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HEALTH-ORIENTED URBAN PLANNING IN GERMANY

Urban Planning and Design Approaches
Going beyond Professional Boundaries

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Introduction

Decisions on urban development have always had an effect on city dwellers’ physical, mental, and social wellbeing. The issue of health in urban planning is therefore not a 21st century phenomenon; on the contrary, health and the city have gone hand in hand since cities have existed. Even the ancient Greeks and Romans recognized the influence of cold and heat, drinking water quality, and winds on people, and applied Vitruvian architecture and city planning principles to protect population health (Benevolo 2007). More than anything, however, epidemics and the desperate housing situation in the fast-growing cities at the end of the 19th century triggered a series of urban development reforms promoting healthy living and working conditions, and these continue to influence planning and urban development in Europe today (Rodenstein 2012; Ward 2002). The planned extension of cities on the basis of systematic plans and drawings in the late 19th century envisioned not only rail systems, roads, and squares, but also water supply and waste-water disposal (sewage systems) in order to guarantee hygienic standards and stable supply structures in large cities as a condition for healthy living (Lindemann 1999). Further development came later with community-expanding measures such as the building of schools and hospitals, along with indoor “market hall” programs to ensure a hygienic food supply for the population (Uttke 2009, pp. 32–34).

In the first decades of the 20th century, democratic demands determined the requirements for healthy living and working conditions, as is evident with illuminated and ventilated housing. The living environment was to be linked to social infrastructure. This was implemented especially in numerous large settlements such as the Roman town of Ernst May in 1925 in Frankfurt am Main. At the 4th Congress of the Congrès Internationaux d’Architecture Moderne (CIAM 1933), the Athens Charter formulated the principles of progressive urban planning, especially with regard to immission control law (air pollution control and noise abatement). The German Federal Immission Control Act defines emissions as air pollution, noise, or odor. Immission relates to the effects of emissions on the environment. With regard to noise or air pollution control, this means the effect of noise or air pollutants on human beings as well as on plants, animals, and the atmosphere.

Planning euphoria was followed by a phase of planning skepticism in the mid-1970s. The reasons for this were, on the one hand, that comprehensive planning could not meet the high expectations of planners. It was found that plans were implemented inadequately and in fact had only a very limited relevance for spatial development (Selle 2015, p. 3; Wiechmann and Hutter 2008, p. 109). On the
other hand, uncertainty in planning practice was due to discussion on the limits of growth in 1972—as discussed in publications like those of the Club of Rome—and the 1973 oil crisis was reinforced by the declining gross national product and the ongoing economic structural change (Ebert et al. 2015). The structural crisis led to doubts about the state’s ability to act and a discussion about the “crisis of the welfare state” (Schröteler-von Brandt and Schmitt 2016, p. 43). As a result, processes of deregulation and privatization began. In addition, the growing sensitivity to environmental concerns and environmental protection has been a defining feature of the times (Hinüber 2005, p. 390).

After decades of suburbanization and massive new construction, and later after the first development spurt following the reunification of Germany, planning tasks were increasingly geared to existing buildings and urban renewal especially of core cities (Baum 2008). In the 1980s, the principle of “planning through projects” dominated (Wiechmann and Hutter 2008, p. 109). This so-called incrementalism was characterized by small-scale and selective measures being implemented instead of elaborating large-scale and integrated plans (see Baum 2008, p. 41; Wiechmann and Hutter 2008, p. 109). Participation of citizens in urban development processes gained in importance (Albers 2005, p. 382; Ebert et al. 2015). The changed understanding of planning also led to adjustments to the planning and construction law (see Ebert et al. 2015). With the amendment of the Federal Building Act of 1976, a great deal was differentiated as to which issues should be taken into special consideration in the preparation of construction plans. Under section 1 (6) of the Federal Building Act (in the wording of 1976), aspects such as healthy living and working conditions are highlighted as being particularly relevant.

Up to the end of the 20th century, in the European and German city, urban planning concepts were based mainly on a pathogenetic understanding of health. A shift to a salutogenetic understanding of health, focused on wellbeing, has recently been influencing German urban planning research and practice. The North Rhine-Westphalia and Berlin case studies presented here are examples of this aspiration. The chapter sheds light on health-oriented city planning and urban design practice by examining its different aspects and action areas in the context of urban Germany.

**European and German City Context**

Since the Ottawa conference in 1986 a paradigm change known as “health promotion” has affected the narrowly oriented health system with its primary focus on risk factors, illness, and disease prevention. Priority is assigned to the task of reducing health inequalities and ensuring the socially just distribution of health prospects. It is now more strongly assumed that health is primarily formed and can be changed in the everyday life of people, outside the realm of health care. The theory of salutogenesis, primarily formulated by Aaron Antonovsky (1993), has received international recognition as an empirically scrutinized and verified explanatory model of health and disease. In terms of utilizing the field of action of urban planning and deriving concrete intervention approaches, the salutogenesis model provides an important basis for promoting public health in Germany as well as in other countries. At the same time, the Health in All Policies strategy of the WHO calls for health issues to be comprehensively and constructively integrated in the work of all sectors (Flacke et al. 2016; Kabisch et al. 2016; Köckler 2017).

