of life. Cultural activities, to integrate the younger part of the community with the project, and make them decrease delinguency. Sustainability, by establishing community orchards, community kitchens, and markets, we produced a healthy community that could come to care about their context since the land is giving back to them. Safety, by bringing the community together and creating open and public spaces as well as housing we can produce a safe space where there are people around at every hour.

Besides the general community, we also cared about Napoli Federico II University since they own part of the Ex-Corradini. To integrate them with the project we made educational installations for them, and to integrate them with the local community we made semipublic cultural installations for everyone.

Through the use of regeneration, rehabilitation, a third landscape, and new ideas, we managed to connect the city in an absolute way to the sea by guiding the people through accessible paths, but also through memories, opportunities, events, and welcoming spaces. In this connection, Ex-Corradini now acts as a gate that welcomes people to stay.

CONCLUSION

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