

DOCTORAL STUDIES CONCERNING CONTEMPORARY SOCIAL NEEDS: THE FLEXIBLE REUSE OF ABANDONED BUILDINGS AS A PH.D. RESEARCH AREA OF DESIGN

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Abstract

The aim of this paper is to discuss the practice of refunctionalization, considering the conversion of abandoned buildings to “residences” instead of demolition.

It is assumed that these abandoned “empty boxes” in the contemporary urban environment can be considered as part of the territorial capital, and it is suggested that this heritage should be socially and economically reintegrated through strategies of reuse.

The social and economic dynamics that can contribute to the reuse of these abandoned buildings are highlighted. Design plays a fundamental role in the refunctionalization process, responding to new social requirements.

From the perspective of new social dynamics and a regenerative economy, these “empty boxes” offer a great potential, and can be thought of as space generators with an undefined function: an ideal platform to receive uncertain social dynamics (Bauman, 2000). The continuous reinterpretation of these spaces, as opposed to demolition and construction activities, can be seen as an organic and sustainable process of adaptation.

To illustrate this phenomenon some emblematic experiences related to the practice of reuse are mentioned, e.g. Buenos Aires and Milan.

The analysis of these experiences provides a framework for reflecting on the practice itself, and for identifying new dynamics related to the use and reuse of space. The importance of the role of design in this context is emphasized, focusing on the humanization of empty spaces in a versatile and flexible way. Experiences of spontaneous reuse reflect contemporary everyday values. Design can connect these new social values in an interface between the user and the space.

Finally, the importance of the empty space as a neutral, totally changeable place is underlined. This condition must be considered in the briefing for interventions on abandoned spaces and in planning a generative architecture using mutable spaces.

This analysis is part of a Doctoral Design Research project that is being carried out at the *Politecnico di Milano*. It is assumed that the design approach can help to identify new ways of seeing “old platforms”, re-linking these “obsolete” assets to contemporary socio-economic needs. This means that design can be seen as a crucial element in sustaining a strategic dialogue between what exists and what can be, promoting a competitive and sustainable reactivation of local resources.

Introduction

Identifying different uses inside the contemporary city is a difficult, unclear process which involves contemporary research in a variety of fields.

¹ This work is part of a doctoral research that has been carried out at the Politecnico di Milano

The phenomenon of urban abandonment, which can be seen particularly in the industrial and office sectors, makes it difficult to identify the specific use of a territory.

In fact, the idea of abandonment was foreseen: in the 1990s, as a result of the continual introduction of electronic technology into different production processes, mainly in the industrial sector, the first separation between society and industry was observed.

According to Branzi (1999, p.166), "...post-industrial in the strongest sense of the word means that industry, accelerating all its automation processes, is separating from society, and exists in an independent channel, a specific and separate economy".

Nowadays, to talk about the abandonment of the office and industrial sectors is to call for a new context which is continually changing; it means considering a world that builds itself around the new market dynamics, which is to say globalisation.

In this context, new technologies which allow different dynamics of work become important, with a network economy in an information society, a scenario that makes a new modernity possible.

According to Rifkin (2000), the new era involves great changes, replacing physical strength of buildings with mental and technological strength. For him, the industrial era was a historical moment in which gigantic machines were invented and built, and the idea of beauty was related to "weight and density", with grandiosity synonymous with beauty. He underlines the enormous changes taking place: "*In the new era, mind dominates materials. Lighter product, miniaturization, shrinking work spaces, just-in-time provisions, leasing and outsourcing are evidence of the outmodedness of a purely material view of the world*". (RIFKIN,2000, p.75)

The abandonment of the office and industrial sectors is seen as the result of a great variety of factors connected to new economic, political and technological dynamics which directly condition the use of territory (Gastaldo, 1989).

The crisis in the office and industrial sectors is also a result of obsolete organizational and production models. Big cities, mainly in technologically advanced countries, have great difficulties with the management of these empty spaces. This is confirmed by the continual migration in the industrial and service sectors from the North to the South and East, and the rise in outsourcing in the office sector.

Conventional logic views these boxes as a growing problem with no apparent solution, the hardware of "heavy modernity" (Bauman, 2000) ruled by a mechanical aesthetic and the Cartesian logic of mass production which is ingrained in their structures.

