RECLAIMING THE PAST: ADAPTIVE REUSE IN THE DESIGN STUDIO

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Introduction

Carlo Scarpa’s remarkable surgical intervention in the medieval Castelvecchio in Verona (1956-1964) was considered for long the benchmark of contemporary creative conversions of historically valuable structures. Scarpa’s meticulous principle of distinguishing his intervention from the existing fabric by applying contrasting materials, sensitively and sensuously, has inspired a generation of architects to this day. As more and more less prominent buildings are emptied from their original functions, however, and their preservation becomes an ethic as well economic and ecological imperative, architects are implementing alternative design strategies to respond to the challenging quest of adapting old structures for new uses. In the case of the conversion of the FIAT Lingotto factory, in Torino, Italy, Renzo Piano, for instance, re-interpreted the 1920s Giacomo Mattè Trucco immense and impressive automotive factory by leaving its exterior nearly untouched if not for the two space-aged accents that hover above its roof. Other architects opted for more visual bold moves while intervening in existing fabrics, such is the case of Günther Domenig in the Nuremberg’s old Reichsparteitag building, or Coop Himmelb(l)au’s Falkestrasse roof top addition in Vienna where the new additions seem piercing or colliding with the old. In the case of the Caixa Forum in Madrid, Swiss architects Herzog & De Meuron audaciously elected to lift the existing 1899 built power station off the ground by removing its base, giving the old structure a weightless feel and projecting it well into the XXI Century. In other cases, architects have selected to reduce the existing structures to their bare loadbearing skeletons, then wrap them with contemporary envelopes, which hardly, if at all, reveal traces of their past as exemplified by the work of Baumschlag & Eberle in the Münchener Rück insurance building in Munich. Challenged by adding spaces to existing structures, other elected the unusual and difficult path of building underground, such is the case of architect Claudio Lucchin’s expansion to the Hannan Arendt high school in Bolzano, Italy.

But no matter the design approach, existing structures have provided architects with new grounds and constrains to stimulate the imagination and produce architectonic solutions that otherwise would have been impossible to invent. Yet, in general, schools of architecture have been reluctant to seriously address
the subject of adaptive reuse in their curriculum. This holds even more true in the United States where, for the most, considerations on existing buildings regardless of their age or historical value, are dwarfed by economic interests which place quick and unconditioned profits over the ethic aspect of conserving our built past as exemplified by the recent demolition of the John Johansen 1970 built Mummers Theater, lately better known as Stage Center, in Oklahoma City, or the razing of Tod Williams Billie Tsien American Folk Art Museum in New York by the insensitive hands of not less than MoMA.

Driven by a personal interest in the subject of adaptive re-use and in the unpredictability of design solutions that unmistakably rise from colliding programs, technologies and architectural languages, in conjunction with the desire to address the lack of interest usually found in schools of architecture on this branch of contemporary architecture, I have recently assigned to a 4th year architectural studio at Oklahoma State University an adaptive re-use project encompassing one of the most dear industrial buildings of Torino, Italy.

Foreword

Rapid changes in economical mindsets, spurred in part by the increase demands of technological innovation, led, in the early 1980’s, to a rapid abandonment of existing turn-of-the-century industrial buildings. The migration of manufacturing activities to new landscapes left European cities in particular with an immense wealth of industrial areas emptied from their working forces, but now occupying strategic areas of the cities as these expanded towards the outskirts.

The Italian city of Torino, has been experiencing an urban transformation that has few rivals in Europe. For long the city was associated with its industrious past, which was triggered after moving the capital of the newly formed Kingdom of Italy from Torino to Firenze in 1864 in route to its historical setting of Roma. Emptied from the central government and of its role as a capital city, Torino found in the emerging industry, especially automotive and filmmaking, the grounds to re-invent itself. By the early XX Century Torino succeeded in becoming the Italian capital of such enterprises, of “two vanguard technology businesses symbolizing freedom of movement, traveling and imagination – in one word, modernity”1.

The industrial monoculture infused, even if involuntarily, by the automobile industry in general and by FIAT in particular, meant that Torino’s welfare and financial destinies were at the mercy of a sole industrial sector. When, in the early eighties, the automobile industry experienced serious hurdles, the city was in the verge, as in 1864, of loosing its main source of employment, and possibly challenged with social, economical, and political unrest if such withdrawal would take place. To counterattack such scenario, the city administrators embarked on an ambitious program of urban transformation and on initiatives that would diversify the city’s economic core.

