

A PROPOSAL FOR THE NEW SCIENCE CENTRE IN NAPLES: A “GREENHOUSE” IN THE LANDSCAPE

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ABSTRACT

The position held about the reconstruction of the New Science Centre for *Città della Scienza* in Naples, Italy, which has been the object of an international competition between 2014 and 2015, is strongly connected to the concept of identity of the urban context: it is about a reconstruction action, determined by the tragic event of the big fire, which opens to a very complex reasoning.

To completely face this subject, the project has been developed in relation with authenticity and reproduction concepts of the original building's elements, keeping the structural and composition identity as well as the trace of existing relations, in order to imagine a new architecture, open to the landscape.

PLANNING THE PROJECT PROCESS. PREMISES

The New Science Centre of *Città della Scienza* in Naples has been the object of an international design competition held between 2014 and 2015, in which the main subject was the reconstruction of the building, destroyed in a significant way by a big fire in 2013.



Figure 1. The landscape in Bagnoli plain, from Pozzuoli to Posillipo, after the fire in *Città della Scienza*
Photo by Adriana Bernieri

In origin, the building belonged to a chemical plant that was constructed around 1853 thanks to Carlo Lefebvre, a French businessman, and was enlarged during the years until Montecatini took it over between 1923 and 1924. The complex was constituted of different warehouses that, at the moment of the industry closure, happened in 1992, were converted into the institution of *Città della Scienza*, after a renovation project by the Neapolitan architect Massimo Pica Ciamarra, hosting an important museum of scientific character but also different laboratories and research centres.

Within the competition announcement, some fundamental lines for developing the project were given, especially regarding an idea of reconstruction which had to be careful in terms of reinterpreting the traces of what was still there of the pre-existing building, but also of the Science Centre destroyed during the fire in 2013.



Figure 2. *Città della Scienza* before the fire: the relation with the landscape
Source: www.museincapania.it

It is important to clarify that the building to be reconstructed constitutes a delimited piece of a huge area which used to be a productive plant in Bagnoli, an area of great relevance from the landscape point of view, on which the city of Naples has been elaborating programs and projects for years and, until now, any of them was realized. It is just the case to consider that, moreover, nowadays, within the Neapolitan urban planning provisions, it is established that *Città della Scienza* will be moved out from its actual location.

In this situation, the reconstruction of the building destroyed by the fire results for many reasons paradoxical: starting from the clear logic of “temporary” reuse of the existing volumes, even the reconstruction project, as the one in 1992 which brought a new museum into the area, constitutes, in fact, the unique trigger point of an articulate operation on the territorial level, for many aspects still contradictory and, anyway, not started yet.

After 25 years since the first project of reuse of the ex productive building, which offered significant results, ultimately, just within the importance of the new function introduced (although the fire is a sign of inner contradictions and difficulties), there is the obligation to face the theme of connections and relations with the entire abandoned area of Bagnoli. This imposed to overcome the logic of the “finished” and self-referential project and to reason in terms of a continuous process.

The building to be reconstructed has been intended as an element of identity, strongly connected with the process of re-appropriation of the Bagnoli area by the city and the citizens, that could develop in the future, also through operations of further modifications and transformations of the *Città della Scienza* complex itself.



Figure 3. Interior of the ex chemical industry Montecatini before the transformation into *Città della Scienza*
 Source: A. Vitale, S. de Majo, "Napoli e l'industria. Dai Borboni alla dismissione" (2009)



Figure 4. *Città della Scienza* after the fire in 2013
 Source: www.napoli.repubblica.it

AUTHENTICITY AND REPRODUCTION. THE SPECIFICITY OF THE RECONSTRUCTION OPERATION

Città della Scienza complex represents, within the daily life, a very important point of reference for the Neapolitan people, outpost of a recapture of a territory for too much time blocked. How to intervene in such a condition, so strong from the historic, urban, landscape and social point of view? How to give credibility to an operation that regards, for the second time, just the reconstruction of *Città della Scienza*?

First aspect to be adequately illustrated is related to the position held by the most important specificity of the realization project for the new Science Centre, that is embodied into the consideration that this is a reconstruction operation, determined by the tragic drama of the fire.

