IMPROVING LIVEABILITY IN DECAYING RESIDENTIAL NEIGHBOURHOODS. REGENERATION BY INITIATIVES ON OPEN SPACES

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Abstract:

The key to sustainable urban regeneration is to make Europe's cities attractive and safe places to live. With this respect, long-term investments and planning are required in decaying urban areas. The European Union and single European countries have shown a growing interest in neighbourhood regeneration as actually proved by the funds allocated to promote integrated strategies.

To enhance liveability in post-war deteriorated neighbourhoods, combined approaches directed to both buildings and open spaces appear to be important like also suggested within the debate on the failures of Modern design principles. Many of those urban areas, in fact, present similarities in decay problems. This is true also for Italian late post-war suburbs. In this context: what initiatives on social and environmental level may lead to improved liveability in European good practices? What funding appear relevant to feasible strategies?

We try to address the mentioned questions within a broader research program at the IUAV University of Venice financed by the Italian Government. The purpose of this research is to identify elements leading to good practice in neighbourhood regeneration and experiment them in real contexts in Italy.

After an introduction to the research background and the Italian situation, we here provide an overview on some significant examples of regeneration in Europe dealing with housing estates and public spaces. Based on qualitative approach we draw some preliminary conclusions and identify directions for further investigations.

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1) Introduction

1.1) Research background

It is difficult to adequately define what a liveable neighbourhood is. The concept of liveability, in fact, relates to a wide range of aspects concerning "quality of life" and "well being". In the field of urban renewal, this term is generally used to describe a living environment embedding the physical, social and economic dimension (Nieboer, 2005). We do not want to address here what exactly makes a liveable neighbourhood rather our discussion on regeneration starts from the assumption that design of open spaces is a vital component in making liveable cities, thus neighbourhoods (Economist Intelligence Unit, 2010). Dealing with declining neighbourhoods, however, we can not avoid considering local communities. Therefore, we shall refer here to the concept of Community Livability as the environmental and social quality of an area as perceived by the people. It includes safety and health, environment, social cohesion, recreation and entertainment, aesthetics, accessibility, pride and opportunity (Victoria Transport Policy Institute, 2010).

Several European urban areas are experiencing liveability problems. As emerged from European based researches, post war neighbourhoods are physically deteriorating. Numerous cities in Europe are experiencing decaying processes with similarities in factors leading to deterioration (Turkington, 2004). Several neighbourhoods are not any more attractive living environments and have lost their competitiveness on city level. This is particularly true for especially residential neighbourhoods from the Second World War. Due to the housing shortage after the conflict, in fact, most of the present residential stock in Europe has been built between the '40s and the '70s. Due to pressing demand for dwellings, however, many estates were produced quickly and with scarce emphasis on quality constructions (Andeweg et al., 2007). In addition to the insufficient technical quality of buildings, those urban areas were planned based on inadequate urban layouts. Post war residential neighbourhoods, in fact, have been designed following the principles of Modern design, particularly popular at that time. The driving idea may be summarized as the separation of functions: living, working and moving. Several neighbourhoods were realized following strict urban plans that did not allow freedom in design and imposed repetition. Buildings were planned based on the concept of idealistic housing, meaning spacious and well lightened dwellings in multifamily blocks lying on wide green areas. This concept explains the large amount of open areas normally present in those neighbourhoods. Housing blocks would have been the modern alternative to the stuffy and narrow tenement of inner cities (Wassenberg, 2004, Wassenberg et al., 2007).

It seems that a great influence to the development of this idealistic living model has been given by the thoughts of Le Corbusier who, at the third 'Congress International d'Architecture Moderne' (CIAM, 1930), introduced his well-known Ville-Radieuse concept as a solution to the European housing problem (van Beckhoven et al., 2005). Despite of all the mentioned drawbacks, however, the large availability of green is often perceived by the residents as a positive factor. What sociologists tend to emphasize, in fact, is that the problem is not the amount of open spaces rather the lack of intimate places leading to alienation and antisocial behaviour (Sendi et al., 2005, Alexander et al., 1977) .

As open spaces we shall refer to "open, publicly accessible spaces where people go for group or individual activities" (Carr et al., 1992, Sendi et al., 2005). As from research, such spaces have a role in declining residential post-war neighbourhoods and liveability issues but are rarely on the top of the agenda of local authorities. Due to their location in problematic urban areas where disadvantaged groups live and lack of significance, we may referred to as "marginal public spaces" (Madanipou, 2004) (Sendi et al., 2005).

