Chapter 7
The Human Habitat: My, Our, and Everyone's City

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7.1 An Introduction to the Human Habitat

Cities are more than mere physical structures or modern settlement patterns. Cities are the places where we wake up, live, laugh, love, work, learn, and retire for the night. Such cities can be understood as a form of habitat and are, in fact, one of the most recent habitats on planet Earth. According to Nabhan (1997:3 cited in Steiner 2016: n/p.), a habitat is "...related to *habit*, *inhabit*, and *habitable*; it suggests a place worth dwelling in, one that has *abiding* qualities." However, in contrast to an animal or a plant habitat, the human habitat remains more or less undefined. While some think of the human habitat as related to one's home, in this chapter, we take on a broader perspective, scrutinizing the human habitat at a societal and urban scale. In doing so, we focus primarily on how cities can be planned and built in ways that foster health, quality of life, and prosperity among urban inhabitants. This entails placing emphasis on cities as *human* habitats, underlining the importance of reintroducing, or perhaps introducing, a human-centric approach to urban design. This chapter uses a working definition of health-promoting human habitats to mean well-designed, built environments that foster strong social cohesion as well as individual mental and physical well-being. Building on this definition, the chapter seeks to uncover the interconnectedness that exists between *people* and *place*. The definition of the human habitat is discussed from a Scandinavian perspective with examples of our own work, supported with relevant literature. We argue that an interdisciplinary approach to urban design is crucial to understand this relationship and, in the long term, promote quality of life in the human habitat.

Michela Nota has done all the graphic work.

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While acknowledging that our definition of the human habitat does not cover the total complexity of what comprises urban life, we have chosen to focus on health and social factors, as we believe they constitute some of the most basic human needs and as such are of vital importance to the very existence of the human habitat. Furthermore, as the human habitat should be considered to be in a state of constant transformation, this chapter primarily focuses on and presents research and guidelines for the catalyzation of positive and health-promoting changes to the urban environment. Throughout the chapter, when using "human habitat," we will refer to this future vision of successful, livable urban areas.

7.2 MY CITY: How to Design Cities for the Individual

This section looks at the most important factors of the human habitat for the individual's mental and physical well-being. In cities, the built environment and urban form have a strong impact on the lives of individuals, their experiences, as well as their perception of their surroundings, community, and fellow citizens (Fig. 7.1). Human-centric cities are designed to facilitate positive environmental factors and human health determinants. They ensure that people feel safe and happy while, at the same time, counteracting poverty and dysfunction (Montgomery 2013). Furthermore, when planning for the well-being and quality of life of individuals, it is not only important to pay attention to how our senses come into play but also how our experiences of urban spaces are determined by our knowledge of a particular space (Gehl 1987; Holloway and Hubbard 2001). To put it simply, our sensory experience will, together with our knowledge of space, affect the way in which we perceive space, which in turn will determine our behavior in that specific spatial context. Accordingly, positive *sensory* experiences cause positive lived *experiences* that foster positive *behavior*. Imagine revisiting one of your favorite places in the city after being away for a while. The sound, smell, and sight of a familiar place and perhaps familiar faces will most likely cause you to have some form of positive

Fig. 7.1 The way we perceive, experience, and use cities depends on our individual knowledge, background, and personal traits

emotional reaction. Correspondingly, you might find yourself smiling, being at peace, and therefore engaging in specific activities such as lying or sitting down.

7.2.1 My Human Habitat: Catalyzing Safety and Trust

"Safety" encompasses many different notions, most commonly security and trust, but also absence of risk, crime, fear, and worry for oneself or for others. Safety can further refer to people's different life conditions such as financial safety and social safety. It is a multifaceted concept that can be both objective (e.g., statistical risk of crime) and subjective (e.g., individual fear for one's own safety) (Heber 2008). Security, as a component of safety, is, in public spaces, often directly related to the risk of being exposed to crime. In one way, security is something that can be bought through crime prevention measures, such as fencing, alarms and security personnel, etc. While these measures, to some extent, may prevent actual crime, the most important factor that makes public spaces safe is ensuring that people *experience* less worries about being exposed to crime. Actual safety then is always relative to people's perception of safety (ibid.). The safer an area is perceived, the safer it becomes, and vice versa. Subjective safety, *or the perception of safety*, is perhaps *the* most important success criteria of urban planning and design. As an example, if people feel that it is safe to cycle in their neighborhood, the likelihood of them choosing the bike as the mode of transportation is higher. Additionally, the more people seen cycling can further increase the perception of safety with others by making the area seem lively and safe to bike in, encouraging even more people to cycle. Particularly in residential areas, the perception of safety is crucial to residents' overall experience of space and consequently their behavior and use of space. Promoting safety as in case of the example above further improves public health by facilitating physical activity and active transportation.

