



Environmental & Architectural Phenomenology

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This *EAP* begins 32 years of publication and includes “items of interest” and “citations received.” The issue includes five essay entries, beginning with zoologist **Stephen Wood’s** commentary relating to the phenomenology of animal welfare. Next, environmental psychologist **Claudia Mausner** draws on her firsthand experience of shifting residences to point to some key dilemmas relating to liminality, place, home, and multiple “homes.” The third entry this issue is architect **Tim White’s** firsthand examination of the human-sustaining walkability of Florence, Italy. He points to several ways in which Florence can be seen as an important model for current-day urban design and planning.

Fourth, geographer **Edward Relph** draws on a wide variety of empirical studies and environmental data sets to consider the future of places and place experiences in the 21st century. In discussing the impact of climate change, for example, Relph points out that it is a “slow-moving version” of our current Covid-19 pandemic in that both are “global in range, ignore national boundaries, put the poor and vulnerable at greater risk than wealthy elites, and involve exponentially increasing consequences that are easily dismissed before they become obvious by which time it is too late to do much to mitigate them effectively.” At the same time, however, there are differences in that, “if concerted actions to mitigate climate warming are not taken very soon, consequences will be much more severe and longer lasting than Covid-19.”

We end with architect **Levent Şentürk’s** creative effort to summarize graphically the work of one key figure in urban design and environment-behavior research—architect **Kevin Lynch’s** seminal *The Image of the City* (1961). Şentürk calls his series of drawings an “explicator,” by which he

means a graphic form providing his seminar students an assessible introduction to Lynch’s work.

Throughout the years of *EAP’s* publication, we have emphasized the possibilities of graphic presentation for picturing and clarifying essential phenomenological themes and principles. Though Lynch is not directly phenomenological, Şentürk’s manner of presentation points to one way in which graphics might be used to strengthen understanding of qualitative themes relating to architectural and environmental behavior, experience, and meaning.

“Archetypes in Architecture” available in digital version

Scandinavian University Press has recently uploaded an open-access, digital copy of *Archetypes in Architecture*, Norwegian architect **Thomas Thiis-Evensen’s** seminal phenomenology of architectural experience.

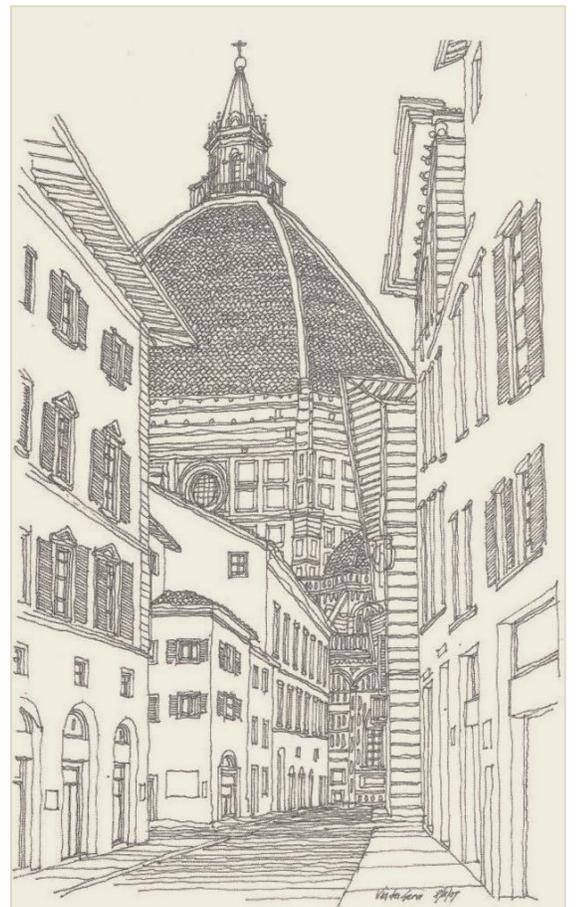
Drawing largely on a hermeneutic study of both high architecture and vernacular buildings, Thiis-Evensen defines architecture phenomenologically as the making of an inside in the midst of an outside.

