Transforming the Built Environment to Accommodate Low-income Segments of the Population

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Abstract

After radical political and economical changes in the country, denationalisation, social differentiation and ruthless capitalism caused an increased population of low-income families, single parent families and homeless people. They have been faced with a massive lack of available low-cost accommodation. The paper describes the development of three different projects during the last twenty years. They had different starting points and suffered different destinies. An effort to transform a listed industrial building to accommodate homeless and low-income families did not succeed as it was found too expensive. A single workers dormitory however, has been transformed quite satisfactorily into rental flats of moderate standard. An ambitious local housing authority project to eliminate squatter settlement has been modified in the middle of the construction process to offer starting homes for young couples and professionals. These three examples represent only a small part of the overall continuos process of changes and transformations of built environments, spontaneous or organised. In a way it may be recognised as a sort of recycling of not only materials, but also of sites and buildings.

1   Introduction

The process of transforming an environment to improve quality has many levels. It can be observed as a simple basic maintenance of a building (cleaning, painting, changes of finishes, replacing plumbing, windows, roofing and similar); it can be implemented as a large and radical refurbishment of an old building or even demolished and replaced with a new one. At the other extreme side of the phenomenon discussed here are large-scale urban or even regional projects. Several well-known examples can be listed here: from the restoration of Rietveld´s Schröder house in Utrecht or Schindler´s house in California to the Swedish project Bo02 in Malmö (transformation of the old port into a residential complex) and projects like Almere in the Netherlands or the Thames Gateway in London
There are many reasons and initiatives for transforming the environment which need to be considered:

- the elementary need for settlement (like Greek colonisation, Roman conquests or the Dutch claim of land from the sea) which means transforming "wilderness" (forest, sea, marsh) into a habitable area;
- the present state of the environment (or building) may no longer be satisfactory; it may be old, badly maintained or poorly equipped; it can merely be "out of fashion" (the general state of mind after the Modern style prevailed);
- the needs or way of life have changed, which is quite common due to generation cycles (new technical accessories, new materials, higher levels of indoor comfort, more cars, information technology);
- the aspirations and expectations become higher than what the existing environment (site, building) can offer;
- the building or site is no longer needed for its initial purpose (industrial complexes, warehouses, ports);
- the owner has changed (especially due to historical and political reasons);
- the price of the land has radically changed (usually augmented);
- and so on.

In the limited field of this paper, three case studies are presented. Prevailingly architectural features shall be discussed in terms of special initial conditions, different outcomes and different experiences to be learnt from them.

In a certain way, the process of transforming a building or site may be looked upon as the process of recycling. At a high time of throw-away society and growing global consciousness about sustainable behaviour, the buildings are to be re-used as a whole if not only as building material.

There are three different examples of recycling analysed here. Each case has its specific circumstances.

a) Recycling a listed industrial building

- strict heritage preservation rules
- rigid and inappropriate structure and dimensions
- poor state of building fabric
- substantial investment needed
- site limitations
- victim to political and economical changes

b) Recycling a modern building

- rigid structure (usually concrete)
- poor insulation and plumbing
- generous site conditions (due to modern urban planning)
- no problems with tenants and ownership (but not always)

c) Recycling (removing) people

- social (political) engineering
- impossible task of organising people who live on the social margin
- idealism of planners and architects (the gap between plans and real life)
- self-help initiatives: inherited attitude or welcome drive.

2   Case study I

(Recycling a listed building)

The industrial complex TEOL was built at the beginning of 20th century as a tannery. The era of early capitalism brought forward many such establishments in the country. As a rule, those first industrial buildings are not entirely different building types as other objects of similar size. Apart from concrete structural elements to support heavy equipment or cisterns, brick masonry prevailed and wooden roof structures with ceramic tiles matched the existing buildings surrounding them (Fig. 1).
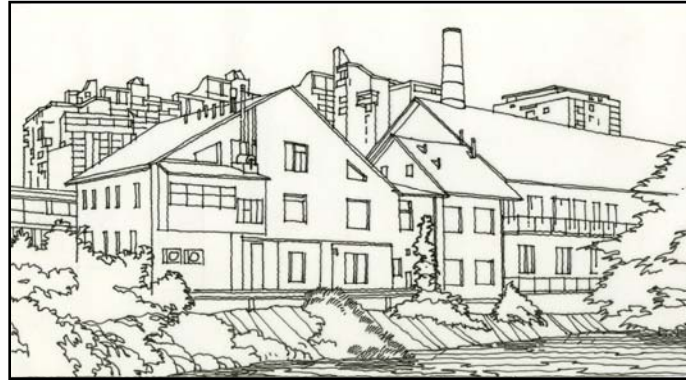

Figure 1

Initially, the plant was situated at the outskirts of the town, taking advantage of its position between the river (for technological water and used liquids disposal) and the main transportation route eastward from the town centre (road, railway).