Perceived safety and social interaction have the ability to enhance physical, mental, and social health (Healthy Spaces and Places 2009). In a study conducted using WHO data from three European cities, a positive correlation between people's perception of safety and the likelihood of occasional physical exercise was found (Shenassa et al. 2006). This finding was further supported by North American studies, which showed that making improvements to the residential area in terms of maintenance, rather than targeting individuals with campaigns, could achieve an increase in the perception of safety and the likelihood of physical exercise (ibid.). When managing neighborhood maintenance, community surveillance is widely regarded to be the most effective form of deterring littering and urban disorder (Wong 2012; Sundberg 2013). Community surveillance in this context should be understood as the presence of a cohesive society in which individuals look after each other. However, cohesive societies cannot be imposed from above, but rather they need to grow out of the local context and the residents themselves (Jacobs 1961a).

In addition to the presence and engagement of individuals in local community management, the design of urban spaces is an important component to catalyze

safety in the human habitat. Within crime prevention literature, it has been argued that design features such as good lighting conditions, good overview of the space, places to sit, and entrance points of buildings facing the street can help to reduce crime (Loukaitou-Sideris 2006). Moreover, preventing litter and urban decay, creating safe access points to public spaces through well-designed infrastructure and connectivity, as well as facilitating flexible use for different activities to occur in the same space over the course of a day can reduce crime further (ibid.). The guiding principles presented above appear to comprise planning for safety along a physical, social, and organizational dimension. Furthermore, this research also points back to the way in which human behavior is determined by our senses and how we ascribe meaning to what we experience as safe or unsafe environments. We have, for example, been taught that littering and vandalism are signs of decay and that decay, in many instances, is associated with the presence of crime. This is where our knowledge of human behavior comes into play. In addition, the absence of lighting is connected to our senses by inhibiting visual overview of a situation, causing a feeling of lacking control and subsequently feelings of fear. This is where our senses come into play. One must understand how the interplay between physical elements, social relationships, and interpersonal sensory experiences can work together in ways that catalyze safety in the human habitat.

Digging deeper into the importance of social interaction for enhanced levels of perceived safety and quality of life of urban residents in general, it becomes apparent that research frequently connects trust—in neighbors, police, governments, and strangers—to indicators of happiness, life satisfaction, and improving urban mental and social health (Troelsen et al. 2008; Montgomery 2013). Measuring trust in a community can feel like an intangible endeavor, but trust can materialize in many concrete ways. For example, sociologists have showcased the accumulative property of trust in findings of adults that have people they trust in their lives. Their children are better equipped to handle the effects of their parents' stress; they sleep better at night, and they tackle adversity better and report being happier (Troelsen et al. 2008). Alike to designing for safety, designing for trust is based upon promoting social interaction and encounters between different people to foster tolerance and respect. Returning to the importance of social relations later, the following is a comparative example of how the interrelationships between perceptions of safety, trust, and physical design manifest differently in two parks in Scandinavia.

7.2.1.1 Trust by Design: Badeparken vs. Nørrebroparken

In 2015 CITITEK conducted a study of Badeparken in Sandefjord for the Vestfold region in Norway (Fig. 7.2). In the study, we found that the perception of safety and trust among the users of the park influenced how people utilized it. Our mappings of the use and users of Badeparken revealed that a majority of the users chose to spend time only in the north and northeast parts of the park. This user group primarily consisted of seniors, adolescents, and families with young children. Besides the fact that this part of the park had play equipment and benches, interviews also revealed that

Fig. 7.2 Badeparken is perceived as unsafe, and the design actively enforces a social and spatial division, while the design of Nørrebroparken, with its unobstructed views, does the opposite, fostering trust and a perception of safety

many people deliberately avoided other areas of the park due to feeling unsafe. The perceived lack of safety was, for most of these informants, impacted by the presence of a group of substance abusers occupying the central and southwest areas of the park. The substance abusers, on the other hand, claimed that they had few other places to stay and that the police had directed them to use this specific area of the park. Through observations and interviews, it became apparent that these two user groups did not interact in any way and in fact, to a large degree actively, avoided each other. The result was a spatial division of the park and a type of behavior that clearly indicated a lack of trust between the two user groups. Furthermore, the physical design of the park actively enforces this spatial and social division: a tall hedge located in the middle of the park effectively blocks the overview of the park in its entirety. As mentioned previously, research emphasize how lack of overview and presence of visual and physical barriers may cause discomfort in public spaces. Furthermore, it has been argued that these types of walls act to inhibit social contact and interaction (Gehl 1987:65–71), ultimately affecting opportunities for building trust between individuals. In the case of Badeparken, despite the good intentions of directing substance abusers to a designated area behind the hedge, findings from the study showed instead that this physical, visual, and social division decreased not only the overall perception of safety but the overall perception of the park as a public space.

