

KARIN HOFERT FEIX*

RECYCLING INDUSTRIAL HERITAGE

ODZYSKIWANIE DZIEDZICTWA PRZEMYSŁOWEGO

Abstract

Due to several factors, cities in Europe and North America are stopping to grow. At the same time industrial processes are being delocalized and substituted by “clean industries”. Two new necessities arise: Where can the new labour and leisure activities be located close to the centre? What shall be done with the obsolete industrial tissues?

The answer to these questions, if added, is obvious: part of the future city life will take place in the recycled industrial heritage.

The paper uses 22@ plan in Barcelona as a case study.

Keywords: industrial heritage, revitalization, 22@Barcelona

Streszczenie

Kilka czynników uniemożliwia dalszy rozrost miast europejskich oraz północnoamerykańskich. Jednocześnie procesy przemysłowe pozbawiane są lokalnego charakteru i zastępowane przez gałęzie „czystego przemysłu”. Pojawiają się tu dwie zasadnicze kwestie: Gdzie można lokalizować nowe działania związane z pracą i wypoczynkiem tak, by pozostawały w pobliżu centrum? Co zrobić z przestarzałymi tkankami przemysłowymi? Odpowiedź na oba pytania jest oczywista: życie w mieście przyszłości będzie po części toczyć się w obrębie odzyskiwanego dziedzictwa przemysłowego. W artykule niniejszym wykorzystano studium przypadku barcelońskiego planu 22@.

Słowa kluczowe: dziedzictwo przemysłowe, rewitalizacja, 22@Barcelona

* Karin Hofert Feix, Profesor Titular E.U., Departament de Projectes Arquitectònics DPA, Escola Tècnica Superior d'Arquitectura de Barcelona ETSAB, Universitat Politècnica de Catalunya UPC.

The future of cities lies in their past and present. Cities are living organisms. Once the very first act of settlement has been done, often in an “unplanned” way in antique times, every new intervention will establish a relation with the existing. Even if the new proposal does not take in account the pre-existing, past and present (which was future when it was planned) will have to cohabit; they will relate to each other, like it or not. That means that in abstract terms the future of cities always depends on their past. But this statement can be also brought to a particular way of thinking and developing the future of cities: the idea of adapting the already existing fabric to new realities. The causes might be diverse: no space for enlarging the city, no necessity to make it grow (stable or shrinking population), convenience of city maintenance and/or refurbishment. In the developed countries often all these facts come together.

A good number of European towns, for instance, are growing beyond their administrative boundaries, extending to the neighbour municipalities. It would be a mistake to think that this does not affect the morphology of the town at the end. It starts to be common that towns decide to get advantage of their “recyclable sites”, trying to avoid situations that they have to handle out with their neighbours or are not able to control.

The previous circumstance might not affect for instance the American cities, both north and south. But while the South American bigger towns are still rising, as the inner migration from the countryside to the city does not stop, some of the North American cities are no longer growing, moreover decreasing in number of inhabitants. This is a common feature of the northern developed societies: a general tendency towards shrinking birth rates can be observed. And despite living in smaller family units that consume more space than the families of previous generations, the necessary residential amount of total square meters looks to be becoming less.

Retail and services are changing too. Not only the production centres and factories try to shorten their stocks. Also retail is avoiding storage: nowadays immediacy in transportation makes it unnecessary to keep part of the ware hidden in the back store. And more and more the front store also becomes unnecessary: products are shown virtually by pictures and videos in the Internet. The same happens with service offerings. Physical space consumption is decreasing while digital space is growing exponentially.

Industrial production is moving mainly to Asia, while Europe and North America base their economy more and more on services. The Western world commercializes, but produces less and less; and it offers all kind of services, as support to the business world and its administrative and also human necessities. Sectors like Tourism, Education or Culture, the so-called “clean industries”, are growing at an unforeseen speed. Only the first of these activities needs a really good amount of space. The others are also starting their “conversion” to being virtually.

