Our country is characterized by a wide historical and architectural built heritage dating back to the 20th century, which strongly distinguishes the urban fabric of our cities. This is, however, very often not adequately acknowledged, resulting in demolitions or indiscriminate interventions causing radical changes, though there have been countless battles to spread awareness of the need for its preservation and protection.

This is the case with Legnano (MI), for example, which in the last two centuries has undergone some structural economic changes, which have influenced its architecture and urban planning, thus engendering profound modifications in the architectural aspect of this agricultural village, often through the demolition of a part of its built heritage. This sudden expansion, started from the end of the 19th century, has left us with a relatively “young”, diffuse and heterogeneous built heritage, with its peculiarities and contradictions, which is unknown to most of the actors of transformations and requires protection.

This paper, which focuses on this case study, aims to examine the tools carried out in Italy and in other European countries for the protection of 20th-century architecture, which have involved and sensitized the population on cultural values. It also intends to suggest some actions that can be achieved by the Legnano public administration, by analyzing some virtuous processes spontaneously created by individuals or Local Associations. These are in tune with a need of “memory” that is essential, in order to make regulations, guidelines or best practices to be endorsed by the actors of the transformations, since they are based on the detailed knowledge of the local situation and on the awareness of the value of the existing heritage.

1. 20th-century built heritage: peculiarities, problems and instruments for its preservation

The theme of conservation of 20th-century built heritage has gained relevance in the recent decades with a progressive extension of the field of study and with the identification of specificities of the topic\(^1\). Indeed, these pose theoretical and technical issues about its protection, selection, reuse and conservation, as well as concerns about social consensus and economic opportunity. In fact, this heritage has many contradictions, since it witnesses both past and contemporaneity - and it is still part of the latter - which implies a complex awareness of its value and the rejection of the traces left by the passing of time by its users, who consider it replaceable or modifiable according to their changing needs.

In fact, too often 20th-century buildings are considered purely for their formal appearance, and only their morphological characteristics are usually maintained, while neglecting the historical value of the recent and often serial material that constitutes them, which makes its reproducibility acceptable. There
are few positive experiences, inadequate instruments of judgment, besides a widespread indifference, which all contribute to the loss of many witnesses. The protection of authenticity, on the contrary, presupposes that modern architecture is considered at the same level of historical heritage as unique and non-reproducible, with a material as well as a historical value, sharing the same methodological approach, principles and goals. To do it, it is needed both a deep historical and technical knowledge, to assure protection and more compatible interventions, and a large scale sensitization to make its value more recognizable.

Based on these premises, the recent years testified to the development of specific theoretical and operational methodologies on the conservation or transformation of the 20th-century built heritage, nationally and internationally, including cognitive, protection and control strategies, which led to a more attentive methodological approach and also suggested more effective safeguard policies. Among these, some concrete successful actions achieved in Italy and in Europe will be analyzed.

1.1. Catalogs, inventories and census

The first step at the basis of any action is the precise cataloging of the existing heritage, identified through a selection of historical, cultural and material examples to be passed on to posterity, which is made express through sheets, resulting from a cognitive campaign touching upon the physical, economic and social aspects of each building and their context. There can be many diverse objectives and also the scope of cataloging, the modes of selection and the ways of data organizing, as well as the level of detail and deepening of the individual sheets, can be different. There can also be a number of methods for data collection and subsequent presentation.

