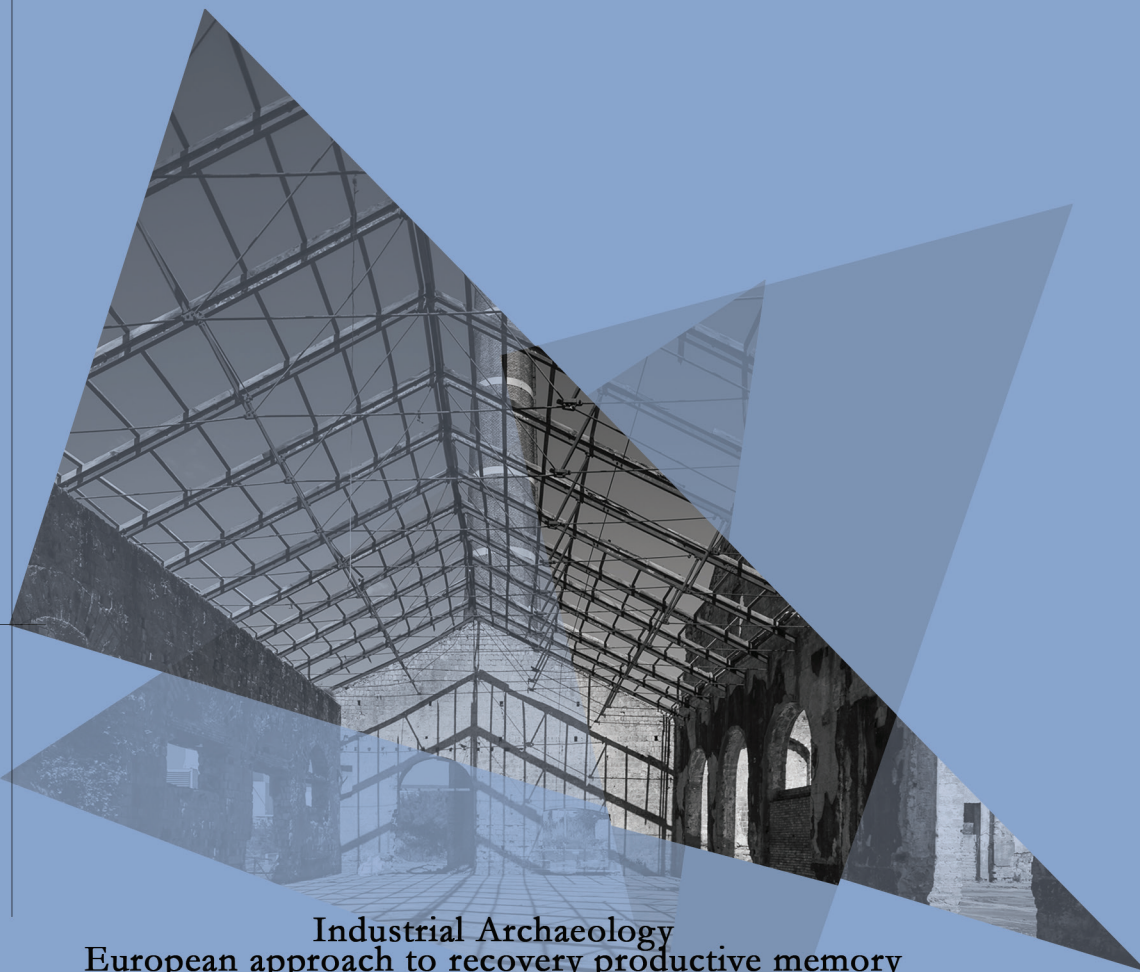


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Industrial Archaeology
European approach to recovery productive memory

Mara Capone, Noelia Galván Desvaux

Luis Agustin-Hernandez, Lucas Fernández-Trapa

01 . Industrial Archaeology. European approach to recovery productive memory

a cura di | edited by Mara Capone, Noelia Galván Desvaux, Luis Agustin-Hernandez, Lucas Fernández-Trapa

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Luis Agustin-Hernandez, Lucas Fernández-Trapa

Industrial Archaeology **European approach to recovery productive memory**

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Industrial Archaeology. European approach to recovery productive memory

University of Naples Federico II

Coordinator

Mara Capone

Anna Attademo
Gilda Berruti
Massimiliano Campi
Alessandro Castagnaro
Valeria Cera
Maria Cerreta
Antonella di Luggo
Bruna Di Palma
Orfina Fatigato
Mario Ferrara
Gianluigi Freda
Pasquale Miano
Daniela Palomba
Adele Picone
Marina Rigillo
Fulvio Rino
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Simona Scandurra

Tutors

Anna Teresa Alfieri
Giovanni Angrisani
Gianluca Barile
Francesco Casalbordino
Angela Cicala
Victoria Cotella
Marika Falcone
Mario Galterisi
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Physical model

Visualizing the complexity of Corradini context.

