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CAN SOCIAL SIGNIFICANCE BE A GOOD REASON FOR THE RESTORATION OF INDUSTRIAL BUILDINGS? THE CASE OF BORGHETTO'S WAREHOUSE (BRESCIA, ITALY) - THE REUSE OF A REDUNDANT INDUSTRIAL BUILDING

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Introduction

The province of Brescia underwent very considerable development due to the industrialisation that took place since the second half of the eighteenth century. Nowadays, redundant and decommissioned industrial buildings constitute a large part of the heritage of our built environment, in both urban and suburban areas. As time passes, these buildings are becoming more difficult to manage. They belong to an age which, measured in terms of time, is not far from ours; but at the same time, due to the rapid evolution of technology, the buildings are now far away in terms of usefulness. These structures often take on conflicting meanings, from the fascination of ruins to the memory of special moments in an otherwise difficult life, full of physical and psychological sacrifice.

The demolition of numerous industrial buildings – which took place due to the enthusiasm for regaining urbanised spaces within the city or as urban cleansing of run-down areas – heightened awareness amongst professionals that the heritage of industrial buildings was gravely threatened. 'Loss' means not only the simple cancellation of architectonic areas, but above all the elimination of a material and immaterial cultural heritage of a more recent past.

To understand where this internationally widespread tendency will lead, it is necessary to focus on some important points.

The first point relates to the meaning that an industrial building posseses: what its value is (an often abused word that can have different meanings) within the environmental and territorial context, the role that it has taken on for numerous parties who have previously been involved with it, as opposed to how it is understood by those who see it from outside or by those who now only see it as a decommissioned structure.

It is difficult to capture the complexities. At a basic level, one deals with the fact that workers often had a strong sense of identity with the company, which in turn had its place within the political schema at national level. In many cases, even though wages were often low, the company also provided housing, a school, facilities for the children and so on, in order to optimise the time workers devoted to their work. That type of bond has disappeared almost entirely; this sense of unity was supposed to serve everyone: the company, the entrepreneur and the employees. Work is now seen as an individual engagement within a globalised environment.

A second point concerns the territory; the context in which it was established. It is not so common that the environment has taken over the industrial building to the extent that it has become one of the identifying elements of the local countryside. On the contrary, it appears that a greater complexity was created, infusing the spaces where people worked, and deriving from profoundly different scales of purpose and organisation. Such factors

become important when one wishes to put in place safeguards for a building in which usually only a few expert architects, historians and sociologists appear to have an interest.

A third level of consideration is that of the objective of the recovery project in itself. Decommissioned industrial buildings are not always attractive and inviting areas. They can be immense, dark spaces, where it is difficult to orient oneself amongst the unfamiliar forms of abandoned machinery, generating a sense of unease. To overcome such obstacles is a major challenge for any recovery project.

Conversion of a building to a new use takes on a key role and may determine whether its industrial context is preserved or lost. This could mean not only the loss of architectural values, which every project would modify, but above all there would be a risk of losing the story of the building: its social, economic and life history.

An interesting suggestion emerged during a visit to a mine in Genk where ideas were sought for regeneration of the old pit buildings to explore forms of creativity and culture, to be shared amongst various types of users. The administrations of the city of Genk sought a recovery project linked to good overall economic and administrative management of the district, one which would provide new opportunities for the area. The various ethnic groups who had moved there in the early 1900s, still lived together with their descendants in some areas of the district, and this suggested to the city administration a project to develop an economy based on culture, education and tourism in the old workplaces[1].

Evidently, the positive social and financial result did not clash with the conservation of the built environment, which is anything but anonymous. The expression of the conserved structures connects to local history, witnessed by the display of machinery which might be regarded rather like archaeological 'finds' or precious, valuable treasures.

In concluding this introduction, one must acknowledge a reservation. While in the case of a single industrial site, the cultural expedient might offer a good prospect of success, such might not be the case where there are dozens of sites, distributed throughout adjoining districts. Inevitably, their regeneration will create conflicts and reduce their prospects of success. Such has been the case over the last thirty years in the area around Brescia, an area famous for its industrial past[2].

