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a cura di Giovanni Luigi Fontana

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Industrial Heritage in Abruzzo between relevance and decadence

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ABSTRACT

The need to redevelop and enhance the industrial heritage, neglected or abandoned, comes from the creative involvement that it implies on contemporary designers. Hence the need to preserve what today is considered part of the cultural heritage of a country, and also to

reuse and convert buildings or spaces of production, for cultural, social and administrative purposes.

Thanks to the availability of space, these artifacts appear suitable for any kind of new use, but their being cultural heritage imposes rigid criteria for their protection, bringing back the issue of conversion as part of the relationship between design and conservation.

The contribution focuses on some case studies in Abruzzo that show how it is possible to redesign the territory today, turning the industrial sites into nature reserves, agricultural parks, offices for social services and for local economy. It is hoped to arrive to a new recovery culture, where the knowledge of industrial sites and monuments relates both to the governance and planning of the territory and to their economic management. It seems to be the only security able to transform industrial archaeology in common heritage and to link its luck to contemporary processes for local development that call into play the community, individuals and technicians, with the common aim of reducing the loss of land and recovering

the landscape through the reuse of existing buildings.

INDUSTRIAL HERITAGE IN ABRUZZO

The ongoing research, carried on also in the university field, shows off a modern industry in Abruzzo, which developed after the Unification of Italy, and with greater effectiveness starting from the first decades of the XX century, in front of a strong and long-term concentration of proto-industrial activity, especially in areas where natural resources were located.

A reconstruction of this story is offered by *Archeologia industriale in Abruzzo* edited by Franco Feliciani, Giuseppe Spada and Walter Pellegrini, in 1985, whose introduction is made by one of the pioneers of industrial archeology in Italy, Eugenio Battisti. This for the time was an important contribution, considering that industrial heritage was about to be established in Italy and that rare were the contributions

to the knowledge of a so difficult to read and still far from being counted among cultural heritage buildings. In addition to the few references to the Abruzzo's proto-industry, despite the progressive loss linked to abandonment and oblivion, the book proposes a classification of the main industrial settlements of the region, with a spectrum of references that goes from the Hoffmann kilns of the coastal strip - from Martinsicuro in the province of Teramo to San Vito in the province of Chieti - the asphalt factories, cement factories and electrochemical plants born in the river Pescara valley, a real birthplace of the Abruzzo's industrialization, both for the electrochemical sector developed in the area of Popoli and Bussi sul Tirino, upstream, both for the attested mining areas of Lettomanoppello and Scafa, further downstream.

The book, proposed, in a moment in which this theme had almost no tradition also about an elaborating scheduling scheme, is just a partial survey of the industrial buildings of the region, investigated in

their physical conditions and deteriorations, also with references to the constructive characters. Compared to these, Abruzzo's industry reality appears today much richer and more articulated, and as such, needs a wider cognitive approach, about time and space, and more in depth about methods and goals. All this considering, of buildings reported in the volume of Spada, Feliciani and Pellegrini, thirty years later, little is left, urging measures that do not allow exceptions, not only from the point of view of the census and systematic cataloging of episode residues, but also on the rule setting level.

The interest in industrial heritage in Abruzzo still does not seem to be supported by adequate regional laws, with measures aimed at cataloging the disused industrial settlements and to draw up plans for the valorization and rehabilitation of them as a driving force for sustainable economic development, unlike what happened in regions comparable with Abruzzo in size,

such as Umbria, or geographical and cultural location such as Puglia.

In the wake of these virtuous models, it would be desirable that in Abruzzo too there would be a synergy between institutions and operators, including universities, and that the attention for the industrial heritage would be transformed into a large collective company aimed at aligning the region to a national framework that, especially in recent years, seems to be upset, despite the economic, social and political crisis.

Has to be said that most of the factories referred to in Abruzzo suffered the damage of the Second World War and reckoned with economic circumstances that dissuaded from their recovery and duration and moved, instead, to speculative operations directed to occupy the sites with other activities. Pescara, with greater strength after the war, was the demonstration of a civilization, the peasant one, which in Abruzzo was then finally shattered, marking a vertical collapse of agriculture and its ancient

crafts related to. The mass emigration that since the fifties leads the depopulation of the mountain in advantage of the coastal strip, sees in Pescara and in its valley one of the main areas of outburst, if it is true that it is the only one in the region where it is registered from that date a population increase. The destruction and transformation, after the war, of many productive activities, often sacrificed to the expansion of the city of Pescara, which became provincial capital in 1927, concerns many of the Hofmann furnaces, no more peripheral than the city. It concerns the Istituto Baccologico Monzini, the Cibo company, the Camplone's foundries, the former Cofa at the new bridge's over the sea entrance.

