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FROM LIMIT TO CENTRALITY. REGENERATION OF GENOA'S PORT AREA THROUGH ARCHITECTURAL AND URBAN DESIGN

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Abstract

This survey's core is the case study of the *regeneration* of the port area and of the urban waterfront of the city of Genoa, as an emblematic example where the architectural and urban design plays an important role, oriented to the transformation of the port area and to the modification of the relationship that exists between the harbour and the city.

In particular this will deepen the possibility, to reverse the condition of *limit* that characterizes the port area into a new *centrality*, through the design, passing by intermediate steps that redefine the modalities of access and of connection between city and port, breaking the condition of isolation that ports usually present.

As a matter of fact, port areas often set up themselves as isolated elements, or separated enclosures, that have been taken away from the urban body, as service elements, while in reality they are the main urban element of the port city, as well as areas through which it's possible to reactivate new urban transformation dynamics, that could act on the relation that those particular urban areas establish with the contiguous urban fabric and with the whole urban structure.

The case-study of Genoa's port area as it deepens, in this perspective, through three significant moments of its transformation: the interventions that have involved the *Old Port*, realized on the occasion of the *Columbian Exposition* of 1992, the development of the *Port Master Plan* of 1996, and the competitions for the *Maritime and Navigation Museum* and for the *Ponte Parodi*, that were both published in 2000.

Based on the study of those design chances of transformation of Genoa's port area, the centrality and the high topicality of the theme of the *regeneration*, of the *reuse* of what already exists as one of the design materials, that passes through the definition of strategies and projects that work on the topics of *stratification* and *modification*, and on the possibility to produce important results through punctual interventions. The design actions of addition, subtraction and demolition get a central role, and they act on the built-up space and on the open space, as on the space of relation between the parts, reminding us that the culture of the sea, especially in the case of the Mediterranean, is itself a culture of relations.

Keywords:

Two groups of keywords have been identified. The first one thematic: *limit, centrality, accessibility*; the second one strategical: *regeneration, reuse, stratification*.

"The port is the form of the city, its language, the reason that comes before any other reason. The port is its seven lives that have not run out yet. Nor is the port its factory, or its store, or its school, or its government. The port is the city and the city is absorbed in it".

Maurizio Maggiani [1]

THE PORT FROM LIMIT TO URBAN CENTRALITY

Even if it's impossible to distinguish the birth of port cities from their ports, and even if their lives have been for long time reciprocally influenced, starting from the modern era it has started a process that has separated the life, the settlement and functioning roles of the two realities: "the port became a place separate from the rest of the urban fabric, despite the fact that it often remained the city's principal activity" [2]. Starting from being the foundation element of the city, the port became progressively its isolated and specialised, transforming itself in a marginal element: in a *limit*. This limit, which has its own built thickness, has led in many cases to the formation of a physical distance between the city and the sea. From an urban door simultaneously open on the sea and on the city, the port became an enclosure, and it stopped to regulate that osmotic process that has for long time characterized the two realities. The separation between city and port is strengthened also by the fact that the ports are governed by specific institutions that are different from those that take care of the urban policy.

According to the modification of the commercial logics and of the transportation techniques, starting from the second half of the last century, ports lived the modification and the progressive reduction of the commercial trades. This determined, beyond the reuse of buildings and spaces that has always characterized the port areas, the increase of the processes of disinvestment, of reduction of the used surfaces, and finally of abandonment of the same areas.

Overcoming the negative meaning linked to the definition of *disinvested area*, also the port areas could be defined as "*urban places that have been found again*" [3], places that have been returned to the city, "*strategic areas*" through which today it's possible to start transformation processes able to involve the entire city in a multi-scalar way. It's exactly in this direction that the port areas, available to new transformations, could come back to change again their condition from *limit* to *centrality*, through the architectural and urban design, in a logic of urban *multi-polarity*.

The nature of this new potential centrality could furthermore come back to play the role of *threshold*, that was a specificity of the port areas, since they were the starting and arrival point of the flows directed both to the sea and to the mainland. As Walter Benjamin remind to us "it is necessary to clearly distinguish the threshold and the boundary. The threshold is an area, a passage area. The word threshold contains the sense of change. We became poor of threshold experience".