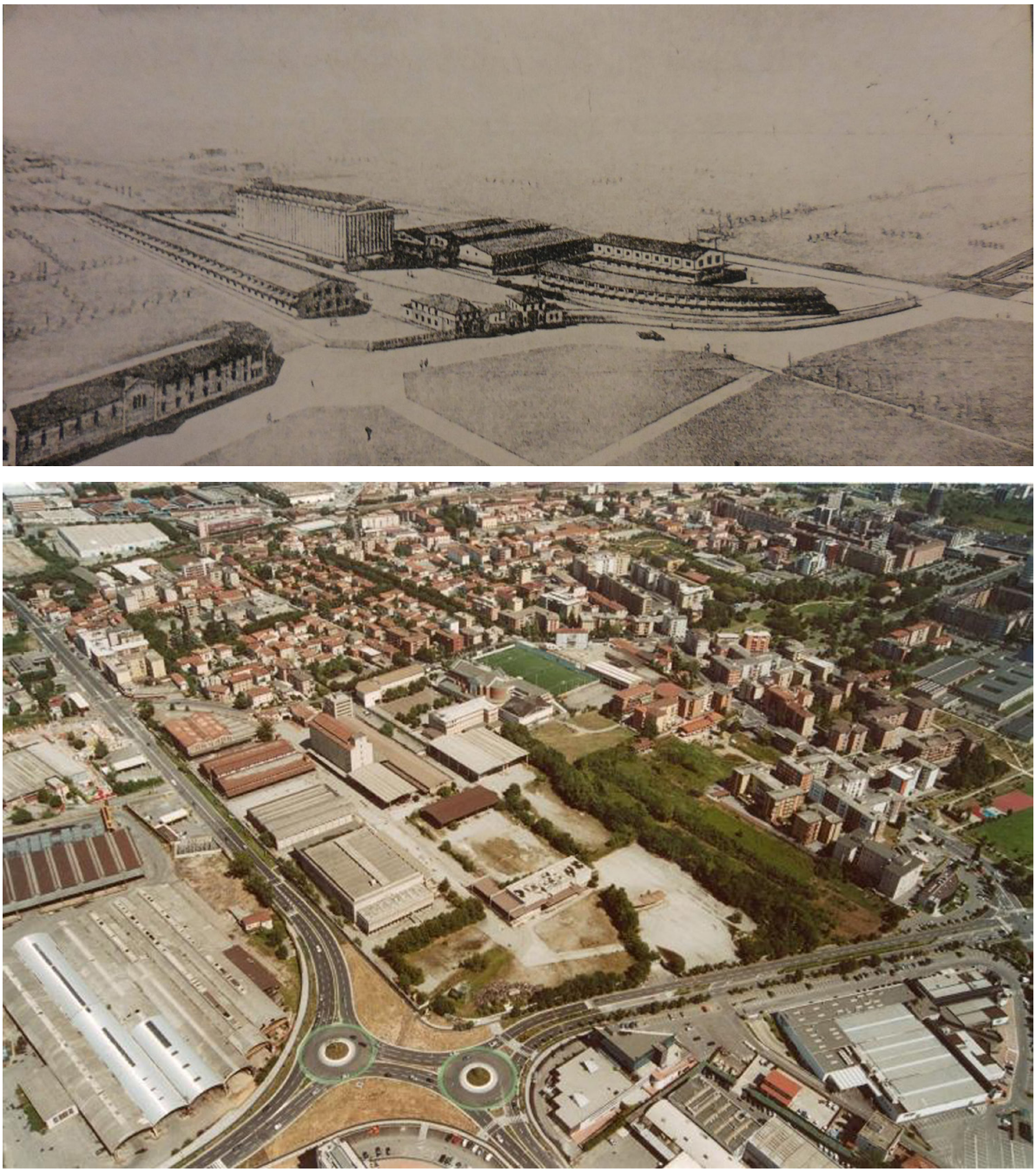
A place of work and the risk of 'indecisions'

The most recent debate about the reuse of industrial buildings in Brescia concerns the General Stores. The General Stores was a private development, covering an area of 32,000 square metres, within which there were many buildings (silos, warehouses, cold storage, offices) devoted to goods storage (Vidari 1876). Built in 1932 by the real estate company Borghetto MG SPA[3], the warehouses were in a strategic position in regard to railway and motorway connections, on the edge of a recently built residential area. Inside the gated area, important goods, both imported to Italy and exported to other countries, transited for nearly seventy years: a very important space for economic exchanges, but impervious to the daily life of the citizens (Fig. 1).

