

Sustainable districts in Freiburg im Breisgau

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Abstract

The essay illustrates the case of the German city of Freiburg im Breisgau that has been engaged for years in a land-management process aimed at soil protection through the regeneration of urban spaces. In particular, the essay presents some findings of a more extensive study on the Freiburg model and focuses on the urban regeneration of two areas, Rieselfeld and Vauban, by highlighting the planning approaches and the role played by the residents from the very beginning of the regeneration process.

Parole chiave: Sostenibilità, Friburgo, rigenerazione, spazio, residenti.

Keywords: Sustainability, Freiburg, regeneration, space, residents.

Introduction

If discussion about sustainable development was a fashionable issue in the 1990s (Mehra 1997), 30 years later meeting «the needs of present and future generations» still represents a recurring theme within development discourse. From its origins, the challenge of sustainable development involves the whole planet, due to the progressive depletion of natural resources as well as environmental pollution. The need to engage a reverse gear seems to be the only path to follow, but which approaches can actually promote effective forms of sustainable development? A starting point is focusing attention and efforts not only on the global dimension of development, but also and particularly on local contexts where actions can effectively support the fulfillment of present and future needs of the world's population. In this sense, the local level represents the ideal scenario for sustainable-oriented development strategies that need to be consistent with the spatial context where effects will be produced. For this reason, the inputs of local administrators and social actors can be crucial to the definition of effective sustainable pathways.

The concentration of population in contemporary cities is expected to grow over the next decades and this requires us more attention on urban sustainable development. At first glance, cities seem to put the very pursuit of sustainability to the test due to their *ecological footprint* (in terms of transport, services, housing and consumption) (Wackernagel Rees 1996; Camagni 1996). According to the «Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools» (Seto et al. 2012), if the current forecasts of city expansion will be confirmed, by 2030 urban areas will be three times wider than in 2000 with significant environmental consequences. In light of these considerations, there's a long road ahead for an effective recognition of cities as «centres of social life, carriers of our economies, and guardians of culture, heritage and tradition [...] understand that our present urban lifestyle, in particular our patterns of division of labour and functions, land-use, transport, industrial production, agriculture, consumption, and leisure activities, and hence our standard of living, make us essentially responsible for many environmental problems humankind is facing» (Aalborg Charter 1994: 1).

The commitment of European cities towards sustainability

Yet a balanced coexistence between urban habitats and biophysical systems is not only desirable, but also possible. As the «Cities and Biodiversity Outlook» report (SCBD 2012) re-states, cities are the most suitable contexts for developing both sensitivity to sustainability issues, and policies for urban development. The compactness of European cities, however, seems to clash with the opportunity to conserve natural ecosystems within the urban environment. Nevertheless, compact urban agglomerations present a number of environmental benefits, which may later turn into specific opportunities for the pursuit of urban sustainability¹ (Davico et. al 2009).

Over the last 25 years, Europe is facing a growing number of *green cities*, which are engaged in the development of sustainable practices in an attempt to overcome the traditional disjunction between environmental, economic and social aspects (Spanu 2018). As is known from the UN City Summit «Habitat II» (1996), the pursuit of sustainable development is possible through contributions from local entities, but mainly as an interdependence and mutual reinforcement between the three main components: environment, economy and society. In other words, a comprehensive framework of actions aimed at achieving biodiversity, economic efficiency and social equity is needed in order to deal with the changes induced by human activities. In these terms, the development models adopted by green cities refers to a more

broader concept of *environment*, in which economic and social issues are envisaged (Mela et al. 1998). Land consumption and urban dispersion represent relevant issues currently addressed by green cities. As one of the most prominent effects of the ongoing urbanization, such phenomena have negative impacts on progressive land degradation and soil waterproofing that result in increased hydrogeological risks and, consequently, population dispersal with serious repercussions on services, mobility and, not least, social relationships. To counter this process, a careful urban planning need to adopt certain rules on land uses taking into account the territorial features and effective social demands (demographic trend, housing demand, etc.).