Context of possible reuse

These empty boxes within the urban fabric of big cities can be viewed in two possible ways: either as a profound discontinuity in the structure of the city or as the basis for an important renovation. *I.e.*, the same situation can be interpreted as a problem, or as an opportunity for the abandoned city to refunctionalize itself.

The possibility of reusing these empty boxes is highlighted particularly by the potential which architecture has shown throughout its history to adapt itself to different contexts and functions.

In the dynamics of a new modernity (Beck, 1992), the possible reuse of abandoned buildings means reconsidering empty spaces as a value, an ideal platform for the development of new scenarios which meet the social and economic demands of this new modernity.

For Zevi (1978), architecture is also the result of this relationship, a participating presence in the empty space – “the negation of the solid” as a definitive state - which requires a social perspective.

To consider the refunctionalization of these empty spaces is above all to be opposed to demolition, and to see the problem as a great opportunity for the renovation of empty spaces in the urban network via a sustainable solution.

In this context, Mumford (1961) underlines the fact that it is not possible to renovate the city by the continual substitution of old structures with new buildings. In his opinion, this continual substitution illustrates the obsolescence of urban development which relies exclusively on the equally obsolete ideological foundations of “mechanical progress”.

An important economic context is developing which is favourable to the reuse of these abandoned spaces. The phenomenon of abandonment has been a topic of much debate recently, and in this paper is emphasized not as a problem but as a great opportunity for an emerging economy on the rise, based on and sustained by the process of refunctionalization, as supported by Cunningham (2004), who underlines: “*the restoration of our natural and built environments has become the greatest business frontier of the twenty-first century*” (CUNNINGHAM, 2002, p.289).

Other studies have also contributed significantly to the hypothesis of reusing these abandoned boxes, in line with current social dynamics.

According to Beguinot (1999), our cities are “city-networks”, connected on a planetary scale, in which the physical relationship with the urban fabric is often detached from the “network” itself. The network is built and nurtured by the new “species”, the *homo technologicus*, as described by Longo (2001). The author considers that society is in a perfect symbiosis with technology, the result of which manifests itself in the formation of a “global brain”. This “*symbiont*” has been dealt with by scholars of transversal subjects: Ken Friedman, Giuseppe Longo, Guido Martinotti, Dematteis and others.

This network, which Friedman (1996) calls “Virtual Cities”² is something that overlaps the physical space of the cities. In this context, the hardware of “heavy modernity” (BAUMAN, 2000) is part of these disconnected points between the urban fabric and the global network.

Based on the concept of “smart connection”, Beguinot (1998) considers that architecture can adapt itself and interconnect with the global network. In this way, the “city’s hardware” could be included in the “smart connection”, and the result would certainly help to re-qualify and revive the urban environment, improving the quality of city life.

² To Ken Friedman (1996), the virtual cities will, in most important ways, serve physical cities.

Regenerating³ these spaces might be considered an engine for urban development (Dematteis, 1999), as well as an opportunity to conceive a new and flexible architecture of the city – a “non-material architecture”. The empty space, permeable in all directions, is an indispensable element of the “wired city” (Beguinot, 1999).

Connecting these boxes (containing empty spaces) to the network also means integrating new sociological dynamics of accommodation. It doesn't refer to old dynamics⁴ that characterized modernity, but instead the integration of the new social grammar of the new modernity. According to Bauman (2000), in a society which is experiencing great mobility, and in which uncertainty is a constant element, “not much can be won with long-term considerations.” If solid modernity considered perpetual duration as the ideal, “fluid” modernity does not consider the function of perpetual duration. “The short term has replaced the long term and made instantaneity its ultimate ideal”. (Bauman, 2000, p.145)

The “refunctionalization” of these spaces according to the current social and technological scenario might also be an opportunity for a natural and steady upgrade of the city itself.

Changing uses in a flexible way

The reality of the abandoned city (and its potential use value), could be connected to the remarkable work of Anselm Kiefer⁵ - “*The Seven Heavenly Placet*”- an image of the city through abandoned areas. Kiefer (2004) exhibited a sculpture representing “abandonment” in the abandoned Breda⁶ factory . The meaning of the sculpture is reinforced by its location in an abandoned building. Metaphorically, we can assume that the “sculpture of the abandonment” represents reality. It provokes connections (the feeling of “abandonment” projected on to the visitor) and being itself evidence (of the phenomenon itself), contributes to make society aware of the value of the abandoned city. Some images of this experience can be seen in Figure 1.