San Giovanni a Teduccio from production to logistic

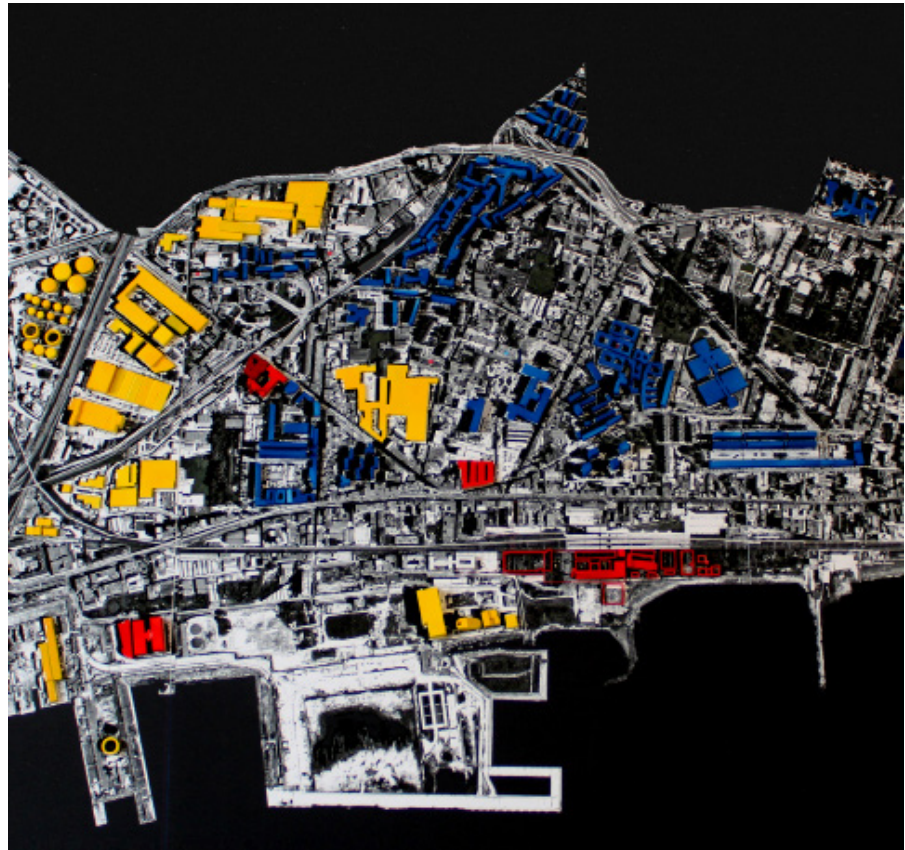
Francesco Casalbordino, Mario Galterisi

Exploring urban limits: morphological dynamics in the Eastern of Naples

“Looking at cities can give a special pleasure; however commonplace the sight may be. Like a piece of architecture, the city is a construction in space, but one of vast scale, a thing perceived only during long spans of time [...]. At every instant, there is more than the eye can see, more than the ear can hear, a setting or a view waiting to be explored. Nothing is experienced by itself, but always in relation to its surroundings, the sequences of events leading up to it, the memory of past experiences [...]” (Lynch, 1960, p.1).

In the context of contemporary architecture, the concept of the model has undergone significant evolution, transcending its traditional definition as a mere physical tool for representing the three-dimensional forms of an object. Currently, the architectural model emancipates itself from its tangible limitations to assume a more complex and multifaceted nature. Beyond serving as a means of representation, the model is conceived as a performative device and medium of conceptual and interpretative expression. This innovative concept situates the model at the center of the design process, making it a tool capable of revealing the intricate dynamics underlying the design practice itself. This conceptual extension of the architectural model prompts a thorough critical reflection, aimed at exploring the multiple facets and implications of this transformation. It invites us to consider the model not merely as a static representation of the architectural object, but rather as an active agent in the creative

*Fig. 1. Territorial physical model detail
(photo by Casalbordino F.).*



process, capable of dynamically embodying and communicating design visions and intentions.

