

# Technological Shells | Technological Ruins.

Experimental theatres between innovation and architectonic rehabilitation

**ABSTRACT:** The reuse of industrial buildings and the functional rehabilitation of dismantled structures are part of a consolidated operational practice which has generated, over the last decades, all over Europe, a considerable number of auditoria and theatres of small to medium size. In Italy, the constellation of special and experimental structures of the Turin-based theatre system, can be considered amongst the most vital and innovative in the European Union scenario. The practice of consolidation and functional activation of so-called “theatre ruins” includes many excellent examples in the architectonic and preservation field. The rehabilitation case of the former “Cinema-Teatro Astra” [Bonicelli, 1930 | Magnaghi, 2006] is a good example of philological restoration techniques intertwine with original technological solutions. The adoption of so-called “technological shells” is a factual answer to the requirement of harmonizing the preserved asset and reversibility criteria with contemporary architectonic expression.

## 1 INTRODUCTION

The long debate on the recovery of historical city centres and architectonic heritage – started in Europe in the Seventies of the last century, has gained cultural and institutional support over three decades of very intense operations and theoretical thought. That has happened thanks to the deployment of cataloguing and incentive programmes aimed at fostering the recovery of historical-monumental, civil and industrial heritage. Differently from what expected, such pathway, that appeared to have rooted and be consolidated, has come in a stalemate and experienced even a withdrawal : in fact, since the beginning of the third millennium, the urgencies linked to climate change and scarcity of energy sources have taken the scene, placing building recovery in the backstage and questioning even the whole theoretical-disciplinary-conservation approach. That is even more so for historical buildings that are re-functionalized with different modalities vis-à-vis their original ones.

In such cases, the high number of constraints – formal, structural and material constraints – matches and overlaps with provisions and norms in constant evolution. Having made such premise, it is however necessary to observe how, over the last decades, the construction | creation of theatres in Europe has generated numerous and precious examples deriving from the use of existing spaces. Such construction has developed “theatre functions” or so-called “*Kultur- und Kreativwirtschaft*”, conceived as multi-functional halls and/or auditoriums built in previously-“dismantled structures”. They are mostly either obsolete industrial constructions or historical buildings (“industrial archaeology”) whose large size better fits and hosts the “technological package” necessary to upgrade them to the required functions.

In operational practice – mainly in North-European and German context – the restrictive interpretation of conservation has been often overcome and re-updated, either by keeping or acquiring “virtuous” features vis-à-vis the urgency of energy-environmental issues. The best ex-