During the last century, the town has spread over to the suburbs and today, the factory is found in the centre. Around it, a local community centre has developed with an open market, shops, a cultural centre, offices and residential buildings. Due to political and economical changes, the factory has suffered a series of transformations, adaptations, changes of use as well as, a sequence of different owners (nationalisation 1945,... denationalisation 1991). For a long time, it was a chemical plant that produced washing powder. Later, it was abandoned as a major pollutant of the nearby residential development. Finally, the successors of the original owner received it back. For them, it represents a big burden now, hard to manage and even difficult to raise enough funds for its maintenance. They hardly find tenants to let the building by parts. The site is virtually built-up; there are no parking lots for any new businesses. The overall real estate market situation is not in favour of such buildings as the retail and services sectors have moved from the town centre to the new shopping malls outside.

Further limitation for any radical transformation is the fact that the building has been listed as an industrial architecture heritage. So its basic tissue, dimensions and features must be preserved.

Only two possible scenarios remained feasible:
– maintain the building in the present shape and let it as a whole or by parts, or
– reconstruct it under the strict surveillance of heritage institutions and give it a new content.

The first possibility was found only as a temporary solution. The second one was accepted by the owners as a promising decision under the condition that some fundamental needs would have to be met:
– provide enough parking lots,
– use the existing structure with rather moderate spans and large floor to ceiling height, and
– establish appropriate access, isolation and safety.

The first impression when visiting the site is double-sided. The southern side on the river bank is open, sunny and inviting, with a view to the distant hills. The other side is a dull street with a narrow sidewalk and busy traffic. The architecture is rather depressing, an eyesore, and even the dark brown colour contributes to the overall picture.

Such were the conditions at the beginning of the endeavour to find or to invent a proper new programme. One way to do it was for the owner to find interested developers who would be prepared to invest in any profitable project. The other possibility was to let architects and planners prepare possible solutions within the frame of existing urban development and with regard to the state of the existing building. Several proposals were made as follows.

a) The idea to demolish the building and erect a new luxury condo was rejected for obvious reasons.

b) The idea to establish a mixed-use programme was proposed and an outline plan made. It consisted of offices on the northern (streetwise) part of the building, a limited parking lot on the ground floor, a set of medium sized rental flats on the first floor, and emergency dwellings in the attic (Fig 2). As the local housing authority had a long list of people who need to be sheltered for various reasons (homelessness, family abuse and violence, unemployment, removed people, single parent families) as well as a number of young couples waiting for reasonable starter homes, it was expected that they would realise the opportunity and join the project. That did not happen.

Figure 2

c) Another proposal was put forward to organise a student dormitory. The university in Ljubljana had over 15.000 students and the problem to accommodate them was growing larger. The building was recognised as ideal for a student residence combined with a youth hostel. Two obstacles were too rigorous to meet: the price of executing the project was found to be too high and sufficient parking was nowhere to be provided for (today students have cars too).

The problem has been left open. For commercial projects, it is obviously not profitable enough and for the much needed and appropriate programmes, it is too expensive. The question of a quality of living environment has been left to ideas on paper. One possibility may be in using existing interesting and unusual spaces and structures to create attractive architectural solutions (lofts, high ceilings, old details...), in taking advantage of the exceptional site (sunny river bank) and in improving and modernising the quality of materials, insulation, heating and safety features. On the other hand, the opposite can be stated. It would mean the concentration of people, cars, waste, traffic, noise...

3 Case study II
(Recycling a modern building)

The heroic era of building large housing estates in a manner of short-term actions was at its highest in the sixties and seventies. The socialist government tried to industrialise the country not only to produce, but also to change the social structure of the country so as to eliminate reactionary bourgeoisie and landowners and establish the rule of proletariat. Along with creating new industrial estates, the need for labour was met by planned immigration from other (southern) parts of the country. These came first alone without their families and had to be sheltered immediately. The type of the single worker residences was developed and erected according to local needs.

These buildings were similar to other institutions of the kind (barracks, student dormitories, hostels...). They had to offer sleeping facilities (no single bedrooms of course), washrooms, sanitary equipment and minimal common space. Usually, labourers got their meals in cantinas which were not part of the residence but provided for on the premises of their work (building sites, factories).

It was rather ideal at the beginning according to the concept. But these workers wanted to attain a better life, to establish families or to bring them from their homeland if they already had them. There was a constant labour flux – people married, moved out to flats (which was by the way built by themselves) or they even built their own house. After initial immigration ceased and there was no more need for single workers, these buildings were found to be obsolete. Their living standards were too low and they were rather badly maintained. At the end, it was necessary to renovate them. There were two possibilities:

– transform them into a hotel-like establishment, that meant introducing bathrooms, cooking nooks and similar, or
– reconstruct them and provide standard flats to let or even to sell.

The common structure of these dormitories had been based on multiplication of room cells in a set of equal spans between concrete cross walls, constructed by the wide-spread space form system. Thus, the possibilities of organising a reasonable flat layout were limited. Fortunately, all housing projects of the time had been built following the principle of equal spans. So the rational concept was there and solutions too. The only technical problems were to add balconies and to cut reinforced concrete walls without weakening the seismic properties of the structure.