This orientation didn't stop even in front of the most representative for the city and its urban development buildings, such as the drastic demolition of the Centrale del Latte, designed by the aforementioned Florestano Di Fausto or the Giammaria's spinning mill, whose few ruins, survived the war and decades of abandoning and

neglect, were among the last to be removed. The most unusual fact is that instead of these buildings, evidence of the passage of society of Pescara, in the period between the XIX and XX century, from an agricultural economy to an industrial one, today nothing has left: the deep necessity for new space for housing hasn't in fact led to a result in terms of new buildings. Understandable outcome, in an economic situation that should orientate to other forms of investment and development for the city.

An exception in the general abandonment and disposal of local factories is represented by the well-known Abruzzo liquor *Aurum* old distilleries in Pescara. The current state of the building, for its virtuous use and conscious conservation, certainly emerges in the story of the regional heritage, keeping in line with the glory of its beginnings, managed by enlightened characters capable of marking its, not just economical, destiny.

To face the company growth, it was decided in 1919 to move production in the

Pineta's area, modifying and expanding an existing tourist-accommodation structure, the Kursaal, opened few years earlier as part of the Rehab Plan for this area made by Antonino Liberi (1855-1933). The advent of the First World War had shortly interrupted the whole project, which saw the transformation of the entire site into a city-garden for bathing activities, with its fulcrum in the new building, in harmony with the contemporary experiences that in those years were coming out along the entire Adriatic coast. The project is entrusted to Giovanni Michelucci (1891-1990), who in the Thirties imagined a new formal and spatial configuration starting from the pre-existing structure. The arrival of the Second World War and the personal events of Michelucci forced the client to entrust the direction of the work to Eng. Zeri, a local professional. The construction is carried out according to Michelucci's design directions, except for the revival of the Renaissance pronaos in monumental view of the Kursaal. Partially stricken during the

Second World War, together with the internal machinery looted by the Germans, it was rebuilt in the destroyed parts and remains functional till the seventies, when a new economic situation leads to the closure of the distillery. So, the complex lives a long period of total abandonment, risking demolition. Only after a difficult administrative process it was acquired by the Municipality of Pescara, with the aim of recovering and giving it a new compatible with the pre-existence function.

Aurum definitively returned to the community between the end of 2005 and the beginning of 2006, becoming both a museum center, for artistic events and cultural activities, and also the headquarters of the State Archives. In this way, different functions are combined to safeguard and protect the architectural structure, without neglecting the issues related to the economic management of the complex itself.

THE BRICK INDUSTRY BETWEEN DISMISSING
AND OBLIVION

The furnace network, instead, is still to be explored, both in terms of knowledge and intervention. Particularly interesting is the city of Pescara story, which after the dismantling of the Bourbon fort, will lead to a building fever that will direct investment in the construction of modern factories inspired by the patent of the German engineer Friedrich Eduard Hoffmann developed in the mid-nineteenth century. The capacity of these settlements to cook in continuous focus substantial quantities of bricks revolutionize its production forever and it becomes as incisive as affect entire regional areas to a systematic redesign of the ancient states.

Even before then there were kilns, especially nearby Castellammare, such as the brothers Domenicantonio's one, Camillo and Adamo Verrocchio's one near the *Madonna dei sette Dolori* or Luigi Agostinone's one in Catalano area, but those are known as temporary installations, similar to the many existing throughout the region, family business with a discontinuous fire,

located near the quarries to meet specific needs, and sometimes not only for building but also for complementary activities such as crockery and rustic pottery in the nearby centers of Penne and Loreto Aprutino, as well as in Guardiagrele, Orsogna and Lanciano.

The twelve Hofmann furnaces that were built between the end of the 19th century and the first of the next century between Castellammare and Pescara, are all located along the coast and near the railway, which has become a fundamental discriminatory in the reduction of transport costs and commerce the finished product.

The first continuous fire furnace built in 1882 in Castellammare, is linked to the Forlani's family, located on the current Via Caravaggio, at the foot of the quarry on the hill behind, and an integral part of a complex, with its 14 rooms, comprising also a manor house and workers' quarters, as well as warehouses, stores and stables that made it actually a city inside the city.

For the modernity of its electric motors and a production capacity of 3 million pieces a year, it is however the furnace that the Verrocchio built starting from 1909 in an area of 9.000 square meters near the railway, to give rich profits and great luster to the local brick industry, increased in 1924 by another furnace built by Verrocchio in the ancient Saline district, on the current Via Tirino and two years later, in an area not far from what is considered the largest brick plant in the area.

They are undoubtedly the large spaces occupied by the furnaces, as well as their strategic position compared to the town, to decree the end at a certain point. Of the twelve kilns built between Castellammare and Pescara between the last twenty years of the nineteenth century and the first decades of the following century, only the Forlani kiln remained in its original site, although been transformed, mainly for housing purposes, as to be completely unrecognizable, as well as inserted in a context

degraded by the elevated passage of the railway.