Therefore, through the design it is possible to reactivate the relationship between the city and the sea, where this last one should not be just a "panorama, nor a passive scenery, offered from a terrace, from a promenade, from a square that faced onto it, but becomes an active participant in new and in some ways surprising relationship with the city" [4].

THE REGENERATION OF THE GENOA'S PORT AREA AS A CASE STUDY

The transformation process of the port area of Genoa from *limit* to *urban centrality* it's explored through four steps, chosen as more representative of the regeneration and requalification of the port area: the intervention on the *Old Port*, the development of the *Port Master Plan*, and finally the projects for the *Maritime and Navigation Museum* and for *Ponte Parodi*.



Fig. 1 - View of the Genoa's port area.

The Old Port: a new urban centrality

The transformation of the Old port is the first important design action that aims to the requalification of the most ancient Genoa's port area, opening it to the city, to the urban life, and to the return of the sea to the city: "the city centre had been separated from the sea for seven long centuries, as the port and customs operations which encircled the port activities formed a barrier of buildings between city and sea" [5]. The occasion for this redevelopment intervention occurs in 1992, when Genoa was chosen as the venue of the Columbian Exposition [6] connected to the Universal Exhibition that was hosted in the same year in Seville.

In the nineties the port of Genoa gave clear signs of recovery, thanks to the new free market principles and entrepreneurship adopted by the mid-eighties, recovering the traffic that was lost in the previous decade: this process determined the equipment of new spaces dedicated to the maritime transport and to the port services, to which it corresponds to the release of some buildings and spaces belonging to the Old Port. The project of 1992 designed by Renzo Piano find place exactly on those spaces; it reopens the Old Port to the city, collaborating to the revitalization process of the port area as a new *urban centre*, aiming to transform this part of the waterfront in the connective element between the sea and the nearby historic centre.

The design strategy carried out by Renzo Piano moved into the direction of the *reuse* and the *transformation* of the structures that already existed in the area, which are flanked by new punctual interventions and which are characterized by a particular attention to the redefinition of the open spaces as new urban *public* spaces. The Columbian Exposition was also considered as an opportunity for building architectures and public spaces that could keep an active role and meaning even after the event that they were designed for. New structures are in fact designed and built in order to have an important role not only for the port area but for the whole city, such as the Aquarium, which is still one of the main tourist attractions, and the Bigo, symbol of the Exposition, panoramic elevator and observation point over the city. At the same time, the project promotes the reuse of the abandoned industrial heritage, and especially the structure of the Cotton Warehouses: a building which is developed in a linear way for four hundred meters that was built in the late nineteenth century. In order to recover the structure reusing it for new functions mainly related to culture and leisure, without changing the nature of the shape and its structural design, a new building has been added and put side by side to the existing one. In the new building they created spaces for technical facilities, technological services, car parks and other spaces dedicated to logistics. Only the head of the Cotton Warehouses, added

at a later date than the original structure, was mostly transformed, and a conference centre was placed inside it.

In order to manage the transformed or built heritage of the Exposition of 1992, it was established the Old Port Company, which has partly changed and partly enriched the functional program.

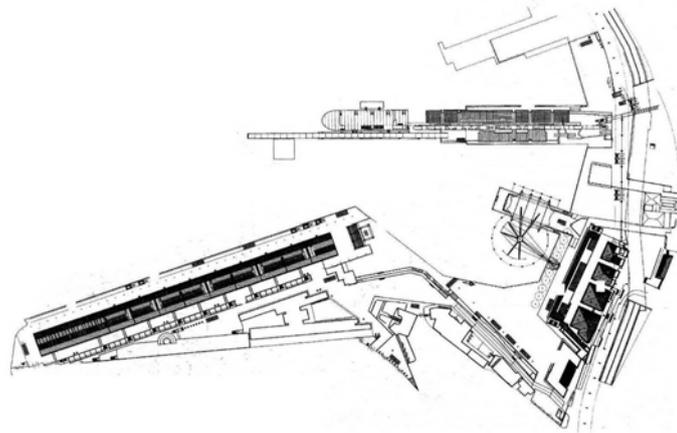


Fig. 2 - Plan of the intervention on the Old Port.