In comparison, Nørrebroparken, a popular park in Copenhagen, is a good example of how a nondiscriminatory design approach can provide a public space for a diverse user group. In the park, a designated area was established for substance abusers, entailing benches, toilets, and semitransparent fences allowing visual overview from the outside in, as well as from the inside out (Socialministeriet 2010). This pilot project was one in a series of studies initiated by the Danish Ministry of Social Affairs, inviting underprivileged communities to partake in design processes. In a similar way to Badeparken, the substance abusers in Nørrebroparken were given a designated area to use. However, instead of "hiding away" this user group, the physical design promoted visual interaction between different user groups. Results from the study showed that the design seemed to not only cause enhanced perception of safety among all users of the park, but the substance abusers were also perceived to look after the other users (including children playing at the adjacent playground), as well as contributing to discouraging petty crimes in the area such as

vandalism (ibid.). From a Scandinavian perspective and in our opinion, this is a true win-win, where the design and operation of the urban space actively contribute to the making of a good human habitat. The example also clearly illustrates the importance of involving all kinds of citizens if we are to develop context-specific inclusive design solutions.

7.2.2 My Human Habitat: Catalyzing Active Living

Promoting active living for individuals through urban design is one of the most significant methods of preventing the presence of diseases and promote a healthy human habitat. The WHO categorizes noncommunicable diseases (NCDs), which account for 63% of all annual deaths globally, as urban society's greatest public health challenge. NCDs include chronic diseases such as cancer and asthma but also lifestyle diseases such as diabetes (type 2) and cardiovascular diseases (WHO 2013). Many of these are preventable through interventions that tackle the main risk factors, namely, an unhealthy diet, harmful use of alcohol and tobacco, and minimal physical activity (ibid.). Physical activity is effectively promoted or discouraged through urban design, for example, pedestrian and bicycle infrastructure. Design cannot in itself force people to exercise, but it has the power to encourage and invite people to live actively. For example, if multiple amenities and desired destinations are close to a residence, it is more likely that a citizen will choose active transportation that harnesses the power of the human body, e.g., walking or cycling (ibid.; WHO Europe 2007; WHO 2017). Cities around the globe seeking to reduce traffic congestion and harmful emissions and improve public health advocate this model for transportation through related infrastructure, public policy, and education (WHO 2017). Providing access to this type of fast, easy, healthy, and affordable modes of transportation across all urban contexts is and will continue to be an increasingly important determinant of individual health (EEA 2006). Environments that foster physical activity typically center around parks and green spaces, playgrounds and sports facilities, as well as walkable and bikeable distances between facilities. Factors such as safe and cohesive bike and pedestrian infrastructure additionally impact the prevalence of active transport (WHO Europe 2006).

Fostering physical activity and spending time outdoors are also ways to encourage social interaction outside the home, in the streets, and in public spaces of the city. This type of urban environment also corresponds to basic social and psychological needs and mental health. Fischer (1995) refers to these needs as social interaction, privacy, stimulation, orientation, safety, and identity (Fischer 1995, cited in Troelsen et al. 2008:28–29). Providing urban residents with areas that promote both planned and spontaneous social interaction and physical activity within walking or biking distance from one's home is an effective way of catalyzing active living in the human habitat. This of course necessitates a profound understanding of the types of social, cultural, and personal factors that motivate people's choice of active living and, accordingly, the urban design and infrastructure that promote this type of behavior.