After 14 years since *Città della Scienza* was realized and more that 150 since the original productive building was constructed, which was very significant within the Neapolitan industrial history, the reconstruction effort to be done could not correspond in any case to the logic of "how it was, where it was".

In respect of all the limits imposed by the competition announcement, it appeared necessary to develop an experimental architecture research within the project team (coordinated by Prof. Arch. Pasquale Miano, with the architects Eugenio Certosino, Giuseppe Ruocco, Antonio Mugnolo and Adriana Bernieri) through which underline the exceptional nature of the building inside *Città della Scienza* and inside the city of Naples, by pursuing the realisation of a identifiable, recognisable, characterizing structure.

That does not mean at all that the new building didn't have to contain traces of its past, also those connected with the tragic event of the fire in 2013: within the new project machine, an analogous dynamic to that of some significant monuments in Naples wanted to be determined, monuments that became important and relevant for their stratification and especially for their capacity of containing pre-existing elements and significant signs of their past lives within a new structure.

The evident data is that what survives of the pre-existing industrial building and of *Città della Scienza* introduced in it afterwards, assumes doubly the connotations and the characterization of "modern ruin": doubly because not only the productive spaces have lived the long period of abandon, but also because the fire has cancelled fundamental pieces of the architecture and constructive history of the building.

Reasoning on the mechanisms of re-signification of these ruins means to adopt an archaeological approach to the contemporary, working on overlapped strata and interrelating them in order to let new "grounds" emerge, on which it could be possible to introduce a complex dialogue between pre-existence and new intervention.

In order to completely face this issue, the idea was based on keeping the structural scheme, the trace of the existing building, as a background on which a new structure was over layered, that was not identified on the basis of a rhythmic articulation, but by concentrating it in few elements of structural support, on which a big

shell lies, a sort of roof-building that, on the one hand, again confirms the longitudinal directionality of the pre-existing warehouse and, on the other hand, it is able to reinterpret it into a new spatial configuration.

Moreover, in order to realize a space of memory of the tragic fire, the concept was to integrate the most significant remains of the southern part of the building into a global system, from the composition, formal and structural point of view, by giving emphasis to a unitary image of pre-existence-contemporaneity, through the maintenance of some original structural wall, for an efficient and interesting contraposition with the new big shell.

Ultimately, in many points, both inside and outside the new building, the material permanence of some elements of previous Science Centre, included some machineries of the original building and following setting, were conveniently reclaimed and reintroduced into the new educational machine. In particular, the idea was to maintain the façade located on the sea front of the burned warehouse, through the recovery of the remains of the tuff and bricks exterior case and part of the previous survived shell, as well as part of the southern side composed of four spans, with the conservation of some constructive original elements signed by the fire.

In this way the building could represent an adequate proof of a process that starting from the Bourbon industry, through different passages, was developed until the new proposed configuration.

Both within the recovery of what pre-existed and in the pre-figuration of what is new, finally, it is possible to establish a strong and articulate relation between authenticity and reproduction. The parts that pre-existed, that are the authentic material elements which were recovered and reintroduced into the project, are reinforced by the operation of reconstruction conceived as a graft into the pre-existing structural system. Within the prefiguration of the new, the necessity to reproduce a volumetric pre-existing configuration is developed through the introduction of a new structural system authentically contemporary, which is not the result of extraneous solutions but it is completely deriving from the characters of the architecture plant and its context.



Figure 5. The new volumetric configuration in relation to the remains of pre-existing building

Source: original drawings and design elaborated by the project team: Pasquale Miano (group leader), Eugenio Certosino, Giuseppe Ruocco, Antonio Mugnolo, Adriana Bernieri

Moreover, in relation to the case of big productive machines, that have been preserved in their physical structure, the delicate relation between conservation of identity and “update” of its image to the contemporary necessities may be read, in synthesis, through the idea of originality, intended as original reading of the pre-existing elements, that is translated into innovation, into a new interpretation of spaces.

Main task of the project has been, therefore, that of induce a “third” life into the building, a difficult intervention to be defined in synthetic terms, that takes its origin from the previous building in all its different conditions, but that cannot be identified with a restoration action or with a simple change and functional update, rather as the attempt to delineate a new and original condition, through an open preparation to multiple possibilities to be developed, both in urban and in architectural sense.