He argues that the architectural inside-outside relationship can be clarified by considering how the three architectural elements of floor, wall, and roof express a wide range of human experience and meaning that he summarizes through three “existential qualities” of motion, weight, and substance.

The book is available in individual chapters in html. It can also be read and downloaded in high-resolution pdfs, both for the book as a whole and for individual chapters.

The *EAP* editor thanks Thiis-Evensen’s son **Thomas Bernhard Thiis-Evensen** and Scandinavian University Press’s commissioning editor **Helge Årsheim** for providing this information. The book was originally published by the Scandinavia University Press in 1987. The direct link to the English digitized version of the book: https://www.idunn.no/archetypes_in_architecture?languageId=2.

Below: Architect Tim White’s drawing of a street view toward the dome of the Cathedral of Florence—better known as the “Duomo.” See White’s essay on the walkability of Florence, p. 11.



Items of interest

Because of Covid-19, we are not providing information on professional conferences in 2021. The conference situation is currently fluid, though it seems that most professional groups will be holding conferences virtually. Readers should check the webpages for conferences in which they are interested. In relation to conferences related to *EAP*, we have provided information on the following in the past:

Architecture, Culture, and Spirituality Forum (ACSF);

Back to the Things Themselves!

(*BTTTT!*);

Environmental Design Research Association (EDRA);

Interdisciplinary Coalition of North American Phenomenologists (ICNAP);

International Association of Environmental Philosophy (IAEP);

International Human Science Research conference (IHSR);

International Making Cities Livable conference;

Society for Phenomenology and Existential Philosophy (SPEP);

Society for Phenomenology and the Human Sciences (SPHS).

Phenomenology and Education

Edited by **Patrick Howard, Tone Saevi, Andrew Foran, and Gert Biesta**, *Phenomenology and Educational Theory in Conversation* (Routledge, 2020) considers teaching and learning in terms of relationality, intersubjectivity, and pedagogic empathy. The aim is to “offer insights that connect fully and concretely with the everyday lives of educators and students.”

The 19 chapters include: “On the Givenness of Teaching: Encountering the Educational Phenomenon” (**Gert Biesta**); “Approaching Education on its Own Terms” (**Joris Vlieghe** and **Piotr Zamojski**); “Pedagogical Practice” (**Andrew Foran**); “A Phenomenology of Reading: Textual Technology and Virtual Worlds” (**Eva-Marie Simms**); “Reality Testing Subjectivity, Naivety

and Freedom: On the Possibility of Educational Moments” (**Tone Saevi**); “The School Building and the Human: An Intertwined Relationship” (**Eva Alerby**); “Active and Interactive Bodies” (**Stephen J. Smith**); “Awakening to the World as Phenomenon”: The Value of Phenomenology for a Pedagogy of Place and Place Making” (**David Seamon**); and “Between Having and Being: Phenomenological Reflections on Having Been Educated” (**Patrick Howard**). Further information: <https://www.routledge.com/Phenomenology-and-Educational-Theory-in-Conversation-Back-to-Education/Howard-Saevi-Foran-Biesta/p/book/9780367209889>

Citations received

Deyemi Akande, 2017. “Medieval Masons and Gothic Cathedrals.” *Society of Architectural Historians’ Connects*, July 18.

<https://www.sah.org/publications-and-research/sah-blog/sah-blog/2017/07/18/medieval-masons-and-gothic-cathedrals#commentsWidget>.