According to this logic, during the workshop “Industrial Archaeology: European Approach to Recovery Productive Memory”, the development of the physical model was situated within this analytical framework, offering a detailed reflection on the intervention area, a particular example of the application of these concepts, the San Giovanni a Teduccio district in East Naples where the emblematic case of the disused former Corradini industry is located. Indeed, it represents an urban context rich

in specific challenges and opportunities that have significantly influenced its form and structure. The physical model was employed to highlight the infrastructural and physical limitations that have shaped the surrounding environment, while other extruded elements highlighted how they are distributed to understand the urban morphology and help to formulate design strategies.

The decision to employ the physical model as the primary tool for analysis and description stems from its capacity to provide a tangible and manipulable representation of the urban space in this area, which constitutes a unique and complex urban and architectural context, characterized by a layered history. “This is because the expansion of the city, throughout the ages, has had to contend with the complex topography of the place, which has determined shifts, intervals, and overlaps between the parts that were expanding” (Lucci & Russo, 2012, p.11). Indeed, located in the eastern part of the city of Naples, this area has been subject to significant transformations and developments over the centuries, influenced by a series of social, economic, political, and environmental factors. Its geographical position and historical evolution contribute to making it a fertile ground for the study of urban and architectural evolution over time.

Using modelling, we have been able to highlight the limits and distinctive characteristics of the study area clearly and visually. Infrastructural and physical limits have influenced the area’s development over time, shaping its urban morphology and determining the opportunities and challenges for its future development, but they have also informed us of the form of the model that frames the study area. Simultaneously, the presence of extruded elements, such as industrial, commercial, logistical, economical, and institutional entities, allows us to grasp the heterogeneity of the urban fabric and the complex interactions among the various functions present in the area. These elements constitute a crucial component in the modelling and analysis of the East Naples area, as they reflect the diverse functions and characteristics within the urban context. They provide a representation of specific parts of the urban fabric, suggesting

Fig. 2. Containers (photo by Casalbordino F.).



the socio-economic dynamics present in the area. Industrial elements are fundamental for understanding the productive fabric of eastern naples, highlighting the presence of factories, warehouses, and industrial facilities, often disused or converted into logistical structures, which have contributed over the years to defining the local economy. Additionally,

affordable housing complexes aid in understanding the social and demographic composition of the area, as well as the challenges related to housing access and urban livability.

Limits: Understanding and embracing complexity of San Giovanni a Teduccio district

In the realm of architecture, the concept of boundaries assumes a pivotal role in defining and configuring urban spaces. Recalling what Italo Calvino says in *The Invisible Cities* (1972), limits are the symbol of the city and can be interpreted across various dimensions, encompassing physical, social, cultural, and economic delineations that shape the form and structure of built environments. Physically, boundaries may consist of architectural elements such as walls, fences, and buildings, which delineate public and private spaces and define relationships between them. These physical boundaries can influence spatial perception and pedestrian circulation, thus contributing to the definition of a place's identity and image. In addition to physical boundaries, it is crucial to consider social and cultural boundaries that may either segregate or unite communities within an urban setting like socio-economic, ethnic, linguistic, or religious differences, that can impact social cohesion and quality of life in neighborhoods and cities.

When discussing boundaries, marginality, and shadow zones, the eastern periphery of Naples emerges as a dynamic and intricate stage where multiple morphological, historical, and infrastructural factors converge to shape its landscape and urban identity. These factors often manifest in the form of a boundary that is not merely a tangible demarcation but also underlies socio-cultural and economic divisions influencing the daily lives of its inhabitants. Major infrastructures such as highways and railways constitute tangible barriers that separate and define various zones of the city, contributing to the fragmentation of the urban fabric and creating visible and invisible divisions within this urban segment. "To this kind of morphology, contemporary development has added contradictions and tensions inherent in the planning of transportation infrastructures



Fig. 3. Territorial physical model stage 1: border definition (photo by Casalbordino F.).