At the same time towns are becoming older and older. Usually only natural disasters like fire or earthquakes and their consequences, as well as wars, destroy cities and consequently “provide the possibility” to build (parts of) them from the bottom. Towns that are not touched by these circumstances have to deal with their built fabric. They have to decide what to keep and what to tear down, what to protect and to maintain. The natural trend in the developed societies is to look after and keep most of the built fabric. Even those buildings and spaces that are not outstanding examples in terms of architecture or art are often valuable in other

terms; they belong to our memory, and have social, cultural, or historical weights that justify their permanence. If the substance is not definitively rotten, architects, planners and even politicians more and more prefer to rather intervene on the built, to re-build it, then to destroy it; only the promoters and the construction companies sometimes regret the lost possibility of “building up from zero”. This “holding” attitude also is strongly influenced by and grows because of an increasing consciousness and responsibility of being sustainable. Quite a lot of people feel that the planet’s peel should not be scratched more. But society and its necessities keep on developing and changing. In quantitative terms daily living wants more space, working needs less space, while educational, cultural and leisure activities are shooting up both referring time and space.

On the other hand, as we have seen, by various reasons a manifest desire to stop the extending skin cancer that affects our planet is shared by the western world. How can we conciliate these apparently colliding realities? An answer has already been appointed: by transforming the existing. “Re” is the new motto: smart cities recast, remodel, renew, reclaim, reform, restore, renovate, refurbish; and doing that they consider and take care of their heritage.

Heritage is not understood like something finished or dead; it is taken like an opportunity to give a proper shelter to changes, by adapting it to new circumstances with a respectful attitude.

This open minded flexible positioning towards heritage is easy to explain: the built fabric to be reused usually is not older than two centuries and has a modest historical-artistic value. There is no sense in freezing it, like we use to do with ancient heritage. The value of the consecrated heritage is testimonial, to be watched. The value of the recent and/or humble heritage is practical, to be utilized.

A good part of the mentioned recent heritage is industrial. Everywhere in the so-called industrial countries (most of them are losing this property) we find examples of interesting industrial remains. Some are under protection, listed in official catalogues that establish the allowed grade of intervention upon them. Others are not, but have popular or other kind of values. And others may just fit to the new purposes.

The common result is that they are kept, introducing the necessary adaptations to fulfil the new requirements. The decision to keep them often is voluntary and not conducted by regulations, and therefore is steady. The free will to respect and even underline the “outstanding” characteristics frequently leads to unpredictable good results. And the fitting to a specific new use avoids artificial or void overdesigned interpretations of past values.

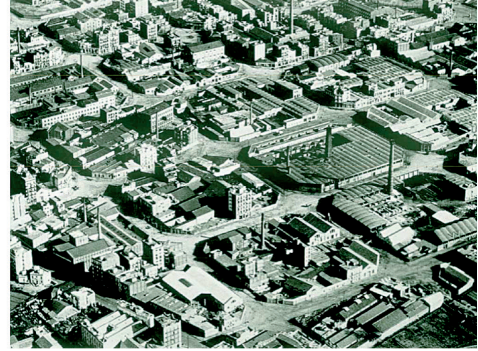
To illustrate the foregoing assessments this paper will use a well-known site in Barcelona, 22@. 22@ is part of the “Eixample” of Barcelona, the “enlargement”, the unique grid that characterizes the town. It belongs to the industrial Eixample at Poblenou district.

“In 2000 the Barcelona City Council approved a new urban planning ordinance aimed at transforming the old industrial area of Poblenou, with obsolete factories that had long ago been abandoned or were simply not very productive, into a magnet for new activities. This new ordinance allowed for a new land designation called 22@, which substituted the traditional industrial designation 22a. So, terrain in the 22@ zone, which is basically the whole south-eastern quadrant of the city, (...) the equivalent of 115 blocks in the Eixample, allows more

a)