The census may relate to individual examples recognized as national or international heritage by International Organizations or central or peripheral protection authorities [Toulier B., 1999; Sharp D., Cooke C., 2000; Banchini R., 2004; Casciato M., Orlandi P., 2005; Frommel B., Tanari A., 2008; Aa.Vv., 2012], or it can be carried out on a territorial basis, with research led by different subjects (universities with specific research units; Professional Orders, Local Authorities, Associations or Foundations). The most successful cataloging is that which, with rigor and scientific methodology, analyzes, quickly but systematically, the buildings of a limited area, through a direct analysis, a documentary and bibliographic research or specific investigations, through a structured classification for different categories [Strappa G., Mercurio G., 1996; Godoli E., 2001; Hauser A., 2001; Giusti M. A., 2007; Graf F., 2010; Zamboni A., Gandolfi C., 2011]. These analyses are usually preceded by historical-critical introductory essays dedicated to protagonists, places and more general issues, aimed at reconstructing the context of the buildings, and then they generally end with some tools (thematic maps, indexes, biographical notes of designers, summaries and glossaries) to help the reader. Sometimes they are accompanied by repertoires of recurring building details, techniques and materials, which stimulate direct observation and support appropriate and sustainable conservation practices. Despite their differences, however, cata-
logging, inventory or census are used for their pedagogical power to spread knowledge, the first action to recognize and assign a value to a built heritage, by providing the necessary elements to the process of awareness acquisition. Indeed, such operations usually require the printed publication of the results of the analysis, with general texts, high quality photographs and simplified and less specialized sheets, addressed to a wide audience.

1.2. Regulations, guidelines and best practices
For a large scale protection it is impossible to rely on restrictions alone, which cannot be applied to every single building. It is therefore necessary to change the traditional views of protection and the analytical and legislative instruments in use, and to set up control procedures and tools at different scales, aimed at technicians and owners, based on an accurate knowledge of the existing heritage, to manage the private interventions as a unit, even for routine maintenance. This is very effective if carried out along with cataloging, with the identification of different levels of intervention or protection, depending on the typology, preservation status and importance of the buildings, and with the related rules or guidelines, useful to address decision makers. Such regulations can be flanked by the repertoires of the main problems, the common mistakes or recurring compatible solutions, and they can accompany the already existing urban legislation, which is often too generic to be able to manage the transformation of an exceptional architectural heritage, or finally they can regard only individual parts of the city, encouraging the development of new solutions on a case-by-case basis.

1.3. Awareness, participation and education
Laws are not enough to stop uncontrolled transformation. The users and inhabitants of the architectures should be the first to promote their conservation by identifying themselves with heritage. A project of communication and involvement activities for the local population, owners and experts, could increase the sensitivity to the characteristics of the site, spreading awareness of the cultural value of architectures that are not usually considered cultural heritage, as well as of the technological importance of technical or aesthetic solutions, and finally of the economic meaning, suggesting alternative solutions, oriented to soft adaptations rather than heavy substitutions. This process of sensitization can be carried out through different, more or less effective, activities, such as photographic or documentary exhibitions; monographic or thematic conferences; publication of guides, monographs or brochures; guided tours and participative initiatives, which get people closer to heritage and provide them with the necessary tools to distinguish between current and quality production. Related to this, it must be noted, among the others, the French project “Label Patrimoine du XX siècle”: a simple, cheap and effective instrument aimed at introducing 20th-century architecture to the public, prior to any further conservation actions. A further valorization activity is the creation of a thematic or territorial museum, which combine different buildings within a shared network, through different itineraries or exhibitions. An example thereof is MAAM (Mu-
seo a cielo Aperto dell’Architettura) in Ivrea, which “exhibits” its modern architectural heritage created by and for the Olivetti company in the open air. It is organized through different itineraries and a multifunctional exhibition space.

2. The Legnano case study
Situated in the north-west of Milan, Legnano is part of a densely populated area derived from an exceptional urban growth that occurred during the industrial development of the 19th and 20th-centuries. For several centuries it was a farming village specialized in the production of flour, with many mills along the river Olona, divided into two small aggregates (Legnano and Legnanello) along two lines parallel to the river. Since the creation of the first textile and later mechanic factories, however, it underwent a huge industrial development that made it one of the major Italian cities, thanks to an incredible progress and population growth.

While nearby and contemporary industrial cities had grown around the old town and expanded in the suburbs where industries were placed, in Legnano the main large and medium factories first saturated the areas around the river, converting mills into industrial factories, and then filled the space between the original urban nucleus and the two fundamental axes for the local industry: the Olona for the textile and the railway for the mechanical industry. Subsequent economic changes saw the birth of small to medium factories in the heart of the city, thus influencing its development and urban growth.