This happened according to an attitude well-described by Giorgio Grassi, when he affirms that *“the artifact fallen into ruin, reduced to fragment, shows a sort of recovered incompleteness in its ultimate stage, as a new availability”* (Grassi, 1996 p. 406).

On the other hand, the coincidence between the adjectives “original” and “new”, that within the project reasoning on the productive machine efficaciously overlap, incentivizes a review of the concept of authenticity itself, which acquires a new meaning within the design process of metabolizing the change. As Giorgio Agamben writes, *“the authentic has no other content but the inauthentic”* (Agamben, 2005 p. 309).

In order to briefly explain the logical process through which the project for the Science Centre has been developed, it appears useful to refer to an interesting consideration made by Giuseppe Galasso, about the logics with which the researcher selects the causes of an historical event, by working *“(…) with the criterion of creativity, originality, innovation of every present respect to any past. Every action is introduced into the past and it is temporally its continuation; but it is also a break from the past (...), a break in the chain of what happens. And it is this rift that differentiates the present from the past, the unknown from the known, the choice which is not only the selection of the alternatives, but, at same time, it is the modification of those alternatives in the very act of selection (...). Within the act of selection, the alternatives get transcended themselves”* (Galasso, 1995 p. 431).

In this perspective, the “new” configuration has been conceived somehow as a scaffolding, as an other architecture which has been useful to facilitate the reading of the previous architecture, but at the same time having the precise role of involving what belonged to the previous logics into a new spatial organization. Not the past on the one side and the present on the other one, but, as Francesco Venezia asserts, a particular condition of continuity and interweaving, because *“there is no authentic novelty without reference to the chain of efforts that have preceded us”* (Venezia, 2011 p. 22).

In this way, by developing the archaeological approach to which we referred beforehand, it is like the previous building had been “re-written”, into a logic of “overlapping”, heading towards to realize a “multiple palimpsest” of the architecture plant. The pre-existing architecture is read as an assemble of strata to which over add a further new layer, that gets fragmented and decomposed and that gives origin to new continuities, partially with the pre-existence, as new sentences to new systems; in this sense, it becomes unavoidable the introduction of a different constitutive logic in relation to the existing. It is interesting to refer to the project for the National Studio for Contemporary Arts Le Fresnoy in the ex coal region Tourcoing, where Bernard Tschumi gives to the “new layer”, grafted on the pre-existing structure, the role of reinterpreting the found objects, affirming that *“by adding something to what was already there I wanted to re-contextualize and re-define it... This is what I have done in Le Fresnoy with the overlapping or juxtaposition of old and new”* (Tschumi, 2013).

THE “GREENHOUSE” AS AN ELEMENT OF THE LANDSCAPE

A second aspect of fundamental importance is associated to this open and problematic interpretation of the overlapping operation issue: it regards urban and landscape themes, in particular the role of the building in relation to them. In reality, the ex productive structure represents the physical permanence of an industrial past, that within a precise period had characterized the Bagnoli territory and had outlined a development, that has been revealed as transitional and, finally, unrealistic. Therefore, even if in a total contradictory way, this structure continues to represent a fundamental element of identification and recognition because it has determined some of the proper characters of the area and, nowadays, partially, it follows its morphology and image: it registers a specificity related to the position it has, an architectural specificity related to the configuration and to the materials that have been used, a specificity related to the landscape because, slowly, all the buildings masses have been reabsorbed within the context of the sea, of the plain and the hills that in origin had been altered. But the abandoned building didn't represent an element of stability: on the contrary, its peculiarity is in the intrinsic possibility of being modified that he had, related to the nature of being productive machines.

In this perspective, the new Science Centre has been conceived as a greenhouse, an identifiable building from the architectural point of view, that assumes a precise meaning within the interpretation of the entire area as a park, closely connected to the configuration of the settlements along the coast and to the green spaces, by representing a necessary conclusion.



Figure 6. General plan of the project

Source: original drawings and design elaborated by the project team

The greenhouse has been designed as a unitary shell, able to produce energy in all of its parts and to establish precise and efficient correspondences between a great and varied articulation of the inner spaces and the logics of the landscape in transformation of the ex industrial area of Bagnoli, where the issue of ecology and of a gradually reconquered nature may be proposed again within the great scenery of the Neapolitan coast.