After the final closure in 2002, there was a very lively discussion about the future of the area, mainly concerned with finding an opportunity for new real estate investment[4]. While the project was still being considered, the owners began the demolition of the buildings present in the chosen sector – an area also identified by the designers (Studio

Fig. 1. Borghetto warehouse (from I Magazzini Generali 1932: 8).

Fig. 2. General view of the area in late 1990.



Brescia Prg 1998). The buildings had an ordinary architectural language, they were not greatly significant and they had no relevant qualitative or technological characteristics – in short, they were the sort of buildings found in abundance in many other workplaces (Fig. 2). In the meantime, the debate concentrated on the *casére* (warehouses for cheese), which for various reasons (perhaps from a sense of guilt and remorse) were saved and, according to the indications of the PRG 2004, were destined for a 'central public function'[5].

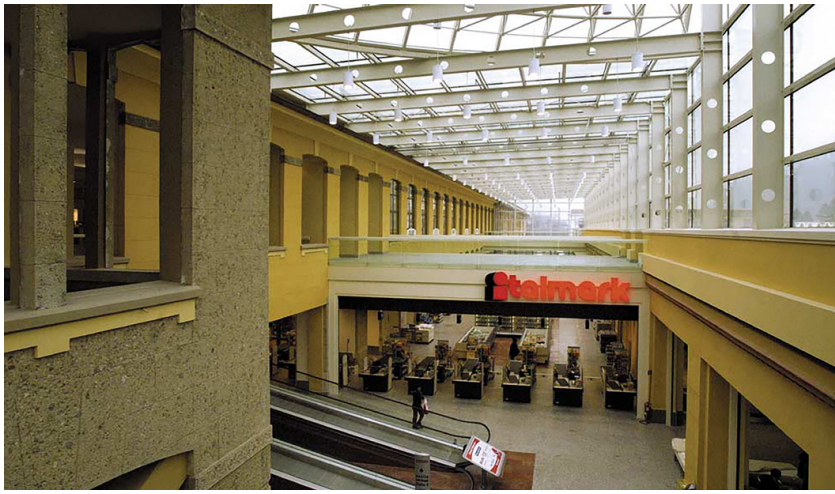
As can be seen in Fig. 3, during the years when the fate of this heritage was being discussed, and between indecisions and afterthoughts, the state of conservation of the structures suffered and underwent a generalised, progressive deterioration.

A project for reuse of industrial buildings such as the *casére* can often be linked to the value of memory and documentation. The most plausible transformation might have been to convert the buildings into a museum – an archive of itself – or to a use similar to its original or recent function. This sort of solution has often been adopted in the province of Brescia. For example, it was the approach taken to the paper mills of Toscolano, and to the series of places linked to the transformation activities of iron in the valleys of Trompia and Sabbia, which included mines, smelting furnaces and workshops. However, in the case of the *casére*, the museum solution was not suitable due to the dimensions of the building and also because a museum of work and industrial activities already exists at another site in Brescia.

A second solution could be the establishment of entirely new functions. Unfortunately, too often when this is done the characteristics of the original form are not recognisable, but are discernible only from relics or fragments. There is a long list of examples of this choice in the territory. A particular danger lies in the progressive removal or alteration not only of the interior but also of the shell. The original building in this case would initially be conserved, but it would also be altered by inserting modern design features suggested by the demands of a particular image.

The case of the Ottolini cotton mill in Villanuova (Brescia) is an example (Fig. 4). A large shopping mall was built inside the mill with a tall addition on the roof. A glass, cone-shaped trunk constitutes the main entrance (a shaft in a calculated system of natural ventilation in the communal areas of the gallery) (Fig. 5). This connects two parts of the historic factory which had been pierced at the base to make porticos. In terms of the language used, decorative details of the restoration can be seen, such as the reuse of original chromatic tones and the maintenance of the supporting structure in cast iron and concrete. Clearly the modern functional and architectural elements that were introduced (the cone, the glass gallery, the cantilever roofs, the lifts, the escalators and the security exits) become the main features.

Fig. 3. The *casére* today.