The Port Master Plan between urban planning and architectural design

A second moment of reflection on the transformation of the port has been identified in the definition of the Port Master Plan, in a complementary process of integration between the tools of urban planning and architectural design.

The law number 84 of 1994, considering the Genoese past experiences of the eighties of gradual disinvestment of the port architectural heritage, defines new standards valid throughout the entire national territory [7].

A new phase of development, capable of redeeming a general condition of crisis in the industrial and merchant sector, begins for the city of Genoa. In fact, in September of the same year, the city of Genoa and the Port Authority enter into a collaborative program of new spatial planning processes, implemented through regular meetings aimed at reaching shared agreements, for reaching new design choices for the port area and for the strengthening of the relationship of the port with the city.

The new General Master Plan of the city was adopted in 1996, at the same time the writing of the Port Master Plan begins, resulting in a condition of synergy, for discussion and on-going dialogue between the two different planning tools, for a final overcoming of the separation of powers and competences.

The law aims to ensure, in fact, that the two different planning tools for the city and for the port have the same development model and are coherent with each other in their aim of regeneration.

For this reason, in the same year, a Plan Agency was set up, which combined the offices of the Port Authority, those of the City, the University, through framework agreements for cooperation in the fields: urban-architecture, economics transport and engineering of marine works.

In a second step, four consultants have been chosen, architects of international relevance: Rem Koolhaas (OMA group), Manuel de Sola Morales, Marcel Smets, and Bernardo Secchi. They were called to give a contribution to a new design of the waterfront, for a relationship between city and port related not only to the functional and logistical requirements, but also to the environmental quality and preserving also the character of the coexistence of different functions as a witness of a continuous

process of *stratification in the time* of the city.

A constant dialogue between citizens, several categories of industrial and port operators, trade unions and public institutions such as municipal and provincial governments, have ensured a full comparison for joint decisions, proceeding on three guidelines: “to rationalise the current uses of port areas, improving the internal logic aspects through the unification of homogeneous activities; to recover the area abandoned by the manufacturing industries and by the iron and steel industries; to selectively expand the port seaward, perpendicularly with respect to the coast” [8].

The Port Master Plan articulated and developed three themes that related to each other.

Firstly, the *infrastructure system* is redesigned for a greater rationalization between the different systems of the traffic flow, abandoning the logic adopted in the previous decades, of gradual addition of singular elements where new requirements came out (ramps, lanes). The new plan reviewed with a new logic all the transport service, separating the port road system, at the level of the dock, from the urban one, that instead it was on a higher level. In this way it is determined a passage from the *limit*, as a barrier between the harbour and the city, to a new *margin*, that obtains in the section, in the difference in elevation, the space for new volumes available for port activities and urban areas. In this way, the Plan involved the articulation of the infrastructure with new drawn design solutions, going beyond the question of the division of the different areas, producing *residual spaces*.

The Plan, therefore, focused on *working spaces*. The architectures and the spaces related to the three main functions of the port area - the commercial one, the industrial one and the activities for passenger traffic - were affected by the transformation processes to be carried out through different degrees of intervention. The redesign of the road system became the backbone on which the entrances of the different production activities, located in areas that were separated one from each other, find place, giving rise to a gradual delocalisation of the activities not concerning working on the ships. At the same time the constant increase in traffic from cruise tourism has prompted the reorganization of a new cruise terminal.

Finally the topic of the *connections between the port and the city* was handled through design proposals which were possibly classified according to the different spatial categories.

A first proposal is that of *linear systems of filter*, bands that develop themselves in the longitudinal direction between the port and the city. Those were new edges drawn according to the logic of *stratification* that can accommodate mixed-use in a new ground, formed inside the existing gap between the level of the docks and that of the city. This is the case, for example, of the project by Manuel de Solà Morales for the area of ship repairs, or of the project for the “suspended linear park” by Rem Koolhaas (OMA group), a linear connection between the major points of the city overlooking the port: the Lanterna, the new terminal and the Old Port.