The building-greenhouse is characterized by an inner sequence, through which a further problematic aspect due to the particularity of the site has been solved: a longitudinal building with a potential entrance in the centre of the shorter dimension. The sequence of inner spaces, continuously related to the exterior ones, has been imagined as a promenade inside the building on the sea front, directly proceeding to the outside, by creating a condition of continuity. The inner promenade goes through the building starting from the northern part, in order to reach the central space, from where it is possible to access to more narrow and functionally more articulate spaces, located in the southern side.

The exterior promenade doesn't end along the seaside but it completely embraces the building, by realizing a unitary and continuous public space, varied by some calibrated ground movements, in relation with the same undulations of the building's shell, in order to accentuate the unitary of the intervention.

Through the new system of interior and exterior paths, definitely a new weave of relations has been imagined, in order to "tie" again the building in its new configuration to the landscape and the urban context.



Figure 7. Plan of the ground floor: the continuity among inside and outside spaces

Source: original drawings and design elaborated by the project team

To the northern side of the building, that directly dialogues with the overpass connection of the bridge towards the other buildings belonging to *Città della Scienza* as well as towards the sea, an exterior space, wide and versatile, is connected, that gets characterized by different planes at various levels, by interpreting in this way the theme of the square next to the sea. In particular, a sort of wide and comfortable stairs has been designed as a place for events, with the north front of the building as the set on which some projections could be done. The square close to the sea represents in the project the perfect localization for a general ticket-office for the museum, as the keystone of the new building within the whole complex of *Città della Scienza*, by underlining this entrance through a particular volumetric articulation.



Figure 8. North and south fronts in relation to the context

Source: original drawings and design elaborated by the project team



Figure 9. The square next to the sea and the system of exterior spaces
 Source: original drawings and design elaborated by the project team

THE RENOVATION OF TYPOLOGICAL CONTENTS. THE ARCHITECTURE OF IDENTITY

The typological characterization of the Science Centre as scientific interactive museum is widely defined not only by the previous Neapolitan experience, that constituted an excellence on the international level, but also by the large possibility of comparison with many other analogous initiatives in the world, in which, with different grades, a group of interactive exhibition spaces has been realized, with laboratories and places for education. This common ground of knowledge has been reinterpreted thank to the peculiarity of the architectural history of the complex and of the particularity of its position, that, as it has been already underlined, represents very significant factors of individuality and originality within the typological characterization of the Neapolitan Science Centre, resulting as an added value. In this perspective, providing the city of Naples of a Science Centre conceived as a very innovative machine has been one of the main aim; a machine able to settle into the morphology of the historical-archaeological, landscape and naturalistic system of Naples and the *Campi Flegrei*.

Regarding the typological profile, the project has been working about the construction of a big unitary space (as the void of a greenhouse), under the great and articulate shell, where the multiple functions to be introduced have determined a porous net of two levels height and all height spaces. The realization of a big unitary space, where various and very different places meet, connected by an articulate system of paths that go “through” the great void, results particularly appropriate, in order to organize at the best all the exhibition contents of the Science Centre. These contents are based on the evocation of emotions, on the peculiarity and unicity of the visit, on a kind of informal education and knowledge: a machine where everything is studied, but that at the same time guarantees wide possibilities of selection, of choice, of having a totally personal experience of the space.

In this perspective, the Science Centre has been conceived as an innovative exhibition space since the very starting moment it has been imagined, that could be continuously renovated, by conferring an idea of flexibility and reversibility as a quality aspect. After some months, without misrepresenting the idea of permanent exhibition, some different spatial configurations could be proposed for the inside, like more articulate solutions, by giving fully emphasis to the evolution dynamic, inherent with this typology. An enormous importance assumes, therefore, the issue of the installation project, that could guarantee a sense of surprise and of newness to any visitor, even if repeating the experience after a very short time. The installations should underline and enhance at the same time some fundamental aspects of this great cultural, scientific and technological attractor: the continuity of inside-outside through the dynamism of the paths and the ground movements, the diffused presence of the green inside the building, the underlining of some specific aspects

related to the territory where the Science Centre is located, such as the morphological configuration, volcanic phenomenon, etc.