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Reclaiming the Past: Adaptive Reuse in the Design Studio

Context

One of the catalysts of Torino’s transformation was the adoption, in the mid-nineties, of the master plan developed by Milanese firm Gregotti Associati International. Taking inspiration from a proposition dating back to 1887 and known as the Borgata project, the new master plan proposed the interment of that stretch of the Torino-Novara-Milano railroad line which, on one hand had connected Torino to the Italian east and to the automobile and train factories within the city, it had inexorably divided the city, alienating the historical center from the urban development to the west. The construction of a six plus kilometer long underground bypass, currently on its final stage of completion, was perhaps the most ambitious part of the master plan. Its execution has not only stitched the urban wound, but has also supplemented Torino with two million square meters of public land bordered by an immense wealth of once in force industrial buildings, among which is the former Italian State Railway overhaul plant known as the Officine Grandi Riparazioni delle Strade Ferrate, or simply OGR. Built in the mid 1880s, for about a century the OGR conditioned the urban and social development of its surroundings. By the 1980s, however, the repair workshop had become obsolete and closed down. With its two essentially identical 48.68 by 183.06 meters rectangular buildings, parallel to each other and connected by a lower building almost of square proportion, it stands now, dormant, within the core of Torino’s urban re-development.

Fig. 1. Interior view of the OGR in 2006
Source: Alessandro Aimo.
With perhaps the exception of the Lingotto, the OGR is the industrial building that the people of Torino love most. If, on one hand, the love affair towards the building has been unmistakably transmitted by those that once worked in those natural light filled spaces to their children and grandchildren, on the other hand, it reached broader followers by means of extensive media coverage due to its location at the heart of one of the most remarkable sites of Torino’s rejuvenation program, steps away from Gregotti’s expansion of the Politecnico, the 2013 inaugurated high-speed train railroad station of Torino Porta Susa, designed by Paris-based Italian architect Silvio d’Ascia in collaboration with French firm AREP, Renzo Piano’s December 2014 completed 166 meter high Intesa Sanpaolo office building, and less than two kilometers from Torino’s historical center.

It was in these moving and emotionally charged, but immensely silent spaces of Torino’s OGR that the adaptive re-use explorations in the design studio took place.

Process

As I began shaping the studio project, I came to the realization that, unlike the Torinesi, my students would have no emotional ties to the OGR. What steps needed then to be taken to transmit the Torinesi’s passionate responses to a student body for the most born and raised in the heart of the United States and
one that had been barely, if at all, exposed to the complexity of historical and urban fabrics? What pedagogical strategies could be adopted to make the learning journey simultaneously appealing, memorable and provocative? I soon disregarded the idea of a traditional site analysis. The information that the students would have presented would not have differed very much from the one I would furnish with the project brief and my presentation of the OGR, its immediate context and the city of Torino. It was a must, however, that the students would assimilate as much as possible an understanding of Torino, its history, territory, culture, traditions, and people. The answer, thus, could relay only on developing a clever program for the OGR, one that could stimulate deep, yet potentially unexpected, research into the thousand facets of Torino.

In March 2002 the Divisione Settori Culturali (Department of Cultural Services) and the Settori Edifici per la Cultura (Department of Buildings for Culture) of the City of Torino, in collaboration with the Architecture Department of the Torino’s Polytechnic issued a programma di intervento, or intervention program, for the future use of the OGR. The plan recognized the importance of the OGR within its new urban context. The document recommended the creation within the OGR of a center for training and research on the contemporary city supplemented by new spaces for contemporary art with the aim that if the two structures would operate independently, they would nevertheless “jointly contribute to nurturing new ideas and practices for reflection on design, art, and architecture”\(^2\). In essence, the plan

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\(^2\) _Le Officine Grandi Riparazioni: un polo espositivo per la Città_, 2002.
called to transfer to the OGR those already established bodies of the City of Torino that were directly connected to the development and study of contemporary Torino such as the Urban Center and the OFFICINACITTÀTORINO, the creation of the Archivio d’Architettura or archive of architecture, charged with collecting Torino’s contemporary records “connected to the design, construction and management of architecture and the city”3 (Le Officine Grandi Riparazioni: un polo espositivo per la Città, 2002), and to provide for exhibition spaces for the extensive stored collection of renown Torino’s Galleria Civica d’Arte Moderna e Contemporanea (GAM), creating at all effects of a section of the OGR a branch of the GAM.