Problems in post war residential neighbourhoods are particularly complex and involve several factors at multiple levels. It is not clear jet where the decline process starts. What is known, however, is that it is a self perpetrating and spiral process and that it regards physical, socio-economic and environmental aspects (van Beckhoven et al., 2005). Therefore, revising the decline process of post war neighbourhoods, thus improving liveability, can be a difficult task.

Sustainable regeneration aims to create attractive neighbourhoods to be physically, economically, socially and environmentally sustainable. With this respect, an effective reference for conceptual framework can the Ecopolis Strategy model introduced by Duijvestein (Gruis et al., 2006). It identifies four main perspectives for sustainable holistic development which are planet (environmental quality) people (social quality), prosperity (economic quality) and project (spatial quality) (Duijvestein 2004 in (Gruis et al., 2006).

1.2) Research structure

As for most of the European countries, the most deprived neighborhoods in Italy appear to be those realized after the WWII. Social housing from this period has been built in two phases, the first between 1949 and 1962 under the State program "INA Casa", and the second from 1963 under the "GESCAL" program within the national law on social housing named Piani per l'Edilizia Economica e Popolare (P.E.E.P.) (Di Biagi, 2009, Acocella, 1980). Neighborhoods in troubles are mainly those from the second phase. Those urban areas fit the above described Modern principles and are frequently characterized by large housing estates thus surrounded by a lot of green.

It is difficult to draw a clear picture on the state of the art on quality of open spaces in Italian social housing neighborhoods, but what we may say is that due to the lack of effective management and misuse problems, the overall quality is progressively decreasing. Frequent symptoms of disease are physical deterioration and abandonment which, in the worst cases, combine with antisocial behavior like crime, squatting and vandalism. Since institutions often lack proper control, residents do not feel safe in their own place and social interaction gets compromised (Calzolaretti, 2011, Carini et al., 1978).

The large availability of marginal open spaces in Italian post war residential areas may be considered an opportunity for sustainable neighborhood regeneration. On especially peripheral contexts, in fact, open spaces, in fact, offer a high level of transformability. But a question is: how to support the regeneration of social housing neighborhoods in Italy improving quality of life and sustainability by open space redesign? This is the main research question of the present three year research program named Living Urban Scape (LUS), supported by the Italian Government with funds for relevant academic (www.livingurbanscape.org). This paper reports a part of the mentioned research which was awarded in 2008 and which major topic is actually neighbourhood regeneration in Italy. This work is conducted at the IAUV University of Venice, Venice, in collaboration with the Roma Tre University, Rome.

As anticipated, the objective of LUS is to identify key elements of good practice and theory concerning neighborhood regeneration in order to drive experimental strategies in deprived post war residential areas. In particular, the focus is on social housing neighborhoods on the edge of large Italian cities in Italy dating from the period between the '60s and the early '80s. We will focus our attention on especially strategies and solutions to improve the spatial, social and environmental quality of deteriorated open spaces by means of, among the others, infilling techniques (De Matteis, 2010). Based on the analysis of good examples of regeneration, relevant theory and design experiments, the final outcome will be a set of guide lines directed to designers and municipalities.

In the present paper we address the two sub questions "what initiatives on social and environmental level may lead to improved liveability in European good practices?" and "What funding appears relevant to feasible strategies?". To answer those questions we first introduce the position of the European Union and some European countries concerning neighbourhood regeneration. We then discuss preliminary results of a qualitative overview on European good examples of neighbourhood regeneration. Finally we draw preliminary conclusions and introduce next research steps.

2) European context

Statements from European Member States on their willingness to promote the development of sustainable cities and neighbourhoods trace back to the Leipzig Charter. In this document, they commit themselves to make greater use of integrated urban development approaches through, among the others, the creation of high-quality public spaces, modernization of infrastructures and improvement of energy efficiency. They focus on deprived neighbourhoods in terms of, for example, strategies directed to the upgrade of the physical environment and the reinforcement of the local economy. In this context, the strategy of creating high quality open spaces is clearly stated as a key element to get proper living conditions and attractive places for people and businesses. Public authorities, stakeholders and citizen must all take part to (Member States of the European Union, 2007, European Commission Directorate General for Regional Policy, 2009).