Figure 10. Dynamic of inner paths

Source: original drawings and design elaborated by the project team

More than a building intended in a traditional way, the Science Centre has been ideated as an intermediate space between inside and outside, whose recognition quality is given to the reticular structure of ten great pillars that sustain the roof, empty elements and somehow available, as the building in its complex, to be used in different ways. Among the pillars, there is an overpassing promenade, located in the central area of the building, in correspondence with the main entrance, going through the interior by allowing at the same time to have a very suggestive view of the sea and of the entire coastal line, in accordance with the openings designed in the continuous shell.

The project suggests a new and complex machine, able to respond to different and not always convergent instances. It was not about introducing functions in an existing building as it happened in the case of the first intervention, but of conceiving a unitary enclosure, in which precise and effective matches have been established between a large and varied articulation of the interior spaces and the inclusion in a landscape of valuable characters, complete and stratified: a structure in which the interior spaces have been designed in order to expand outside, in the great scenery of the Neapolitan coast. In this context a central role has been played by the issue of building a great prospect "towards the sea", open to the landscape, but that at the same time could become an element of the landscape itself, assuming a specific configuration. The extensive shell, for its shape, has the opportunity not only to give special importance to the building's fronts, such as the sea front that communicates with the one survived the fire, but also to contain inside itself some terraces open to the surrounding landscape as optimal conclusion of the scientific path and a further increase of overlooking points towards the sea and the coast. The façades were then characterized as the natural continuation of the mechanism of the shell and are substantially related to this logic. In this sense they represent connecting elements and synthesis between the building's roof-logic and that of the building-greenhouse. The folds of perforated metal cover are overlapping the large glassed gashes designed in the lower part, in order to allow to get a strong continuity between exterior and interior spaces. At the same time the glass parts have been turned over to the cover, internally folding them into the deep cuts of the two terraces.

The dense drilling of the full parts of the façades represents an element of continuity with the landscape: the mass of the cover has been designed to be subjected to an intense work of "inlay" to break the compactness, bringing it back to the formal matrix of the green and the sea. This analogy, on which is hinged both the front outline and the design of the cover, is reflected in the precise location of the Science Centre, with the shell clearly visible from the *Posillipo* hill, almost like a fifth façade strongly interconnected to the surrounding landscape.

A careful graduation of different closing elements, from large glazed openings to the areas where the light filters through the drilling of titanium zinc walls, made possible to achieve optimal illumination for all building's spaces. Even the complete detachment of the external cladding wall according to the internal intermediate

floors will help to achieve this particular filter brightness, encouraged by the introduction of a connection element in structural glass.

Directly connected to the theme of filtered direct light is the combination of resin floors, which will determine, with the appropriate colour graduations, a further element of variability and individuality of the spaces.



Figure 11. Front towards the sea

Source: original drawings and design elaborated by the project team



Figure 12. Front towards the Chimneystack Square. In both facades there is a close relation with the elements that survived the fire

Source: original drawings and design elaborated by the project team

THE METAMORPHOSIS OF LIVED SPACES. INTERIORS OF THE CONTEMPORARY CITY

How to blow new life into the production machine no longer functioning and that, in good part, had lost its physical structure? How to introduce into this machine, which responded in its construction and development to practical purposes, new uses, through which, with a synthetic expression by Andrea Branzi "*the city of the future realizes itself within the inner spaces of contemporary cities*" (Branzi, 2006 p. 117)?

In order to answer the question, first of all the issue of double axial building was faced, linked from the one side to the central entrance from the Chimneystack Square, on the other side to the marked longitudinal development of the building. In this sense the duality of permanent and temporary exhibition space function has been interpreted in an operative way.

The function of temporary space, for which it was required an autonomous access, has been associated with the main ticket office function of the entire *Città della Scienza*, while through the central entrance it is possible to access the permanent exhibition and other spaces of the Science Centre.

The ground floor, in its central part, is completely free: a large open space in which is arranged the permanent exhibition. Within those spaces, the main vertical connections are located: mobile ramps developed longitudinally and a spiral staircase with a lift, connected to one of the ten big pillars. Through these connections, it is possible to access to the second level that is designed to be less wide in relation to the north façade, using just half of the entire volume. That configuration allows to realize a considerable internal view, important to ensure continuity with the installation at the lower level.