Arrived more or less without damages at the beginning of the Second World War, most of them did not succeed in recovering from the suffered destruction, also because of the new circumstances dictated by the reconstruction, coinciding with a phase of expansion of the city that did not admit hybridizations between buildings and productive activities or land using outside of speculative logics. Even the partly spared plants until the seventies and eighties of the twentieth century, eventually surrendered to the progressive baring that was made. This is the case for instance of Cetrullo's furnace or the last Verrocchio's furnace, moved to Via Tiburtina in the early 80s and modernized with the installation of a new tunnel oven.

Worthy of mention, among the factories of the Pescara's valley, is the furnace of Manoppello, located downstream of the town, not far from the complex of S. Maria Arabona. After decades of abandoning and

neglect, the remains of the furnace are really few, not so much in terms of consistency but in conservation. The remaining parts of the ancient plant have returned to a natural condition that didn't delate the traces of palimpsest hidden in their folds and the strength of the material culture to which they refer. Part of the machinery is still present, as well as the Hoffmann oven, perfectly inspectable, witness elements worthy of preservation and enhancement. On the other hand, the building that contains and surrounds the furnace collapsed, characterized by arches and loggias that lighten the industrial theme. In addition to its intrinsic values, the furnace, which dates back to the early twenties, is also a symbol for the city of Pescara: the complex owning company was the construction company Staccioli, which was commissioned to build many of the representative buildings of the newborn province. To this is added the fruitful relationship that occurred between the company and some of the designers of rank in the Pescara sce-

ne, including Florestano Di Fausto (1890-1965) and Vincenzo Pilotti (1872-1956). The state of conservation, although serious, does not seem to be an obstacle to a recovery of the complex, which is still possible by an intervention of reintegration of the parts, which optimizes the remaining structural capabilities, proposing at the same time a compatible use able to guarantee the lost identity. Like all factories left out of the urban circuits, where the vegetation has progressively took possession of the remaining walls almost to incorporate them completely, even the furnace of Manoppello lends itself to an enhancement of the building that must necessarily be integrated with that of the reference context, and try to find functional incentives, for example, in the tourist flows attracted by the abbey of Arabona or the Holy Face relic one.

Several cases have been reported in the province of Teramo, in particular those located in Roseto degli Abruzzi, such as the Catarra kiln, distinguished by important

transformations in order to convert the Hoffmann oven in favor of a modern system of packaging and production of brick based on parallel tunnel system, ascribable to the mid-fifties. The structure of the new oven is spread over two levels, with attached, in the southern part, the reinforced concrete buildings that house the artificial dryers and the material warehouse. The building is completed by three other constructions, characterized by mixed structures in reinforced concrete and bricks with pitched roofs: the first used as administrative offices, the second for the keeper's residence and the third for the natural drying of bricks. In this configuration, in the seventies, along the western extension, a large organism made up with steel and perforated bricks, covered with a steel vaulted structure with added covering eternit. The slow and progressive decline of production at the end of the eighties led to the abandonment of the plant, which for decades has been in a serious state of decay and calls for a recovery that brings back iden-

tity and memory to the whole complex through a new compatible function. Objective that does not seem to coincide with the economic needs of the current property, a Marche-based company of Grottammare, which has since 2004 the building right on the area equal to forty-four thousand square meters. The lost opportunity to implement the residential project is not due to the understanding of the historical-architectural values of the former furnace; material evidence of an important phase in the development of the Roseto's community, as well as the current real estate sector crisis, which in fact suspended construction activities, in view of a whispered recovery of the market.

A similar story involves the furnace in Villa Rosa in Martinsicuro, also in the province of Teramo, a factory built near the family villa, according to a recurring model in Abruzzo. Founded by the Franchi family in the early twentieth century for the production of bricks through a Hoffmann type continuous cycle furnace, it suffered seve-

ral changes over the years, the most consistent of which can be dated to the 1954 interventions. The plant is doubled, moving from the Hoffmann production system to the one with parallel tunnel kilns. Artificial dryers and new ovens are added along the western front, premises for processing and material handling and also administrative offices along the eastern front. The innovation of the systems and the implementation of the production are not however sufficient to guarantee the overcoming of the serious crisis of the brick market of the seventies, which forces the Franchi family to close the plant in 1976. Despite the suffered enlargements and transformations, and above all, the state of degradation in which it has been around for some time, the industrial complex is still recognizable in the original plant and allows the possibility of reading the entire production cycle. From the facilities for the materials processing and management placed on the main front, characterized by the presence of a conical brick chimney, we access the paral-

lel tunnel furnace, around which are distributed the administrative offices buildings, the locker rooms and services, the engine room and artificial dryers. The plant, as has already been said, is in very precarious conditions, with collapsed walls and a large part of the roofs are missing. However, its proximity to major communication axes makes it the ideal site for conversion to a collective use of provincial and regional appeal, which can be ensured with modern calibrated and possibly minimalist inserts. The fear is that even in this episode the speculative pressure may prevail over the conservation and protection of the disused industrial heritage, to which are linked difficulties recorded at local level in relation to the reading of qualities and values inside the crumbling and often reduced to a state of ruin artifacts.