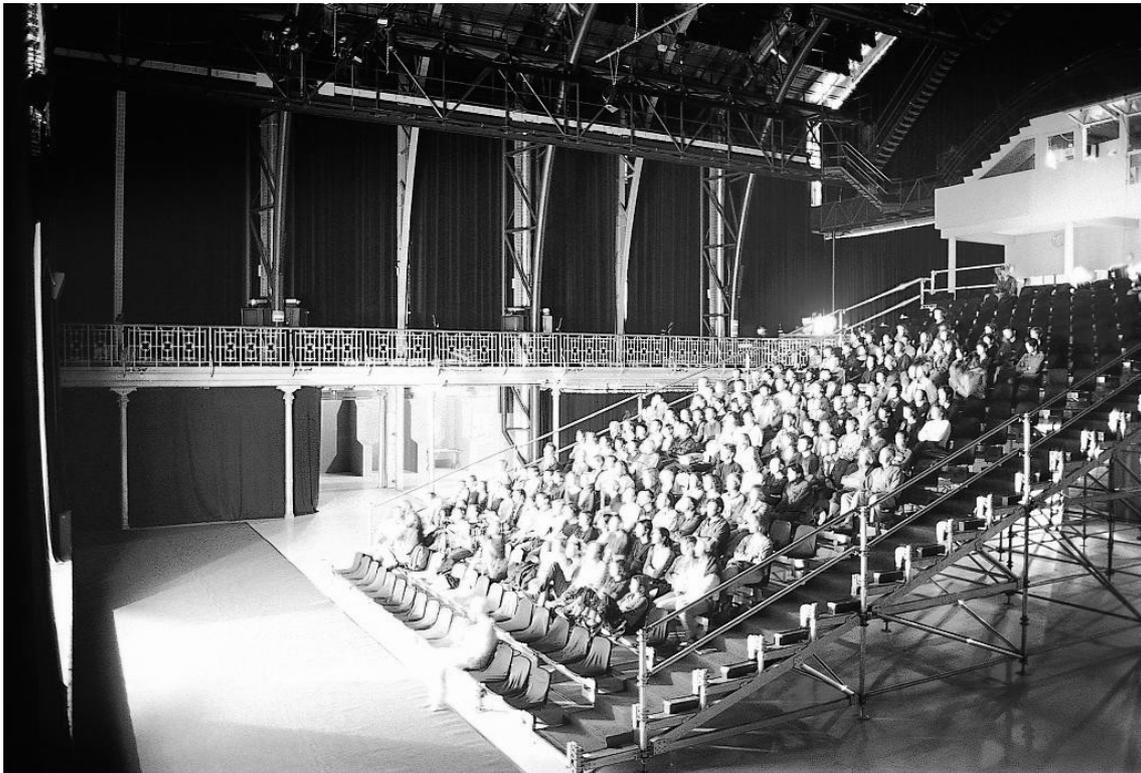
amples have been those in which the focus on sustainability and efficiency has been accompanied with a long-term management perspective rather than with containment of recovery costs. To operate as per such changed directions means to manage the restoration project within a framework of complex actions – sometimes in contradiction – fully modified vis-à-vis the recent past. From the Nineties to-date, European safety directives have been complemented with the specific framework of constraints (and opportunities) represented by the technological-installation sector. The control over efficiency parameters and energy burdens opens one more “front” in terms of evaluations but also in terms of requirements to meet, which restrict the already restricted manoeuvring space for the conservation of architectonic assets.

The re-start of a new life cycle of re-functionalized buildings determines and requires the study of new interactions between the environmental framework and architectonic heritage : the evaluation of the so-called “*carbon footprint*” as to the life cycle of materials and technologies applied in the recovery effort envisages new and increasing competences and actions. In that way, the focus on the sector of energy recovery intertwines and overlaps with many other activities which, until recently, have been considered exempt from or in deviation to norms in force and the search for “*Best Practices*” to improve the performance of structures both in efficiency and comfort terms.

Aim of this essay is to verify the operational modalities tested and monitored for sufficiently long time to appraise their efficiency in a perspective of scarce material and financial resources.

### **The architectonic culture of frugality and creativity.**

The reuse of industrial buildings and the functional rehabilitation of dismantled structures are part of a consolidated operational practice which has generated, over the last decades, all over Europe, a considerable number of auditoria and theatres of small to medium size.



*Fig.1 - Brussels, Les Halles de Schaerbeek (© Cooparch - R.U.).*

Among the most successful examples, we would like to mention the experimental theatres for Teens and Youngsters, mainly established in French-speaking countries, in Lyon, Brussels, Geneva and Montreal. The Lyon theatre (*TNG - Théâtre Nouvelle Génération, Centre dramatique national*) is housed in a Party Hall by Michel Roux-Spitz in the Thirties and re-habilitated in 1980. More complex and interesting is the construction story of *Les Halles de Schaerbeek* in Brussels. The recovery of the old *Saint Marie market* – elegant metal structure of 1901 – was carried out between 1993 and 2003 [project by: Cooparch - R.U.] and allowed to set up an experimental theatre and ballet space for the cultural activities of the French-speaking community of Wallonie-Brussels (fig. 1).

The designers state: « Notre objectif fut de préserver au maximum l'aspect original des Halles tout en répondant aux contraintes contemporaines d'une salle de spectacle. « les Halles » sont composées d'une Grande Halle avec mezzanine, d'une Petite Halle, d'une ruelle et de caves sur toute sa superficie. Aujourd'hui, le Centre Culturel « Les Halles » fait partie intégrante de l'espace artistique de Bruxelles grâce à la grande adaptabilité des lieux. ».