This architect considers why medieval cathedral stone masons expended so much care and craft in their work: “What makes the mason so exceptional ...? Why, in spite of the odds, are they so meticulous? What did building a cathedral mean to masons for them to give sweat and blood to it even in low pay and less than ideal construction conditions? We know now against popular notions that many were not even men of the faith—such that we could argue that they do it in reverence and worship to God. Yet, they offer their skills with the highest conduct exalting royalty—both heavenly and earthly in the most astounding figural and architectural display that human beings may ever know. Why?” Includes a fine set of the author’s photographs of Gothic cathedrals.

Victoria F. Burns, Natalie St-Denis, Christine A. Walsh, and Jennifer Hewson, 2020. “Creating a Sense of Place after Homelessness: We Are

Not “Ready for the Shelf.” *Journal of Aging and Environment*.

<https://doi.org/10.1080/26892618.2020.1858382>.

These researchers used semi-structured “go-along” interviews to understand how seven older adults with homeless histories created a sense of place, and the supporting and undermining situations they encountered in their placemaking after being housed. The researchers identified two key themes: *home as safety*; and *sense of place as purpose*: “Although most expressed gratitude for the safety their housing provided, it was not enough to feel *in place*. Sense of place as purpose was facilitated by three subthemes (self-determination, employment and education, and technology) and three barriers (discrimination, transportation, and income).” See the sidebar below.

Older people experiencing homelessness

Over the past two decades, as the number of homeless people experiencing homelessness (OPEH) has continued to rise, particularly in urban contexts, gerontological researchers have focused their attention on identifying different pathways into and out of homelessness. The literature suggests that later-life homelessness, like homelessness at other life stages, is a complex phenomenon caused by individual circumstances (i.e., addiction, mental and physical health, family breakdown) and structural factors (i.e., lack of suitable jobs and housing).

Research has also focused on different subgroups of OPEH, including those experiencing persistent and first-time homelessness in later life. While research has focused on older people’s experiences during homelessness, there has been little attention on OPEH’s experience after being stably housed. This represents a critical gap in knowledge considering that with age, a person’s home becomes increasingly important to maintaining a positive sense of self and well-being (p. 2).

Chad Engelland, 2020. *Phenomenology*. Cambridge, MA: MIT Press.

It is curious how all the major academic publishers have decided that they must have a series of short introductions on “fashionable topics.” This small book is part of MIT’s series on “Essential Knowledge,” which aims to “offer accessible, concise, beautifully produced pocket-sized books on topics of current interest.” The series is said to draw on “leading thinkers,” though, in this case, the *EAP* editor had never before heard of Chad Engelland or noticed his name in any major phenomenological literature (though, to be fair, Engelland does cite two books on phenomenology in his references).

So, is the book useful? As one might expect, Engelland is a philosopher and breaks the book into ten conventional chapters, with titles like “to the things themselves,” “world,” “flesh,” “speech,” “life,” and so forth. As is typical with too many philosophers, Engelland appears to have no knowledge of the large, growing literatures on phenomenological research outside philosophy, including the important work on “phenomenology of place.”

Philosophers should be proud that a philosophical tradition like phenomenology has garnered great attention in academic and professional circles—nursing, education, social work, medicine, architecture, geography, sociology, anthropology, ecology, and so forth. When will philosophers writing introductions like this book realize that the conventional phenomenological themes remain important, but also let readers know, especially undergraduate students, that phenomenology has become a major conceptual and methodological approach in both the human and natural sciences?

Tim Edensor, Ares Kalanidides, and Uma Kothari, eds. *The Routledge Handbook of Place*. London: Routledge, 2020.

The editors of this 756-page volume claim to provide “a compendium of the diverse and growing approaches to place.” The book includes 63 entries arranged in seven

themes: situating place; the qualities of place; identity and place; power, regulating and resisting place; displacement, loss and emplacement; economic geographies of place; and creative engagements of place.