Building on the Leipzig charter, European Ministers responsible for Urban Development set out in 2010 the Todelo declaration. In line with the Europe 2020 Strategy setting out visions for the European economy in the 21st century, this document highlights the need to promote "smarter, more sustainable and socially inclusive urban development in European cities for which integrated urban regeneration is of strategic importance". Recommendations on integrated approach and its strategic potential are described over five major areas. Within the environmental area, in order to meet European energy targets for greenhouse gases emissions and use of renewable sources, it is emphasized the importance of eco-efficiency approach to regeneration. This means, for example, enhance energy efficiency in existing buildings, improving management of water and waste, combating the urban sprawl by land recycling, and "re-greening" the existing city. In the social area, in order to stimulate social cohesion and combat marginalization in especially deprived neighbourhoods, are recommended actions for social integration and the adoption of economic and environmental measures and housing policies to reduce social polarization in neighbourhoods. Physical upgrading is seen here as a way to improve social cohesion. In the economic area, it is stressed the possibility of stimulating the labour sector and the construction industry with activities connected to the regeneration process. In this context,

job opportunities may be created with those activities related to "green" or "environmental" regeneration (i.e. environmental management of open spaces and energy efficient renovation). In the urban and planning area, it is emphasized the need of improving physical quality, architectural character, diversity in housing typologies, and eco-efficiency of the building stock. For enhanced attractiveness of the urban scene and landscape, new open spaces should be provided and deteriorated ones revitalized. All of this shall improve residents' identification with the place. Finally, in the governance area, the document highlights the importance of participation, the need to increase citizen's direct involvement and consideration for their satisfaction (Member State of the European Union, 2010).

However, the idea of dealing with neighbourhood problems in an integrated way, thus considering social, economic and physical aspects is not new. First attempts can be found about two decades ago as implemented by local governments and key actors to respond to the increasing complexity of urban problems. Only when those initiatives showed success, they turned to be institutionalized at higher political levels. It seems that, in the early 80s, France, the Netherlands and the United Kingdom were the first European countries implementing integrated urban policies. Italy followed about ten years later with the Programmi di Recupero Urbano (PRU) and Contratti di Quartiere (CQ) (Aalbers and van Beckhoven, 2010, Ombuen et al., 2000). Just like "sustainability", however, the word "integrated" also appears to be nowadays a stylish and confusing term. Here we will refer to integrated approach as "cross-sectorial coordination of actions, strong horizontal partnerships, increased local responsibilities and the concentration of funding on selected target areas". The environmental and sustainable side of integrated approach originates in 2001 from the European Sustainable Development Strategy (SDS), or "Goteborg Strategy", which was adopted three years later (European Commission Directorate General for Regional Policy, 2009). In 2010, the need to adopt integrated approach in urban and neighbourhood regeneration was confirmed by the European Economic and Social Committee (Sepi, 2011).

The European Union stimulates regeneration approaches mainly through the Cohesion Policy which aim is to "strengthen economical and social cohesion by reducing disparities in the level of development between regions" (European Commission Directorate General for Regional Policy, 2009). To encourage the implementation of urban development initiatives a large range of financial supports is made available by the European Union under the umbrella of Cohesion Policy. Structural Funds are indirect European support giving financial aid to less developed regions in Europe. In this context, one of the major sources of financing in neighbourhood regeneration is the European Regional Development Funds (ERDF) which aim is to develop the potential of a reprieved area. It is used to partially finance investments in projects that could not be implemented by local financial support alone.

Under the umbrella of Structural Funds, are also the Community Initiatives which objective is to promote integrated approaches for sustainable economic development. URBAN is an example of Community Initiative relevant to deprived urban districts. The two generations of the URBAN Initiative (1994-1999 and 2000-2006) demonstrated the value of integrated approaches in 200 European cities and put the basis of the present European programming (2007-2013). In addition to integrated approach, the principles that emerged from URBAN emphasized the importance of concentrating funding on target areas and increased involvement of residents (European Union, 2009). Within direct financial support, there are numerous Community Programmes like, for examples, the

LIFE environment fund often used in cases of sustainable regeneration of open spaces. Since 1992, it supports environmental and nature conservation in pilot and demonstration projects. Enhancement of neighbourhood biodiversity by green roof strategies is an example of LIFE based regeneration

In line with the European attempts to tackle with city and neighbourhood regeneration, many countries in Europe have developed their own national policies. The general approach often consists in targeting particularly disadvantaged areas in order to concentrate specific State funds.