And actually, the innovative and “neutral” role of the intervention appears clearly in how it presents itself in the structure: “[...] The exemplary nature of the undertaking is defined in the Halles de Schaerbeek by the progressive interventions in the development of an innovative cultural project. It is the product of the determination of a handful of cultural operators, on the sidelines of institutional circuits, to save a former indoor market at the eleventh hour. Three decades of battling and successive building works since 1973 have enabled the premises to be saved and endowed with a cultural vocation, serving as both a showcase and an instrument for multimedia creation and diffusion. 'Les Halles' are now internationally acknowledged for their programming whilst not losing sight of their roots within the district.”

#### **Torino theatre system. Three case studies.**

In Italy, the constellation of special and experimental structures of the Turin-based theatre system, can be considered amongst the most vital and innovative in the European Union scenario. Thanks to an enlightened cultural policy, such small structures have promoted a vast societal participation in cultural self-produced events.



Fig. 2 – Torino, Astra Theatre (© foto Bruna Biamino).

The practice of consolidation and functional activation of so-called “theatre ruins” includes many excellent examples in the architectonic and preservation field. There are instead less frequent examples of consolidation of so-called “modern ruins”, caused mainly by vandalism and negligence more than by time wear and tear: that has brought to almost a total destruction of the preserved heritage of such a kind.

### **Astra Theatre.**

The rehabilitation case of the former "Cinema-Teatro Astra" [arch. Contardo Bonicelli, 1930] is a good example of that and has generated one amongst the most interesting and characterized works of the last decade, in which philological restoration techniques intertwine with original technological solutions. The construction story of the building, initially part of a brewery, is strictly linked to the birth of one of the most-densely populated and lively districts of Torino “working-class aristocracy”, made up by Fiat technicians, that consolidated in the years soon after the First World War. The cinema-theatre “Savoia” later renamed “Astra”, went through periods of great splendour to decay little by little in the Seventies and Eighties.

It was, hence, acquired by the Municipal Theatre Body “Regio” when in full decay and close to be dismantled. The recovery project, conceived and led by architect Agostino Magnaghi, has followed side by side the process of theatre ideation by director Carlo Ronconi for the construction dedicated to experimentation.

The void space – the absence of “signs” overlapping and intertwining with the scenic action – is the starting point of the project : “I can choose any void space and make it become a bare stage. A man crosses it and another man observes it : that is enough to start a theatre action” (Brook, 1968) . From such a principle the space regenerative action takes its start to its “retheming” (M. Romano, 1993) so becoming the “more or less conscious result of a collective action that acts on the planner/designer in a more or less conscious way” (Baxandall, 2000). The project intervention develops “the composition theme of the *relictum*, in which the hall is the *ruina*, the archaeological finding, similar to the material evidence returned by ancient times. The building, in its ambiguous configuration is contemporary ruin, evidence of our recent past, dominated by the motion of machines”, (Magnaghi, 2009).



Fig. 3. Torino, Teens and Youngsters Theatre House. (© foto Bruna Biamino).

The project states and shows the direct affiliation of Teatro Astra to the Madrid intervention of the Bar-Restaurant “Teatríz” (Philippe Stark ,1990) that mixes, in an exclusive and grand context, *Brutalism*, Minimalism and Poor Art (Patón, 1990). Two more interesting examples are given by the interventions made on industrial buildings and equestrian stalls: the creation of the Casa del Teatro Ragazzi e Giovani [former AEM power plant, 1930 | Magnaghi, 2006], and the plan (in progress) to rehabilitate the Ex-Maneggio Chiabese (former horse-riding ground), [Magnaghi, 2003-2011].

This latter intervention, in the heart of the historical city, will host the Aula Magna of Turin University. Both cases test design and planning solutions of great elegance and technological complexity in order to guarantee top functional efficiency in the respect of the existing structures.