The German health system offers diverse options for the preservation, restoration, and promotion of health and wellbeing. The foundation and guarantee for their application are based upon the positive and successful interaction of many factors, including the natural, built, and social environments. Thus, health and wellbeing are also strongly influenced by the structures, processes, and decision-making of social policy, including as it relates to the environment, transport, education, and more broadly society and the economy.

The German Basic Constitution gives the municipality, the smallest administrative unit, independent self-responsibility for managing all the local community’s affairs within the framework of
the law. Within the German planning system, urban planning thus influences the social and health-related parameters of the population in question in a number of diverse ways. People’s functionally linked surroundings and experiential spaces (settings) are decisively influenced by planning interventions, which includes housing and, living, work, school, kindergarten, park, recreational and green space, transport, shopping, and gastronomic settings. However, prevention aimed at changing basic conditions involves more than just the knowledge of health determinants. It requires transdisciplinary and integrative action, the networking of the health, environment, social, and urban planning fields, and the participation of the general public to ensure healthy living conditions (see Figures 37.1 and 37.2).

Figure 37.1  Land use conflicts with problems of urban emissions such as construction and traffic noise impacting housing quality, city of Berlin.

Source: Photo by Marija Dzarleta.
An important urban policy reference for municipalities is the Leipzig Charter on Sustainable European Cities—a measure adopted during the European ministerial meeting on urban development strategies in 2007. It states that:

all dimensions of sustainable development should be taken into account at the same time and with the same weight. These include economic prosperity, social balance and a healthy environment. At the same time attention should be paid to cultural and health aspects.

*(European Union 2007)*

Integrated urban planning, as the Leipzig Charter understands it, is active management and planning of the city’s overall development, which also takes health-related development into account. At the local level, socially disadvantaged districts receive the most attention when it comes to health-oriented city development in Germany and other EU countries (Reimann et al. 2010).

As we know that economic status of a residential neighborhood is relevant to health (for the connection to obesity see Van Lenthe and Mackenbach 2002; and in relation to mortality see van der Lucht and Verkleij 2001 and Voigt et al. 2016), segregation processes within a city lead to the unequal distribution of economic resources and to economically disadvantaged urban districts and neighborhoods. There is also an increasing gap between disadvantaged and better-off neighborhoods.
in European cities (Barton 2010, pp. 12–13; Bartley 2016; Haverkamp 2018; Köckler 2017; Schulz et al. 2017; WHO 2010; also Figure 37.3). After all, poverty poses a significant health risk: people with low incomes, low-skilled jobs, or poor education have lower life expectancy on average and are more likely to suffer from health problems, with children and adolescents being particularly negatively affected (BBSR and BBR 2016; Lampert and Kroll 2010).

Issues to consider include high traffic volumes and the concomitant rise in noise and toxic emissions, as well as increased accident risks. But there are also other, quantitative and qualitative deficits in green and open space facilities that impair health in many disadvantaged neighborhoods, as they are associated with a lack of recreation, play, and exercise areas, fewer places to meet and enjoy the outdoors, and an unfavorable microclimate (Baumeister 2017; BMUB 2015; Hansen et al. 2017; Wüstemann et al. 2017).

Urban planning cannot solve these economic problems but can provide strategies to lay the groundwork for the pursuit of greater spatial justice. The discussion of the function and planning of urban green spaces for example is an important aspect of local policy in Germany. Urban green and urban blue spaces (rivers, lakes, etc.) are recognized as contributing to healthy urban solutions, which affect people’s health and mental wellbeing in various ways. Environmental justice also requires that the actual distribution of urban environmental benefits and burdens be fair. With 85%

Figure 37.3 State of health in selected European countries, comparing high-income to low-income populations in 2017. Reflecting spatial segregation and health-status reports of disadvantaged neighborhoods.

of Germany’s population living in cities, these types of urban planning and design considerations emerge as central to promoting the nation’s physical, mental, and social wellbeing (Figure 37.4).

In many German cities segregation has led to the selective appreciation and depreciation of residential areas, targeted since the 1990s as disadvantaged districts in public investment programs, in which particularly complex social, economic, infrastructural, and structural problems compared to the city at large should be eased. These neighborhoods are generally inhabited by a disproportionately large number of socio–economically disadvantaged and poor households, including unemployed people, migrants, single-parent families, and families with many children. The socio-economic disadvantages of the district population are associated with health problems and health inequalities, measured for example in life expectancy. Socially conditioned health problems—unhealthy diet (Figure 37.5), lack of exercise (Figure 37.6), childhood neglect, etc.—in disadvantaged urban areas are further compounded by environmental health risks and burdens. From the general context of German cities and the special context of disadvantaged neighborhoods, a number of issues targeted by urban planning with relevance to health can be derived.

