Theory 5: Place Attachment Theory . . . Fostering Connections

Place attachment theory explains why people develop emotional bonds with specific places, often a treasured landscape from their childhood or other significant place-based life experience. Understanding why and how people have developed attachments to places and using that knowledge during the design process, can aid in the creation of better places that people will use and enjoy, take ownership of, and thrive in. This chapter particularly highlights the importance of understanding cultural and indigenous perspectives (and voices) on place attachment, and the importance of understanding, respecting and integrating a community's attachment to place into the design process.

Theory 6: Biophilic Design Theory . . . the Healing Power of Nature

Humans have evolved with nature and therefore have an innate preference for being with other living things, including plants and animals. To illustrate how designers can better engage with this theoretical concept, our discussion of biophilic design details three international examples at very different scales – from biophilic urbanism throughout Singapore to the biophilic design of hospitals and pedestrian bridges. Closely linked to biophilia is attention restoration theory and related research that substantiates the importance of access to nature in today's fast-paced, overstimulating urban environment. This chapter synthesizes key research findings which show nature to be truly healing, with the presence of nature linked to reductions in crime rates, domestic violence, the duration of hospital stays and the amount of medicine patients need.

Applying Design Theory to Global Priorities

Many of these theories are inter-related and when used together help explain how people interact with their environment. The chapters in Part II illustrate this, focusing on four key global priorities:

- salutogenic design;
- child-friendly design;
- age-friendly and inclusive design; and
- sustainable design.

Salutogenic Design . . . Promoting Healthy Living

It is becoming increasingly important to design places that enable people to live healthy lifestyles. Salutogenec design focuses on creating health promoting environments that are preventative rather than reactive. The

salutogenic model incorporates the sense of coherence, which is a person's ability and motivation to deal with stresses in life, and which relies on the resources provided by the environment to encourage healthy activities. Salutogenic design incorporates placemaking principles to enable people to enjoy and be invigorated by the places in which they spend their time. As well as examples and images of salutogenic places, this chapter unpacks the characteristics of coherence and how actively engaging with cutting-edge research findings alongside established design theories encourages healthy living.

Child-Friendly Design . . . Where Young People Thrive

Communities are focusing more on the needs of children, youth and families, and global policies now recognize the rights of young people to have a healthy environment in which to live, play and work. A significant body of research which supports child-friendly cities has been oriented to designing public spaces, improving independent mobility, enhancing access to the natural environment, and providing opportunities for life chances more generally. For example, a key area of importance is safety and well-designed walking and cycle paths that effectively and efficiently connect residential areas to parks, public spaces, schools, and community amenities. Access to nature and the opportunities to play safely outside are other critical areas of research that provide evidence for improving environments for young people. Drawing on examples of child-friendly environments, this chapter identifies the key features of places that can have a positive impact on growing up – and how explicitly engaging with evidence-based theory facilitates the design of great places, particularly for young people.

Age-Friendly and Inclusive Design . . . Designing for Everyone

Universal design focuses on inclusivity, rather than isolating people or groups. Ideally, universal design principals form part of the design intent and process from the beginning and are seamlessly incorporated into the environment or building. Yet, more often than not, places need to be retrofitted to be universally accessible and the solutions are not always elegant or even practical. Global population ageing has focused attention on the importance of age-friendly inclusive design, of creating homes, places and spaces that enable people with disabilities and older people to 'age in place.' By 2020, people aged over 65 years will outnumber children – and innovative design has a significant role to play in improving their quality of life, independence and mobility. From access and social inclusion, well-lit and wide footpaths, signage and street furniture, to slowing traffic and prioritizing walkability, design decisions affect whether everyone can easily use our public spaces. Discussing concepts

such as design for dementia, this chapter outlines innovative examples of evidence-informed design that engages our senses (color, touch, texture, smell, sound) and the importance of creating attractive public spaces that welcome and support people of all abilities. Supported by best-practice examples, this chapter establishes a clear design problem, brief and challenge: how can we create great places for all, using evidence-based design theory.

Sustainable Design . . . Radically Redesigning Our Built Environment

Tackling climate change will require a disruptive, radical rethink of how we design places, with this chapter investigating key emerging trends in sustainable design. These responses all argue for moving beyond *reducing* the environmental impact of a building, product or place to actively *putting back more* than is taken in the construction and operation. Drawing on examples from London, Pittsburgh, Oslo, Adelaide and Vancouver, we illustrate how the process of designing for restorative and regenerative sustainability means adopting a triple bottom line, systems-thinking, and circular design perspective, grounded in biomimicry, cradle-to-cradle, and a broader social impact perspective. Design, through relevant evidence and theory, can be a powerful force for positive action on climate change.