In France the Politique de la Ville deals with deprived suburbs. Its aim is to help deteriorated post-war residential districts integrate with the rest of the city. A Committee of Ministers meets every three years to design programmes for targeted neighbourhoods which are selected based on economic and social indicators. Coordinated by the National Council for Cities, which is the body managing neighbourhood policies, the National Urban Renewal Agency (ANRU) under the "Programme National de Rénovation Urbaine" started" is charged with neighbourhood renovation (www.anru.fr*)*. By 2013, with a total investment of €40 billion, 530 will be regenerated. This ambitious programme involves about 5 million residents by demolition, renovation and new construction strategies (www.eukn.org).

In United Kingdom the problem of deprived neighbourhoods fells under the National Strategy for Neighbourhood Renewal (NSNR) stating that "within 10 to 20 years no-one should be seriously disadvantaged by where they live". Priority areas have been selected and targeted with funds based on the Indices of Deprivation but additional money was given to particularly disadvantaged suburbs. Between 2001 and 2008 almost £3bn were allocated to 88 local districts, covering 40% of population in England. Two years later, however, the total number of priority areas was reduced to 65 (www.communities.gov.uk). In 2010, the strategy in the period 2001 and 2005 was positively evaluated and emerged that residents has the perception of an improved quality of life in their neighbourhood (i.e. higher quality of open spaces and decreased vandalism) (AMION Consulting, 2010).

Since the early '90s, regeneration of deprived neighbourhoods in the Netherlands is an issue of the Big City Policy. Its aim is stimulating integrated and area-based approaches in particularly difficult areas. In 2007, the "40 Neighbourhoods Programme" targeted the worst districts in the country to concentrate extra investments. The aim was to transform them in liveable districts where people may find sufficient opportunities to stay in about eight to ten years.

The selection is based on 18 objective indicators and consultations with local municipalities. Indicators measure socio-economic disadvantages of households, problems with liveability as experienced by inhabitants, physical shortcomings in the housing stock and physical problems according to inhabitants. About €250 ml over a ten year period will come from the housing associations and €300 ml from the Government and other agreements with municipalities. (van Gent, W., P., C., et al, 2009) (www.eukn.org and www.kei-centrum.nl).

In Italy the situation is a bit different. In the last twenty years, national urban policies relevant to neighborhood regeneration have lacked coordination and continuation (Giofrè, 2007). With a few exceptions, the recent planning tools introducing participation

in urban transformation processes led to partial and fragmented results. The mentioned Contratti di Quartiere, which means Neighborhood Contracts, for example, aimed to stimulate improvements of spatial quality and promote employment and economic growth in deprived areas through residents' participation. Just a few municipalities succeeded in giving continuity to their regeneration policies. Further motivated by the Winter Olympic Games 2006 and in cooperation with the European Union, for example, Turin initiated the "Peripheries Special Program" which is still active and efficient in regeneration of residential suburbs while the Municipality of Rome activated the "Territorial workshops" as places for residents' participation (www.comune.torino.it and www.comune.roma.it).

3) Discussion

As anticipated, in order to answer the two sub research questions we observed ten European cases. In selecting the countries on which focusing our attention, we decided to start from those with a high percentage of social housing on the total housing stock. Taking as a reference the data available on the Housing Statistics in EU report (September, 2010), we choose The Netherlands (32%), United Kingdom (20%) and Sweden (17%). Since our aim is to collect key aspects to inspire experiments in the Italian context and we found other interesting cases from other countries, we decided to enlarge our international overview to Germany, Belgium and France. For a selection the examples we picked up cases dealing with open spaces from archives of national and international awards and contacted local institutions (i.e. ministries, municipalities and housing association). We gave priority to integrated sustainable approaches (Tab.1).