![Figure 37.4](image_url) Disturbing aspects in the living environment in German cities—results of a population survey. Source: Bundesstiftung Baukultur (2015, p. 38).
Figure 37.5  Adulthood overweight and childhood obesity in Germany.
Source: Voigt et al. (2016).

Figure 37.6  Sports activities of children according to their social status (growing up in a high-, medium-, or low-income household)—the higher the income, the more general and organized (via membership in a sports club) the sports activities.
Source: Lampert et al. (2015).
Aspects of Health-Oriented Urban Planning

Given the link between poverty and health and the resulting concentration of related problems in disadvantaged parts of the city, promotion of health in districts with these kinds of complex problems has become a key topic in urban planning in recent years. This is not least evident in the emphasis on health-related interventions in integrated development concepts. Forty-five percent of all development concepts for disadvantaged districts supported by the joint federal and state Socially Integrative City (Soziale Stadt, www.staedtebauforderung.info/StBauF/DE/Programm/SozialeStadt/soziale_stadt_node.html; academic discourse: Greiffenhagen and Neller 2015; evaluation: BBSR and BBR 2016, 2017) program, with particular regard to urban regeneration in Germany, explicitly address health and seek to alleviate concerns with various health-promoting measures.

A study by Bär et al. (2009) outlines a wide range of areas for child and adolescent health promotion actions in disadvantaged city districts. They include classical health topics, ranging across diet, exercise and sports, stress management, addiction prevention, violence and accident prevention, and early help for young families, to more constructional measures such as new apartment buildings and improvements to the living environment, investment in the environment, and traffic. In summary, the authors point to eight action areas—nutrition, exercise and sports, addiction prevention, violence prevention, accident prevention, pregnancy and parenthood, housing, and health care facilities—and highlight four fields that are especially relevant to urban planning (Böhme and Reimann 2012):

- **Nutrition**: Healthy nutrition has been a recurring topic of public discussion for several years and is very often addressed in efforts to raise awareness about health promotion for children and adolescents (Lampert et al. 2015; Rapp and Klein 2017). The problems that result from poor eating habits are already visible at an early age (unhealthy weight, childhood obesity), and eating disorders (bulimia, anorexia) are common among adolescents as well. Local communities often gladly seize on the healthy eating aspect of health-promoting neighborhood development, as it affects an especially large number of people. Examples of this include the establishment of neighborhood and intercultural urban gardens that allow residents to grow their own fruit and vegetables, food-focused neighborhood initiatives, and after-school childcare programs.

- **Physical activity**: Physical exercise is essential to human motor, organic, and social development, and it contributes strongly to the health and stability of all age groups (Finger et al. 2017; Löllgen 2015; Schlicht 2017). Physical movement not only allows a person to have new physical experiences; it often helps them explore the living environment as well. European cities of the 21st century in many places still combine compactness and density, which can provide for example walkability (within a walking distance of about 500 to 1,000 meters) and accessibility (walking or taking public transportation) to health and open space infrastructure. However, there still can be obstacles like inmissions from traffic or gaps in the networks of walkways and bicycle paths or simply missing access to green areas. Studies indicate that regions with a higher population density, mixed use, recognizable local centers, and good accessibility are better suited to promoting active movement (for a discussion of concepts such as “walkability” or “movability” see Bödeker et al. 2012). The benefits of physical activity have compelled communities to adopt a wide range of strategies that anchor exercise in the realm of district-oriented health promotion. Examples include creating sufficient play, sports, and recreation areas in the living environment, as well as encouraging health-promoting exercise through the expansion of foot and bicycle trails.

- **Addiction prevention**: Despite the decline in tobacco and cannabis use among German adolescents, excessive alcohol consumption among young people continues to be a problem. Disadvantaged urban areas tend to show higher addiction risks, which is why targeted neighborhood outreach
continues to be an important part of community addiction prevention. Examples include directly addressing at-risk youth at their informal meeting points in the public space (playgrounds, parks, “hangouts”) and providing opportunities that allow them to better cope with the problems and challenges of everyday life (Reimann and Uttke 2010). Countless initiatives strive to involve young people especially in helping to design and set up the aforementioned informal meeting points, giving them a sense of responsibility for their surroundings and empowering them to have a hand in developing the neighborhoods that play an important role in their everyday lives (Deinet et al. 2009).