of all kinds” (Lucci & Russo, 2012, p.11). The introduction of a robust infrastructure network has represented a significant turning point in the evolution of the eastern periphery. The implementation of transportation infrastructures has undoubtedly yielded ambivalent effects on urban accessibility. While it has expanded the possibilities of connecting the city center to its outskirts, it has also contributed to spatial fragmentation and functional overlaps among the different developing zones. What emerges is a tangle of viaducts, overpasses, and underpasses which, although necessary to ensure an efficient road network, have also acted as physical barriers, affecting the fluidity of social relations and movement

within urban space, and shaping the morphology of this area. Indeed, this phenomenon has led to a complex and layered configuration of the urban fabric, characterized by a multitude of nodes and connections reflecting the complexity of human interactions and socio-spatial dynamics. The development of transportation and logistics infrastructure, such as the construction of the first railway lines towards the end of the nineteenth century, such as the Napoli-Portici line and the line to Caserta, which separated the city from the sea and from all the industrial complexes that emerged along its trajectory (such as the case study of the former Corradini factory), played a fundamental role in the development of the eastern city, giving it primary importance in terms of accessibility and connectivity but at the same time it was “the rigid segregating sign that from Naples turns south along the sea” (Lucci & Russo, 2012, p.11).

At the beginning of the 20th century, this sign became even more evident with the construction of railway networks leading from the central station towards Rome and Apulia, as well as the A1 and A3 motorway networks, determining a definitive division of the territory into three distinct zones, still influencing today the urban configuration of the area. The study of the current urban morphology has shown how transport infrastructure has played a predominant role in defining the boundaries between industrial and residential areas, contributing to the fragmentation of urban space. The presence of railway tracks, often abandoned, and the dense network of motorways and extra-urban roads physically delimits some areas and creates a sort of framework that separates the eastern area from the rest of the city, but at the same time can offer opportunities for redevelopment and transformation, favoring the connection and reinterpretation of these marginal places.

Based on these premises, we proceeded with the creation of a study model at a scale of 1:2000, which, overall, circumscribes the area under analysis within a framework defined by relevant infrastructural nodes, including the areas adjacent to refineries and gas pipelines, extending to the Pietrarsa railway museum. This spatial delimitation was further delineated by the presence of the highway and the coastline in other

Fig. 4. Territorial physical. Stage 2: manufacturing (photo by Casalbordino F.).



directions. At this scale, various territorial emergences are observed that relate to each other and can serve as visual and orientational reference points. Furthermore, it was evident how the city retains traces and signs of its past that can be integrated into urban projects to promote spatial stitching and continuity. For instance, the layout and trajectory of the Corso San Giovanni or Via Argine represent significant organizing elements of the area. These road axes have influenced urban development along their paths, determining the location of productive and logistical industrial structures. The morphology of this urban space and its limits thus reflect a complex interaction among physical, historical, and cultural elements that contribute to defining the identity and spatial structure of the urban area.

Understanding and valorizing these elements was fundamental to undertake a knowledge-oriented approach to study a significant piece of the city. During the study phase, which led to the realization of the

physical model, the analysis of urban morphology and its boundaries revealed a series of noteworthy elements, which were interpreted from a design perspective aimed at emphasizing spatial orientation. In this context, the model assumes a primary role, being a tangible and accurate representation of urban reality. The choice to adopt a scale of urban representation allows for capturing the morphological and spatial characteristics of the area in question, thus providing a comprehensive framework upon which to base subsequent stages of study and design. Through careful and systematic analysis of urban morphology delineated by the physical model, an articulated framework of salient elements emerged, including the arrangement of main roads, the distribution of buildings and infrastructure, as well as the spatial relationships among various components of the urban fabric. These elements were interpreted and evaluated in the context of urban design, with particular emphasis on optimizing spatial orientation to enhance the area's usability and livability. The model highlighted the limits and potential of the study area in a clear and visual manner, thus providing valuable support for the eventual development of targeted design strategies. Furthermore, the three-dimensional representation of the urban environment enabled the understanding of spatial and functional relationships among different components of the urban context, thereby facilitating the definition of targeted interventions consistent with the needs and characteristics of the area in question. This demonstrates that in the development of the 1:2000 scale study model, the concept of limit played a crucial role in defining a model aimed at understanding the complexity and dynamism of this area.