The spatial development of the sustainable city is focused on its internal spaces, by defining territorial limits to the urban expansion and a particularly stringent urban legislation for the coming decades. In Helsinki, for instance, the guidelines for the «Sustainable Development Principles for City Planning» match with the limitations imposed by the Master Plan since 1990s and reaffirmed in 2013, according to which the city's growth is limited within its boundaries and this applies both to new developments and to existing areas (City of Helsinki 1996). Europe has long been involved in adopting regeneration policies also in order to tackle the social impoverishment of the most problematic urban areas through actions aimed at promoting socio-economic inclusion. The «Soziale Stadt» program, promoted by the German Federal Government in agreement with *Länder* and Municipalities at the end of the 1990s, is specifically devoted to «neighbourhoods with special development needs» (*Stadtteile mit besonderem Entwicklungsbedarf*). The aim of the program is to improve the opportunities in deprived neighbourhoods in terms of employment, education, and infrastructures through, first and foremost, the involvement of local stakeholders (residents, businesses, associations, and institutions) by paying specific attention to requests coming from the most vulnerable populations (Galdini 2008).

The case of Freiburg im Breisgau between social activation and the regeneration of spaces²

Freiburg im Breisgau (228.828 inhabitants³) is the fourth largest *Stadtkreis* (urban district)⁴ in the south-west German *Land Baden Württemberg*. Historically, the city suffered severe damage by bombing in 1944. The reconstruction of the city favoured the recovery of its urban mediaeval layout and the improvement of some central streets through pedestrian porticoes, in opposition to the predominant modernist idea of the *verkehrsgerechten Stadt* (traffic-oriented city). The end of the war triggered an immediate housing demand. In order to alleviate housing shortages, the

construction of new urban districts was approved in 1964. They were built on the outskirts of the city and represent an example of what was happening in other German cities, later defined as *Schlafstädte* (dormitory towns) (Blinkert et al. 2001). The city's expansion to the West during the 1960s contributed to the radicalization of these phenomena, given that $\frac{2}{3}$ of public housing in the post-war period was realized here (Humpert/Öhm 1974).

At the end of 1972, Freiburg rose to the forefront of protests against the Bonn government's nuclear expansion program for the installation of an atomic power plant at Wyhl, a farm village about 35 kilometers away from Freiburg (Karapin 2007). It represented a decisive turning point for undertaking alternative models of development, because the opposition to this government initiative quickly brought together local populations. According to Goodboy, this can be interpreted as «the result of [...] the growth of the educated middle class in the 1970s, which favoured the new politics concerned with participation and the quality of life, while the government ambitious nuclear power program provided both an effective focus for protest and a paradigm for deep-seated anxieties about the social and political implication of technological development» (Goodboy 2004: 34). Bearing in mind this statement, Freiburg's foreground role in Wyhl's case and the positive outcomes of the anti-nuclear protests can be interpreted as significant inputs for the city's «green turn» during the 1980s.

The events of Wyhl triggered a new awareness and growing debates on the goals of urban policies for the next decades. In fact, Freiburg's commitment to establishing a different vision of future development took into account economic, social and environmental issues as parts of an integrated strategy to address the ongoing changes in its contemporary urban society (Arbeitsgruppe Stadtentwicklung Freiburg im Breisgau 1989). Such approach seems to have anticipated what the Rio Conference (1992) and the Istanbul Summit (1996) would have, later, defined as sustainable development. In this spirit, the Freiburg *Umweltpolitik* is the urban environmental strategy which has framed the environment not only as an asset to be protected, but also as a space to be crossed, experienced and, above all, governed in an inclusive and participatory manner. In other words, the Freiburg's *Umweltpolitik* calls for a political will to safeguard and maintain the quality of urban spaces, by avoiding any further land use and promoting reuse and regeneration within the city boundaries (Stadt Freiburg 2010).

Reusing space: the experiences of *Rieselfeld* and *Vauban*

The feasibility of Freiburg's sustainable model rely on two «urban experiments» implemented in the 1990s: the districts of *Rieselfeld* and *Vauban*.