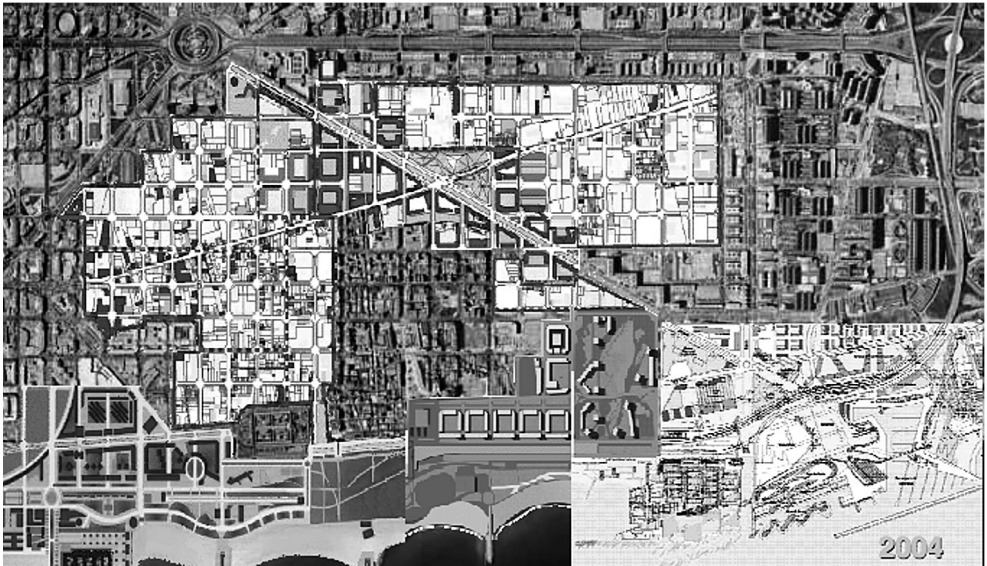


b)



III. 1. a) Barcelona residential Eixample 1925, b) Barcelona industrial Eixample (Poblenou) 1928

construction, more public spaces or green areas and subsidized housing as long as the previous industrial activity is replaced by offices or other business services and equipment related to new technology and knowledge.



III. 2. Plans at the industrial Eixample: Olympic village, 22@, Diagonal Mar, Forum, etc.

The goal is to encourage land owners to update obsolete urban planning elements from the end of the 19th and beginning of the 20th centuries while maintaining economic activity, which would not have happened with a traditional rezoning from industrial to residential designation.

22@Barcelona is building a new compact city, where the most innovative companies co-exist with research, training and tech transfer centres, as well as housing (4,000 new

subsidized residences), facilities (145,000 m² of land) and green areas (114,000 m²). This model city coexists with the neighbourhood's industrial heritage thanks to the **Industrial Heritage Protection Plan**, written jointly by 22@Barcelona and the Barcelona City Council, which conserves 114 elements of architectural interest”.

“22@Barcelona district integrates the different agents constituting the system of innovation – cutting edge companies, universities and training centres, and centres of research and transfer of technology – with different agents of promotion that facilitate interaction and communication among them.

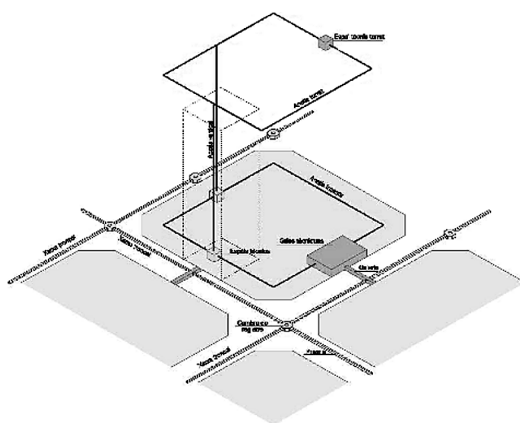
The coexistence of innovative and dynamic companies with local district ones –shopping, small workshops, service sector – configure a rich productive fabric. This environment favours the synergy in pro of knowledge and the processes of innovation and allows the improvement of the competition as business group and the quality of life of the citizens that live and work in the 22@Barcelona district”.

“22@Barcelona district promotes the creation of new networks of formal and informal relationship fostering the creation of local and international business cooperation projects to improve the social and business cohesion and increasing the quality of life and work in the 22@Barcelona district.

At the same time, through the Digital District program, 22@Barcelona stimulates and supports innovative projects that foster both the use of new Information and Communication Technologies and the collaboration of citizens and professionals with social, educational and cultural organizations in the district”¹.

A whole district has been redone: first by creating the legal frame to make the upgrade possible, then by clever planning and an innovative urbanisation, and finally by an effective policy to make possible public promotion and encourage private promotion.