#### [Casa del Teatro Ragazzi e Giovani – Teens and Youngsters Theatre House]

The theatre is amongst the most interesting architectonic works made in Piedmont over the last decade (awarded with the 2008 Prize for “ Quality Architecture”). This theatre pole for youngsters’ theatre is located at the crossing of the large urban axes connecting Torino city center to its peripheral areas that developed in the Twenties of the last century. The recovery of industrial spaces and the re-functionalization of building structures have given birth to one of the most innovative Italian cultural centers ( theatre, animation, socialization labs) active in the heart of so-called social housing districts, recovered over the years thanks to the European programmes Urban I and II.

“La Casa del Teatro Ragazzi e Giovani” is located inside the former AEM station in Corso Galileo Ferraris, Torino. The construction of the AEM station ( by engineer Clemente Bornati,1927-‘28) is in the framework of that technical culture that generated the large industrial facilities of the XIX century [...]. The recovery project of an industrial plant into a theatre hall, to be used by youngsters and teenagers, had as an objective, on one side the restoration of the pre-existing building by means of procedures respecting the original installation in view also of the new functional needs and, on the other side, the integration of the pre-existing facility in view of the new destination of use.

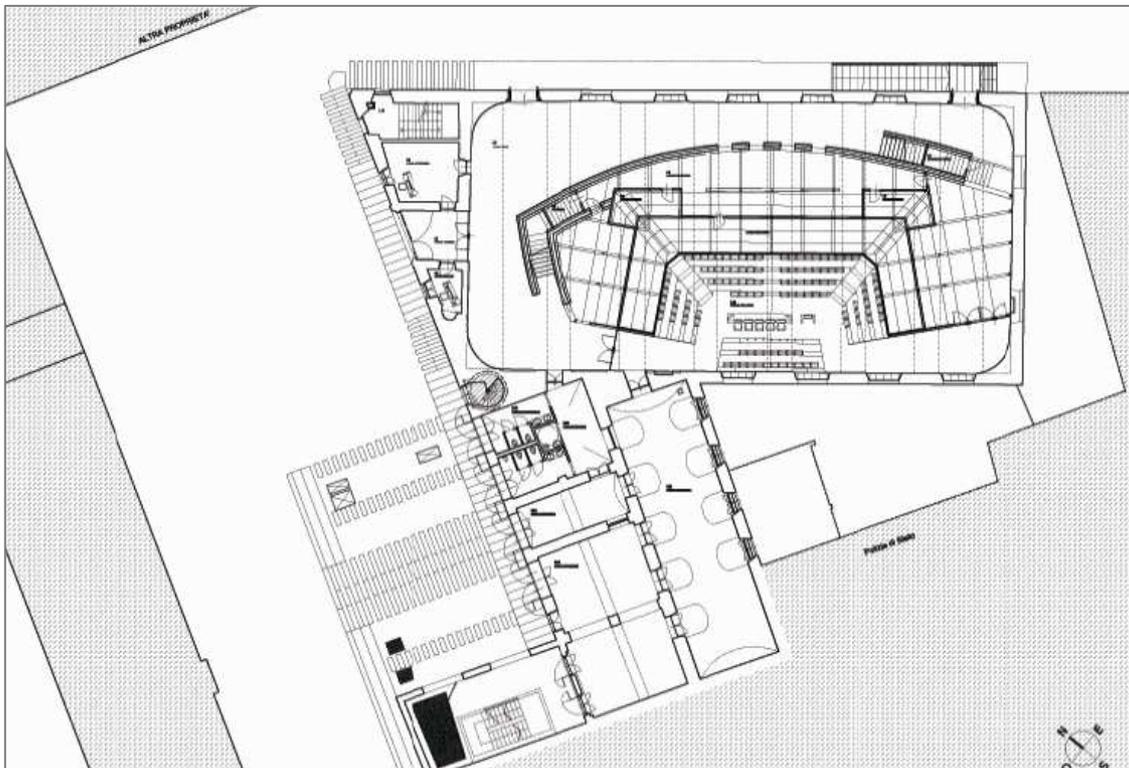


Fig. 4. Torino, Maneggio Chiabese. (© Agostino Magnaghi)