The working group interpreted the space of the limit as those transitional places where conflicts, changes, and potential intertwine to generate new forms of creativity and social expression. These spaces, located at the margins of the ordinary, suspended between past and future identities, represent sites of phenomenological and design experimentation, where formal and informal transformation processes manifest. Through the reading of such spaces, a new perspective of observation within the

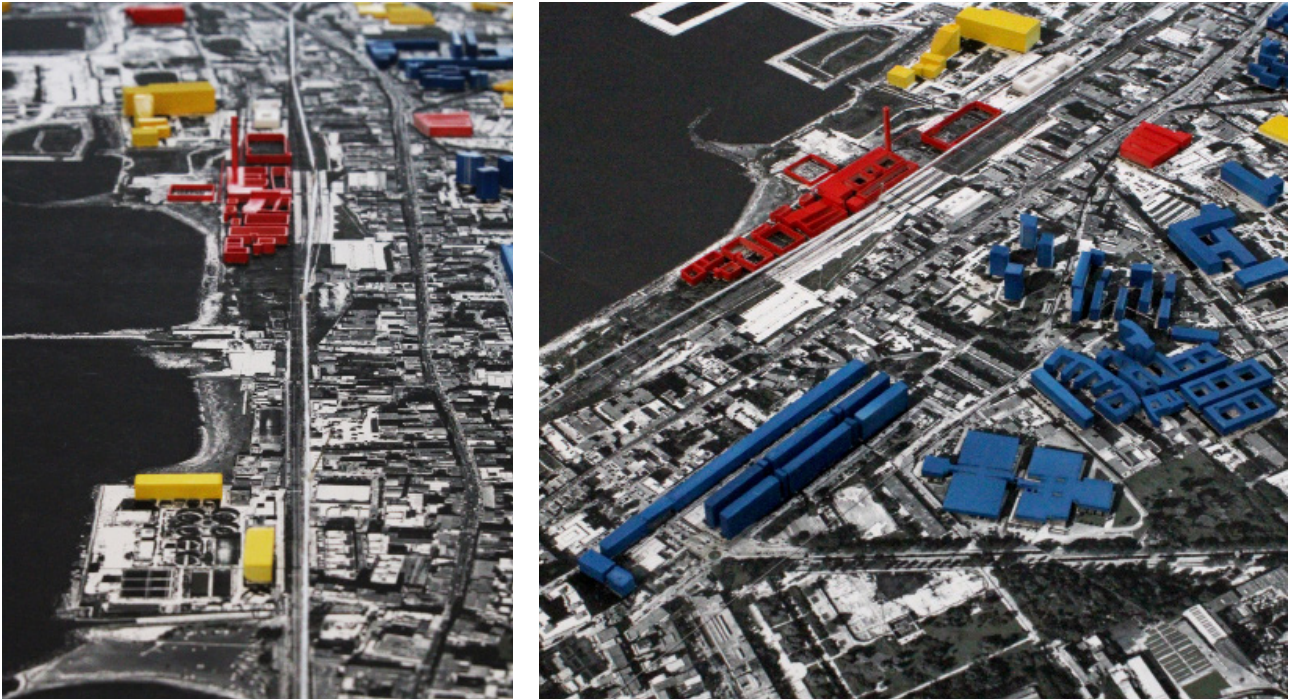


Fig. 5. Territorial physical model details (photo by Casalbordino F.).

fragmented urban space opened, allowing for the identification of key elements to reinterpret the eastern city. In this context, limits become not only an object of study but also a method of reading and interpretation to understand metabolic mechanisms, namely those dynamic processes of urban change, such as demographic growth, economic evolution, and social transformations, which have affected East Naples in the last century. As the work progressed, it became evident how the value of the limit in defining a study model to analyze an urban area was useful in capturing the complexity and richness of the urban context, highlighting the discrepancies and potentials of San Giovanni a Teduccio.

The analysis of urban morphology and its boundaries in the proximity of former Corradini, and more broadly, in San Giovanni a Teduccio and Eastern Naples, reveals the complexity and richness of the urban

context. Understanding and valuing urban boundaries is crucial for the development of design interventions that respect the specific characteristics and needs of these areas.

San Giovanni a Teduccio from production to logistics: the city through its elements

The limits of the neighborhood are the visible testimony of the different phases that San Giovanni a Teduccio went through in the history, and which led to the construction of different types of human settlements, responding to the different cultures and societies that settled there over time. The construction of the model was therefore completed by the recognition of these elements, parts of the urban fabric fundamental to represent this complex history, selected as an essential part of the visual description of the contemporary neighborhood aimed at its transformation.