The huge disappointment with this volume is that there are no entries relating to phenomenologies of place. Even though the key work of the last three decades on place and lived emplacement has been envisioned and actualized by phenomenologically-inspired thinkers—e.g., **Anne Buttimer, Edward Casey, Janet Donohoe, Karsten Harries, Bernd Jäger, Jeff Malpas, Robert Mugerauer, Edward Relph, Christopher Tilley, David Seamon, Ingrid Stefanovic, Yi-Fu Tuan, E.V. Walter**, and so forth—none of this work is represented in this volume, which instead emphasizes the currently-fashionable conceptual perspectives of poststructuralism, social constructionism, critical thinking, non-representational theory, and assemblage thinking.

One wonders why a major academic publisher would allow a so-called “handbook” to ignore the most important work on the topic the handbook supposedly covers. The volume is a considerable misrepresentation of the work on place and another example of how current fashionable thinking and theories obscure more valuable, accurate work grounded in the lived reality of place.

Michael Hauskeller & Tom Rice, 2019. “A Jungly Feeling: The Atmospheric Design of Zoos.” In T. Griffero & M. Tedeschini, eds., *Atmosphere and Aesthetics*. London: Palgrave/Macmillan, pp. 147–58.

This philosopher and anthropologist consider the meaning of atmosphere for zoo design: “The atmospheric design of zoos provides a good example of the need to balance the real enough and the not-too-real.” In their conclusion, they ask “What atmospheres *should* we want at zoos? What atmospheres might be best for all concerned, animal residents as well as visitors and keepers? ‘Thinking atmospherically’ might also present a means of stimulating reflection: challenging zoos and

their visitors to think about what kinds of atmosphere they *really* want and are happy to be complicit in producing.” The following sidebar reproduces the authors’ perceptive comments relating to the soundscape experience of zoo animals.

Atmosphere and animals

We might wonder ... what the effect of a soundtrack chosen to create the “right” atmosphere for the zoo’s [human] visitors might have on the animals in the enclosure. Perhaps crocodiles in an exhibit where sounds are used to create a “swamp-like” effect experience these sounds very differently from the exhibit’s human designers and visitors. Perhaps the noise worries them and should therefore be considered a potential welfare hazard.

Also, given that people may not be affected by a soundscape in the same way, it is quite possible that individual animals in the zoo experience the artificial acoustic environments in which they are obliged to live in various, but equally atmospheric ways ...

Whether non-human animals actually perceive atmospheres is of course an open question But if they do, we cannot necessarily expect those atmospheres to be similar to the ones we perceive in the same situation, simply because how we perceive the world, how it affects us, depends very much on the way we relate to that world: our human needs and desires, hopes and fears, likes and dislikes.

By the same token, however, we should fully expect, from what we know about atmospheres, that non-human animals also experience them, because atmospheres are there for us not insofar as we are thinking beings, but insofar as we are animals: embodied, world-inhabiting beings in a world that can harm and destroy us, or sustain and support us.... (Hauskeller and Rice, pp. 155–156).

Michael R. Kearney, 2020. “The Phenomenology of the Pipe Organ.” *Phenomenology & Practice*, vol.15, no. 2, pp. 28–38.

An illustration from Merleau-Ponty's *Phenomenology of Perception* describes the interplay of habit, sedimentation, and intersubjectivity in the practice and performance of a skilled organist. In this article, Kearney takes up Merleau-Ponty's example to describe some of the phenomenological characteristics of embodied musical performance. These characteristics point toward an intersubjective event of "consecration," as Merleau-Ponty describes it, in which the musician adopts the role of rhetor, inviting the audience into a shared dwelling place. See sidebar below.

"Gestures of consecration"

This investigation into Merleau-Ponty's description of the pipe organ contributes to a richer understanding of the phenomenology of practice. Practices involve not only a specific set of actions but also the habits that comprise an individual's character or *ēthos*. And practice, in the singular, is embodied engagement with the materiality of an instrument which prepares for the performative possibility of this character to become apparent.

The habitual practices that constitute virtuosity at the organ prepare the performer for hermeneutic engagement with the texts of instrument and score and provide the possibility for temporal meaning to emerge. Skilled interpretation at the organ bench sacralizes ordinary space and time for the intersubjective experience of communication.