The project has been executed with satisfactory success. It was made possible since the owner was a construction company (state owned) and it had just started working on the empty building. The result can be described as a good example of gaining higher quality in several aspects: the new tenants were small families of standard age, income and background social structure – as opposed to the previous "ghetto" of a single male population; the number of persons per building has decreased (lower density – lower environmental load), the use of the area around the building has been intensified and enlivened, the building tissue has been renovated, and its expected life span prolonged.

4 Case study III
(Recycling – removing – people)

Every planning and design process is based on social and economic circumstances. One common feature in every major town in the 20th century is squatter settlement. It always appears to provide temporary (usually illegal) shelter for migrating people looking for jobs or just an opportunity that a big city represents and offers.

There is no need to describe such an environment. There are as many solutions for it as there are different settlements. The most important difference may be in the size of the problem. While in Khartoum, Capetown, Mexico or Rio de Janeiro, we can speak of hundreds of thousands of squatters, in Ljubljana, the number is limited to a small scale of several hundreds. But it still represented a multi-layered problem.

It began in socialist times when land was not available to private owners. People were entitled to get or to buy only the <u>right of use</u> of the land. As the land had virtually no price, the squatters were not really prosecuted. This happened in the area on the southern limits of the town. It is historically a marshland – it used to be a lake several thousands of years ago – and of no important use to the farmers nor for larger urban development (flood, foundations). The interesting fact is that the squatters had access to the power supply and even drinking water, but there were no decent sewage or paved roads. Standard comfort consisted of an electrical cooker, refrigerator, TV set and electrical heaters. The energy consumption was enormous. After years had passed, the population got organised and started to put forward demands to local authorities for sewage, tarmac roads and bus lines.

The political changes in 1991 brought forward a different situation. The land acquired a price. The population register became strict and citizenship became an extremely important issue. Preservation of the natural habitat in the marshland has become fashionable and used for political benefits. The elimination of squatter settlement was a part of every parties' campaign. And as usual, planners and architects were called upon to offer solutions for problems which were really strictly social and economical.

An alternative site was found at the other side of the town to build replacement housing for squatters. A limited standard was established and design proposals were obtained through a tender. The results were numerous and interesting. Predominantly, they suggested terraced houses and even back to back rows of units two storeys high (Fig.3).
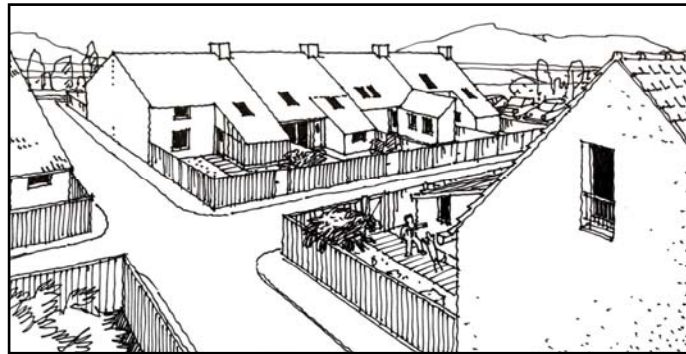

Figure 3

When the chosen design was under construction, it became obvious that the concept would fail. Elimination of the squatters was just an illusion and the new project was too expensive to just give it for free to people who did not want to obey a certain degree of discipline, to pay rent, water, electricity and heating or to abandon their way of living. They would most probably move in with an uncontrollable number of family members and relatives and would also let rooms to other subtenants...

In the middle of the construction process, the decision was taken to offer these new dwellings to another important part of the population which was in great need of housing. A substantial section of the local housing policy featured young couples and professionals who represented a future pool for the town's educated labour. It would support the planned development programmes in universities, institutes, technological parks and governmental infrastructure.

The result was surprising. Young people moved in, they settled down and began a relaxed, but busy life. Gradually there were more and more children and an increasing number of cars on the perimeter. Soon it was obvious that the starting level of the living standard was too low, the units too small. So the standard process of additions, alterations and outbuildings began and is still going on. Fortunately, the initial concept with front gardens and high fences as well as the rooftops have determined the limits to the process. In the end, the overall <u>urban discipline</u> has been preserved but enlivened by the "soft" content of plants, children, animals, hobbies and even a cottage industry on a small scale. There is an optimistic pattern expressing the fact that life is stronger than architecture and in some cases, they can be happily combined to create a <u>decent living environment.</u>

5 Discussion

Transforming the built environment can be observed in two separate areas.

The first one is the constant change, amelioration, refurbishment, reconstruction and growth of the buildings which is happening continuously and spontaneously according to the needs, desires and financial possibilities of the dwellers or owners. It can be seen as the imminent component of single-family, prevailingly detached housing, built in a self-help manner. However, it is very rare in the non-residential field.

The second is the adaptation, reconstruction and other more or less radical ways of transforming larger buildings such as building complexes, residential dwellings and others. They may be owned by private persons, public institutions or the state. It is initiated through a change in ownership, a change of programme or simply when an (old) building becomes unsafe or uninhabitable.

In both cases, a balance must be established between the cost of the transformation and the value of the expected outcome, which is measured through higher quality.

Transforming the living environment is a constant process; if controlled the results may be positive. When designing a new environment, that process must be kept in mind: nothing can be frozen forever except the most important monuments.

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