Until the 19th century, San Giovanni a Teduccio was the countryside of Naples, located just outside the city walls, as depicted in the marvelous *Duca di Noja Plan* (1775). In this map, the area stretching from the city towards the Vesuvius appears divided into various cultivated lands, with very few buildings and farmhouses scattered sporadically. Divisions are logically drawn based on waterways and other natural elements of the territory, such as the orography and the coastline (Lucci & Russo, 2012, pp. 13-16). Along this line, the main road connecting Naples with its countryside and the entire gulf, called the *Miglio D'Oro* (Golden Mile in Italian), served as the axis along which many aristocratic buildings and palaces were constructed, often accompanied by gardens and open spaces. They were located there due to the significant presence of the Bourbonic Royal Palace of Portici, aiming to maintain proximity to the royal family and court. This was also the reason, in the following century, it was decided to construct a railway close to this road. While serving as a means of connection, it created the initial significant division between the land and the sea, separating settlements from the coastline.

From this point onward, this harmoniously balanced landscape underwent

significant transformations and development. The local history of such landscape reflects a global story related to the changes in terms of means and ideals of production that, over the last two centuries, shifted from artisanal industry to Fordist industry, then to disuse, and ultimately to the conversion of the capitalist economy of Europe and western world to logistics. This transition has become more and more evident in the urban space of post-industrial city, reflecting different typologies of space control and organization based on the fact that “whereas Fordism operated through linear assembly lines and hierarchies of subcontractors, [...] contemporary lean-production operates in an entirely different way, calculating its output in response to consumer demand while processing materials at different times and places using an extended network of autonomous suppliers and assembly operations. Whereas Fordism was based on direct production, logistics is founded on meta-production: the production that makes any other production possible” (Khosravi et al. 2019, pp. 23). Alongside this evolution in production, another relevant narrative emerges in San Giovanni – the story of the public city.

These changes concerning economic and social spheres are reflected in the forms of cities, their spaces, and their conception. Like every area of post-industrial cities, indeed, San Giovanni today experiences the need to understand its constituent parts to project itself into the future with a renewed idea of the city. This renewed vision embraces the past to understand which vocations, both in terms of form and physical characteristics of the territory, can truly contribute to its regeneration.

The physical model in the scale 1:2000 tries to recall the complex history of San Giovanni a Teduccio by selecting various architectural elements representing the different conceptions of the area that in different periods of time influenced the construction of its parts. These elements include industrial facilities, public housing complexes, public facilities, logistics architectures and infrastructures. Once these elements were selected, they were extruded as volumes, 3D printed and then, put on the general map. The aim was to create a visual representation of the historical layers of San Giovanni a Teduccio’s built environment and its urban composition

made up of different and separate parts, not interconnected and communicating with each other, but rather like enclaves. This approach enables viewers to observe how different periods and ideologies have influenced the physical landscape of the area over time.

In the present discourse, we shall direct our attention towards three spheres that serve as effective frameworks for grouping these elements, each reflecting a distinct conception of the city. These spheres, namely the industrial city, the public city, and the logistics city, presently exist as isolated entities, lacking communication with one another.

Industrial city

This city represents the transition from artisanal to Fordist industry, showcasing the area's economic evolution through large industrial complexes, until their actual disuse and abandonment, still representing different productive memories. This evolution is exemplified by the transformation of the former Corradini factory. The factory's documented history reveals its initial use, particularly in what is now known as lot 2, for leather and glove production under the De Simone brand. This almost artisanal activity was supplanted by the rise of the 20th century, marked by the emergence of the war and metallurgical industries. During this period, similar industries emerged in parallel, spurred by the growing importance of the railway, although they were not specialized but rather focused on mass production, alongside residential neighborhoods designed to accommodate the influx of workers.

The eastern countryside of Naples thus underwent radical transformation for a relatively brief period. In less than eighty years, European deindustrialization also impacted San Giovanni, turning it into a post-industrial city with its accompanying social and physical challenges, including the progressive abandonment of industries. Today, in many cases, the reuse of disused industrial buildings becomes a catalyst for regeneration, adding facilities beneficial to the community in a new conception of public heritage, understood not only as service provision but also as the provision of collective spaces open for use by citizens.

This is exemplified by the reuse of the former Cirio factory, reimagined as a high-specialization hub of the University of Naples Federico II, housing the Apple Academy. This choice further testifies to how San Giovanni, from a mere production site, has become a place where product ideation and design (for production elsewhere) is possible, while simultaneously serving as a destination for the commercialization and distribution of the finished product.