The organist works in the role of rhetor, offering ethical and aesthetic gestures that invite the audience into a moment of understanding, reflection, and transformation. And this observation speaks to the domain of human communication more generally.

The gestures of the rhetor, like the gestures of the organist, are "gestures of consecration" (Merleau-Ponty, 1944/2012, p. 147), and they offer those who wander past the doors of a communicative dwelling place, the opportunity to pause for a moment and even, perhaps, to come in (Kearney, p. 38).

Andrew M. Manshel, 2020. *Learning from Bryant Park.* New Brunswick, NJ: Rutgers Univ. Press.

This book recounts the remarkable transformation of New York City's 1980s crimeridden Bryant Park to its successful reopening in the early 1990s, which helped revitalize midtown Manhattan and became an invaluable model for other urban revitalization projects. Manshel draws on his experiences of helping with Bryant Park's transformation and asks, "What about urban policy can we learn from Bryant Park?" An appendix reprints urbanist William Whyte's original 1979 grant proposal to the Rockefeller Fund for funds to revitalize the park; the proposal includes Whyte's analysis of the park's problems and design solutions for its invigoration. The sidebar below presents a portion of Manshel's comments on effective placemaking.

Taking small risks

One of the principal strategies of placemaking is to take small risks and correct mistakes as they are observed. It is generally impossible to predict how people will behave in a particular physical situation. People's expectations for what they may find in a space differ, topographies differ, density of use varies from place to place. You can make your best estimate of what might work, but you can't really know. That's why it is important to carefully observe the implementation of placemaking tactics and be prepared to adjust them—depending on how people respond

At the same time, that doesn't mean that because places are unique or different, successful public space or economic revitalization strategies that work in one place aren't transferable to another place. I have been told the success of Bryant Park is exceptional because it is Manhattan or Midtown and therefore programs and strategies that worked in Bryant Park won't work in other places

In fact, before Bryant Park reopened, we were told many of our ideas were *impossible* in the park because of

its unique location. Movable chairs, outdoor movies, elaborately planted gardens—none of these would work at the corner of Sixth Avenue and Forty-Second Street, we were often told, because of the special conditions there. Now all of those strategies seem like obvious successes.

Nothing about Bryant Park's success was inevitable, and several elements of the park's redesign were failures (although none of the tactics that didn't work were among the recommendations made by [William] Whyte in his 1979 analysis of the park's problems). However, when programs didn't seem to be working, *failures were quickly identified, and new programmatic or design solutions were created to address them.*

At the center of great public space management is an iterative process of observing how real people use public space and adjusting strategies to deal with issues as they arise (Manshel, pp. 114–115).

Tom Martin, 2020. "Relational Perception and 'the Feel' for Tools in the Wooden Boat Workshop." *Phenomenology & Practice*, Vol. 15, no. 2, pp. 5–23.

Martin presents insights into the lived experience of maritime carpentry practices, based on six months of sensory-ethnographic fieldwork as a wooden boat builder's apprentice. He examines the widely-reported experience of tools "withdrawing" from consciousness as craftspeople master their use. Without contradicting these interpretations—many of which are constructed by way of reference to ideas from Merleau-Ponty—the author suggests further theoretical resources to examine the perceptual experience of work after tools cease to be the main focus of the craftsperson's attention. Heidegger's idea of "circumspection" is presented as a way to illuminate the relational nature of the subsequent mode of perception, in which the work as a whole fills consciousness, rather than the individual instruments through which the work is achieved.

A Fishkeeper's View of Animal Welfare

Stephen Wood

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This essay is inspired by my experience of keeping Gustav, a betta, or Siamese fighting fish, while working in California, 2007–2008. I present the notion of animal being-in-the-world as described in Merleau-Ponty's phenomenology of nature (Merleau-Ponty, 1942/1963). This sets the stage for the agency-based approach to animal welfare advocated by researcher Françoise Wemelsfelder (1997, 2001, 2007).