Table 1 *List of the European case studies by country, city and neighborhood name*

CASE STUDIES		
COUNTRY	**CITY**	**NEIGHBOURHOOD**
1. Sweden	Malmo	Ekostaden
2. Sweden	Goteborg	Gardsten
3. United Kingdom	Londra	Angell Town
4. United Kingdom	Birmingham	Attwood Green
5. Germany	Leinefelde	Zukunftswerkstad
6. Germany	Jena	Lobeda West
7. The Netherlands	Delft	Poptahof
8. The Netherlands	Amsterdam	F Neighbourhood
9. Belgium	Antwerp	Iglo
10. France	Villeneuve-la-Garenne	La Caravelle

Before starting with a discussion on what emerged from our observations, we prefer to underline that with this part of our study we do not pretend to draw general conclusions on European level. Rather we just want to extract inspirations and qualitative key aspects from foreign experiences to possibly drive further applications in Italy. With these limitations in mind, we extracted from the case studies a number of aspects that, according to our opinion and the aim the research, would deserve our attention.

For a systematic discussion and effective communication strategy, and with the concept of Community Liveability in mind, we decided to distinguish all the aspects in two major groups: environmental and social principles. We then named them respectively "4D" and "4C" working principles for neighbourhood regeneration (Tab.2). Since our research approach is intended to be cyclic, we expect to enrich our analysis with further information in the next research steps.

Table 2 *The "4D" and "4C" working principles for neighborhood re generation*

4D AND 4C REFERENCE PRINCIPLES FOR NEIGHBOURHOOD REGENERATION	
ENVIRONMENTAL PRINCIPLES	**SOCIAL PRINCIPLES**
1. **D**iversification	1. **C**ooperation
2. **D**islocation of functions	2. **C**reation of economy
3. **D**ensification	3. **C**ontrol
4. **D**econstruction	4. **C**oncreteness

- ***D**iversification*. As emphasized by Lynch, it is important that public spaces in residential environments can be clearly understood and distinguished one from another. Legibility and connection in the hierarchy of spaces would invite people to use them (Sendi et al., 2005, Alexander, 2004, Alexander et al., 1977) .

  In our observation, we often came across the word diversification referring to clear and diverse functions of open spaces. This is the case, for example, of converting declining green into thematic parks, art installations, sport facilities or educational gardens as in Attwood Green, Lobeda West and Ekostaden.

  In Zukunftswerkstad, diversification also refers to the physical distinction among public, intermediate and private spaces. In line with the tendency of privatization in housing estates initiated in the 90s, it seems there is a widespread inclination to privatize public areas in order to lower management costs, and improve control and care. This strategy would also reduce possible unclear rights and responsibility on especially intermediate spaces. Another frequent reason for privatization appeared to be the attempt to decrease the spatial anonymity and homologation of open spaces. In Lobeda West, we noticed that in order to diversify the urban layout the whole neighbourhood is divided into in smaller working areas to be then managed and threatened independently as distinguishable places.

  As in Poptahof and F Neighbourhood, differentiation on neighbourhood level regards both open spaces and buildings. Differentiation of architectural character in housing estates, in fact, is combined with differentiation of housing supply (i.e. market position and typologies of dwellings) (www.poptahof.nl). Architectural character, which usually is not a priority in regeneration, is used here to create a neighbourhood identity and meet preferences of people (van Altena, 2007). From a marketing perspective, this approach is expected to attract groups from the city and stimulate neighbourhood competitiveness. With this respect, other examples are Angell Town, where residents expressed their preferences for the stylish surrounding Victorian dwellings and Attwood Green, where the contemporary architectural character was strongly encouraged by the City Council and the housing association. Moreover, research has shown that architectural preferences for building exteriors can be predicted (Riccardo et al., 2010).

  Diversification of the built environment (i.e. typologies, materials and shapes) can be obtained by assigning architectural firms to strategic locations. As in Zukunftswerkstad, for example, design competitions for target areas generated creative and quality ideas, and led to innovation. In Angell Town, residents choose the firms and the contractors themselves. Design competitions, however, should be properly managed to prevent waste of time and money for ideas that might not completely meet actual local requirements (Riccardo, 2008).

- ***D**islocation of functions***.** There are several categories of public spaces to be considered in a master plan for housing estates. Among them, there are *social spaces*, which are places devoted to social contact. In redevelopment of open spaces, facilities for diverse

age groups and activities should be provided in that those are the places in which social cohesion will develop (De Chiara et al., 1995 in Sendi et al., 2005, Gehl, 2011). There is a controversial debate on direct effect of declining physical environment on antisocial behaviour. Those adhering the idea of physical determinism, for example, would say physical improvements will make residents happier but the situation is usually more complex (Priemus, 2005). What is clear from research is that there is scarce consideration for the provision of appropriated outdoor facilities (De Chiara et al., 1995 in Sendi et al., 2005).