In this panorama, a noteworthy episode is the furnace Ciampoli in San Vito Chietino, province of Chieti. Founded in 1876, it develops with a continuous fire Hoffmann system to produce bricks. The numerous

damages suffered by the flood of 1965, forced the property first to suspend production activities, then to sell the plant to another company, which retains control until the end of production in 1975. After closing, in the early eighties, part of it is converted into touristic-accommodation and the square in front of it is used as an equipped rest area. The architectural structure of the former furnace distinguished by the tapered upward plant chimney, is still well preserved, including machinery for production, and currently used for temporary exhibitions set up in the interior spaces. The disused industrial building was also included as a effectively bound building, to be respected and enhanced with compatible use destinations in the preliminary study for the design of the waterfront of the Chieti area, commissioned by the local administration in 2012. To this must be added the existence of industrial complex cultural interest according to articles 1 paragraph 3 letter a) and 13 of the Code of Cultural Heritage of May 27, 2016, PR C

n. 38/2016. The case seems to refer to a new recovery culture, in which the government of the territory enters into a close relationship with the industrial heritage, orientating its destiny to contemporary processes of local development.

PIANO D'ORTA'S REHABILITATION STRATEGIES

In this industrial panorama lies the story of Piano d'Orta's production complex, built in the early XX century by the Italian Electrochemical Society (SIE). Abruzzo's electrochemical center together with the Bussi plants a national excellence, became the seat of the interprovincial Delegation for war fabrications in the 1930s, placing this region in the first half of the 20th century at the top of the national ranking for electric power produced. Its maximum fortune however occurs in the 1920s with the intervention of Montecatini, when Piano d'Orta plant specializes in sulfuric acid production. The strategic role for German troops during the Second World War led to a bom-

bardment by the Allies. The after destruction attempted recovery, with the reconstruction of the old structures, the installation of new ones and the installation of modern machinery, is destined, however, to little pay off if at the end of the Sixties Piano d'Orta's activities were transferred elsewhere abandoning architectural artefacts (fig. 1).

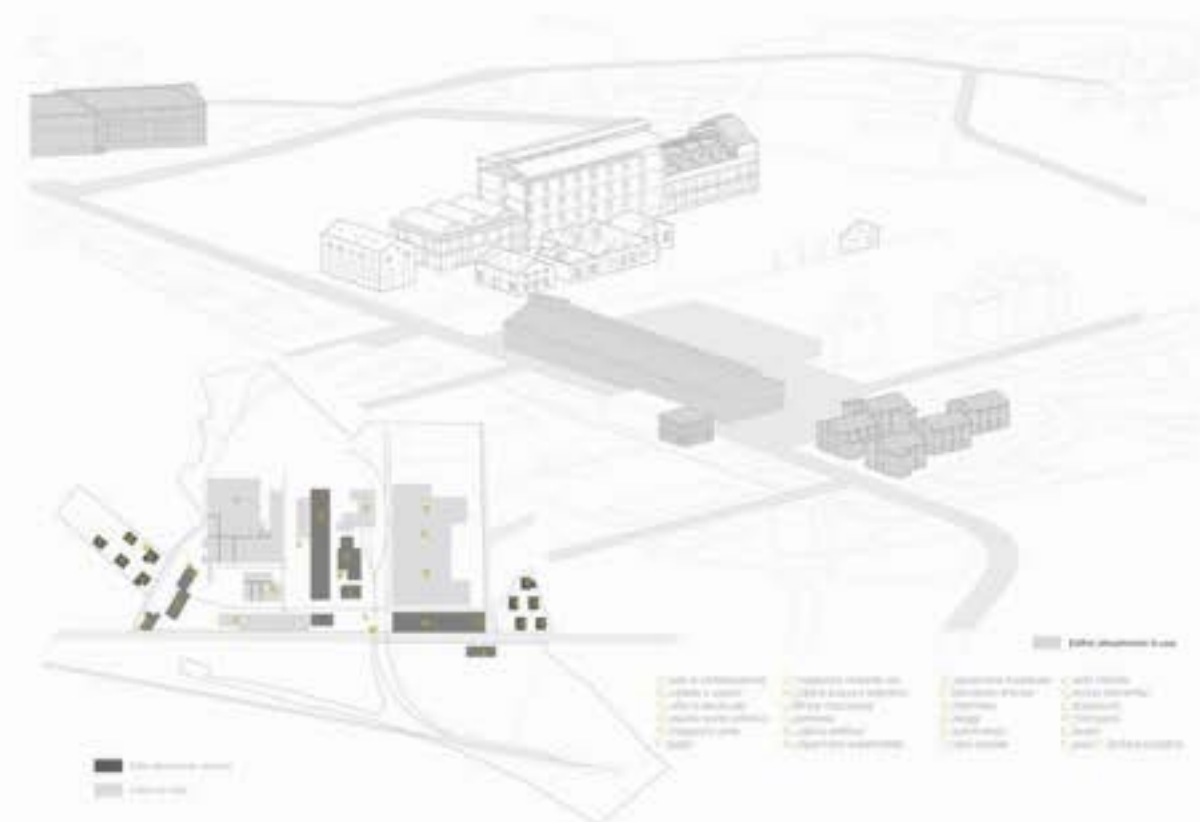
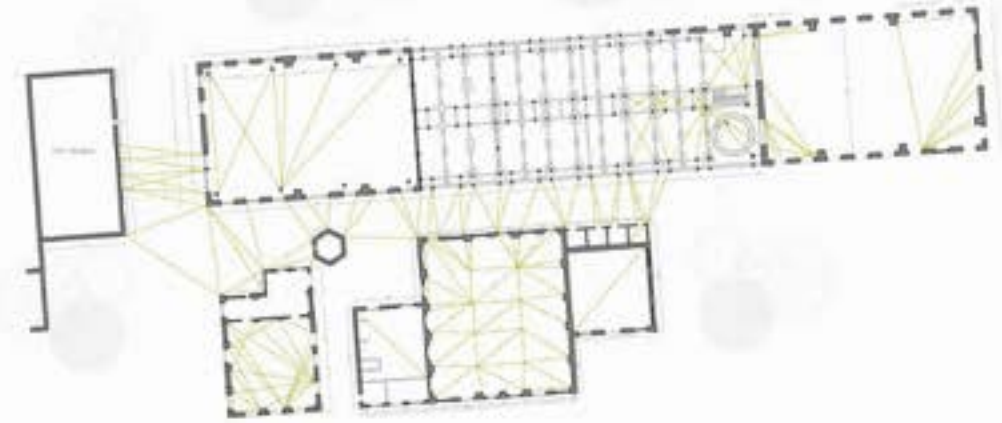