As for urbanisation, an important change has been introduced: public space (the street) only takes in core infrastructures; the distribution network, installations and equipments, loading and unloading, waste collection, all stay within the private space. To say it graphically: the unit that hangs from the “main pipe” is not longer the individual building but the organized bloc.



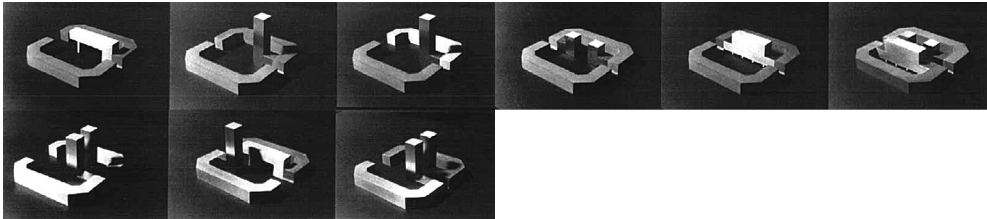
III. 3. Bloc services scheme

¹ <http://www.22barcelona.com/index.php?lang=en>

Physically infrastructure has been designed in a way that facilitates maintenance and future interventions or enlargement. The way energy nets, telecommunications, central climatization and pneumatic waste collection are conceived shall contribute to energy efficiency, sound control and reduction, and responsible management of natural resources.

In comparison with the classic planning of the Barcelona grid another significant novelty is applied and tested. Planning rules are not overall and detailed. They are worked out specifically for every planning unit: that might be a whole block or a single building. Decisions are taken in relation to the future use and function, the existing fabric, and the closer environment. The 22@ plan establishes rights and duties for the landowners, but without prior morphologic constraints.

The form of the buildings and the interior public space will be handled out in order to protect the consolidated or valorous elements. Flexibility in order to guarantee future transformations is also taken in consideration. The result is at least surprising: while the basic plan geometry is the same as in the classic grid, the resulting urban space is absolutely different. The mixture of existing fabric -re-shaped or not- in combination with detached infills that aim to sew the tissue in an open and resilient way builds up an interesting cityscape. A general sense of order is guaranteed by the strict pattern of the grid, while a new richness in volumetry is introduced: different heights, variable street alignments, and coexistence of different typologies, historical periods, structural systems, building systems and materials seem to trigger a casual and modern way of life.



Ill. 4. Models exploring possible bloc morphologies

But the most important change is a direct result of the tolerant and flexible interpretation of the grid: public space is not longer reduced to the street, but enters generously to the interior parts of the blocs. Mainly the non-residential blocs often contain an interior square, clearly accessible from the street and usually open to everybody. This interior but open space works as common entrance hall for the different units around it. Often it is in private ownership, but accessible during daytime. It widens the amount of usable square meters, and introduces new –pedestrian-connections between the blocs.

The inner-bloc public spaces also widen the visual field. Street (public space) is not longer straight, a linear gap between the built mass. We have to admit that the classic Eixample grid with its cut off edges already works like a sequence of chained square-like spaces, but here the connection of the street to the inner public spaces introduces a much more variable perception of the urban space.

At the same time the new voids permit new perspective approaches on the buildings; suddenly frontal views are possible, or dive visions. Contrasts in heights can be worked out,

while the game of light and shadow, reflection and glaze often is more evident and hence more dramatic.

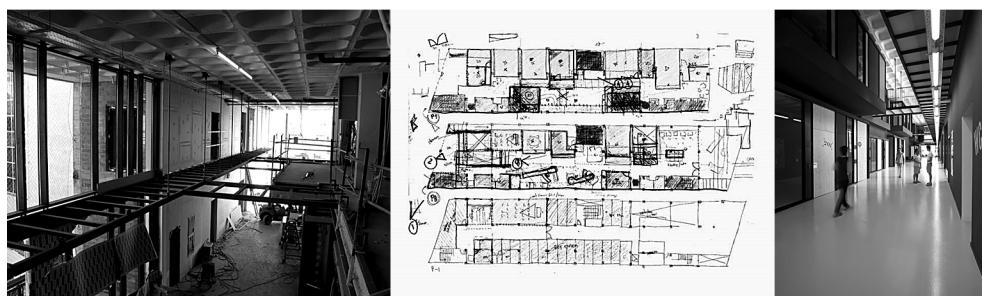


Ill. 5. Iconic buildings at 22@

But the intention of this paper is not opening a discussion on the formal result of both the new and the restored buildings or the changes in public space and morphology. It is just to defend that the intervention on the existing fabric, with so rich and variable ways of doing, opens a “parallel” future to our towns.