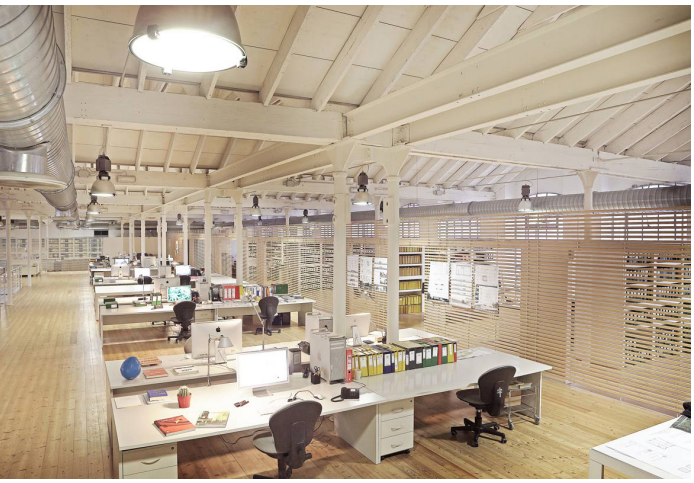
Figs. 4-5. Shopping Center Italmarck. Exterior and interior.

A third possibility, exemplified in recent times at other industrial sites in the Brescia area, begins with the evaluation of the industrial building as a multifunctional space, one that is capable of accommodating various activities. This poses an interesting planning challenge in terms of re-evaluation and reuse. In architectural terms, there is the chance in extremely large environments to juxtapose different spaces with the use of light, with the ability to divide a volume of remarkable size into parts, finding dimensional references to help orientate the person and so on. The installation envisages scenarios characterised by a mix of heterogeneous activities which promote continuous movement and generate flows, the limits of which are multiple and difficult to define.

Large architectural volumes, such as the *casére*, buildings with a sober, solid, functional and versatile appearance, would have enough flexibility to allow very diverse functions to coexist. One can envisage, for example, introducing key sectors such as high-tech enterprises, image-based initiatives, fashion, art, design, cinema, photography and graphics – all with a very high capacity for immaterial, technological and innovative flexibility, similar to what was achieved in Genk.

Adaption for the possibilities described above suggests a tailor-made, customised product, adopting high-level research standards of quality and personalisation using computer and technological systems, elements which easily allow a type of dynamic space different from that which was appropriate for the industry previously accommodated. The concept of functional mix, brought about by post-industrial evolution, is an expression of this drive – an 'infill development' which reinserts the structure of the new market and at the same time creates positive possibilities for the community. This transcends zoning, the separation of the functions into distinct areas, in favour of a coexistence of diverse activities that are able to integrate and still develop themselves. Shops, ancillary functions, artisan workshops and residences must coexist, recreating the kind of proximity which once existed in workers' villages. This perspective is a possibility because today we are able to control both sound and air quality, thanks to sophisticated soundproofing technologies and air conditioning systems.

An example of this is the adaption of the De Angeli Frua cotton mill in Roè Volciano (BS) (Fig. 6). Its architecture is still perfectly visible both inside and out. The working and exhibition areas were created by the use of lightweight walls (Fig. 7), shelving full of books or by the original, enormous, redundant machinery which restricts the view between dif-



Figs. 6-8. The ex De Angeli Frua cotton mill. Exterior, entryway and clustered workstations.

ferent sectors – sometimes on different floors, connected by light stairways that link locations in the manner of bridges (Fig. 8).

Amongst the various activities accommodated is an architectural studio and a large space used as an exhibition gallery, as well as a bar and catering services for the users and also for the town. Indeed, the diversity of the areas and spaces created by the use of a functional mix in a single volume is not limited to the juxtaposition of different functions, but is akin to the hybridisation of activities in the contemporary town: apart from the residential areas, there are commercial and tertiary areas and also facilities for leisure activities. In the Ford city, work time, rest time and free time were supposedly clearly defined. Today, this is no longer the case. Greater free time permits the various practices and the various uses to overlap, alternate, substitute and influence each other in an insistent rhythm, geared towards fluidity in work practices and time within the company. In this context, work time is flexible, expanded or contracted, or even intermixed with time for domestic life.

The different routes presented do not circumvent the real risk that is incurred when a project to reuse an existing building is undertaken – the destruction of the sense of what lingers – even when the reuse is done hand in hand with restoration. It is not possible to avoid the impact of changed internal spaces, of production equipment that has disappeared, of eroded memories and steamrollered symbolic values, of incoherent or absurd architectural integrations.