Working towards Evidence-Based Design Practice

Creating great places is increasingly a global policy priority, given the large body of research which consistently links the quality of our urban built environment – the buildings, streetscapes, and greenspace – to our health, wellbeing and overall quality of life. Our lives are situated in, and shaped through, everyday interactions with place. Yet, as designers know all too well, the process of design is complex. Careful decisions must be made about site selection, configuration, density, orientation, building footprint, open space design and amenities, and the choice of materials, colors, furnishings. Designing places to foster health and wellbeing, across different socio-culturally diverse neighborhoods in different climates, countries and contexts, is not an easy or straightforward task. We can rely on the wonderfully inspiring work of urban design theorists (e.g. Jane Jacobs, Jan Gehl and William Whyte), the current work of organizations such as Project for Public Spaces (PPS.org) in New York City, and the increasing popularity of concepts such as tactical urbanism, design justice, participatory and humanitarian design.

Still, renowned architectural critic and educator Sarah Williams Goldhagen recently concluded that 'boring buildings and sorry places are nearly everywhere we turn' (Goldhagen, 2017, p. 30). A similar

passionate, persuasive plea for urban designers, architects and planners to rethink their design practices and methodologies is a key aim of this book. What's more, advanced level books documenting classic design theory – alongside examples in practice – are rare. In practice, designers do not often turn to evidence or theory as a source of inspiration. There are rarely conversations about how to use affordance, prospect-refuge or place attachment theories, or the most recent research findings, as a tool to visualize, adjust, adapt, and improve the design of places.

Creating Great Places addresses this critical practice-theory knowledge gap, arguing that designers need to explicitly reengage with theory. By systematically covering design theories, and directly linking these to examples of practice from across the globe, this book serves as a design theory toolkit – showing design educators, researchers, practitioners, and students how the informed use of evidence and theory helps create great places where people really can thrive. It serves as a critical reminder to those shaping our urban spaces, especially design practitioners, to explicitly use theory in their design process – for example, to think about how design decisions (and a place) might look differently if the lens of personal space theory, or affordance theory, or biophilic design is adopted.

We have labeled this approach, of thinking about a design problem through the lens of different theories, 'theory-storming' (described in detail in Part II). The notion of 'theory-storming' was inspired by Edward de Bono's (1985) Six Thinking Hats which challenges people to think differently – for example, by adopting a green hat of creativity (possibilities, alternatives and new ideas); a red hat of feelings, hunches, and intuition; a black hat of judgement; a yellow hat of brightness and optimism; or a white hat of information known or needed– this book challenges designers to think differently about designing, and to explicitly adopt the different conceptual lenses of six theories. Just as designers might engage in a design charrette or critique, our hope is that this book might more deeply embed theory into practice through a *theory-storming* approach.

This book seeks to shift the dialogue, to inform and change the conversation so that engaging critically with research theory and findings becomes a standard part of design practice. Encouraging designers to think differently, in an imaginative, conceptual and evidence-based way, is a strategy to foster placemaking practice that supports health and wellbeing.

References

Cuthbert, A. R. (2003). *Designing Cities: Critical Readings in Urban Design*. Chichester: Wiley.

de Bono, E. (1985). *Six Thinking Hats: An Essential Approach to Business Management*. New York: Little, Brown & Company.

Goldhagen, S. W. (2017). *Welcome to Your World: How the Built Environment Shapes Our Lives*. New York: HarperCollins.

Hall, E. T. (1966). *The Hidden Dimension*, New York: Anchor Books.

Hamilton, D. K. & Shepley, M. (2010). *Design for Critical Care: An Evidenced-Based Approach*. Oxford: Elsevier.

Hamilton, D. K. & Watkins, D. H. (2009). *Evidence-Based Design for Multiple Building Types*. New York: Wiley & Sons.

McHarg, I. (1969). *Design with Nature*. Garden City, NY: Natural History Press.

Milburn, L.-A., Brown, R., Mulley, S. & Hilts, S. (2003). Assessing Academic Contributions in Landscape Architecture. *Landscape and Urban Planning* 64: 119–129.

Redström, J. (2017). *Making Design Theory*. Cambridge, MA: The MIT Press.

Thwaites, K. (1998). Landscape Design is Research: An Exploration. *Landscape Research* 23(2): 196–198.

WHO. (2017). Constitution of WHO: Principles. Retrieved from www.who.int/about/mission/en.