Public city

From the post-World War II era until the post-earthquake period of 1980, various plans and programs for the construction of public housing complexes served as the most significant driving force behind urban growth of this part of the city. This led to the proliferation of new residential nuclei along this stretch of coast and in the San Giovanni a Teduccio neighborhood, marking a significant departure from the previous productive industrial and rural landscape and indicating the emergence of a vast urban periphery. Together with changes in industrial dynamics, these developments underscored the end of countryside dominance and the profound transformation of the area into an expansive peripheral zone of the city, marking the transition from rural to chaotic urban landscape.

The public housing complexes present in this area can be attributed to three main plans and their respective historical periods: *INA-Casa* and the *Fanfani Plan* (1943-1963), *PEEP* with *Law 167/1962* (1962-1981), and the *PSER Post-Earthquake Extraordinary Plan* (since 1981). As Paola Di Biagi explains, it is evident that “the various neighborhoods express different ideas of the city, and this is precisely what explicitly differentiates public intervention from private intervention: the awareness, often the intention, to express through urban and architectural design different ideas of society, of relationships between individuals and social groups, of connecting a structure “with something other than itself (society, history, collective mentality, author’s theme),” and thus attributing meaning to it” (1986, p. 16). As is known, these are not just residential

buildings, but urban units that often include facilities, open spaces, roads, and parks. This complex mosaic along the Vesuvian coast highlights a true public city where “the majority of urban space, in addition to being physically constituted, is structured, configured, by the arrangement of public assets on the territory” (Di Biagi, 1986, p. 9), including schools, hospitals, and other services built to support the increasing population. Most structures built according to this concept of the city have not provided adequate housing solutions, contributing to the social marginalization and stigmatization of their residents. In addition to spatial inadequacy, there is also a problem of structural inadequacy and poor maintenance, resulting in an incredible degradation of the structures today. What emerges is a landscape of the periphery, where imposing volumes stand degraded against the intricate fabric of what remains of the historical and rural fabric.

Logistics city

San Giovanni a Teduccio in the last twenty years has undergone a transition towards an economy based on the management and commercialization of raw materials and processed products, spurred by the presence of the port and its related infrastructures. This shift reflects the evolving nature of urban space, as described by Manuel Castells: “The space of flows [...] is becoming the dominant spatial manifestation of power and function in our societies” (2014, p. 437).

The area’s inclination towards logistics stems from its strategic position in relation to the city of Naples, the primary hub of southern Italy. Historically, it has been identified as the city’s main gateway, with its western side hemmed in by hilly terrain and the Campi Flegrei, while the eastern side opening to the countryside and connections with the rest of the land. Consequently, there has been a concentration of linear transportation infrastructures in the area, particularly the commercial port area. The combination of these factors defines a space identifiable as the space of flows, characterized by the constant movement of goods, commodities, and people, who transiently animate and inhabit this area

of the city in various ways. Thus, the railway, originally established to link aristocratic residences to the city center, has expanded and fortified itself to support the transportation of increasingly large volumes of goods to and from the port, as well as the vast number of commuters traversing the Naples metropolitan area daily. This expansion has further heightened its impact on the physical division between land and sea. Similarly, as mentioned in the previous paragraph, the highway and other roadways facilitate road transport, with entire road axes dedicated to supporting port logistics.

Logistics activities encompass three primary areas: order processing, inventory management, and freight transportation. These categories manifest differently in the territory and city, spatializing their dynamics and constructing a veritable logistics architecture that “generates an operational space [...] It not only circulates goods, capital, and information but also distributes spaces, rights, and bodies, and thus produces territories” (Khosravi et al. 2019, pp. 23-24). Khosravi et al.’s study on the port areas of Venice and Rotterdam, presented in the volume *Aesthetics and Politics of Logistics* (2019), seeks to explore the aesthetic characteristics of this landscape shaped by controlled movements and dimensions. Similarities with the landscape of San Giovanni are evident, where the linear and sleek dimension of the infrastructure, animated by constant movement and flow, contrasts with the horizontal and areal dimension of large storage and distribution complexes, embodying the dynamics underlying logistics and the space of flows: the movement and stasis of the involved elements. This landscape is complemented by the port skyline, characterized by the verticality of cranes necessary for moving large containers and the stacks of containers themselves. Symbolically, these elements signify the global interconnectedness of the neighborhood, tied to broader commercial networks. Because this area exhibits both distinctive physical characteristics and unique immaterial and symbolic traits, we can speak of a logistics landscape. This specific aesthetic associated with logistics assumes significant meaning and importance within a broader perspective of the city just like any other