If allocating part of the OGR to the study and dissemination of the contemporary city appealed to me, proposing to the students a(nother) museum did not conform to my strive for enabling students to discover Torino through a journey of meaningful research. In groups of five, for a total of six teams, I thus invited them to propose alternative program propositions to the expansion of the GAM within the OGR with an understanding that the new recommendations must have been rooted and spoke about Torino and/or its territory. In other words, as Torino emerged from a lethargic period thanks to an energetic city administration coupled with hosting the 2006 Winter Olympics, what the OGR could accommodate in its empty halls to assist Torino’s aspiration of being considered as a must stop of the international (contemporary) architecture pilgrimage? Each team solution would be judged, I stated, against each other in a formal presentation, and the frontrunner would have shaped the second part of the assignment. I made clear that no potential architecture solutions should have been developed or proposed for this phase, but just strong programmatic ideas well supported by research and studies, and presented in clever and convincing manners. No format for the presentation was suggested, even though digital media was encouraged. Alongside requesting proposals for the future of the OGR, I also instituted a second parallel research to facilitate the students’ understanding on how to intervene in existing and historical buildings in a contemporary manner. They were to research two adaptive re-use projects, one of which to be taken from a list I furnished, and present the finding in a second formal presentation to the class using a multimedia software of their choice.

There is no doubt that the competitive character implemented in the assignment shaped positively the outcomes. Notwithstanding a harmonious atmosphere among the students, each group essentially secretly worked towards their propositions and on how best to communicate it. The results were fantastic. With perhaps one exception, the programs presented took indeed inspiration from intense and curious investigations on Torino in particular and on the Piemonte region, of which Torino is its capital, in general. They were supported by superb visual presentations ranging from interactive physical three-dimensional displays to clever and engaging PowerPoint(s), to web media, to video. The following summarizes the six students’ infused programs for the future of the OGR:

3 ibidem.
Sens-o-tory centered on exalting, celebrating and studying the senses and proposed a program that intertwined research and exhibition spaces. synoptic.dev focused on exploring how various form of communication define people and cultural societies. The idea rose from observing how in recent years Italy has embraced the new and unprecedented waves of various immigrant ethnicities. The City of Torino website, for instance, is concurrently published in seven languages! The OGR would become a center for (re)capturing the ideals of community and human interaction with the understanding that individuals learn, play, and behave differently as their journey through life projects them on different paths. tent(to) fostered, encompassed, encouraged, promoted, and displayed creativity made in Torino. The centro di design culinario capitalized on the extraordinary richness of Italian cuisine promoting the local flavors, traditions and inventions. The OGR would mesh experimentation, taste, display, and broadcast. Interesting enough, and without our knowledge, as my students were developing their proposal for a culinary and marketplace center, a similar project, Eataly, was being developed in the city’s Lingotto neighborhood. Housed in another reclaimed industrial site, the Carpano Vermouth factory adjacent to the former Fiat Lingotto factory, Eataly aimed to celebrate regional and organic food by providing market places, restaurants, and education facilities. gaa_galleria arti alternative proposed galleries and center spaces for alternative art fields and for those art forms that are somehow transitory and emerged as a form of protest and dissent. cinema_TO exploited the fact that Torino was the birthplace of Italian cinema. If various historical events led to the migration of such industry to Roma, reclaiming cinema as a vital aspect of Torino and, indirectly, injecting life within the OGR, was the aim of this proposal. Within the OGR would find spaces for production and vision of independent and experimental film (students disregarded including an academic aspect within their program as a new film school had just opened in Torino).
Having reacted positively by the various program propositions, it was decided to forfeit selecting a sole proposition in favor of giving each student the opportunity to develop architecturally the program developed by their team. To their program, the OGR had to accommodate spaces for the Urban Center, the OFFICINACITTÀTORINO, the Archivio di Architettura, and spaces for a design farm, an incubator for newly established or small design firms. Hard, however, was forcing each group to develop a somehow detail spatial program of their propositions, perhaps in part caused by a developed anxiety on the fast approaching deadline for the project.