- **Living and residential environments:** Disadvantaged neighborhoods are particularly prone to the accumulation of negative health influencers in the residential environment. Examples include concentrations of noxious substances in interior spaces (tobacco smoke, mold infestation, etc.), apartment floor plans unsuitable for the elderly, traffic accident risks, noise pollution, air pollution, and inadequate infrastructure. Because of this, measures such as mold remediation, redesigning residences to provide unhindered access for people with reduced mobility, noise protection in residential areas, improvements to public green and open spaces, and establishing small health centers or neighborhood centers (with low-threshold, health-promoting services) are essential to health-related prevention in neighborhoods and part of the classic purview of city renewal (Bär et al. 2009, pp. 12–13).

Municipalities, health insurance funds, and district management authorities are key players in health-promoting neighborhood development (Blättner et al. 2014). Local politics is also tasked with incorporating health promotion in urban planning strategies as a way of reducing social inequality, and also to legitimize neighborhood-related activities. In addition, advocate organizations and different forms of bottom-up initiatives play an important role, but often need support by private or public funds. So it may be unique that, ever since the health care reform of 2000 in Germany, health insurance funds have been required by law to implement preventive services as part of section 20, Volume V of the German Social Welfare Code, and to contribute to the reduction of social inequality. Since June 2015 the new prevention law is much broader than this. Its aim is to reach individuals of all ages in urban settings and living environments. This includes places where people live, learn, and work, for example daycare facilities for children, schools, workplaces, nurseries, municipalities, and inpatient nursing homes.

These health insurance funds focus on the urban context in general and city districts in particular, by supporting projects embedded in overall municipal strategies such as the Socially Integrative City program or the Healthy Cities (Gesunde Städte) network. Last but not least, district management authorities can set crucial benchmarks with their integrative, grass-roots approach, anchoring health promotion measures in the context of social urban planning through mediation and coordination.

A look at the practice setting reveals rather fluid transitions between these areas of activity and emphasizes the wide spectrum of players in health-promoting urban planning, which uses primarily land-use plans and integrated neighborhood development plans as an instrument with which to implement concepts of healthy residential and working conditions in neighborhoods. As a result, there are many realized examples in Germany, a number of them identified as “good practice” (Bär et al. 2009, pp. 11–12). They can be found in:

- **“good practice” collections:** for example those associated with Germany’s joint federal and state-supported Socially Integrative City program (see www.staedtebaufuerdung.info/StBauF/DE/Programm/SozialeStadt/Forschung/forschung_node.html);
- **competition results:** the Socially Integrative City Prize (see www.preis-soziale-stadt.de/), the German Prevention Prize (see www.praeventionstag.de/nano.cms/international), the Eat
Better, Move More contest (see www.in-form.de), and the Model Strategies of Municipal Drug Prevention nationwide competition (see https://kommunale-suchtprevention.de);

- project databases: Health Promotion for the Socially Disadvantaged (see http://artemis.bzga.de/ldb/site/).

Added to this there are a number of publications and documents from specialist events, along with financed model projects. In particular, Germany’s joint federal and state-supported Socially Integrative City program in regard to health-oriented urban planning is well documented, with evaluations and reports that can be found online.

Our two case studies below are intended to broaden the view and perspective on health-oriented planning practice in Germany. They present strategies with a wide spectrum of players coming together to formulate and negotiate a health-oriented planning vision and strategies, and show how relevant it can be to reflect also on expected and unexpected outcomes. The first example presents an attempt to achieve health-oriented integrated planning and action through the institutional anchoring of the Health in All Policies strategy in the form of an official training instrument at the level of municipality administration. The approach has been developed and tested as a joint endeavor at the interface of science and practice–university research. The Healthy City guidelines are a result of working together with municipalities and the administration of the German federal state of North Rhine-Westphalia. They are intended to support municipalities in the development and administration of health-related planning. This concerns both plans developed by the public health services and municipal urban planning processes that require the consideration of health issues.

The second case study is taken from the city of Berlin. It is concerned with the above-mentioned task of reducing inequalities in health and ensuring greater social equality in the distribution of health opportunities. The focus is on opportunities for participation in environmentally relevant decision-making processes in terms of environmentally related procedural fairness in urban planning. It also shows how an urban development master plan is voted down by the public in favor of an attractive environment, which reflects people’s understanding of healthy living.

The Healthy City Guidelines—Guidance for Interdisciplinary Cooperation

North Rhine-Westphalia (NRW) is one of the 16 states of Germany. With 524 residents per square kilometer, it has with a total of 17.9 million people the highest population density in the country (Figure 37.7). Over 85% of the population live in cities, with some of the largest cities including Cologne with 1.1 million inhabitants, and Düsseldorf, Dortmund, and Essen with over half a million inhabitants each.