³ According to the Roberts' definition (2000, p.17), “urban regeneration is a comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change”

⁴ According to Bauman's discussion of modernity (2000, p.33), “human activities were destined to be obedient, mechanically executed and without mental faculties being used, excluding any spontaneity or individual initiatives”.

⁵ Kiefer's experience represents as an important connection to the contemporary city, with its bent for relating directly and deeply to different contexts; according to Sozzani (apud Kiefer, 2004), it represents a precious interplay of archeology and Modernity, signs and languages, shapes and volumes – “Anselm Kiefer's work seemed to me supremely consonant with the vastness and intensity of a similar exhibition space.”

⁶ The Breda factory is industrial building abandoned, of monumental dimensions. This is a space that has been host same ephemeral cultural activities. According to Sozzani (apud Kiefer, 2004), it is an ideal space all set for use, simply awaiting a sign, a gesture, an aesthetic concept perfect in its many immense angles and implications, light and shadows: H.B (Hangar Bicocca)

FIGURE 1. “The Seven Heavenly Placet”.

Other examples illustrate how these abandoned buildings are currently being refuctionalized and integrated into the ‘residential’ sector.

The experiences reinforce the importance of the design process to connect the “new” social grammar represented by Bauman (1999), the importance of the new economy (*restoration economy*, by Cunningham, 2002) and the continuous reinterpretation inside these empty boxes.

The purpose here is not to give an exhaustive and individual picture of both these experiences; however, some common aspects are worth mentioning. Both examples occurred in different contexts and at different times. The first one, the Darwin Loft, is situated in the Palermo quarter of Buenos Aires. The project was developed in the 1970s by the architect Giesso. This loft is the result of the refuctionalization of a famous old cotton factory, and was initially planned for residential use.

Some examples of this reintegration of spaces into the new dwelling can be seen in Figure 2.



FIGURE 2. Darwin Factory, Palermo quarter, Buenos Aires

Another experience in the same sector can be seen in the Richard-Ginori⁷ ceramics factory in Milan. The refuctionalization process is not finished yet, but the partial result reflects scenarios of new lifestyles which are considered out of the ordinary, as can be seen in Figure 3.



FIGURE 3. Richard-Ginori factory, Milan

⁷ Richard Ginori was an important ceramics factory which was considered an important point of reference for the quality of its design. This renowned industrial ceramic sector was founded in 1923, and its art director was Gio Ponti.

Although each case emerged in a different context, common aspects can be noted:

- a) they are ideal platforms for new lifestyles, considered unusual in relation to standard interventions .
- b) the external appearance and configuration cannot be linearly interpreted by an external observer (it is an old industrial building), *i.e.* the internal use of the empty space is no longer foreseeable (it looks like an old industrial building, but actually it is an empty space in continual reinterpretation into different functions).

It is important to emphasize the common aim pursued by both projects. Both blueprints represent empty boxes intended for a well-defined use (residential). In spite of this, an undefined and impermanent use is noted, meaning that the user is an active player who reinterprets the space according to his changeable needs and desires. This nebulous use reflects the uncertain scenarios of different sectors. The different uses are constantly replaced by these experiences, and the practice of heavy rotation of use can be observed.

Thus, we can understand an intelligent connection, reminiscent of Beguinot's concept (1998): these empty boxes can *(inter)connect across* different uses and sectors, and therefore can resist new and continuous changes.

It is important to note that the continuous change in using the empty space is not related to the physical world (hardware). Flexibility and elasticity become possible because of the relationships (software) between objects and users that dynamically configure the use of the space. Architectural intervention is limited to the structure of the box. Inside, the "owner of the project" is the user.

Unquestionably, Design contributes to sustain multiple interpretations of space by supporting the development of well-adapted interfaces. The idea of open and interactive projects, meaning an "unfinished game" to be fulfilled by different users, is the crucial point sustained in this work. It follows an organic project briefing. These experiences show clearly that nowadays the only certainty is uncertainty and the only constant is change, as corroborated by authors such as Drucker (1969) and Senge (1994).