7.2.2.1 Health by Design: Activating Ørsta Municipality

Creating bikeable and walkable neighborhoods is an important step toward ensuring more active societies and a healthier population. To create safe and user-friendly design that nurtures positive changes in behavior, we need to unveil the social and physical factors that contribute to promoting walking and cycling. When cyclists' movement patterns were mapped at the intersection by the famous Queen Louise's bridge in Copenhagen, it became apparent that many cyclists chose to break the law by taking a shortcut over the pedestrian sidewalk to bypass a busy intersection. Rather than penalizing these cyclists, Copenhagen municipality choose to facilitate this behavior by formalizing the shortcut, as it was evident that the cause of this behavior was not reckless thoughtlessness, but rather traffic avoidance. The result was better utility of the space, reduced travel time for cyclists, and more space for those who bike on the surrounding streets. Pedestrians were accommodated through pedestrian crossings over the bike lane (Københavns Kommune 2013; Rasmussen 2013). This is an example of local governance that not only makes active transportation an easier choice but also facilitates urban life. With the overall purpose of facilitating these types of positive changes to the urban environment, CITITEK conducted a study on behalf of Ørsta municipality, Norway, in 2016. We mapped the movement patterns of children and youth to understand the factors that both hinder and promote their active transportation. By allowing informants to draw and talk about their own movements and experiences, it was possible to identify and create an overview of real-life, real-time vehicular traffic and infrastructure challenges, as well as concrete suggestions to improvements in infrastructure. The study from Ørsta did not only give voice to a demographic group that is often overlooked in planning processes, but the findings also provided the municipality of Ørsta with information that will allow them to more accurately plan for healthy and safe mobility among the local youth.

7.2.3 My Human Habitat: Catalyzing Social Capital

Using Bourdieu's definition, social capital can be understood as resources linked to the durable network of relationships gained from membership of a group, both individually and collectively owned (Bourdieu 1986). Although social capital is as fundamental to an individual's health and well-being as physical activity (PPS 2017), globalization has been argued to stretch social ties across time and space. Debatably, globalization has reduced the need for people to leave their homes in order to acquire social capital and increases the risk of people distancing themselves from their local human habitat (Holloway and Hubbard 2001). Despite such potential or factual challenges, as of today, face-to-face interaction continues to be the most important and fundamental form of human interaction (ibid.). Thus, for the human habitat to foster social capital among its residents, cities must offer arenas where social interaction takes place and durable relationships are established.

In his book *Happy City,* Montgomery (2013) discusses how several quality of life studies indicate that an increase in social interactions can equal or surpass the benefits of a raise in income. Consequently, the population of local neighborhoods benefit from an urban environment that encourages social interaction by inviting people to linger, converse, and live. As such, the urban environment can encourage social interaction by providing a sense of security, orientation, and opportunities for interaction through solitary and social activities (Troelsen et al. 2008). Human need for socializing covers both spontaneous and planned interactions of differing natures. One way of facilitating both these types of meetings is to create gradual transitions between private, semi private, and public spaces (Gehl 1987) as these transitions are argued to promote social appropriation, a sense of belonging, and perceived safety (Haijer and Reijndorp 2001).

Franck and Stevens (2007) draw on Lefebvre's "right to the city" and the "right to habit and inhabit" when they argue for what they call "loose space." Loose space is public space that facilitates activities that they are not intended for. In this way, they allow for people themselves to appropriate the space for their own uses and unexpected and unintended activities (Franck and Stevens 2007; Haijer and Reijndorp 2001). One example of this type of appropriation is Queen Louise's Bridge in Copenhagen, which after a renovation process aimed at improving conditions for cyclists and pedestrians unintentionally turned it into one of the most popular hangout spots in Copenhagen. Even if the bridge had not been designed to facilitate staying activities except for a few benches here and there, the citizens began to appropriate the space by sitting down and spending time on the railings of the bridge and on the pavement. The bridge had suddenly become a space where friends and strangers meet, sit down, eat, and play music from one's cargo bike or even dance—without blocking the way for pedestrians or cyclists. Thus, the importance of loose spaces lies in the anonymity of a city, the "open-endedness" if you will. On one hand, the anonymity of public urban space can break down social roles and make people engage in unexpected activities that they might not otherwise engage with (ibid.) On the other hand, due to the same anonymity and strangers' relationship with each other, people require a *reason* to engage in socialization (Franck and Stevens 2007). The idea of loose space and the transitions between private and public spaces can create a sense of familiarity and belonging in how the spaces are easy for the individual to appropriate. Over time, these experiences can create opportunities for socialization as the perception of these factors encourage people to use and stay in these spaces (Gehl 1987). The following example describes a design solution to facilitate social interactions in Cairo, Egypt.