The two building's heads instead configure as more closed elements, under which the more specialized spaces have been arranged. In particular, in the northern side it is placed a large multipurpose space of the temporary exhibition and a café, while in the southern part the children workshop area was proposed, closely linked to the fenced outdoor area, and the Fablab (workshop of exhibit), also accessible by the visitors of the permanent exhibitions and provided of independent vehicle access.



Figure 13. The inner spaces of the exhibition, between conservation of pre-existing elements and new structures

Source: original drawings and design elaborated by the project team

In the eastern side, more connected with the theatre/laboratory Galilei, stores and services for the theatre have been located, in order to increase levels of functionality, as well as the second café and bookshop of the museum that, in this way, is directly accessible both from the Chimneystack Square for external buyers, and from the inside, from the area destined to the permanent exhibits, placed at the exit of the visit.

In the southern part, on the second level, three didactic laboratories were introduced, highly integrated into the open space general setting, through a thin dividing system adequately studied to ensure the autonomy both functionally and acoustically. In the northern part, instead, at the first level, another multipurpose space of average size for temporary exhibitions and the agora were placed. Here the building presents an autonomous vertical connection, with fire escape function too. At the next level, it was placed a further space for temporary exhibitions.

Ultimately, the spaces for temporary exhibitions are organized vertically, constituting a single system of dimensionally decreasing spaces as they reach the upper parts, offering the possibility of a single exposure, but also possibly divisible in different equipment, completely autonomous. The double internal height spaces are crossed by a long reticular reticular promenade that from the far north of the first level reaches the second level, in which the other two agora and the astronomical terrace were placed.



Figure 14. First level and the continuity of inner space

Source: original drawings and design elaborated by the project team

The planned agora areas, which constitute fundamental spaces of internal aggregation, are three. The first one is located at first level where the outside is visible through the glass along the wide stairs. The other two are positioned in correspondence of the terraces, in continuity with the open spaces. From the northern side, in a closer way related to the temporary exhibition spaces, it is possible to access into a second part of the second level, in which other exhibition spaces, both open (terrace) and covered (multipurpose area of small size) are proposed.



Figure 15. An architecture opens to the sea and the landscape

Source: original drawings and design elaborated by the project team

Within the project, a very precise position in relation to the exhibition has been proposed, well summarized in an article by Franco Purini, who, about the exhibition theme, in a text about the meaning of the Italian word for "installation", namely *allestimento*, affirms that: "*in museums, (allestimento) loses one of its main features, a character that is written within its own etymology - (allestimento) contains the idea of (lesto), quick, fast as Mercury - to become a stable arrangement, a conformation of elements, walls, lights, paths – not more ephemeral, but called to an existence which can be as lengthy as the life of the famous installations by Carlo Scarpa, BBPR, Franco Albini, is now. Yet, it is precisely in the fact that is usually a system upon fast consumption that the installation seems to correspond exemplarily to the futurist proposal of an architecture which should be no longer projected on the long term, but rather cast to search the flash, the brevity, an architecture made of fulminating and extreme trajectories*" (Purini, 2002 p. 61).

The plant imagined for the new Science Centre will be able to guarantee high levels of flexibility in the organization of the exhibitions. In fact, the more specialized spaces, the services and the vertical safety connections are located in the two head blocks, leaving essentially free central space, which can be completely crossed in a horizontal and in a vertical direction sense, thanks to the sequence of the helical ramp and long mobile-promenade. Installations can be arranged in this way in a free and flexible configuration, adapting every time to the specific nature of the scientific and educational contents, which require continuous updates.

The concept of flexibility has often been declined according to an analogy between flexible and neutral space, causing the formation of big volumes without any significant characters. In the new Science Centre of Bagnoli, it is pursued instead the logic of flexibility without giving up the introduction of some devices that are able to give a precise architectural characterization of the internal space, in order to develop and to be completed through the exhibition project. As pointed out by Sara Marini, it deals with "*simple mechanisms but that reintroduce the interior complexity into the building itself, overcoming the mere notion of function and moving away from the*

dictatorship of the dimension and possible automated logics: the device gets adapted to the void, but changes its own meaning, it puts in place new life cycles” (Marini, 2013).