In order to improve social cohesion and stimulate sense of attachment to the place, we noticed that open space strategies often aim at creating or emphasizing a neighbourhood central area to be a distinctive meeting place. In Lobeda West, for example, the former bus terminal was transformed into a liveable square connecting the area with a natural pathway. In Potahof and Angell Town, the central anonymous public space is redesigned to be respectively a playground park for children and a collection of diverse parks designed for all ages (the Landscape Practice Group, 2010). In Iglo, the core area is a new pedestrian and vehicular street crossing the whole neighbourhood and connecting residential buildings with commercial and social facilities (van Altena, 2007) [1].

In some cases, we noticed there is an attempt to consider local preferences in dislocating functions in core areas. In Attwood Green, the organization of open spaces resulted from the interpretation of memories and stories from local life while in Poptahof the redesign of the central playground was based on children' ideas (Hooimeijer and van der Toorn Vrijthoff, 2008) (Tab.3).

Table 3 *Form left to right:* ***D****iversification of open spaces and built environment in Attwood Green and F Neighborhood; and* ***D****islocation of functions to a core park and a mixed use street in Poptahof and Iglo (sources: www.cabe.org.uk; www.kei-centrum.nl: van Altena, 2007).*

- ***D****ensification*. Green areas are often seen as places for future investments in the building sector. There is a general interest of potential investors, in fact, for spare spaces to be used for additional construction rather than for attractive open spaces (Sendi et al., 2005).

  Actually, as it emerges from the Dutch and the English examples, improving building density using available free lots would lead to several advantages. Recreating the neighbourhood effect by compact urban layout, hopefully lower in massiveness, may stimulate the local construction industry and reduce the quantity of open spaces to be controlled and managed. As also from literature, this would induce mutual control when home front doors and ground floor openings overlook the outside (Alexander et al., 1977). In Poptahof and F Neighbourhood, for example, the building density is raised with addition of new middle-rise blocks at the bottom of existing high-rise estates. This

1 Additional unpublished information on the Iglo project has been directly provided by Dr. T. Coppens, the program leader at the AG Stadsplanning Antwerpen which is the City Company responsible for strategic urban development project, (May 9, 2011).

new constructions transformed the Modern urban layout into a more compact courtyard scheme where mutual social control is easier.

The lack of parking places is frequently felt as a problematic issue (Sendi et al., 2005). Sometimes it is solved by improving quality and quantity of open spaces. Densification by new construction, in fact, often considers the reorganization of parking places in combination with the redesign of public areas. As showed in Poptahof, La Caravelle and Lobeda West, underground and covered parking places seem to be the preferred solution in that they make space for further top-floor public space to be used by the residents.

- ***Deconstruction.*** Despite it has been demonstrated that renovation is often more sustainable than demolition (Gruis et al., 2006), the tendency seems to be demolishing large parts of the existing housing stock. In Zukunftswerkstad and F Neighbourhood, for example, the number of demolished dwellings is pretty high (Projectbureau Vernieuwing Bijlmermeer, 2008). As in Angell Town and Attwood Green, replacement by new construction is considered on especially unpopular buildings and strategic locations (Deakin, 2009). Selective demolition or deconstruction of existing buildings seems to be quite diffused in especially Germany and the Netherlands. The German cases are particularly interesting in that deconstruction has been combined with innovation where new dismantling techniques of unwanted prefabricated buildings allowed the reuse of concrete panels for the new constructions nearby. This approach led to the reduction in the massiveness of large blocks and the amount of waste from demolition (Kildsgaard et al., 2008) (www.worldhabitatawards.org). As in Lobeda West and Zukunftswerkstad, deconstruction processes may offer chances for reuse and recycle of materials with consequent reduction of costs and environmental benefits. Selective demolition may also lead to improvements in the urban layout as showed in La Caravelle where extra public spaces connections formerly interrupted by large buildings has been opened (Zunino et al., 2007, La Forge, 2008) (Tab.4).