In the 1980s, the former largest industrial region of Germany, the Ruhr area, was in a devastated state, as the coal, mining, and steel industries were shutting down, leaving behind the need for ecological, economic, and urban renewal (Uttke et al. 2008). For a number of years large areas of the state of North Rhine-Westphalia have experienced the decline and aging of the population, and this despite large inflows of refugees in 2015 and 2016. Forecasts suggest that the number of children, young people, and the working population will decline significantly, while the number of the elderly, particularly the very old, will markedly rise (Cicholas and Ströker 2015). The Bertelsmann Foundation forecast that Germany will have half a million fewer inhabitants in 15 years’ time, and more than half of the people would be older than 48 (Statistisches Bundesamt 2015b) (see Figure 37.8).

The increased differentiation and heterogeneity of families and lifestyles and the number and size of households affect, for instance, the quantitative and qualitative demand for housing (MBV NRW 2006). Especially in the cities, the distribution of the population in the various urban districts and

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neighborhoods according to socio-economic and social status is relevant to issues concerning participation in society and equality of opportunities in everyday life (Friedrichs et al. 2005). The socio-spatial concentration of residents with low incomes in urban districts with correspondingly low rents, deficient living conditions, in some cases high crime rates, and rundown infrastructure often leads to multiple layers of disadvantage. This development can also negatively influence the health of those affected (Bolte et al. 2012; Hornberg and Pauli 2012).

Health and the environment have long been of particular significance in North Rhine-Westphalia. The state has a great deal of industry and high traffic densities. Furthermore, it has been demonstrated that there is an unequal socio-spatial distribution of environmental hazards and resulting health impacts. One example is the impact of traffic in the Ruhr area in NRW (Orban et al. 2016) (see Figure 37.7). Exposure to traffic noise has also been associated with stress-related and cardiovascular outcomes such as hypertension and myocardial infarction (Fuks et al. 2011).

The State Health Center of North Rhine-Westphalia (LZG NRW) is a specialized public authority that supports the state government of NRW and its municipalities in all health-related questions. Based on the perception that the municipal health authorities often lack the knowledge to intervene adequately in planning processes, in 2013 the LZG NRW initiated a model project. Academics from the School of Urban Planning at TU Dortmund University, from the Technical University of Dortmund, and from the Health Sciences Department of Bielefeld University together translated the Healthy Urban Development (HUD) Checklist from New South Wales (Australia) into German. In the course of the translation, a process of interdisciplinary exchange between the specialists from
spatial and health sciences led to the guidelines being adapted, prepared, and enriched with national and international case studies for use in NRW.

The Healthy City guidelines are intended to help improve and intensify systematic cooperation between actors from urban planning and actors from the public health services in NRW (LZG NRW 2016). For instance, the health authorities are provided with support in preparing the expert assessments required in municipal planning procedures. The Healthy City guidelines were published at the end of 2016. Before publication, the guidelines were discussed and tested with municipal representatives in multiple stages.

In the Healthy City guidelines, the material and instrumental concerns of health promotion and urban design are interlinked so as to encourage mutual awareness of the relevant sectoral aspects. This is consistent with the WHO Health in All Policies strategy (WHO 1991). With a concise presentation of expert knowledge, the Healthy City guidelines can provide a valuable basis for assessing the way in which the decisions of urban and transport planning may affect health promotion and the environment.

A broad and comprehensive understanding of health and health promotion requires consideration of various factors. The evidence is used to assess measures and plans, and the expert reports and recommendations are very complex and thus diverse. The perspective of different disciplinary fields must be applied. The guidelines explicitly aim to support this multidisciplinary approach. The central topics relevant to health-promoting urban planning and urban development in Germany are discussed in ten sections thematically dedicated to particular fields of action; consideration is given to the relevance of the theme for North Rhine-Westphalia, key specialist knowledge and established practice, broader central questions, and more differentiated and specific issues. A list of references that provide further material is also included. Owing to the intention to provide an instrument

Figure 37.8 Age structure of the population in Germany and demographic events. 
Source: Adapted from Statistisches Bundesamt (2015a).
for assessing urban design projects and measures, the guidelines concentrate on the link between urban design and health. Here the focus is on two different dimensions of the relationship between urban design and health, identified by the Greater Western Sydney Health Impact Assessment of the Greater Western Sydney Metropolitan Strategy (Western Sydney Regional Organisation of Councils 2007) as the macro- and micro-levels.

The macro-level approach focuses on the basic layout of a city that has emerged from its historical urban development. Factors that play a prominent role here include population density, the distribution of property and different land uses (residential, commercial, and industry), the availability, location, and structure of open space and conservation areas, transport, and the quality, location, and distribution of infrastructure and development zones. The micro-level is dedicated to aspects of the built environment such as visual appearances, size and mixture of buildings, land uses, and public access to parks, open space, and public transport (see LZG NRW 2016, p. 37).