This sudden expansion, concentrated in a short time lapse, has left us with an architectural heritage characterized by different languages (from Art Nouveau to Art Déco, from eclecticism to rationalism), which derive from a productive season that began in the late 19th century and continued until the Second World War. There are many public buildings built directly by the local institutions or by the fascist regime, as well as religious buildings of the early 20th century, but even more numerous are private buildings linked to the industrial development of the so called “factory town”: factories, working-class neighborhoods, dormitories, residential villas, primary and professional schools, health care and leisure facilities. Most of them maintain their original function, albeit with later additions or adaptations, while others could not be recycled in compatible activities and, if not demolished or transformed, now lie in disuse.
or have been abandoned. The history of Legnano is indeed characterized, since the end of the 19th century, by continuous demolitions or building replacements, which sacrificed, in the race to industrialization, a large part of its architectural heritage, depending on the different steps of transformation of its economic structure. During Fascism there were made pitiless demolitions to adapt roads to the new means of transport, for a supposed “urban renewal” or for new constructions. Even 15th- and 16th-century buildings of great value were destroyed. In between the ‘50s and ‘70s, a part of the old town was demolished in favor of new tertiary structures, and again, since the ‘80s, with the crisis in the textile sector and the closure of many textile factories, some large plants were destroyed, and on their remains new areas for public or private initiatives were built, which were destined to residence, services or green. This transformation process unfortunately is not yet finished: when 20th-century buildings are physically declining or need functional adaptations to current requirements, they are fully or partially demolished or, in the best case, they are treated with incongruous conservation techniques or heavy interventions that compromise their characters, without understanding that all this causes an architectural and testimonial loss. Similarly, numerous disused industrial buildings lie in the town centre, waiting for new urban planning strategies for their conversion and raising additional questions about their destiny.

This state of things originates from economic or speculative reasons, as well as from large gaps in the knowledge of 20th-century architecture, which, as we have seen, is still testified to by individual and heterogeneous examples in Legnano, besides a widespread incapacity to understand their value and, consequently, to safeguard them. The urgent need for its protection is due to the lack of sufficient controls and to a real estate speculation that is absorbing attractive central areas, in a rapidly changing society, subject to many pressures and with ever fewer resources: there is a lack of a widespread culture of conservation, the inability to unitarily manage transformations, in an economic and political situation that compels to sell or privatize public goods in order to obtain the maximum possible income.

2.1. An inventory of architecture and of ways to build

Starting from these premises, a doctoral thesis in co-supervision with the Municipality of Legnano has matured the need to create a tool to safeguard and promote the architecture of the early 20th century in Legnano, which needs more protection, since it is not recognized as heritage and it is subject to many incongruous transformations. The most appropriate instrument to do this proved to be an inventory inspired by those Italian and European models mentioned above, which regard built architecture and the ways to build, including the study of the constructive process, of the technical culture of designers and craftsmen and of the construction techniques and materials. Such inventory, which is still in progress, consists of a precise filing of individual buildings, with sheets organized topographically and by building type, with a different degree of detail according to the wealth of sources. In addition to this, some more general chapters on
various topics situate individual architectures in their own context, integrating them into a network that gives meaning even to few data, and obtaining multiple levels of filing. The buildings analyzed were selected from those already subject to protection or included in different inventories\textsuperscript{10}, integrating them with those reported in the literature and other considered worthy of protection, regardless of aesthetic or historiographical judgments. An analysis of these inventories was carried out, from which some of them appeared synthetic and incomplete, often not supported by archival research, sometimes with complex or rigid data entry systems, inappropriate for this kind of heritage. In addition to this, they did not have reciprocal links, especially in function of different degrees of protection, and this has not generally determined greater protection of the buildings analyzed, which were demolished or transformed in subsequent years, and also today they are at risk.