Table 4 *Form left to right:* ***D****ensification in Poptahof by ex-ante and ex-post situation, and* ***D****econstruction in Zukunftswerkstad by ex-ante and ex-post situation (sources: www.kei-centrum.nl and www.stefan-forster-architekten.de)*

- ***Creation of economy.*** As mentioned in the Todelo declaration, construction industry and job opportunities should be stimulated by activities and works within the regeneration strategy, especially if related with environmental aspects (Member State of the European Union, 2010). We noticed this mainly happens in cases adopting a holistic approach to regeneration.

  In Zukunftswerkstad, for example, the mentioned deconstruction strategy has involved several enterprises. In Gardsten, the large construction phases have been divided into smaller bids to allow smaller companies to join. The winning companies had to use local labour (Lindholst, 2010, Kildsgaard et al., 2008). In Angell Town, involving local labour even meant training for self-construction and self-fitting of dwellings (www.nottinghillhousing.org.uk).

Job creation may also be stimulated by incentives for commercial activities managed by local people and setting companies for public spaces management. In Ekostanden, for example, the residents run a café and an ecological car-pool while other job opportunities were created through local businesses for storm water management (www.worldhabitatawards.org). In Iglo, additional jobs will be created by the opening of new facilities for different groups such as a nursery, a primary school, a care centre for elderly and disabled people, a community and a youth centre, and a sport facility. To enhance the competitiveness of an area, however, it would be preferable for the commercial and social facilities to have a higher relevance like the shopping mall in Poptahof which is used by people outside the neighbourhood or the Botanical Green Garden in Ekostanden which is an international research facility.

- ***Cooperation.*** As previously said, European Ministers have recently highlighted the need to increase citizen's direct involvement in integrated regeneration approaches (Member State of the European Union, 2010). As showed by research, however, proper involvement is seldom implemented in practice. Local authorities are often not interested and most of residents develop a self-focused and indifferent attitude: "the boundary of my property is the boundary of my interest" (Sendi et al., 2005).

  Observing our cases, it seems that the most effective experiences are those in which the residents had an active and decisional role. In the board of the housing association in Gardsten, for example, residents are the majority. As in Zukunftswerkstad, Poptahof, Angel Town, Gardsten and Ekostaden it emerged that involvement by constant communication between residents and the parties involved, easy access to communication and an active organization of social activities are very important. All of this may contribute to the creation of social cohesion, sense of attachment and may reinforce the image of an area. In line with the French *Jarden Partagès*, in Attwood Green, it will be initiated a vegetation growing program. People are given free soil and seeds take care of. This is expected to stimulate sense of community and willingness to participate.

  A key aspect appeared to be involving residents since the very beginning of the process. In Gardsten and Zukunftswerkstad, for example, people participated to the development of the master plan. In some cases, we noticed that tenants' preferences are addressed by surveys before the redesign process. Requirements on housing and preferences for demolition, for example, have been addressed in Lobeda West (www.werkstatt-stadt.de) and F Neighbourhood . In the last case, it emerged that residents agreed on partial demolition and that they would have been interested in affordable homeownership. Those preferences where then considered in the regeneration program. In Poptahof, preferences of people for life-style were addressed through Neighbourhood Branding which is a creative technique used to harvest the identity of a place (van Altena, 2007). Urban and building regeneration solutions have been then taken to emphasize the brand.

  From our observations, it appears that strong leadership is also a key aspect. In the case of Ekostaden, for example, the support of the major of Malmo, the enthusiasm of all the parties involved, the leading role of residents and the availability of a network of creative professionals turned out to be important (Rolfsdotter Jansson, 2009). In Angell Town, the residents set up a charitable company to press the city Council to initiate the regeneration and got financed several projects in their neighbourhood (www.cabe.org.uk).

  Good collaboration among the parties involved, residents included, may develop creative solutions. In F Neighbourhood, the cooperation between the designers and a

group of residents led to the proposal of converting some of the dwellings into students' apartments and atelier for emerging artists while in Angel Town, creative and thematic art installations have been designed following wishes and ideas of residents.

In this cooperative context, it seems the role of designers is mainly to understand and interpret wishes with appropriate solutions. As in Angell Town, however, design with residents appeared to be time and energy demanding especially in terms of communication strategies.