Consideration of the relationship between urban design and health on these two levels allows the identification of nine fields of action of central importance for health-promoting urban planning and urban development:

- healthy working conditions;
- environment and health;
- public open spaces;
- physical activity;
- living conditions;
- social infrastructure;
- social cohesion and integration;
- security and protection;
- access to healthy food.

(See LZG NRW 2016, pp. 6–7)

In line with the objective of providing training for health authorities, one chapter is dedicated to the German planning system and presents the planning process and the numerous possibilities for and forms of participation. It includes explanations of current tasks such as urban renewal and inner urban development, building in rural areas and new development areas, and their connections to health.

The Healthy City guidelines are particularly intended for use in the run-up to or in the initial phases of project-related and urban design planning. They should provide support in municipal planning processes, particularly with tackling the following questions:

What are the health consequences of a specific project?

How can projects be improved in order to promote health or to alter health-related factors for the better?

By providing orientation and direction in the form of an instruction manual, the guidelines thus make a significant contribution towards ensuring that tasks of importance for achieving health-promoting living conditions receive adequate attention. Two workshops have already taken place in 2017 to discuss the use and the implementation of the Healthy City guidelines in everyday practice. Employees from the health authorities discussed possible applications as well as initiative potentials for the identification of public health policy options in the community. The next step will be to test the Healthy City guidelines in concrete implementation in municipalities. An evaluation of planning practice after the introduction of the guidelines will be carried out, as will bringing it into operation via proactive project initiatives and empowering workshops of the LZG NRW (Claßen and Mekel 2017).
Master-Planning a “Healthy” City—The Tempelhofer Feld in Berlin

A jump in scale takes us from guidelines for a healthy city to a neighborhood-level project with citywide significance. Berlin’s Tempelhofer Feld is a former airfield turned into a park, which spans 386 hectares. It is bigger than Central Park in New York City and is situated in the middle of the city of Berlin (see Figure 37.9), which now has about 3.5 million inhabitants.

Historically marked by the monumental, Nazi-era airport building and the events of the blockade and Berlin Airlift in 1948/49, this one-of-a-kind open space in Berlin represents a unique opportunity for a broad, multifaceted discussion about its subsequent use and how it can promote healthy living in the city. About ten years ago, it was only in their imaginations that city dwellers could stroll or skate on the 1.2-kilometer-long runways of this airfield, find respite from city noise on a vast meadow, or enjoy an afternoon nap on the grass. It is a vast, almost endless open area, also called “the big empty” (Geipel 2011), in the middle of the densely populated city of Berlin, which has 41 inhabitants per hectare (in 2017; comparison to other German and European cities can be found at www.stadtentwicklung.berlin.de/umwelt/umweltatlas/dm606_01.htm#Abb1).

A study on the availability of public and near-residential green space in Berlin shows that the city is underserved. Twenty-eight percent of all inhabitants (nearly 900,000 inhabitants) do not have open space access close (at a distance of 500 m to 1,500 m) to their homes (Berlin Environmental Atlas 2013). When it comes to environmental justice an evaluation shows that it is distributed quite unequally in the city. There are noise, air pollution, unfavorable bioclimate effects, and low availability of green space, all of them with a significant concentration in the inner-city of Berlin, and in neighborhoods of low socio-demographic status (Berlin Environmental Atlas 2015). Some of these are close to Tempelhofer Feld, as in the case of the Schillerkiez quarter. In Schillerkiez quarter, about 50% of all inhabitants received social welfare aid in 2011 (Kleilein 2011, p. 51).

Figure 37.9 City of Berlin and the location of Tempelhofer Feld. Tempelhofer Feld is located 6 kilometers from Alexanderplatz and 5 kilometers from Berlin main train station.

Source: Own map based on www.thf-berlin.de/standortinfos/karte-und-anfahrt/
With the decommissioning of Tempelhof Airport on October 30, 2008, Berlin reclaimed a large outdoor space in the middle of the city that is unique, with a size unparalleled anywhere in Europe and with great use potential for city dwellers. It is the last ample, open, centrally located space in the Berlin city limits, between the densely built-up districts of Tempelhof, Neukölln, and Kreuzberg, which in many parts were underserved and lacking public green spaces. In these areas, the underserved population reached 39%, equal to 130,000 inhabitants in the district of Tempelhof-Schöneberg. Because of the airfield’s historical significance, but also its prominent position and size, its handling by city’s authorities and planners was closely watched by many Berliners, making it a project of particular political and civic consequence in Berlin. Also it was clear that the development of the site could not be done with conventional means of planning (Geipel 2011, p. 20).