7.2.3.1 Social Capital by Design: Cairo Passageways

In 2014, the city of Cairo was marred by financial and political instability as a consequence of the Egyptian Revolution (Fantz 2016). During the Spring of 2014, Bianca Hermansen, together with a group of Danish and Egyptian architects and artists, was invited by Cairo Lab for Urban Studies, Training and Environmental

Fig. 7.3 While living up to the Egyptian government's strict requirements for public spaces, the parklet design of the Kodak passageways effectively fosters the rebuilding of community, neighbor-to-neighbor trust, increasing social capital and subsequently contributing to the human habitat of Cairo

Research (CLUSTER) to participate in the development of a democratic urban plan for downtown Cairo, starting with two pilot projects, the Kodak and the Philips Passageways (Fig. 7.3). The project aimed to "...develop an urban design and art project…highlighting existing and emerging initiatives activating underutilized public spaces..." (CLUSTER 2017). While emphasizing diversity, inclusivity, safety, and positive sensory experiences for people using the passageways both indoor and outdoor were activated with different types of cultural programs and designs to revitalize the public spaces (ibid.). As a consequence of the many riots and demonstrations in the aftermath of the Arab Spring, the Egyptian government had in 2014

enforced a law sanctioning gatherings of more than ten people (Human Rights Watch 2013). In CITITEK's winning concept for the pilot project, this prohibition was embraced by removing one third of the paving in the passageway to satisfy city officials. Now, in theory, the space would appear to become less public and effectively discourage too large gatherings. However, the socio-spatial consequence would be the opposite. While discouraging many people to gather at the same place, the Kodak passageway monofunctional stone paving was replaced by a lush green parklet, where narrow paths connecting small subspaces were designed to foster the rebuilding of community and neighbor-to-neighbor trust. Subsequently, this would increase social capital, which is the main driver of rebuilding and reinventing the human habitat of Cairo. Observations after the implementation of the new passageway design showed not only an increase in the number of people using the space but first and foremost an increase in the diversity of activities at different times of the day. People would no longer just walk or stand in the area, but staying activities such as cultural events and even a wedding took place.

7.3 OUR CITY: How to Design Cities for Community

While the previous subchapter—MY CITY—focused on individual's sensory and personal experiences of the human habitat at a local scale, this subchapter addresses the human habitat at a societal scale (Fig. 7.4). However, this division does not mean that the two scales should be understood as independent of one another.

Fig. 7.4 A city designed for everyone can encompass all different user groups with minimal adaption. The well-designed built environment fosters strong social cohesion as well as individual mental and physical well-being, and a human habitat is present

Rather, the relationships that manifest themselves between people and place at one scale will always influence and be influenced by human-environment interactions at other scales (Holloway and Hubbard 2001). Just as for the individual, the health and well-being of social groups are also affected by the urban design of the city. Thus, the inevitable presence of a variety of social populations in a city, including both socioeconomically privileged and underprivileged groups, children and seniors, etc., means that equity in access to health needs to be emphasized within the urban and transport planning agenda. The perspectives of sustainable development and the significant influence of social inequality on future generations mean that it is imperative to assess, address, and mitigate the impact of inequality-related action and policies for future generations (WHO 2014a).

7.3.1 Our Human Habitat: Catalyzing Proximity

Urban sprawl, "...a form of urbanization distinguished by leapfrog patterns of development, commercial strips, low density, separated land uses, automobile dominance, and a minimum of public open space," as defined by Gillham (2002:383), is one of the greatest challenges our contemporary cities are trying to overcome after previous "unplanned" or "ad hoc" urban planning (ibid.). Urban sprawl is indisputably the least environmentally, socially, and economically sustainable form of urban development, and yet it has made its mark on cities, small and large, across the world (Ewing et al. 2003; Gargiulo et al. 2012). From a human habitat perspective, urban sprawl should be considered a major threat to the public health and well-being of urban citizens. First, sprawl facilitates car dependency causing not only sedentary and physical inactivity but also enhanced levels of air pollution and climate change, which both directly and indirectly affect the presence of diseases and epidemics (Frumkin 2002). The second, but perhaps more debated, argument criticizes suburbanization and urban sprawl for deteriorating social ties, trust, and civic engagement (ibid.). Putnam (cited in Frumkin 2002:209) has, for example, estimated a 10% decline in social activities for every 10 min driving time. Considering the destructive and harmful consequences for urban life and livability, in our opinion, urban sprawl has no place in the human habitat.