- ***C****ontrol*. For an external environment to be pleasant and stimulating a sense of place both buildings and open spaces need to be properly maintained (Caramona, 2001 in Sendi et al., 2005). Willingness to control might be stimulated if residents feel attached to the place (Habraken, 1998). Lack of constant management and rigorous control may lead to safety problems and affect the image of a neighbourhood. Transforming neighbourhoods with a bad image, however, would be time demanding and very difficult anyway (Wassenberg, 2004).

  As in Attwood Green, quality of open spaces is ensured by a dedicated park keeper. He also acts as a popular and trustworthy person leading to higher social safety. Control in Angell Town is provided by the residents themselves thanks to the residential layout with street front doors and openings overlooking outside spaces (www.neighbourhoodsgreen.org.uk). Care for open spaces is a key element in Ekostaden where a specific program controls a neighbourhood system of cannel and ponds for storm water management. A network of centres for waste collection, reuse, recycling and composting allows the reuse of 89% of the produced waste (Kazmierczak and Carter, 2010). In La Caravelle, the vegetation is programmed by a 15 year management plan.

- *Concreteness***.** An underestimated aspect of regeneration is stimulating trust and credibility. Interventions need to be quick and visible. Too long renovation processes, in fact, may be considered negative factors by the residents (Van der Flier and Thomsen, 2005).

  From the experience in Zukunftswerkstad, it emerged that isolated projects have a limited impact and can waste money. Actually, investments should be focused on core areas with long term perspectives. As in Lobeda West and Gardsten, it appeared that a sign of concreteness is the offices of the housing association located within the neighbourhood.

  Visible actions may improve or create a local attitude. As in the case of Zukunftswerkstad, visible and effective interventions let the residents to develop a protective attitude towards the environment and led to political stability. In Ekostaden, it is organized each year a neighbourhood day where people are informed of all the sustainable developments of their place (Tab.5).

Table 5 *Form left to right: Creation of economy in Ekostaden by the Botanical Green Garden, Cooperation in Gardsten by inner green-houses as wanted by the residents, Control in Angell Town by housing overlooking outside space and management of open spaces by storm water system in Ekostaden (sources: www.cabe.org.uk, www.europeanconcrete.eu, Rolfsdotter Jansson, C. 2009)*




For what concerns funding relevant to feasible strategies, from our cases it turned out that in most of the cases neighbourhood regeneration is mainly financed by the local municipalities and the housing association. Frequently, additional funds are given by the State through specific programs. It the case, for example, of the Local Investment Program of the Swedish Government for deprived neighbourhoods used in the regeneration of Ekostaden and the several State programs applied to Lobeda West (i.e. State Program "Soziale Stadt" for urban districts with particular development needs, State Program for further development of large new buildings areas, the Thuringia State Program for living environment improvement, and the State Program "Stadtumbau Ost").

In general, the European Union turned out to be involved in circumstanced and experimental projects mainly under the European Regional Development Funds (ERDF). This is the case, for example, of Ekostaden and Angel Town. In Ekostaden, improvement of local biodiversity by green roof design was supported by the LIFE program.

4) Conclusions and next research steps

We described the preliminary results of a qualitative overview on European good examples of neighbourhood regeneration. To answer the question on what key aspects may possibly drive further applications in Italy we distinguished two groups of environmental and social aspects we respectively named "4D" and "4C" working principles for neighbourhood regeneration.

We found that clear Diversification in the design and use of open spaces, Dislocation of functions to the centre to create a core social area, and housing Densification and Deconstruction of prefabricated blocks to stimulate the building sector might be reference principles for Italian deprived residential areas. Cooperation of all the parties involved driven by strong leadership and active involvement of residents, Creation of business and job opportunities within the construction works, rigorous Control and continuous management, and Concreteness of interventions for trust and credibility, appeared to be inspiring lessons as well.

It turned out that neighbourhood regeneration is mostly supported by funds from local municipalities and housing associations. In some cases, national governments give additional supports through specific State programs for deprived areas. This might be hardly possible in Italy where social housing policies are not traditionally on the agenda of the government. Support from the European Union is mainly given through the European Regional Development Funds which is usually directed to specific projects.

In order to enrich our preliminary overview, next research steps will possibly address further cases in Europe. Parallel to this, we will start the selection of a number of Italian cases to identify, together with local authorities and residents, opportunities of deteriorated open spaces to possibly drive regeneration design experiments.

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