Notwithstanding the fact that the OGR had been placed in the historical building registry and its restoration had to follow the strict conservation regulations imposed by the Soprintendenza per i Beni Ambientali e Architettonici per il Piemonte, a government agency that responds to the Italian Ministry for Cultural Activities and Environmental Preservation, by no means this project’s concern was about restoration. It was an exercise of adaptive re-use, an exercise of addition while retaining the flavor of a different epoch, an exercise in injecting new functions in spaces rich of memories, an exercise of juxtaposition of shapes and materials, and an exercise of immense actuality in the European city context. However, to avoid a possible alienation from the reality of reclaiming existing buildings for new uses, miscommunications about the exercise, and re-emphasize the importance of the existing structure, I implemented few constrains to the intervention. No demolition, for instance, of any of the exterior walls could occur unless needed to respond to safety or code issues. Part, or all, of the roofs and their structural components could be removed for vertical expansion, but the removed parts should have found storage within the OGR site. Zero lot line would govern the site allowing for expansion as needed. Height limitation was set to 100 meters, while no limitations were imposed on underground expansions.
Finally, with the intend to ship the results to Torino for a planned exhibit, paired with a personal obsession on alternative graphic communications and formats, the final presentation had to fit in a container of 62 inches (158 cm) maximum when totaling length plus width plus height, but with a height not to exceed nine inches (23 cm) and a weight of seven pounds (3 kg) maximum.

Avoiding standard presentation format of 20 x 20 inches or 20 x 30 inches boards liberated the students’ expressive spirit and induced, at large, presentations more in tandem with the objectives of each propositions. The idea of packaging the presentation bore those fruits that I had hoped for: blurring the disciplines of design while promoting design challenges at various scales.

There is no doubt that the project presented various degrees of difficulties. If the students welcomed the novelty of the architecture investigation, they struggled in coming to terms with the OGR’s size and the paradigm shift presented by creating architecture within architecture. Yet the almost surreal spaces of the OGR depicted by some of the provided photographs augmented in the students a sense of responsibility, respect, and obsession. Responsibility in maintaining as much as possible the original spatial and light quality of the repair shops, respect for what the OGR had meant for thousand of people who aged within its halls and the OGR role in shaping the social character of its surrounding neighborhoods of Borgo San Paolo and Cenisia, and obsession for creating an architecture that simultaneously expressed personal languages, be contemporary in nature, aggressive perhaps, but delicate on the OGR.

Despite my personal draw on the subject of adaptive reuse and my professional experience on the matter, it was the first time in my academic career that I assigned a project so intertwined with an existing and historical building. The pedagogical structure depicted for the project was untested, and while devising strategies for the students’ development of the project, I wondered about the project’s repercussions. Would, in the ingenuous minds of the students, the project perceived as bordering interior design and potentially as having limited or no value in their quest for future architecture employment? Would the project be too difficult for a first semester fourth year studio, considering that, at the time of assigning the project, our curriculum lacked a third year spring semester design studio? The quest for academic excellence, I believe, must find its seeds in experimentation and perhaps it needs to be accompanied by a bit of apprehension. The OGR adventure testifies it.

If, and obviously, there were differences in quality offered by the students’ various architecture solutions, the class responded positively to the assignment and the talk of the project spread rapidly across the school. More often than not, students from different years would mingled among our studio, asking questions, looking eagerly on how the problem would be solved, and awe at the rustic beauty of the OGR. The OGR indeed touched the students. The project was an eye-opener for our students who are being raised in a society mostly disinterested in preserving buildings that shaped its making. They only lamented, and rightly so, the relatively short time allocated to the assignment.
Fig. 6. Adaptive re-use proposition by student Chris Phillips
Source: Chris Phillips.

Fig. 7. Adaptive re-use proposition by student Scott Goodner
Source: Scott Goodner.
Conclusion

In our search for innovation in teaching, our concern on producing shocking (visual) results, and our fascination with technology and its ease in creating complex geometries, we have come to ignore the essence of the making of place(s). The history of the city, paraphrasing Philippe Robert’s introduction to the book *Ristrutturazioni*, is the history of its successive stratifications, of the restoration of its monuments, and of those additions that still preserve the flavor of different epochs. Since antiquity, buildings have morphed to adapt to political, economical, and cultural changes. “To intervene on an existing building,” continues Philippe Robert, “means to compose with it, to play with constrains that are in addition to the ones imposed by the program and regulatory agencies. But these are the constrains that stimulate the imagination and produce architectonic solutions that otherwise would have been impossible to invent.”\(^4\) The branch of adaptive reuse in architecture cannot continue to be ignored by the schools of architecture. It must find the deserved space within the design curriculum. Moreover, its own nature promotes meshing unmistakable various branches of humanity, art, and engineering, fostering, therefore, those multidisciplinary engagements that are avidly promoted by university’s administrators, but that are sadly rarely entertained. The pedagogic possibilities of adaptive re-use projects are innumerable, and the educational journey memorable and possibly life changing as the time spent in creating possibilities for the Torino’s OGR proved for both my students and me.

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