The model of the compact city was developed to combat the consequences of sprawl in urban development (Dieleman and Wegener 2004). According to its advocates, the compact city promises a sustainable and health-promoting urban design strategy, which will bring life and activity back to urban centers and prevent further sprawl. Yet, the health benefits of the compact city are dependent not only on the density of people but also the degree of mixed use and proximity. For this paper, there is an important distinction to make between the two. Here, *density* considers numeral content, e.g., number of people, businesses, services, etc. within an area, while *proximity* is concerned with the access to and distance between people, businesses, services, etc. in an area (see Fig. 7.5). By considering proximity to, and between, facilities and services such as employment and income, schools, retail,

Fig. 7.5 While *density* considers numeral content within an area, *proximity* is concerned with the access to and relationship and distance between people, businesses, services, etc. in an area

and public spaces including squares and green spaces, decision-makers can ensure a human habitat when planning for and designing neighborhoods. Below follow two examples of the importance of planning for proximity to green space and healthy food.

7.3.1.1 Green Space Proximity

Access to natural environments should be considered one of the fundamental pillars of the human habitat and a catalyst for improved health and well-being. However, people's access to these types of environments has changed with rapid urbanization that limits opportunities to utilize green spaces for many urban residents. This is especially true in cities where planning for the compact city has been prioritized at the expense of the preservation of urban green structures (Jansson 2014). There is a need to acknowledge both the public health, and environmental and biodiversity benefits green spaces can provide (ibid.). Research shows that green spaces promote physical activity, improve the mental well-being of individuals, and provide important arenas for social interaction (Lee et al. 2015; Troelsen et al. 2008). Reflecting upon these benefits, designing for proximity to green spaces is essential as studies show that the closer we live to green spaces, the more we use them (Schipperijn et al. 2010; Sotoudehnia and Comber 2011). In fact, if green spaces are located more than 300–400 m from one's residence, they are used significantly less (Grahn and Stigsdotter 2003). In this regard, it is important to closely consider both actual and perceived distance in planning processes, as both may influence people's use of urban green spaces. In addition to proximity, use of green spaces is further influenced by both their size and the facilities they offer (Schipperijn et al. 2010; Van

Herzele and Wiedemann 2003; Bedimo-Rung et al. 2005). People's use of green spaces depends on both personal and demographic factors. This underpins the importance of understanding which type of facilities and activities need to be in place to promote increased use among different population groups (Lee et al. 2015; Payne et al. 2002). Understanding how these factors affect the interrelationship between people and place is consequently important to ensure democratic and health-promoting urban design practices (Lee et al. 2015). At the same time, uncovering this interrelationship will mitigate the risk of wrongful investments in facilities that do not live up to the full potential that green spaces can bring to public health and the human habitat.

7.3.1.2 Food Proximity

Access to food is vital for the very existence of the human species, and as such nutritious foods are a determining factor for the health and well-being of people at all stages of life (Azétsop and Joy 2013). Malnutrition, micronutrient deficiencies, overweight, and obesity have high social and economic costs for individuals, families, communities, and governments (WHO 2014b). Ensuring food security, defined as "...a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food […]" (Azétsop and Joy 2013:1), should thus be considered an essential component of the human habitat. Research from Europe and the United States shows that urban food security is closely connected to both social and environmental determinants, as low-income households have the lowest consumption of fruit and vegetables (WHO 2014a; Hilmers et al. 2012). Furthermore, neighborhoods with lower socioeconomic levels often have a higher density of fast food outlets, less physical access to healthy food options, and higher rates of obesity among adolescents than socioeconomically privileged neighborhoods (Hilmers et al. 2012; Baker et al. 2006). Local governments wanting to secure a healthy population and reduce social inequity in health need to simultaneously address spatial, economical, and knowledge barriers that make the healthy food choice a difficult choice to make. To plan for the human habitat, it is therefore crucial that healthy and nutritious food is available and affordable in all types of residential areas (WHO Europe 2007). This entails not only local policy-making that encourages supermarkets to provide a wide variety of healthy food choices but also the type of food offered in public institutions such as schools, hospitals, senior homes, public offices, libraries, etc. Through targeted partnerships, policy-making, and set standards, governments should also strive to make healthy food a main priority among privately owned businesses, organizations, and other actors (Hilmers et al. 2012). This can, for example, be done through means such as subsidies, tax deduction programs, or other economic incentives that will pay off in the long run in the form of public health-care savings (ibid.).