There was a period of about one and a half years between the cessation of flight operations and the opening of the field to the public. The desire to acquire this extremely spectacular and prominent space was strong, and soon regular protest movements demanded the area’s immediate opening. One particularly noteworthy example was the Tempelhof für alle (Tempelhof for all) initiative, which kick-started a highly effective public campaign in 2009. It was not until May 2010 that Tempelhofer Feld was officially opened and Berliners finally got the spatial freedom for which they had yearned for so long. It is no coincidence that the spacious open-air area soon saw an official name change: Tempelhofer Feld became Tempelhofer Freiheit (Tempelhof Freedom), and already had about 20,000 visitors a day in 2011 (Geipel 2011, p. 20).

The Berlin Senate Administration initiated a two-stage urban design competition. It was aimed at generating concepts and approaches for the so-called “process-like” or “process-oriented” development of handling Tempelhof in the long term (Heilmeyer 2011; Roskamm 2013, p. 66). It should be recognized that, during this period, there was very little interest by private investors to do anything with the space (Brinkmann 2011). The public budget available for managing public parks and sports grounds in Berlin amounts to 25 euros per square meter. Therefor all public green space developments followed the underlying necessity that “The larger the area, the less resources, the easier the standards” (Geipel 2011, p. 24).

The neologism “process-oriented urban planning” also goes back to the results of an earlier brainstorming workshop on Tempelhof’s fate. As early as 2007, the Senate Administration had held a planning and concept workshop meant to contribute to the process-based development of Tempelhofer Feld. Planning firms came together with the jointly set goal of developing an “integrated urban planning” concept that would take into account Berlin’s unique situation as well as that of neighborhoods directly adjacent to the field. This gave way to the so-called “dynamic master plan,” which acknowledges the concept of “pioneer uses”—including health-oriented uses—as initiators and generators of urban development, and deliberately tries to integrate these into the overall development of the area. Pioneer uses and other cultural initiatives are intended to actively initiate locational-based development, and are understood not only as an interim solution but as an important, integrative component of the city’s overall development. Health-oriented activities were already mentioned here as potential pioneering uses. The idea of the “pioneer concept” that emerges from this open space design competition is considered unique and special. As noted in a statement by Eelco Hofmann, “There is nothing comparable in the overall European context” (Geipel and Kleilein 2011, p. 30).

In 2008, further development of earlier plans and the new ideas generated by broad public participation yielded the Zukunft Tempelhof Feld (Future Tempelhofer Feld) master plan. Though there would be some mixed-use and housing development areas along the edges, including a “health district” and a “commercial district” on the southern fringe, the green space of Tempelhof Feld was kept largely intact (see Figure 37.10). The area’s inner-city location and size make it an important fresh air corridor (“Berlin’s refrigerator,” as some call it), but plans also saw it as a place for sports
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and outdoor leisure in the long term, enhancing local recreation options. After Tiergarten—Berlin’s main and central urban park, which has been considered the green heart of Berlin—the Tempelhofer Feld park is now the second largest outdoor space in the city (Senate Administration for Urban Planning Berlin 2008). Many contributions from citizens and also various design competitions led to the definition of a total of six guiding development principles for Tempelhofer Freiheit (Brinkmann 2011; Hoffmann-Axthelm 2011):

- sports, health, and wellness;
- combining sports and culture activities;
- knowledge and learning;
- neighborhood gardens;
- integrating neighborhoods;
- future mobility.

Four out of the six guiding principles are directly linked to health promotion.

The centerpiece of the concept (see Figure 37.10) is the park, which according to the Senate Administration will not be built up in the future, though “cautious structural development at the periphery of the area” is planned (Senate Administration for Urban Planning Berlin 2010). The airport building became the “stage of the new,” offering the city a platform for future-oriented discourses and exhibitions. The eastern edge of the park borders the densely built district of Neukölln. Through the “integration of districts,” citizens and residents of the Neukölln neighborhood in particular were to be integrated into a carefully planned, potential housing development. Nearby schools and daycare centers are networked through various educational projects in relation to and with programs and initiatives on the site. “Sport, wellness, and health” is the guiding principle at the northern edge near the Columbiadamm. Park visitors have been using the area for sports and recreation since it was opened to the public.

A planned “health district” is to be combined with health care provision activities and initiatives on the former airfield’s open space, while the southern edge of Tempelhofer Freiheit offers space to experience “future technologies.” A planned demonstration and experience center will familiarize visitors not only with electric mobility but also with the interplay of nature and clean technology. The street named Tempelhofer Damm will be home to an educational district. The guiding concept of “knowledge and learning” will be further reinforced with the possible founding of a central and regional library on Tempelhofer Damm (Senate Administration for Urban Planning Berlin 2010). All the guiding themes were meant to be implemented as pioneering uses on the airfield. They were also meant to reflect uses on the outskirts of the field, to mark and define the future image (site branding) for the expected real estate development as defined in the master plan (see Figure 37.11).