The other category identified for the connection between the port and the city was that one that works through *grafting*, where pieces of the urban fabric reach the sea, as in the case of the project proposal by OMA for Ponte Parodi and by Manuel de Sola-Morales for Piazzale Kennedy in which he proposed to advance the line of the dock where new functions found place along three sections perpendicular to the coast.

The last category was the one of the *islands*, such as the area of the “golden triangle”. Those areas, with a strong internal complexity transformed by unitary design solutions, were still able to redesign parts of the urban fabric that relate the

city to the port.

The Plan, at the same time, was defined by "designed concepts", it aimed to the implementation of strategies, and it aimed to be able to recover existing industrial and professional experience, according to the new needs that modernity demands.

A Plan, therefore, linked to a port housing both logistical and productive activities: "the Genoa Port Master Plan is not, as a matter of fact, a conclusive document, defined once and for all, but rather a composite text, made up of sections fixing steady standards and directions, of a section - the one related to the interventions on the docks - which can still be adjusted to variation in maritime traffic - and a section regarding yearly work and investment planning. It is a composite text which aims at being ambitious and clear in its intentions and at the same time open to the conditions of uncertainty and flexibility which have always been characteristic of the management of open spaces and buildings in port areas" [9].

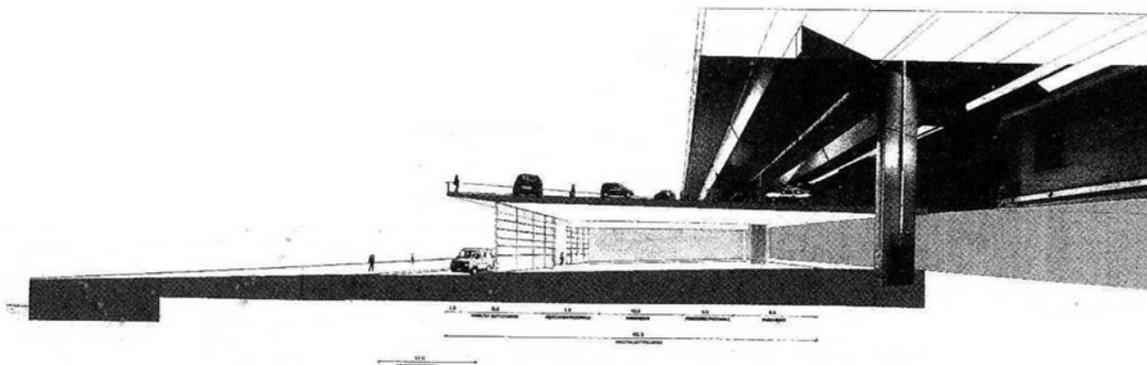


Fig. 3 - Manuel de Solà Morales, design for the new port and city road system.

The Maritime and Navigation Museum: joining new and old architectures

The transformation of the old arsenal of the Genoa's port, the building Galata, into the Maritime and Navigation Museum, allows us to go into a project for the port area that was born from the joining of *old and new in architecture*.

The intervention was punctual but able to trigger transformation processes that work at larger scales of reference. It was aimed to return to the city a space that has lost the use for which it was designed, without keeping the memory of the role that it has played throughout history, but turning it into a new urban centre of attraction.

As a result of winning the international competition in 2000, the project of transformation of the arsenal was assigned to the architect Guillermo Vázquez Consuegra, and it was completed in 2004 with the opening of the museum, in the year in which Genoa was the European Capital of Culture.

Located on the seafront of the dock of the port, the Galata building dates back to the seventeenth century, but it has undergone many modifications that have changed its appearance, especially in the main facade towards the sea and in the roof. To the original neoclassical façade, in fact, walkways and concrete structures were added, while the pitched roof was first reduced to a flat roof and finally to sheds. The internal structure, characterized by parallel tunnel vaults that are developed over the entire extension of the building, has retained, to the contrary, a greater integrity.