7.3.2 *Our Human Habitat: Catalyzing Diversity*

On a societal scale, the human habitat consists of the total sum of all its individuals from all population groups. In the field of natural sciences, diversity is acknowledged as promoting rich and healthy habitats, enabling systems to be resilient and allowing all organisms to adapt to change (Steiner 2016). Correspondingly, it is inherently important that the human habitat also encompass diversity. Thus, the spatial layout and design of urban spaces need to cater to different groups of people across geographical, demographic, and socioeconomic divides. According to WHO (2014a), socioeconomic status, both on a national and regional level, is proportional to factors such as life expectancy, healthy life years, and child mortality rate, where higher socioeconomic status increases the likelihood of higher life expectancy, etc. Evidence increasingly suggests that socially underprivileged people and those who live in neighborhoods of lower socioeconomic status have limited opportunities for outdoor activity (WHO Europe 2007). Furthermore, several studies conducted by WHO Europe have shown that in underprivileged neighborhoods, people are less likely to go outside for physical activity or socializing. Correspondingly, recreational or sports facilities are also less likely to be present in these areas (ibid.). The less people can achieve in terms of individual resources, the more important it is that they be able to draw on collective resources (WHO 2014a). This requires planning for diversity along two parallel lines. First, planning for diversity in the human habitat entails creating equal access to amenities, recreational facilities, and opportunities for active living across all types of urban neighborhoods. Second, to achieve community building, social cohesion, and diversity, the human habitat also needs to facilitate the bringing together of different types of people at the local level. Thus, at the core of planning for diversity is the idea of a nondiscriminatory, inclusive approach to the way in which we plan and design the human habitat.

One measure that can help combat health inequality and allow for all citizens' equal access to health-promoting resources and facilities is *universal design*. As defined by the United Nations (2017), article 2, "Universal design means the design of products, environments, programs and services to be usable for all people, to the greatest extent possible, without the need for adaptation or specialized design." The definition builds on a democratic principle where all citizens have the same rights and equal opportunities for participating in society. In this way, universal design is concerned with collective benefits and recognizing diversity rather than providing homogenous solutions (United Nations 1999). We see plenty of opportunities for creating an inclusive human habitat derived from a universal design approach. However, universal design should not only be concerned with physical access but also include considerations of how social and cultural barriers may come into play. As an example, a study from Copenhagen showed that even though approximately the same amount of men and women were passing by three selected public spaces (Charlotte Ammundsens plads, Prags Boulevard, and Multipladsen), there was a clear male dominance among the users staying in these spaces. The male users were also observed to have a higher physical activity level than the female users

(Copenhagen Municipality 2011). This example shows that other factors apart from physical access can act as determinants for the use and users of a public space. If the goal is to create an inclusive and diverse human habitat, universal design should also be concerned with uncovering how factors such as identity, ownerships, and sense of belonging are interrelated to the physical design of spaces. In this regard co-creation and citizen participation are important tools for achieving universal design and democratic human habitats.

7.3.2.1 Making People Visible Through Data: Sandefjord Municipality Merger

In 2015 CITITEK conducted a study in Sandefjord, Norway, on behalf of Vestfold region, as they were facing the challenge of merging three municipalities and centralizing public cultural facilities and services. Through gathering data about users and user patterns in current cultural facilities, the findings from the study underlined the importance of these facilities as arenas for social interactions. Furthermore, the study revealed that cultural facilities were experienced by their users as important contributors to their health, well-being, and quality of life. In particular, one of the local libraries was found to be an important meeting place for seniors and youth. The library thus acted as a catalyst for intergenerational meetings and catered to a diverse user group. However, interviews elucidated that the importance of the library as a meeting place seemed to be determined by its spatial location and users' proximity to the facility. This finding was further supported through observational mapping of the users' choice of transportation, which showed that a substantial proportion of the people using the library arrived by foot or by bike. Many of the senior users were also arriving with walkers, clearly indicating physical proximity to the library. The importance of the library as a contributor to enhanced public health was thus a combination of the activities it offered, as well as its local geographical positioning. Accordingly, our recommendation to the region was not to centralize the library services, as it would potentially harm the current public health benefits by inferring with users' current use and access through proximity.

7.3.3 Our Human Habitat: Catalyzing Democratic Change

As Jacobs (1961b:238) stated, "Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody." As relevant today as in 1961, the quote underlines the importance of introducing a human-centric, inclusive, and local approach to the way in which we design and organize our cities. While many features of cities may be comparable across space, the human habitat should not be understood as a blueprint that can be copied and pasted from city to city. Rather, planning for the human habitat requires careful consideration and the tailoring of solutions to the local context to which they are

intended. This, again, requires tapping into the local knowledge, resources, and experiences of the individuals who reside in the human habitat. In our own work, we have found placemaking to be a foundational tool in co-creating the democratic city. Placemaking maximizes shared values in the public realm by allowing the physical, social, and cultural identities that define a place to shape the collaborative process of strengthening the connection between a place and its people. Placemaking processes attempt to utilize community assets and potentials that can contribute to health and happiness when creating public spaces (PPS 2017).