I describe the observations of experienced betta keeper Marcus Song (2006) and show how Song shares with Wemelsfelder a concern for the behavioral style and body language of animals under human care, a concern that springs from their appreciation of animals as personal, sentient beings in their own right.

Animal being-in-the-world

In *The Structure of Behavior* (1942/1963), Maurice Merleau-Ponty frames a phenomenology of nature in terms of three orders of existence—the material, the vital, and the human. In distinguishing the vital from the material and challenging the doctrine of animal machines, he invests the animal body with intentions addressed to its natural surroundings, or milieu. In his vision of the human order embracing and at the same time transforming the vital order, consciousness is seen to be supported and made possible by a stable bodily being-in-the-world:

The gestures of behavior, the intentions which it traces in the space around the animal, are not directed to the true world or pure being, but to being-for-the-animal, that is, to a certain milieu characteristic of the species; they do not allow the showing through of a consciousness, that is, a being whose whole essence is to

know, but rather a certain manner of treating the world, of "being-in-the-world" or of "existing" (Merleau-Ponty (1942/1963, pp. 124–25).

In this study, Merleau-Ponty shows a concern for the lived experience of animals in their surroundings and for distinguishing between normal and abnormal behaviors. He draws extensively on the work of the phenomenological psychologist Frederik Buytendijk (1920/1928, 1930) and indirectly on the work of protoethologist Jakob von Uexküll (1909). These authors see the animal as an active agent, setting the terms of its own milieu, or *Umwelt*, choosing not only the sensory impulses to which it responds, but also the meaning it attributes to them and its characteristic ways of responding.

Wemelsfelder (1997) has cited Buytendijk and Uexküll as providing the founding philosophy of her approach, which might be called "agency-based welfare":

The notion of 'agency' asserts that in spontaneous and unpremeditated observation of animals, we do not see just 'behavior', but, over and above that, what we see is a 'beholder', a dynamic agent. We do not merely see sitting, walking or licking going on, we see an animal who sits, walks or licks. It is not the legs that walk, or the tongue that licks; it is the animal who walks with its legs or licks with its tongue. Thus, the behaving animal as a whole is not just an emergent by-product of walking legs, licking tongues and wagging tails; it is not merely the sum of its parts. The animal as a whole is the dynamic, integrative centre of action, the very point of origin for any behavior or movement (Wemelsfelder, 1997, p. 80).

Merleau-Ponty devotes many pages of *The Structure of Behavior* to reflex actions and conditioned responses. The theory of associative conditioning gained great influence after Ivan Pavlov's experiments on dogs (Pavlov, 1897/1902). Dogs trained to associate the ringing of a bell with the presentation of food began, after a certain number of trials, to salivate on hearing the bell even when no food was present. A phenomenon as apparently complex as learning was reduced to a simple reinforcement of stimulus and response. Merleau-Ponty (1942/1963, p. 52n6), however, refutes such a mechanistic interpretation, reporting the results of an experiment performed by Buytendijk (1930, pp. 50–52):

A dog left at liberty can be trained to choose a door marked with a triangle, even if it is different or even reversed from the one which was used in training, on the condition that the difference be not too great at first. A dog kept on a leash cannot acquire any reaction at all to an immobile triangle after one thousand trials.

To demonstrate associative learning in the dog, the experimenter relies on the stable relation of the animal to its surroundings. Kept on a leash, the dog is unable to express itself according to its nature, and its ability to respond to the stimulus of the triangle and to the associated reward is impeded. The distress of being constrained deprives the animal of a full and reciprocal engagement with its surroundings. The leash, so to speak, "cramps" the dog's style.

In designing his experiment, Buytendijk had the intuition that the dog, by nature a hunter and used to move freely when chasing prey, would not react in the same way at liberty as when leashed and

forced to wait for food to be brought to it (Buytendijk, 1930, p. 50).