On May 17, 2010, the pioneer concept began as an “ongoing process” and is still ongoing, meaning that potential pioneer initiatives can continue to submit their applications for temporary uses. In keeping with these guiding concepts, various non-profit initiatives and associations started pioneer use applications in 2010. A large number of them contribute actively through their programs towards health promotion. It is also due to the acceptance of these initiatives and uses that the citizens’ initiative 100 Percent Tempelhofer Feld (100 Prozent Tempelhofer Feld) succeeded in its efforts. It urged for a public referendum and, in 2014, the majority of Berliners voted against any future real estate development on and even at the outskirts of the Tempelhofer Feld. Into the present, the area is devoted to pioneering temporary uses for sports, health, and wellness, in combination with culture and sports activities, as a space for knowledge production and learning, neighborhood gardens, and related activities, and to test future mobilities. This public space has
been accepted and has become integrated into the daily lives of Berliners as well as visitors from all over the world (see Figure 37.11). The GrünBerlin GmbH (owned by the State of Berlin) manages the Tempelhofer Feld, with ongoing public engagement and participation. The minutes and meetings of working groups discussing new initiatives are open to the public and documented on the Tempelhofer Feld website.

Figure 37.10  Tempelhofer Projekt GmbH, showing planned development as well as the themed areas for the pioneering uses and initiatives.

Source: Own drawing based on Heilmeyer (2011, p. 58); and Tempelhofer Projekt GmbH (2010).
Both cases show exciting approaches, particularly in light of current spatial challenges and courses of action related to interdisciplinary health promotion, among other things, with regard to reducing inequalities in environmental impacts. The case study concerning the Healthy City guidelines profits significantly from the interdisciplinary work undertaken by academics from urban planning and health sciences. It is intended to encourage the utilization of the competences of the health authorities in urban planning and to strengthen systematic cross-departmental cooperation among municipal authorities. A pretest with municipal representatives as well as course work in the urban planning program at the university in Dortmund demonstrated that the guidelines can also serve as a reference text for knowledge building in practice and academic teaching. In order to successfully tackle the numerous challenges that society faces both now and in the future, such as climate and socio-demographic change, interdisciplinary cooperation between actors from the fields of health and spatial and urban planning needs to be strengthened. The guidelines can be used to promote the necessary collaboration between planners and those responsible for health and thus to support the approaches of health-promoting urban planning. It follows that the involvement of the health authorities in urban planning should be as timely as possible and be characterized by high levels of expertise. Furthermore, the initial stages of planning procedures should be cross-departmental in nature, thus allowing the integrative health topics to be tackled and debated together with the various departments (e.g. youth, sport, or social).

**Figure 37.11** An urban gardening project, a green open-air classroom, a bicycle repair shop, and how spaces close to the eastern edge of the Tempelhofer Feld are used for cultural, educational, sports, and leisure activities by park visitors.

*Source:* Angela Million, photos taken on a Sunday, noon, September 2014.
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In the case of the Tempelhofer Feld it is clear that the state-led planning and participation process was successful in implementing and bringing a large number of different initiatives to the airfield (some still active, while others have left and new ones have arrived), which still contribute to the health-promoting activities in the park. The example shows that integrating health and urban planning was not a driving force here but it was always part of the program to develop the site as well as matching it with the active involvement of local groups—including health-oriented activities and initiatives. One also has to conclude that it was the bottom-up public pressure and public engagement for such open space uses that stopped any further development strategy for construction. There are several causes for public voting down the master plan promoting construction of new housing and office areas on the outskirts of the field, on the very sites where the pioneering initiatives are situated as intermediate and site branding uses. Certainly, for locals, there is a need for public and near-residential green space in Berlin. Experiencing the space and activities of Tempelhofer Feld, Berliners did not want to give away even part of it. Although the visions of urban planners, politicians, and the public did not come together here, the park with its status today adds in manifold ways to healthy living in the neighboring areas and Berlin-wide. Today there is a widely accepted attitude to keep the airfield open as a “large meadow sea” (Wiesenmeer) (Hoffmann-Axthelm 2011, p. 37).

Looking at these case studies, it becomes clear how points of action are the focus of attention in individual cases, and how these aim to meet the respective and very specific local needs in the neighborhood on the one hand and the city on the other hand. In these and other projects, it is continually evident that different health-promoting urban planning measures very often link various areas of action and actors, which are then framed by city planning activities (which does not mean that they are always aware of one another). In the two cases one can say that they partnered up in a beneficial way. Health-promoting urban planning also depends very much on the ability of the key actors to form partnerships and on the understanding of disciplinary access to health promoting. Here guidelines—even in the process of setting them up—offer a good basis for this task. The challenge remains for them to become a common reference for the daily planning and design practice, and what we also can learn from the Tempelhof case is that sometimes the art of healthy city planning and urban design is to take citizen needs, wants, and engagement more seriously and to promote healthy living needs over master planning.

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