7.3.3.1 Co-creation: The New Nordic of Urban Design

Participatory methods have become a norm when incorporating citizen perspectives into development projects. Citizen involvement through participation in local and regional policy is already a practice that is required by law for public development projects in Scandinavia (Mulder 2012). However, depending on the degree of participation, citizens often have little involvement in actual spatial design and visible change. Klausen et al. (2013) use Arnstein's "participation staircase" to illustrate citizen participation on the political agenda. The degree of citizen participation ranges from the lowest form of involvement, *information*, to inform citizens of the agenda, through *consultation*, *dialogue*, and *decision-making*, to the highest degree of participation, *co-governance* or *co-creation* (ibid.). Co-creation in this sense allows all participants and actors in a design process, whether it is a product, service, or policy, the same role. There is an emphasis in co-creation processes that the participation of all actors is *meaningful* and that there is an "equal base for participation" where all participants are considered partners in the process (Axelsen et al. 2014:3).

In Scandinavia, we are today witnessing the beginning of a paradigm shift whereby citizens, who previously have been on the lower end of the participation staircase, as passive recipients of public services, are transforming into active and informed *co-creators,* interested in public service creation and problem solving (Umeå Municipality 2009). In our experience, the same paradigm shift is true for urban design. The emerging methodological approach of co-creation blurs the disciplines of research and design, shifting the focus from how and what is designed to *whom the design is for.* There is a much larger emphasis on future social and political change compared to previous design research (Sanders and Stappers 2008). Co-creation strives not only for a redistribution of power and benefits but brings focus to identity policies and diversity so that matters of identity construction and recognition can become more prominent arguments for participation (Hansson et al. 2013). It is therefore an effective tool to account for different population groups' needs and untapped potentials in urban development, design, and placemaking processes.

To ensure successful urban design that caters for a human habitat and quality of life, a high degree of citizen involvement and co-creation is required. In this process, however, representation is as important as the participation itself since representation

increases the chances for a successful solution that will cater to the majority of the population. In our work, we first and foremost ensure representation through mapping and interviewing the actual users of a space while simultaneously seeking out those who do not use the space. In this way, all users and nonusers can share their experiences with a higher rate of representation than a voluntary public hearing. In our experience, a public hearing is not representative. It requires that people actively seek to participate and have access to do so, which is often not the case in all population groups. Without full community representation, we cannot retrieve accurate information about what the community represents nor a consensus to inform design solutions, ultimately undermining the development of a democratic human habitat.

7.4 EVERYONE'S CITY: Catalyzing the Human Habitat

This chapter has discussed the reciprocal relationship between people and place through the lens of the human habitat. We have argued that the way people experience and subsequently use an urban space is, to a large degree, shaped by the design of that specific space. Consequently, urban design is to be understood as an important tool to promote and foster positive human behavior and experiences as well as public health and well-being. As we have discussed throughout this chapter, a human-centric approach to urban design is crucial to prevent and counteract the negative consequences of health-compromising urbanization and to promote quality of life in the human habitat. Put simply: in order to develop a truly inclusive and healthy human habitat, we need to put people first.

If we are to create cities for everyone, we need to understand all the factors at play when analyzing the way people perceive and use their surrounding environment. This should first and foremost be done through in-depth research and data collection that will allow for an empirically grounded understanding of people-place interactions at a local level. In our experience, using empirical data as the foundation for urban design makes it difficult for any policy maker, municipality, or practitioner to ignore the needs, desires, and voices of the citizens. Data about people and urban life can thus be a powerful force to push forward a human-centric approach in urban development. Moreover, the complexity of the relationship between people and place underlines the importance of a multidisciplinary approach to assess challenges and opportunities in urban design. Working together across disciplines to promote state, professional, and citizen collaboration will allow for a better understanding of current urban systems, as well as the processes needed for effective urban interventions. Furthermore, the cases and literature presented in this chapter are primarily from a Scandinavian perspective. This is important to point out, not only because there is no blueprint in urban design, it is context dependent, but also because we argue that this Scandinavian approach is at the forefront of urban design that can promote the human habitat. The guidelines and catalyzers presented in this chapter are to be seen as tools to push the urban design, planning, and transport agenda forward globally to develop and co-create our cities for the

Fig. 7.6 The guiding principles for designing for the human habitat

human habitat. By following these guidelines, we hope that we, together, can accelerate the process of designing cities for everyone (Fig. 7.6).

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