Fig. 1 - 1940's productive settlement reconstruction based on general plan keep into private archive Ederle-Anelli (G. Marcucci 2015).

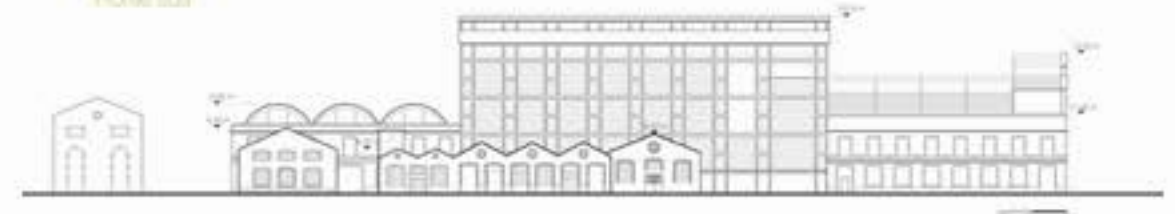
The same happened to Bussi industrial center of and to all the plants related to it, today united by a state of deterioration of the factories and territories made worse in some cases by serious ecological problems.

So, what once was the cradle of the Abruzzo's industry is today a dense valley of ruins (fig. 2).

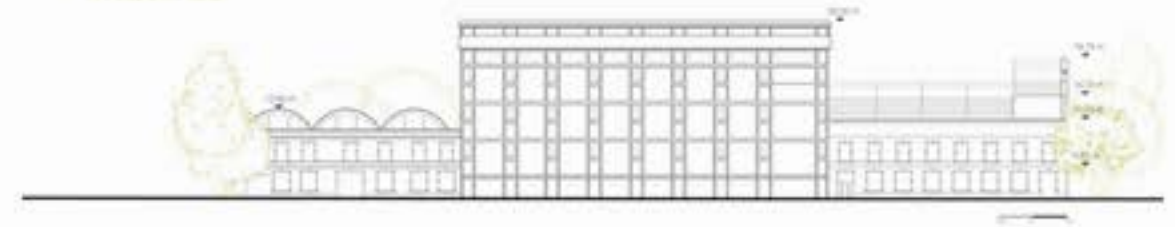
Panorama ex-empto di produzione acido solforico



Facciata sud



Prospetto sud



Prospetto nord

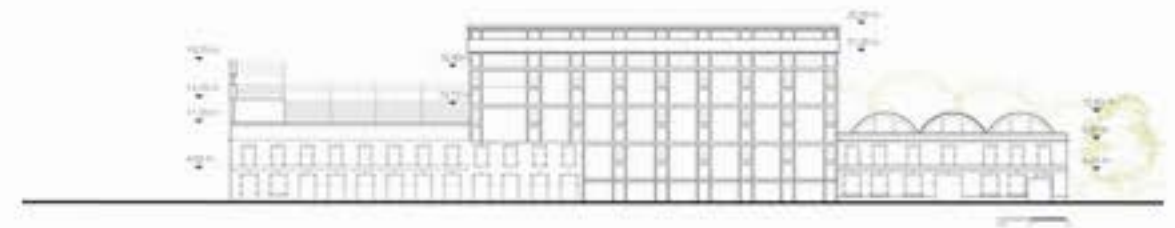


Fig. 2 - Actual geometrical reconstruction (G. Mar-
cucci 2018).