According to Rastogi (1999), "rapid, relentless change in products, markets, technologies, business structures, and competitive areas is the new reality confronting companies and managers across the world". This uncertainty can be observed through the process of reuse of buildings.

These experiences reinforce the importance of considering the reuse of empty boxes carefully. Planning an organic project means promoting the system's capability to give different answers to questions governed by social uncertainty (Bauman, 1999). Design must consider resilient organizations, in which life's shapes are fluid, and flexibility is taken as a constant of the system (Manzini, 2004).

Reflections on design practice

The assumption that the reuse of empty abandoned spaces could represent a sustainable and highly valuable way to update the urban fabric is supported by systems of social, economical and technological relationships. As stated by Beguinot (1999), "*a concept of change in architectural space is necessary, to bring about a new design methodology by which a new, possibly*

'intelligent, architecture, can be produced'. A space that can be continuously adapted is extremely welcome.

It is important to consider the Design approach in this context. The considerations presented above lead to a set of questions related to the Design role in the refuncionalization process of abandoned buildings towards to flexible metropolis.

- What is the Design role in the relationship between the user and the space that experiences refuncionalization?
- If the refuncionalization process doesn't present a definitive plan (as happened with the old modernity), what are the ways to get a project to be changed continually?
- To conclude, how could the organic briefing sustain a desired "imperfect", incomplete project which is to be continually fulfilled through different users and by different sectors?

There are no simple and direct answers for these questions. However, the questions outlined can contribute to the comprehension of the refuncionalization process, signaling some directions to be pursued. The importance of research to sustain the refuncionalization process of the abandoned "capital" is reinforced.

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References:

- Bauman, Z. (1999) La società dell'incertezza. Bologna, Il Molino.
- Bauman, Z. (2000) Liquid Modernity, Polity Press, Oxford.
- Beguinet, C. (1998) L'architettura è intelligente se è capace di (inter) connettere. Telema, No 15, Inverno.
- Beck, U. (1999) Risk Society: Towards a new modernity. London, sage
- Branzi, A. (1999) Design Italiano Una modernità incompleta. Milano, Baldini&Castaldi.
- Castells, M. (1996) A sociedade em rede. Lisboa: Fundação Calouste Gulbenkian, 2002.
- Cunningham, S. (2002) The Restoration Economy - The greatest new growth frontier. San Francisco, Berret-Koehler Publishers.
- De Matteis, G. (1998) Non basta una forte identità, la città vive solo se è un "nodo". Telema, No 15, Inverno.
- Druker, P. (1969) The age of discontinuity: Guidelines to our changing society. New York: Harper&Row
- Friedman, Ken. (1996) Restructuring the City. Thoughts on Urban Patterns in the Information Society. Stockholm, The Swedish Institute for Future Studies.
- Gastaldo, P. (1989) Cosa c'è dietro i vuoti. In: AAVV (1989) La città Europea. Nuove città e vecchi luoghi di lavoro, Bologna, Ed. Fiere di Bologna.
- Kratchmarov, Z. (2004) Lo specialista? Si trova in India. Economy, No 20, anno II , Maggio, pp. 92-98.

- Kiefer, A. (2004) I sette palazzi celesti. Catalogo della mostra. Hangar Bicocca, Milano, 2004. Paris: Edition du Regard.
- Manzini, E. (2004) Il design in un mondo fluido. In: Bertola, P., Manzini, E. (2004) Design multiverso: appunti di fenomenologia del design. Milano: Edizioni Poli.Design, pp.15-21.
- Martinotti, G. (1993) Metropolis. Bologna, Il Mulino.
- Martinotti, G. (1998) Il vero centro si è già spostato non è più "dentro", sta in periferia. Telema, No 15, Inverno.
- Mumford, L. (1961) A cidade na história: suas origens, desenvolvimento e perspectivas. 2nd. ed. Rio de Janeiro: Martins Fontes, 1982.
- Rastogi, PN. (1999) Managing constant change. 1st ed. New Delhi: Rajiv Beri for Macmillan India Limited.
- Roberts, P., Sykes, H. (2000) Urban Regeneration. London, Sage Pub.
- Rykwerk, J. (2000) La seduzione del luogo. Storia e futuro della città. 3rd ed. Torino, Einaudi.
- Senge, P. (1994) The Fifth discipline: the arte and practice of the learning organization. New York: Currency Doubleday

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