In order to illustrate this affirmation several examples will be shown here very briefly. All but one are situated at 22@. All buildings initially were built for industrial purposes. They have been converted in clean factories, residential buildings, educational or cultural facilities, and public space. Most of them are private promotions, closely escorted by the municipal 22@ agency.

Industrial multi-storey bloc building → “business factory”

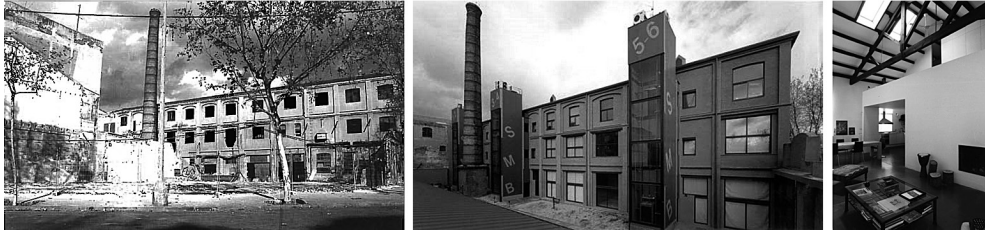


Ill. 6. Almogàvers Business Factory, c/ Almogàvers 165, 08018 Barcelona

The building provides working space – offices – to be hired; common services, like entrance desk, conference room, meeting room, restrooms etc. are shared. That makes the “boxes” more affordable; the system is flexible, as it allows an enterprise to extend or diminish by hiring more or less rooms.

The four-storey narrow long building faces the street at one end and an interior small courtyard at the other. The middle section hardly gets some natural light from one of its sides. By connecting the floors two by two with double height “corridors”, light can disseminate much better and users obtain an interesting “public space”. More than a corridor, this interior street becomes a gathering and informal meeting place, where the office tenants get the opportunity to share their ideas with others and add efforts. The building’s section is the built expression of a business concept that wants to trigger interactivity and synergy.

Warehouse → lofts



Ill. 7. Vapor Lull, c/ Llull131-133, 08005 Barcelona

The three-storey bloc has been divided into four segments; each two segments are accessible by an external new staircase. The resulting twelve apartments have a generous height that permits an intermediate deck. The private promoter delivered the apartments in “loft-manner”, fixing wet points, drainage and rest of services, but leaving the interior spatial distribution to the new owners (several of them are architects or designers).

The ancient chimney has been kept as is prescribed by 22@ general building rules.

Industrial workshops campus → service workshops campus



Ill. 8. Palo Alto, c/Pellaires 30-38, 08019 Barcelona

A small cluster of warehouses inside an enclosure –a hidden idyllic island in between the busy neighbourhood- was bought by a group of young professionals organized in a sort of co-op. To signify that their production was not industrial they turned the interior street spaces into “gardens” by planting mainly climbing plants (for instance wild wine) that thirty years later have nearly completely covered the interior façades. Inside the workshops the original structural elements like bearing walls and roofs have been maintained, adapting them to nowadays building rules, but touching them as less as possible. The refurbishment is worked out lightly; even partitions (new decks and walls) are presented as being furniture that at any moment can be taken away.

The users, mostly designers, architects, photographers, sculptors, etc., share a canteen and cultivate an orchard.

Factory → museum



Ill. 9. Can Framis – Fundació Vila Casas, c/Roc Boronat 116-126, 08018 Barcelona

A u-shaped factory has been converted into a “storehouse” for a private contemporary art collection. The connecting bloc between the two main wings has been substituted by a new bar that at the ground floor takes in the entrance hall. The fourth side of the complex is completed with a gate that together with the built elements generates a “foyer-courtyard”.