The project for the transformation of the arsenal into a museum works on the issues of *covering*, of *addition* and *subtraction*, *construction* and *demolition*, as well as stratification, and it is an interesting example of architectural intervention through *building on built-up spaces*.

Although, in fact, in the announcement of the competition it was asked to keep the added parts, the choice of the designer went in the opposite direction: “our project was somewhat risky in that it proposed the demolition of episodes built with an architecture lacking interest which had been added over the years to the old vaulted shipyard structure. The competition brief suggested maintaining these additions as they gave the building the protected image which it now presents. But I understand that on occasions in order to conserve, to preserve architecture of quality, it is necessary to demolish those episodes which subtract from it authenticity and value [...]” [10].

The transformation of the building into a museum also needed, according to the designer, a new image, different from the one given by the ancient arsenal. Hence the intervention through a *covering* intervention that does not present itself as a simple language update of mere appearance, but which is in fact a real *modification* of the spaces that manage the relationship between interior and exterior.

The museum demanded a large hall, which has been obtained in the gap that it is formed in direction of the sea between the old neoclassical facade and the new one of glass and steel. This, in fact, was placed at a distance that defines a public space for the entrance in which the neoclassical facade is transformed into the internal front, visible in a new way, filtered, from the transparent skin.

The transformation of the facade facing north, towards the city, instead, was different. This, in fact, was treated as a large display window, following the demolition of its outermost part. It was conceived as a thick facade, in the same time transparent, vertically marked by buttresses that the demolition process brought to be visible, of the existing structure. It defined a kind of frame for the galley ship, traditional historical boat, symbol of the museum that was possible to see from different points of the city including the nearby elevated highway. Finally the third visible facade, opposite to the main one, was not covered but it reveals on the contrary the conformation of the inner space. This was maintained in its original articulation, even if vertical connections have been modified through the introduction of ramps and vertical natural lighting on the already existing connections. Even the relationship that architecture established with the sky was modified by the introduction on the roof of a new volume: a rooftop terrace, an observation point open the sea and to the city.

“Regarding the relation to history - Consuegra wrote about his project - in the case of interventions in existing structures, my buildings maintain a complex but comfortable relationship. [...] In our project one will now perceive under the piranesian vaults the echo of contemporaneity. Something similar occurs with tradition, which needs to be renewed to stay alive. This renewal allows to reinterpret tradition freely. Interpretation is therefore not a simple displacement of the past but rather a new adventure, an act of creation” [11].

One of the most interesting aspects of this project, in fact, is the design concept where the modification does not imply deletions: even demolishing and transforming, it continues and sends to the future what it has received from the past, in a vision that reads in the modification a new *form of permanence*.

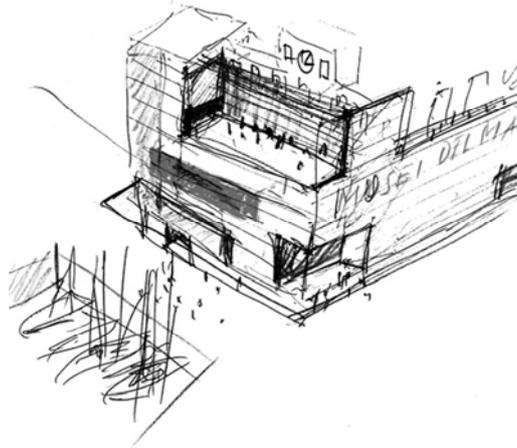


Fig. 4 - Guillermo Vázquez Consuegra, design sketch for the Maritime and Navigation Museum.

Ponte Parodi: a transformation between demolition and construction

The international competition for the transformation of Ponte Parodi, launched in 2000, was the last great act of reflection, for Genoa, on the transformation of an important piece of the historic port area and on the modification of the relationship between the city and its waterfront. Not only the outcome of the competition, but the entire process and the variety of the projects and of the design themes proposed, constituting another element of depth.