Even when, because of short time abandonment, the various factories that make up the complexes are still apparently intact, the sense of disposal and degradation is so strong as to be disturbing, even for the vastness of the size and vacuum of the plants that, without machines, oppresses the many sheds left.

In Piano d'Orta the confluence area between the Pescara river and the tributary Orta marks, also in the name, the destiny of a factory that will be the first in Italy and the second in the world to produce nitrogenous fertilizer, essential for the development of agriculture. But placing Piano d'Orta's plant at the highest national and European levels was not just the quality of the products and the modernity of the technologies used, but also the mix between work and social issues, transforming it in an absolutely happy oasis for the period.

The working village that served as an addiction and support to the production activities located in the various sheds, could boast, since the time of its realization, at the end of the twenties, services such as water, light, sanitary facilities, of which the most of the centers of Abruzzo still largely lacked, having to wait for the reconstruction after the Second World War for a general modernization in this sense.

About what remains of the old factories, the use of new materials is visible especially in the sheds, where there are simple and composed metal trusses, which alternates however with wooden trusses and floors. Also, the masonry rarely makes use of reinforced concrete frames, while the brick and stone load-bearing wall remains the most widespread.

Even if updated, the masonry of Piano d'Orta complex is still in line with the tradition, where some sheds have a metal profiles squared frame, reinforced by diagonal uprights and filled with full exposed or plastered bricks. The kind of these structures

is defined «casa baraccata», very common also in Abruzzo, here willing to satisfy seismic necessities, as in many other recurring cases in all, and not only, industrial plants of the Valley, made with load-bearing walls in stone and alternating bricks in height.

Increasing disappointment for the degradation that has affected the old plants, are also the basic but dignified decorations that characterized the long theories of doors and windows, almost always with a lowered arch with relief frames bearing in the center carved out stones. The attempt to redeem the productive buildings functionality is also in the screened by bricks openings arranged so as to form frame holes: this too is a pattern, however essential, able to articulate the long façades and give them character.

In the general dismantling of the Pescara's valley factories scenery, only the workers' houses of Piano d'Orta survived, thanks to a continuity use, despite the transformations that have occurred, made it

the pin of the small village that was born as fraction of the much older town of Bolognano, but with an honorable memory. Inside there is a Pirite theater and an Azoto square, unique examples of buildings and spaces dedicated to chemical elements.

What then do today with the all over territory of the upper valley of Pescara ruins, affected by obsolescence and abandonment, which combines the natural action of time and the constant depletion? It's clear that the answer to this question cannot be found outside broader programs, which can be implemented at multiple, dynamic and multi-scale levels. In other words, it is about understanding these factories within a landscape planning, able to face the taking place changes and governing them, knowing that the more complex is the reference landscape, the more historicized it is (fig. 3).