To overcome the limitations of those inventories it was necessary to start from a direct analysis of individual buildings and from a depth bibliographic and documentary research, by consulting public and private archives, bibliographic sources and iconographic, historical manuals or technical literature. All the information, although heterogeneous, was included in comparative tables, divided by topic, and in the relative inventory sheets. The fields to be filled in have been revised by superimposing institutional modes of filing of historical and architectural heritage (ICCD or SIRBeC sheet A) with those developed by Do.Co.Mo.Mo. for the modern heritage, reviewing them from some analyzed examples that were considered most convincing and effective. However, since many buildings are complex and have undergone some extensions or transformations, both coeval and subsequent, it was decided to abandon the traditional structure of the sheet, opting for a database in tabular form, where data entry is organized in parallel fields both diachronically and synchronically\textsuperscript{11}, and to which the related documentation is attached. This tool, connected with a GIS platform and made available on-line, is constantly upgradeable, as a starting point for further investigations and open to additions and revisions; data can be extracted from it in different ways, depending on the needs. It would become extremely useful if it were properly managed by the relevant offices, as a first step for the creation of an Observatory for the architecture
of the 20th century in Legnano, able to manage its transformations over time, both for the buildings owned by the municipality, which are usually restricted by law, and the private ones, which in several cases coincide with those identified by planning instruments and for which it is usually required an historical and architectural, as well as analytical, analysis. In this way data or documentation could derive and here merge from further studies or analysis, thus allowing the monitoring of the interventions carried out on different buildings, which could permit to evaluate their effectiveness.

Based on this tool and its results, the relevant Institutions will be able to define specific and practical rules, which could address and suggest the most correct ways of intervention, and further activate possible subsequent promotion initiatives and actions. Strictly related to this is a recent partial cataloging and scan, carried out by the public offices, regarding some cartographic, graphic and photographic documents from municipal archives, aimed to make them available, even on-line, to encourage further research.

2.2. Instruments for the promotion

This tool should be associated, as we have seen, with a large scale awareness campaign, which should be carried out with different instruments. It will be aimed to spread the knowledge of this heritage, which is now indifferent, and to make its quality and characters, as well as the sense of the most rigorous and methodologically correct interventions, understandable.

Firstly, it is necessary to promote the recognition of the buildings subject to filing with special identification tags containing the main data, possibly interactive, thanks to new technologies, and with educational and participatory actions conducted primarily by schools or Public Institutions. This will be carried out thanks to the involvement of students of all ages and their families in appropriate activities to identify this heritage.

Some of these successful initiatives were launched in Legnano in recent years, but have been applied mainly to the landscape or to few “exceptional” historic buildings, generally medieval, more immediately understandable, and should be extended to minor heritage of the 20th century, by adequately sensitizing teachers. Secondly, it is necessary to involve universities and secondary schools through the realization of educational workshops, studies and research on this issue. In this respect there have been some attempts, like the recent establishment, by a local association, of a scholarship for dissertations on topics about local history, including the period investigated, and the agreement that you are trying to conclude between Politecnico di Milano and a manufacturing company, which is now closed in the city center, about researches on its architectural complex of the first ‘900.

These operations should be then supported by more targeted measures addressed to citizenship, which have been partially carried out directly by public authorities, such as publications or conferences on individual buildings or homogeneous groups and guided tours, possibly incorporated into a wider regional network already developed, also in anticipation of EXPO 2015, in addition to those organized by different subjects. Many of these activities have emerged spontaneously, as the creation of a group of people that share, on
a popular social network, “black and white” images of demolished buildings of the old Legnano, which also gave rise to a successful conference on this subject.

All of these initiatives have been very successful among the inhabitants and occasional visitors, especially for the industrial architecture of the 20th-century, which fascinated them, making them understand the importance of what is left and what does not exist anymore. They also demonstrated how strong is the need for “memory” by a city that is proud of its origins, but that seems to remain anchored in the medieval past that made it famous, though this is largely disappeared, forgetting that it has been the protagonist of an industrial era which has strongly characterized its tissue and of which it is important not to eliminate the evidence that is still present.