The transformation area, Ponte Parodi, a large dock located in the central position of the port bay, was built between 1883 and 1886 according to the design of the engineer Parodi, hence the name of the place. Ponte Parodi has long been used for the movement of goods, until, in the '60s a grain silos was built, a building that in its highest point reaches 76 meters, that was abandoned starting from '80s.

The goal of the competition was continuing the previous transformation experiences of the port area, and it “has been established to create an international cultural and recreational centre on Ponte Parodi to serve the city” [12].

Even in this case two main objectives were searched: the recovery of the ancient port through the introduction of urban functions and the connection of rehabilitated areas to the urban fabric.

Inside of the competition announcement, a specific functional program was not given, and its drafting was asked to the designers, but some issues, directions and targets were fixed. Firstly, the emphasis was on the role that Genoa has served throughout history as a *Mediterranean city*, a place of confluence of flows, trades and cultural relations. Projects were asked to reactivate relations, mainly commercial, but also tourist and cultural, with the nearby historic centre, and to take into account the presence of users related to the proximity of the university. Finally, the cruise and ferry terminal was considered as a great resource for the development of Ponte Parodi: it could increase the tourist attractiveness of the entire city.

Another topic of great interest was the relationship with what already existed. In fact, if on one hand, the competition announcement foresaw the demolition of the warehouses already located on the area, on the other hand it allowed the freedom to choose the option to keep or demolish, completely or partially, the structure of the grain silos. It asked to design a public space open to the sea, conceiving Ponte Parodi, just in a part of it or in its totality, as a “large square by the sea” [13].

Those are the themes and the objectives with which the sixteen groups, admitted to

the competition after a pre-selection, worked on during the first phase, while to the second phase just four groups [14] have been selected.

Despite the variety of the design solutions developed, it was possible to identify some issues of reflection.

Firstly it came out the theme of the relationship with what was already present on the site of transformation: the relationship that the projects establish, in particular, with the building of the grain silos. The transformation of Ponte Parodi was in fact, in all the different designs, always between the opposite but simultaneous actions of *demolition* and *construction*.

The winning project, the one designed by UN Studio (Ben Van Berkel, Caroline Bos), foresaw to demolish entirely the grain silos, aiming to transform the whole Ponte Parodi in a 'three-dimensional square on the Mediterranean', belonging in the same time to the sea and to the city. The functional program was structured around the themes of leisure, recreation, wellness, technology, and commerce, which are accompanied by a cruise terminal. In the winning project the cruise terminal found a place inside the thickness of the ground, whose roofing, corrugated and irregular, guests a park and some sport facilities.

In 2002, following the choice of the winning project, the demolition of the grain silos started a demolition that required its own project. The same decision of demolishing the high grain silos building was followed also by other design groups: Foreign Office Architects, MVRDV, and the group made by Snozzi, Vacchini, Gmür, Manzelle, Ferrante.

The project developed by this last design group allowed us to introduce a second theme, in continuity with the previous one: *the modification of the morphology* of Ponte Parodi. Also in this situation the intervention went through a process of subtraction, of demolition, that gives back to the sea a part of the dock, transforming it into an island. With this project they wanted to underline the need to build not completely Ponte Parodi, aiming to keep the nature of the docks, as "open areas that are capable of restoring a sense of space and quality to today's congested cities." [15]. Presenting itself in opposition to the tendency of filling up the quays through the construction, and to the transformation of those spaces into shopping malls, "this project aims instead to turn the area of the port into a free urban space, like a large square by the sea" [16], where just a small part of its boundary was built for holding the expected functions. A similar choice that went in the direction of the modification of the Ponte Parodi morphology it was that one of the group made up by OMA Rem Koolhaas and Boeri Studio, that also transformed the dock into an island. The relationship that this project established with the grain silos, moreover, was extremely interesting, because it decided to maintain the highest part of the building, transforming it into a tower, in a symbol for the city entirely surrounded by sea water. The dock, was transformed into an island, and was also dug in it: a "sunken square" occupying a great part of the extension of the new Ponte Parodi, while the housed functions were located in the thickness of the edge, and in the two floors under the level of the square.