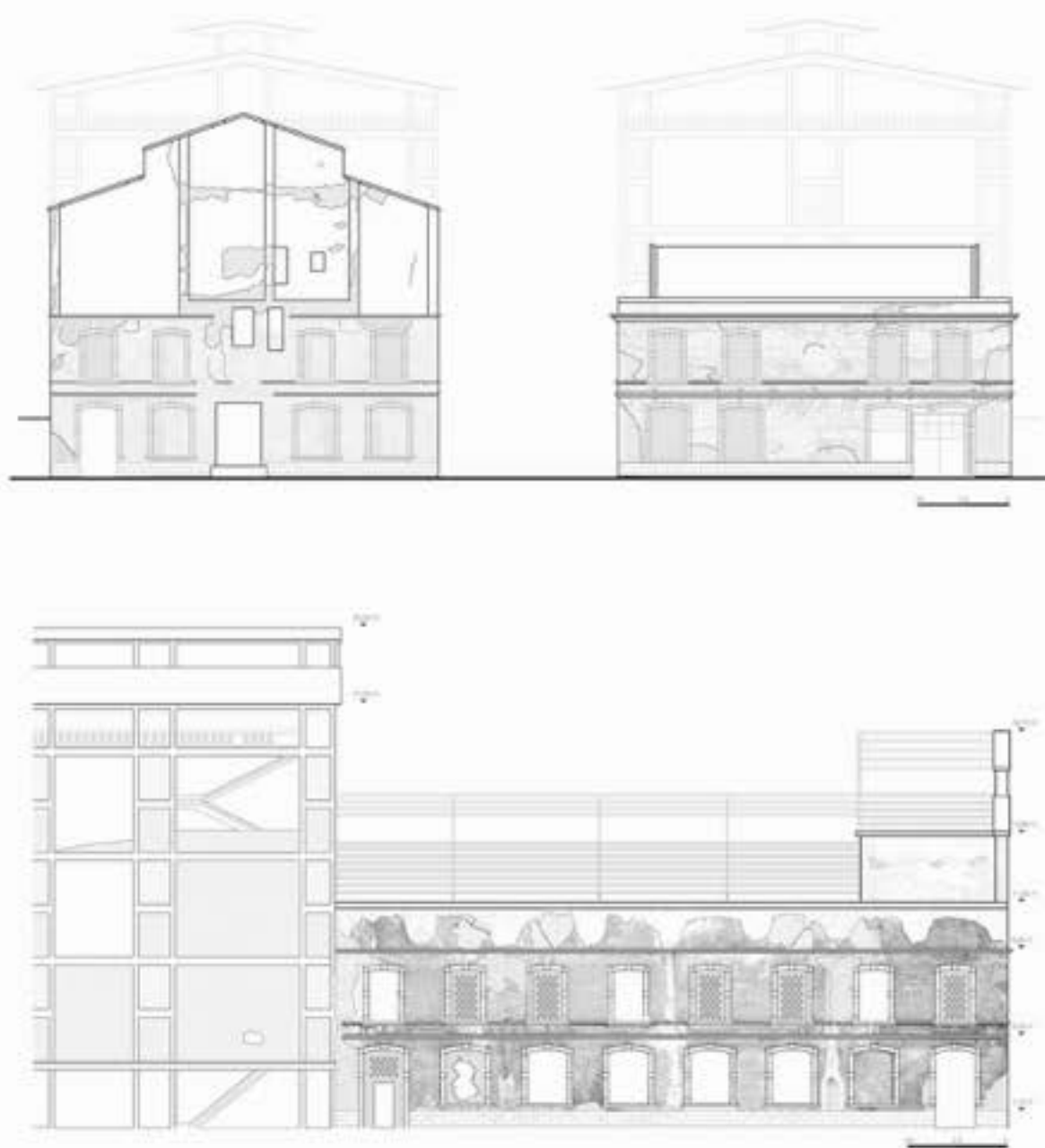


Fig. 3 - Actual architectonical reconstruction of the former sulfuric acid plant. Main and lateral fronts (G. Marcucci 2015).

Recovering the former Montecatini means first of all reinserting it into a using and interests circuit, deeply linked to the territory it belongs to, with the possibility of refurbishing these buildings as *lieu de mémoire*, allowing citizens to bring parts of their own history back.

The intervention presented here has an example value, a methodological guide, based on first-hand documents deriving from accurate measurements of the plant and of the residual formal and material structure.

The design proposal involves the issues of bioremediation, declined both on a territorial scale and on a single-building scale (fig. 4).