The factory wasn’t under protection as it has no apparent architectonic value. But the client and the architect took in consideration its urban as well as its “popular” value. They decided to intervene in a way that does not erase the features of the built fabric nor the tracks that time has left on it, but don’t doubt to introduce important changes when the new program requires them.

Factory → university

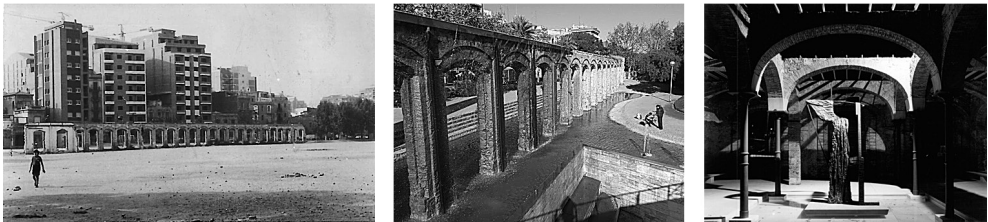
The new audiovisual campus for a private university is based on clear planning instructions given by the 22@ agency. A special plan was developed for the whole block, which includes two zones; the main educational buildings around a central courtyard compose one of them.

The project highlights the contrast between the catalogued horizontal brick warehouses and the reflecting vertical mirror-glass additions. Again the courtyard-square works as an entrance and distribution hall, but also as a gathering place for students. The flatness of its empty surface counterbalances the linearity of the chimney. The design explodes the relation of opposites, of old and new, of plane and line, of rough and smooth, in a neoplastic manner. At the same time the design is aware of the role it plays standing for a modern urban campus that deals with communication and new technologies.



III. 10. Campus de la Comunicació, Universitat Pompeu Fabra UPF, c/Roc Boronat 138, 08018 Barcelona

Industrial wreck → urban park



III. 11. Parc del Clot, c/Escultors Claperós, 55*63, 08018 Barcelona

The last case differs from the previous examples: it is not located within 22@ and it is a public promotion; but Clot Park is worth to be included as it stands for several similar actions. The park is situated on a former industrial land. Two pieces of an exterior wall and the rests of a corner building were the only remaining elements. The architect incorporated them to the park as milestones. The porticos, whose basic value is having a size in scale to the park extension, define the two opposite main entrances; the corner pavilion accommodates an allegoric sculptor. By means of elusive working materials, like water, shadow and (electric) light, these elements acquire unsuspected dignity and relevance that extend to the whole park.

As shown by the foregoing samples the potential of recycling industrial heritage is considerable, and the typological and formal possibilities to reconvert obsolete activities are still to be explored in depth. A broad research field opens to planners and designers concerned with a sustainable future for our cities.

References

Example**Catalogues of Cerdà Exhibitions:**

- [1] Busquets J., Corominas M., *Cerdà and the Barcelona of the future: reality versus project*, Diputació de Barcelona CCCB, Barcelona 2010.
- [2] Magrinyà F., Marzá F., *Cerdà: 150 años de modernidad*, ACTAR, Barcelona 2009.
- [3] Fundació Catalana per a la Recerca, *Cerdà: ciudad y territorio: una visión de futuro*, Fundació Catalana per a la Recerca, Barcelona 1994, Electa, Madrid 1994.

22@

- [1] López A., *22@ Barcelona: 10 anys de renovació urbana = 10 years of urban renewal*, Ajuntament de Barcelona, Barcelona 2011.
- [2] <http://www.22barcelona.com/index.php?lang=en>

Industrial heritage in Barcelona

- [1] DD.AA. *Pla especial de protecció del patrimoni arquitectònic i catàleg. Districte 10-Sant Martí*, Ajuntament de Barcelona, Barcelona 1999.
- [2] DD.AA. *Estudi per la reutilització dels edificis industrials d'interès dins de les àrees industrials del Poblenou*, Barcelona: Àrea d'Urbanisme de l'Ajuntament de Barcelona, 1998.
- [3] Basiana, Xavier; *Barcelona, ciutat de fàbriques = Barcelona, ciudad de fábricas*; Nau Ivanow, Barcelona 2000.