The re-reading of these large spaces is usually entrusted to compositional techniques, because the dialogue between the two parties (old–new) appears to be more immediate

to the designer who is geared towards being dynamic and flexible façade. This can mean an approach in which the architecture is first concerned with appearance and only later with substance – an attempt to insert (sometimes with little success) new templates into old contexts.

The real risk that can materialise is that the isolated, residual 'sign' remains unrecognisable and devoid of sense, or undergoes reconversion towards functions whose results, at least from the point of view of conservation and development, do not always work. The history and sense of the original building can be lost even though the project might have been sustained by programmes of cultural recovery.

At this point it is important to remember that industrial heritage is mainly owned privately and not protected by the Superintendency, with the exception of rare cases in which a lien has recently been issued.

To illustrate the risks that these decommissioned buildings may be subjected to, it is useful to consider another case in Brescia, that of the 'Borgo Wührer' (Robecchi 2002) a large brewery founded in 1829 (Fig. 9). The area was the subject of an urban regeneration project, in which it was intended that the historical structure sited along the main road should be maintained together with new residential volumes.

Historical and documentary research defined in detail both the general chronology of the buildings making up the complex and the structural, architectural and typological characteristics of the individual buildings that were the basis of the project. The founding principles were that: the overall image of the completed project should preserve the architectural integrity of the original buildings; the functional adjustments should not be too invasive, but should be close to the language of the architecture which expressed them; the new urban design should create a modern and effective vocabulary that could communicate with the pre-existing seventeenth- to eighteenth-century language; and that the aesthetic of the commercial services to be placed in the industrial archaeology of the existing buildings should develop in such a way as to avoid the insensitive use of modern technology.

On observing the completed project, it can be seen how the buildings were chosen according to exclusively functional criteria, so as to allow rational connections with the new residential section. The completed conversion project did not avoid making new openings

Figs. 9-10. Borgo Wührer. Old façade and new old-style buildings.

in external walls for additional doors and windows. It retrieved and reintegrated fixtures. It created slots in floors for vertical routes and created spaces in attics to enable the adaptation to work. Façades were maintained, but with the introduction of some new surface finishes. Light wells were inserted.

The testimonial value of the workplace in the conservation project

The guidelines applied in the planning process described above, which are commonly used, generate reflections on their effectiveness in attaining the conservation aims and on what is meant by 'restoration of the modern'.

Today, if we assess the success of the operation, we find that the complex 'Borgo Wührer' is not nearly fully used – just a few shops and some tertiary activities are open, in spite of its closeness to the city centre (Fig. 10). The ample car parking and the presence of a pedestrian area should have made it an attractive, historical hamlet, but it is not. The only fully used part is the residential area, comprising 'luxury' dwellings like all of the real estate in the complex, designed with an eccentric post-modern language which catered for the property market rather than following the conservative image of the historical complex.

Often in these contexts there is a lack of clarity in the objectives and a poor command of the construction requirements (for example, the need on occasion to remove toxic materials and substitute them with others). Therefore, there can be dangerous formative gaps that can get in the way of the satisfactory outcome of a conservation and regeneration project. Only recently has the 'restoration of the modern' established a good bibliography and examples of achieved solutions.

Urban transformation has taken place so quickly that there has not been time for professional or cultural practices to settle and mature and to form a 'culture of development' that manages to combine positively the requirements for recovery and the re-functionalisation of the industrial areas and their obsolete artefacts.

The years of experience of critical observation of the field of recovery of industrial heritage (weighing mistakes and positive solutions) made available by new bodies such as AUDIS (Association of Decommissioned Urban Areas), comprise a sort of repository of 'good practices' to inform those who operate in the sector. We believe that the most interesting outcomes result from the coupling of the pre-existing with the new. The pre-existing would include recognisable, original characteristics of the historic buildings, the functions for which they were originally conceived and the spatial quality of the internal environment.

These principles presuppose that a process of study has taken place that favours the narrative with which the spaces were identified in the past. In other words, it is important to activate an archaeological process that includes deep research into the various factors which together influenced the evolution of the original structures. These would include the history of architecture, urban planning, economics, sociology and politics.

Fundamentally, such procedures should be considered the normal process for dealing with historical buildings: namely, careful measured surveys, photographic surveys and structural surveys to establish the state of conservation of the artefact, studies to reconstruct its history and the evolution of the whole life of its construction, from its 'birth' to its decommissioning.