Rieselfeld is the name of a 300ha site originally used as a wastewater treatment area. After an appropriate land reclamation by the city, a quarter of this site was devoted to the construction of a new district, whereas the remaining part was converted into a large natural reserve. In this new regenerated area, the local administration managed the planning process, which is now home for 9965 inhabitants⁵. *Rieselfeld* is strongly characterized by a mixed-mobility system that focuses on public transports, pedestrian areas, bicycle paths and speed limit roads (30 km/h).



Figure 1 Rieselfeld

Vauban resulted from the regeneration of the military buildings which were dismantled by French soldiers after German reunification and were acquired by the city of Freiburg. Populated by 5.516 inhabitants⁶, the district's structure is mainly pedestrians-oriented, with bike lanes and tramway lines. Car transit is permitted only in few roads, while parking is prohibited almost anywhere in the district. Garages have been built at the edge of the district, although a considerable proportion of residents use bicycles, trams, or car sharing to move to/from the rest of the city. A number of former military buildings now host flats, meeting places for citizens' groups and a restaurant.



Figure 2 Vauban

In both districts specific attention was paid to green areas and squares, passive and low energy buildings (65 kWh per sqm), separate wastewater treatment systems, co-generation plants connected to the district heating network (Stadt Freiburg 2010).

The reuse experience of Freiburg is not limited to physical transformations, but it also concerns the social dimension. It should be remembered that besides the efforts made to pursue an eco-friendly urban development, green cities are also committed to promoting urban sustainability in terms of social inclusion, thus by developing comprehensive urban planning policies. This is a goal that green cities aim to achieve, for example, through targeted interventions for green areas and urban public spaces with the aim to improve accessibility and, therefore, to promote socialization. Likewise, urban projects for sustainable districts are geared to meeting the needs of different social groups and thus accommodating a mix of populations within them. Such approach highlights the focus of Freiburg on an integration of the different dimensions of sustainable development (Giaoutzi, Nijkamp 1993) and the actual commitment to pursue it. It is no coincidence that more recently the European Union has pointed out the importance that European cities in the 21st century are designed, constructed and managed both to foster a healthy, dynamic economy that avoids exclusion and that is environmentally efficient, to promote the well-being of citizens by meeting their needs in a sustainable manner, and to take into account and operate in harmony with the natural systems (EU 2016).

Citizens' involvement in the development of urban sustainability policies represents an issue that is often advocated to foster a greater social inclusion, since the Rio Declaration stated in 1992 that the environmental issues can be more appropriately addressed and handled with the

participation of all concerned citizens. Moreover, citizen involvement is crucial for the pursuit of a «harmonious evolution of civil society, fostering an environment conducive to the compatible cohabitation of culturally and socially diverse groups while at the same time encouraging social integration, with improvements in the quality of life for all segments of the population» (Polese, Stren 2000: 15-16; Pierson 2002).

The regeneration of Rieselfeld and Vauban was enhanced by the prompt involvement of the residents since the early stages. In particular, it must be noted the bottom-up activation in both new regenerated urban areas and how it actively supported the whole process (Spanu 2017). From this point of view, the experiences of urban regeneration implemented in Freiburg is of further relevance because the prompt involvement of district's residents has continued over time within local associations. In this regard, it is interesting to focus on the *BIV BurgerInnenVerein*, the association of male/female citizens, that has been established in Rieselfeld in the mid-1990s when the first plot was completed and residents began to populate the districts. Except for the public transport network, at that time most infrastructures, such as schools, sports and cultural centres, were still missing. In the midst of this work-in-progress setting, the first residents created working groups to discuss the future steps of the district and initially to supervise the implementation of services and infrastructures.

This propensity of Rieselfeld's residents to commit themselves can be interpreted as sharing an early spirit of collaboration within an in-progress community in an in-progress space. In other words, such willingness to participate can be explained as an exercise of *urban citizenship*, according to the Lefebvrian idea of city as a continuing work of its inhabitants (1968). From another standpoint, it is likely that the will to participate derives from the desire of new residents to actively contribute to the formation of a nascent district community. As Bauman (2001) points out, in contemporary societies a new *desire for community* emerged in response to the need of individuals to cope with a sense of uncertainty, due to an increasingly individualized and fragmented social reality.