part of it. Compared to the traditional industrial city, it is apparent that a city of this nature prioritizes goods over people. The conversion of industrial buildings and open areas of the city into logistics hubs near the city center, close to the port and major infrastructure, constructs a new gateway to the city where people give more and more way to objects. Residential settlements increasingly find themselves squeezed amidst container stacks and storage complexes. The challenge, therefore, considering the necessity of these areas within the city, lies in preserving the humanity of this landscape, preventing what Rem Koolhaas observes in the Tahoe Reno Industrial Center in California, described as such in *Countryside. A Report*: “there is no planning; brisk millennials under thirty-two create the (always rectangular) buildings without the ‘help’ of architects. [...] It is a repository of buildings so big they don’t fit in any city. They ‘coexist’ at TRIC in seemingly random arrangement [...]. Most are surrounded by colossal loading bays, but parking lots [...] are of a timid size. They can be small, there are no workers. [...] The buildings here are not for humans but for things and machines. [...] It is post-human” (Koolhaas, 2022, p. 272).

In an area like San Giovanni a Teduccio, the presence of a diverse array of pre-existing structures, ranging from residential complexes to industrial facilities, serves as a repository of memories tied to production and residency. These structures embody different narratives and histories that contribute to the area’s identity. Embracing the coexistence of these diverse facets of the city and envisioning its transformation can begin by acknowledging the dual identity of the place, where both ideation and logistics intersect. This represents an evolution of the city’s production landscape and offers a fresh perspective on urban regeneration.

The model serves as a methodological tool for identifying, describing, and visualizing these diverse elements, providing a starting point for contemplating how this perspective, rooted in the city’s various identities, can reshape the area. It also invites a reevaluation of the current material and immaterial boundaries that isolate and marginalize the neighborhood from the rest of the city.

CHAPTER 4

Combining the different historical layers of San Giovanni and projecting them into the future contributes to a full approach to regeneration. This approach honors the area's past while shaping its future, acknowledging the importance of preserving community identity and local industrial heritage as fundamental aspects of the area's memory and character. Furthermore, it aims for sustainable development and growth that does not negate the area's logistical and ideational vocations but rather supports them. Achieving a balance between honoring the past and embracing future opportunities, this strategy identifies a way through which San Giovanni a Teduccio can evolve while retaining its unique identity and heritage.

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Mara Capone



University of Naples
Italy

Architect, PhD. Associate Professor of Drawing at the University of Naples Federico II. She teaches in Architecture and Design degree programs and is member of PhD Teachers College in Architecture. She is member of the scientific Committee of the journal EGA. She is involved in many Heritage funded research projects and she is responsible for international relations with institutions like UFPB (Brasil).

Noelia Galván Desvaux



Universidad de Valladolid
Spain

PhD in Architecture, Associate Professor in Graphic Expression at UVA, researching drawing's architectural heritage through the @archimnemosyne_uva project. Active in research groups GIRDARPA (UVA) and AIRASM (UA). Lecturer in Spain and Italy. Expertise in post-war American domestic architecture. Collaborates in the integration of design and architecture through drawing.

Studied architecture in the ETSA Madrid and TU Berlin, graduating as an Architect in 2005. Currently an assistant lecturer & researcher at the Department of Architecture University of Applied Sciences in Koblenz, he is specialized in Industrial Heritage & Design. He also runs the award-winning architectural practice *heltwerk architekten BDA*.

Lucas Fernández-Trapa



HS Koblenz
Germany

Architect in ETSA of Barcelona (1993), PhD (2013), Associated Professor in Architectural Graphic Expression. Head of the Department of Architecture at the Universidad de Zaragoza, guest lecturer at international universities. Reference researcher, from the GRAPHyC group, Research lines: Architectural heritage, Photogrammetry, Laser scanner, HBIM.

Luis Agustin-Hernandez



Universidad de Zaragoza
Spain

The book collects the contributions of an interdisciplinary work carried out during a BIP (Blended Intensive Program) funded by the European community. The topic is related to the abandoned industrial sites that are protected for historical interest. Starting from a comparison between the different approaches based on the study of the best practices and the different methods and tools of analysis, some premises have been defined for the representation of the site and the development of transformation hypotheses for reusing of the ex Corradini in S. Giovanni. Stimulating the cultural debate, dealing with different cultural realities, defining replicable methodological paths are the main objectives of this work.



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