The main pillar of the whole operation is the ability to transform the pre-existing structure. Such “propensity to transformation” means the ability of the building to be transformed without being disrupted in its essential features (structure, horizontal and vertical distribution, façade composition). According to such principle, it was possible to guarantee an appropriate restoration and conservation of the pre-existing building while creating new theatre spaces. [...]

The challenge of the project has been that of introducing into the pre-existing rigid AEM station, theatre spaces characterized by flexibility and transformability of the scene. The planimetry of the former AEM station made it possible to build in it an “elastic” theatre space able to absorb different theatre requirements. In that respect, neither spatiality nor the structure have opposed or hindered the installation of heavy scene equipment or complex technological installations, which are today unavoidable condition for comfort and appropriate use of a theatre” (Magnaghi, 2006). The concept of the shells (fig.3) is greatly interesting as they assure energy and performance efficiency as well as full reversibility to the technological and functional “core” of the structure.(Milan, Simonetti, 2011).

#### **[Ex-Maneggio Chiabrese – Former Chiabrese Riding Ground]**

Last in chronological order but not least for importance vis-à-vis the urban context of Torino is the project for Aula Magna of Torino University, close to its completion (2012), within the premises of Cavallerizza Reale, service area of the Royal Palace and natural continuation of the the surrounding buildings. Until recently, more than 20,000 sqm of state property have represented a sort of self-contained nucleus, independent from the remaining of the city.

The intervention regards in particular the adjacent buildings of Chiabrese Riding Ground and the annexed stables. The re-functionalization is made up by two parts: the restoration of the pre-existing building and its integration in line with what envisaged in the planning for that area. The structure is inserted as per the principle of the “box in the box”, with a wooden and metal shell, fully reversible that fits perfectly in the pre-existing structure. The *auditorium*, housing about 420 seats, and ancillary service areas are conceived as an “autonomous machine”, that hosts and manages fully the necessary technological and functional installations (City of Torino, 2009).

#### **Conclusions**

The adoption of so-called “technological shells” is a factual answer to the requirement of harmonizing the preserved asset and reversibility criteria with contemporary architectonic expression. Torino examples show how the combined use of traditional and recovery materials, in an innovative and sustainable approach, draws a pathway of remarkable cultural and methodological value, high management quality of the architectonic heritage and in the practices of urban renovation. Such values and pathways are still largely unexplored.

#### **References**

- Baxandall, M. 2000. *Forme dell'intenzione*: 27-64. Torino: Einaudi.
- Brook, P. 1968. *The Empty Space*, London: Penguin.
- Nuova Aula Magna dell'Università degli Studi di Torino. *Complesso della Cavallerizza reale di Torino*, (s.d). In Comune di Torino, *Divisione Edilizia e Grandi Infrastrutture*, 9 Februar 2009.
- Maahsen-Milan, A., Simonetti, M. 2011. *Auditoria and Public Halls. The preserved Architectonic Heritage, in the Perspective of Sustainability 711-720*. In *Procedia Engineering*, 2011. Proc. intern. symp., International Conference on Green Buildings and Sustainable Cities (GBSC 2011), Bologna-Ravenna 15-16 September 2011. Elsevier: Rotterdam, Paris.
- Magnaghi, A. 2009. *Il teatro Astra: una rigenerazione senza fine*. In Davico Bonino G., Martone, M. (eds), *Scuola | Cavallerizza Reale | Astra*: 8-13. Torino: Teatro Stabile di Torino.
- Patón, V. 1990. *Perversión Didáctica*: 49-53. In *Arquitectura viva*, (ed.): Madrid.
- Romano, M. 1993. *L'estetica della città europea. Forme e immagini*: 68-71. Torino: Einaudi.