This last project introduced another theme: the relationship between horizontality and verticality inside the designs and in relation to the sea and to the city of Genoa, that presented a complex and articulated morphology, between the sea and the mountains.

The choice of working with a vertical element inside the project comes, on one side, from the maintenance of the grain silos or from a quotation of it, as in the project of the Foreign Office. On the other side it came from the choice to define a relation that

we could define direct or mediated between the city and the sea. We could describe, in fact, as direct the relation defined by the new Ponte Parodi in a horizontal way between the urban front and the water, while the presence of a vertical element on the dock introduced a mediation element, hence a mediated relationship. In this last case, Ponte Parodi set up itself as another point of view directed to the far and open horizon of the sea, and the one nearest to the mountains. Concerning this topic, it was interesting what the designers wrote about: “in an attempt to construct a topography that preserves the horizontal nature of the building mass, while allowing for a sustainable amount of volume to be built on the pier, the result is a topography of extremes. Part of the built mass is concentrated in a tower to be located on the northwest side of the complex; the other part of the project will develop as a low and extended mass, closely connected to the ground level” [17]. The winning project, was that of UN Studio, takes a very clear position, although more or less sharable in this regard: “with its low-slung, undulating outlines, the piazza retains an unhindered view of Genoa and its mountainous setting. The project does not propose to replace an icon with another, but to establish a new type of attractor based on the proliferation of the experience” [18].

Starting from the relationship horizontal-vertical and coming back to the first issue, the one of the relationship to the already existing contest, we can remind some of the projects that work on the maintenance and transformation of the grain silos: the project of the group directed by Giancarlo de Carlo, that chose to keep partially the building proceeding through some selected demolitions, and the one by Dominique Perrault, who used the existing structure as support element for the added volumes: “this interplay between filled and empty sections gives life to the building, the result of the association of a rigid and closed body and the free and open cells” [19]. Also the project by Bernard Tschumi, finally, reused the existing structure, using it as a basement for a new volume: “to confirm Genoa’s catalyst role in Mediterranean cultural cross-fertilization, this project uses the silo’s forced vertically and makes Ponte Parodi a horizontal and vertical symbol of those intersections. A horizontal glass and steel enclosures sits atop the silo, visible day and night, a lighthouse for Genoa” [20].

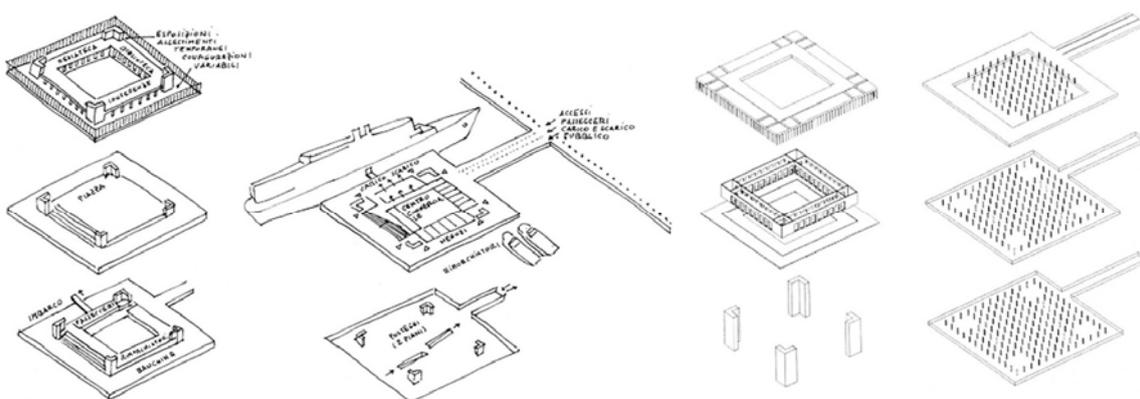


Fig. 5 - Snozzi, Vacchini, Gmür, Manzelle, Ferrante: Ponte Parodi, scheme of structure and construction phases of the project.

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