Notes
1 The 20th-century heritage includes a variety of architectural languages or currents and is characterized by highly specialized building typologies; innovative materials and building techniques that require new approaches to their conservation; wideness, originated by an intense building activity and by a lower selection due to the passing of time [Barelli M. L., Livi T., 2000; Callegari G., Montanari G., 2001; Boriani M., 2003; Biscontin G., Drussi G., 2004].
2 In addition to some International Charters, which have been interested in the diffuse and modern built heritage, including the Recommendation on the Protection of the XXth Century Architectural Heritage of the Council of Europe, there are many International Organizations or Associations that are concerned with 20th-century heritage, although generally only exceptional or monumental buildings: UNESCO, ICOMOS; Do.Co.Mo.Mo International, with national headquarters, for the architecture of the Modern Movement, and TICCIH, for the industrial heritage.
4 Many parameters are to be managed: methods and techniques for the maintenance, conservation or adaptation; design of new additions; chromatic choices; criteria for the removal of incoherent additions.
5 See the guidelines for the QT8 rationalist quarter in Milano [Aa.Vv., 2009] and for the INA CASA quarter, built between the ‘50s and ‘60s in Cesate [Giambruno M., 2002].
6 Established by the Circulaire n.2001/006 du Ministre de la Culture et de la Communication, it is materialized by an informative plate that identifies the buildings, in addition to an online database and further initiatives such as exhibitions.
7 It is a 2km-long route that passes by and through some of the buildings, with a series of information points and an information and welcome centre for temporary events [Bonifazio P., Giacopelli E., 2007].
8 Legnano passed from about 7,000 inhabitants in 1880 to more than 28,000 in the early 20th-century.
9 The Institutions for protection, in fact, have recently attributed new restrictions to some buildings of the 20th century in Legnano, following the selling of some public goods.
10 Lists of the restricted buildings; provincial or local planning instruments; provincial, regional or thematic census.
11 In addition to the buildings identification data, some upgradeable fields were predic-
ted, to be filled in chronological order and for each identified phase of construction, including the construction process, a description, the legal and administrative status and the state of preservation, besides indicating the sources and the documents found.

12 In 2010 the “Mill Park”, which includes Legnano, organized a series of thematic forums on various aspects of the area (nature, history and architecture, landscape etc.), by involving citizens, students and institutions. This led to the creation of the “map the community and the landscape”, which is still used as a map of the park. Similarly the city museum since some years has carried out the educational project “the school at the Museum”, which includes lectures, guided tours and workshops for some students to introduce them to the history of Legnano from the Roman times to the Renaissance. Finally, some individual teachers combine the study of general with local history, also with guided tours of the city.

13 Probably starting from next september exercises of restoration and diagnostics courses within the area should be carry out. In addition it is expected to promote further studies on the architectural complex and to assist the company in the process of recognition of its public interest or for obtaining funding, also in function of its sale and of a compatible re-use. To this we would add a project involving local and territorial institutions, in order to include the area in the network - yet to be created - of “industrial archeology of Alto Milanese”, thus carrying out a policy of protection on a wider scale.

14 In 2011 a black and white photographic exhibition showed some views of the city of the past, very different from today, thus very impressing the visitors. For the next October, instead, there are some initiatives planned to promote a school building which will celebrate the centenary of its construction: an exhibition will show design documentation and photographs; a publication will rebuild its construction process and subsequent historical events, and finally a meeting dedicated to citizenship will alternate historical, architectural and recreational interventions with the participation of renowned personalities and the involvement, also in economic, of associations and local institutions, in order to attract a diverse audience to which to transmit the value of a building now considered anonymous.

15 In recent years have been organized some guided tours through various typologies of buildings: in 2010 the Order of Architects of the Province of Milan, in collaboration with the Municipality, organized a tour through the architectures of the second half of the 20th-century; in the same year a local youth association accompanied the visitors on guided tours through remarkable, even 20th-century, buildings, situated in different districts of the city. Last march, instead, the Fai (Fondo per l’Ambiente Italiano) had open to the public some examples of “industrial archeology” on the occasion of the “Spring days” and organized a conference on this subject. Finally some volunteers from different local associations guide to the main monuments of the city on the occasion of special events, such as the “Sundays walk”.

References
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