It is also necessary to be aware that in interventions towards recovery, the activation of dialogue with the context can determine the success of the initiatives, so the enclo-

sures that formerly isolated the artefacts from their surroundings could be reconceived as reconnections (accessibility and functions) with what lay within.

The choice of appropriate language for those parts to be realised from scratch (substitutions, additions, integrations and so on) is a difficult aspect, as it is necessary to develop a dialogue with the language of the pre-existing without dominating it or resorting to camouflage or to mimetic solutions. The restoration project is still a project with an outcome that is anything but obvious, regardless of how laborious and complex its elaboration may be. So to be able to read in the material testimonies, with the help of historical research, the symbolic meaning of details, and at the same time find, where still legible, the testimonies and the signs that allow the recognisability of the places and work conditions: these are the conditions to establish the core of a conscious project.

Such a project requires competence, cultural (and not only technical) intelligence, sensitivity, openmindedness and intellectual curiosity, willingness to experiment, enthusiasm and a great capacity for imagination. But probably that is still not enough, because today more than ever, it is necessary that whoever produces the project has the ability to nourish a collective sensitivity around places and the artefacts.

Conclusions

The above story relates mainly to the 'Magazzini Borghetto'. It has no conclusion as yet, because no project has been finally decided upon and many choices are still to be made. What hierarchy of values will be given priority in making functional choices and in deciding upon the consequent architectural project remains to be seen. However, it is possible to propose two aspects that are essential to representing society today and reflecting its past identities.

The first aspect that would be desirable in the planning of the project is to be found in the term 'memory'. The word must be understood in its original etymological meaning, which refers to the categories of historical, collective and sensorial memory. The last is extraordinary for its multiple declinations – visual memory, but also olfactory, auditory, tactile and even taste – fed by those objects belonging to past times, which more than others persist in the identity and character which define the topos.

The annihilation of the history of an area and of a place in history, even if confirmed only by residual testimonies, can generate anonymous non-areas which will soon become uprooted and empty realities.

The second aspect is found in the word 'sustainability', activated through the critical reading of protocols based on the acceptance of 'good practices' – by definition always and in every way virtuous – in the phases of analysis, planning and, above all, in the realisation. The instrument of analysis must be able to deal with the fact of multidisciplinarity if it is to address the sustainability of the intervention while considering the historical and architectural heritage.

Notes

[1] 51N4E, *C-mine*. [online]. 51N4E. Available at: <http://www.51n4e.com/project/c-mine#> [Accessed 16 October 2017].

[2] In Italy, the first convention on this topic was held in Milan in 1977, on the occasion of the exhibition on the community of silk weavers of San Leucio, founded by Borboni in the eighteenth century. In the same period and also in Brescia, a didactic exhibition was organized by the SIAI to present some restoration projects for industrial sites.

[3] Concerning the regulations which introduced the Warehouse in Italy, see Vidari 1876. Concerning the case of Brescia, see 1931–1975. I Magazzini Generali e frigoriferi Borghetto al servizio dell'economia bresciana 1975.

[4] In the previous urban plan, designed by B. Secchi and P. Viganò, the area was included in a project named 'Progetto Norma 20 Magazzini Generali'. The aim was to realise houses and offices and to set off a green area, crossed by the river Bova, which was one of the last natural residual areas in the urban context. See Studio Brescia Prg 1998.

[5] See 'Criteri di intervento'. PN14 Magazzini Generali nelle Norme Tecniche di Attuazione del PRG 2004: 50–52.

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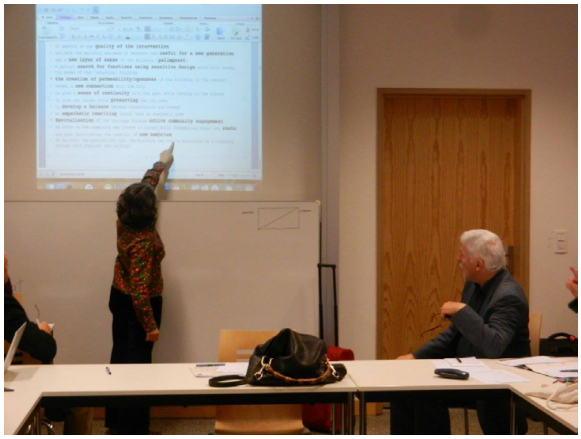

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