The spirit of mutual collaboration in Rieselfeld can be also observed as a specific attitude to create relationship networks that can help to consolidate a sense of community, both as an individual perception of being part of it, and as a commitment to support community life (Sarason 1974). At a more advanced stage, Rieselfeld's BIV promoted public initiatives, meetings and social events in order to increase the livability of the district. In this sense, although the processes of globalization have resulted in greater fluidity of spaces and provisional social interactions, urban

districts still seem to be predictable scenarios (meeting known people, be familiar with places and situations) that can help to reduce urban uncertainty and to reaffirm the sense of belonging to a place (Zajczyk et al. 2005). In this respect, the realization of the *Stadtteiltreff*, the meeting point of the district in 2003, is of peculiar relevance as a *symbol* for the district, due to its central position and the role played by the Rieselfeld residents since its planning stages. The Stadtteiltreff now hosts a public library (especially devoted to childhood literature), a café, and provides places and venues for cultural activities, entertainment and urban animation, carried out by associations and addressed to the whole city.⁷



Figure 3 The Stadtteiltreff in Rieselfeld (photo by Till Westermayer)

Conclusions

Sustainability is one of the major challenges facing contemporary cities in order to address environmental and social issues. In particular, the commitment of «green cities» is aimed at defining strategies and implementing policies and actions. The regeneration of spaces represents one of the most promising approaches to responding to the most urgent urban development problems, such as housing, services, culture and recreation, but without this being a result of new land use. This is an interesting vision whether it is a long-term process, or mainly a temporary redefinition of practices and spaces, because it makes it possible to achieve multiple targets, in terms of social inclusion and land protection.

This essay focused on the case of Freiburg im Breisgau and its planning experience regarding the districts of Rieselfeld and Vauban, realized after the recovery and regeneration of two vast areas of the city that served different purposes in the past. These two examples testify to

the process of transforming two urban sites that today host new residential, work, cultural and social functions for the benefit of new residents and the overall population of the city.

Freiburg's case is interesting not only for the outcomes resulting from the city's environmental awareness, but also for the role played by its residents in creating and enhancing new territorial and social contents within urban districts, as emerged in the case of Rieselfeld. In other words, re-use and regeneration are interesting sustainable practice that allows city government to support urban change without affecting new areas, but redefining existing spaces with new contents, new appearances, and new social practices. Moreover, such experiences of urban regeneration can represent an interesting approach in governing the evolution of the physical and social dimensions of the city in a more integrated way. In this regard Freiburg's model can represent a good practice for other cities and urban regions, provided that the process of spatial transformation will be accompanied by the involvement of citizens and all the stakeholders from the very beginning of the regeneration process towards the consolidation of new urban functions.

¹ a) an urban settlement containing high shares of population allows to limit soil consumption for housing needs; b) in compact areas, mobility needs can be more easily met either individually by walking or by bicycle, or collectively by local public transport; c) the waste collection system can benefit in terms of service organization and economies of scale and agglomeration; d) similarly, housing proximity can foster accessibility to services such as the distribution of mains water and the sewerage system.

² The next sections present some findings of a more extensive study on the urban sustainable model of Freiburg im Breisgau, carried out by the Author between 2009 and 2016, and published by Franco Angeli in 2017.

³ Data referring to December, 31st 2018 (Statistisches Landesamt Baden-Württemberg, last access May, 9th 2019).

⁴ <http://www.statistik-bw.de/Presse/Pressemitteilungen/2018197> (last access May, 9th 2019).

⁵ Data referring to December, 31st 2018 (Statistisches Landesamt Baden-Württemberg, last access May, 9th 2019).

⁶ Data referring to December, 31st 2018 (Statistisches Landesamt Baden-Württemberg, last access May, 9th 2019).

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