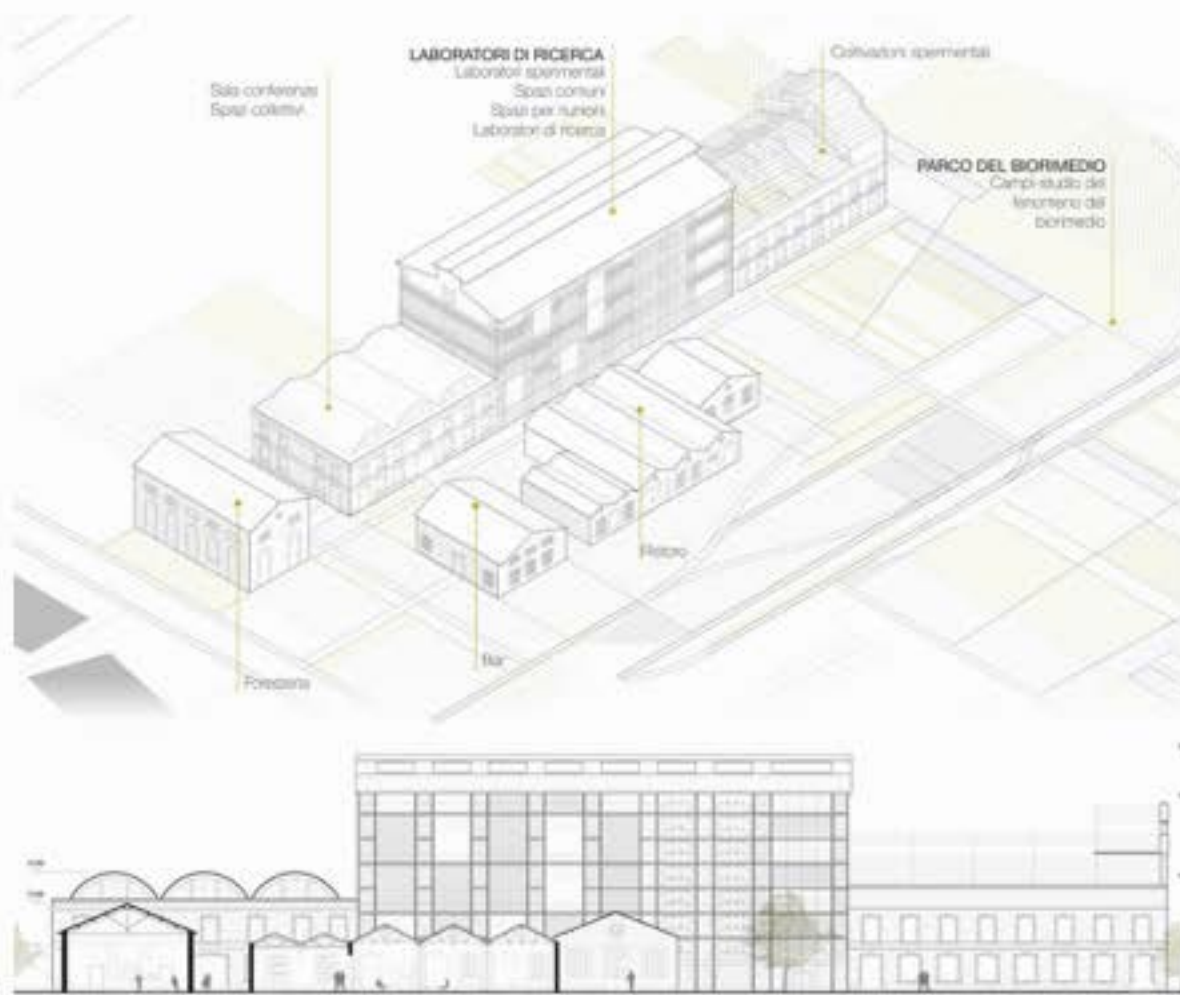


Fig. 4 - Project for the industrial complex rehabilitation (G. Marcucci 2018).

In this way planting tree species with absorbent properties of both soil and water contaminants - already tested in several disused industrial sites, such as the Gas

works park in Seattle, Washington, or Lille's Haute Deûle river banks - marks the factory area, while the single buildings host bio-sustainability research laboratories. The main shed, structured according to the production of sulfuric acid, is re-functionalized for the study of the growth and development of the absorbent plants.

CONCLUSIONS

The outcomes portrait tries to show how the theme of the reuse of the disused industrial heritage in Abruzzo is still fundamentally unsolved. The question remains the effective value that this heritage holds for the current society: factories, mines, machines, archives and cards, still suffer a condition of marginality and are often destined in not see recognized their right to citizenship in the cultural heritage field.

And then, the needing, together with study, census and conservation, including reuse and conversion, also the reuse for cultural, social, administrative purposes of

buildings or environments, historical sites of production processes. The loss of these artifacts seriously damages an history that research in recent years is confirming as fully inserted into a cultural broader and economic horizon out of the regional one, and very far from the prejudices of a static and backward land like Abruzzo.

The hope, in brief, is to arrive at a new recovery culture, where the knowledge of industrial sites and monuments enters not only in relation with the government of the territory, and if necessary urban planning, but also with the economic management problem of themselves.

It seems the only guarantee, this, to transform industrial archeology into a collective heritage and link its destiny to contemporary processes of local development. Industrial heritage possibilities of redefinition are very high.

On the base of other national and international cases, such as the interventions that have taken place over the years in Rome, the project of Testaccio's slaughte-

rhouse or the Madrid's Matadero, some positive examples should be recorded, such as the recovery of the slaughterhouses of L'Aquila and Avezzano, intended for museums, and Pescara, with the construction of a multi-purpose center of social value, Matta.

Seen in this light, the recovery itself seems to be able to combine with the methods and the demands of restoration, and thus move from an operation of mere attribution of functions to a moment of synthesis between heritage and conservation, memory and innovation.

It is evident in the analyzed cases, how conservation should not be limited to the shell's protection, but means a complexity of factors, internal and external to the shell itself, which make it a unique and unrepeatable reality. Since the moment that industrial settlements got lost their original functions, they can live only if associated with new functions, which must be established on the basis of in-depth studies and projects aware of their spatial and archi-

tectural, material and technological structure. Rather than prefiguring more or less punctual deletion strategies, it is perhaps more convenient to continue refining the weapons of criticism, remembering that the preservation of the past remains the best way to keep alive the desire of the future.

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