In the great void, the empty pillars may be, in an extremely various way, used as particular points of the exhibition but also as solar chimneys, aspect of a complex energy recycling system thoroughly researched. The double height allows to obtain various points and different ways of getting in contact with the installations on the ground floor, allowing, thanks also to the reticular promenade, to develop the exhibition even vertically. Finally, the large cut towards the sea, gives a character of continuity between landscape and building and allows a complete integration with the outer space and, beyond the existing arches, with the beach.

Based on these principles, some elements of the installation project were developed, strongly linked to the architectural identity of the new Science Centre, but at the same time characterized by a strong grade of independence and variability in relation to the more fixed parts of the building.

The installation project reinterprets through a different scale, the formal matrix of the shell: a sequence of ripples configures inclined planes, some of which are paved, some other characterized by vegetation, that closely work with the permanent interactive exhibition divided into several sections. The elements of the exhibition are designed in light tube-shaped steel, connected by fireproof clothes and varnished wood panels. The exhibition system will be focused on an installation-volcano, which extends seamlessly to the outside, where such a system envelops the existing arches, projecting directly toward the beach. In the closest part to the "volcano", some aquariums have been proposed, where the tanks are positioned according to a strongly inspired orography of *Campi Flegrei* territory. The same system turns along the inside front, hosting green elements, with some vegetation appropriately studied, accentuating the character of the building as greenhouse. In this way, the project strengthens the continuity between exterior and interior, projecting into the double-height a green wall starting from the grassy parterre located in the outer court, which assumes, therefore, a large indoor garden character.

A strong continuity between the exterior and interior is also obtained in the children workshop area, part of the museum tour but with a separate entrance, where the interior space, completely glazed, is in a natural progression continuing to the outside, in a space equipped and protected for kids.

In this sense, even the construction and the interior spaces of the exhibition become distinguishing features of the building, designed to be so flexible and modelled according to the events, but, in their essence, closely related to the morphology and the meaning of the Neapolitan landscape.

A RENEWED IMAGE FOR BAGNOLI LANDSCAPE. CONCLUSIONS

The project for the new Science Centre, even if conceived as a possible answer to a very precise design competition, accepts a grade of indeterminacy, typical of a productive structure of new generation, not simply blocked within a predetermined function, but open to a plurality of cases, to a continuous modifiability of the inner spaces in different moments.

Starting from this concept, in which the theme of the productive machine specificity regains centrality, even if deeply modified, the project has worked, through a sort of archaeological methodology, to the definition of an assemble of overlapped layers, that contain a constellation of different interventions, without prefiguring the areas but moreover the connections among them.

These strategic choices get in relation to the space characters, but also to the times of this architecture: the productive memory of the building as a sort of “root” to its context and place, through the unexpected and maybe temporary presence of new elements of connections and of architecture configuration, allows to open new scenarios, projecting the ruin of the burned machine towards the future.

In light of the entire reasoning, it results very clear that a project operation made within a methodological approach means, somehow, to assume very specific positions from the theoretical point of view. Aiming to the authenticity through a reconstruction operation and pursuing a renewal of the typological contents through an architecture of identity could seem a paradox, but it is within the paradox itself that is essentially contained the central issue of the entire problem, explained through the project operation: the authenticity and the identity of the places and of the complex of *Città della Scienza* reveal as the final purposes of the project but at the same time they represent the tools through which the project has been developed. Lines and choices of the intervention become part of a process to which the architect gives a final shape but whose contents are already

very “present” and reclaim a final legitimacy. Therefore, the “third” life of the industrial building, abandoned and afterwards reused, then hit by a fire, whose future is now being written again, becomes an ephemeral operation and actually very “contracted” if considered as an action for itself; if, instead, the project becomes the place where all those lives finally coexist all together, in that case, the architecture succeeds in its most important role, that is to be the physical proof of the meanings assumed by the matter along the temporal and spatial territorial variations. In this way, the theoretical and methodological approach could generate substantial contents in terms of the project, by feeding a very complex dialogue/debate, that is, anyway, able to discuss about some of the fundamental issues of the architectural project for contemporary cities.

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