Another body of experimental work that Merleau-Ponty addresses is that of Jacques Loeb and his followers, who seek to demonstrate tropic irritability in animals. The theory of animal tropisms was modelled after the tropic reactions in plants, where sunflowers, for example, turn toward the sun (positive phototropism) or seed roots dig their way into the soil (positive geotropism). Tropisms were defined as *forced* reactions of the animal to environmental conditions: a given stimuli would mechanically provoke a given response from the organism (see Loeb, 1900, for examples).

Merleau-Ponty, after reviewing the criticisms presented by Buytendijk (1920/[1928, pp. 59–62]), favors an interpretation in terms of animal agency:

In fact, tropisms, which were long considered to be reactions to the physical and chemical agents of the milieu, do not seem to exist in this form in the normal life conditions of the animal. Positive phototropism in young plaice does not take place in a large aquarium. The sea-anemone, placed on a trellis, sends its pedicle downward; and if the trellis is turned over several times, the pedicle enlaces the meshes of the trellis. But, after a certain number of trials, the animal disengages its pedicle and will settle itself in the sand. Which is to say that ... behavior cannot be defined as an adaptation to the given conditions and that the organism itself poses the conditions of its equilibrium (Merleau-Ponty, 1945/1963, pp. 149–150).

Buytendijk (1920/1928, p. 59) points out that the abnormal conditions imposed in the laboratory tend to induce a flight reaction in the animal. Schneider (1912) observes that, in the event of a fire, horses will in their panic run toward the flames. Horses would, therefore, be considered to be positively phototropic! “What does a man do when seized by great fear or terror? He panics, rushing blindly about, making either for the dark or the light” (Buytendijk 1920/1928, p. 59, author’s

translation, cf. Merleau-Ponty, 1942/1963, p. 150).

To demonstrate tropisms relating to light or gravity, the experimenter is obliged to perturb the stable expression of the animal’s behavior and create a situation of distress. Young plaice move toward the light when confined in a small glass cup, but this is simply to seek greater space at the surface (Buytendijk, 1920/1928, p. 60).

The tube-dwelling sea-anemone *Cerianthus* exhibits geotropism for a certain number of experimental manipulations on a wire mesh but is perfectly able to disengage itself when conditions are no longer to its liking and choose its own anchoring in the sand: “After a day or so it pulls its foot out of the wire and seeks a new abode” (Jennings, 1906, p. 150). The incorrect conclusion of geotropism comes from not continuing to observe the sea-anemone for *long enough* (Buytendijk, *ibid.*, p. 62).

Jennings identifies six criteria for *Cerianthus* to remain at rest (Jennings, 1906, p. 196). These involve not only the orientation of the body axis in line with gravity, with the head free, but also the contact of the foot and body surface with the sand, and the presence of food. These resting requirements testify to an active search for a certain stable relation between internal and external milieus. “If these conditions are largely unfulfilled, the animal becomes restless, moves about, and finds a new position. But no one of these conditions is an absolute requirement at all times, unless it be that of having the head free” (Jennings, *ibid.*).

Buytendijk (1920/1928, p. 61) sees, on the part of organism, “a choice of the most favourable milieu and not a forced movement towards it.” As Merleau-Ponty explains:

In the conditions of life—if not in the laboratory—the organism is less sensitive to certain isolated physical and chemical agents than to the constellation which they form and to the whole situation which they define. Behaviors reveal a sort of prospective activity in the organism, as if it were oriented towards the meaning of

certain elementary situations, as if it entertained familiar relations with them, as if they were an “a priori of the organism,” privileged conducts and laws of internal equilibrium which predisposed the organism to certain relations with its milieu (Merleau-Ponty, 1964, p. 4).

Merleau-Ponty summarizes his central point when he writes that “the theory of animal-machines is a resistance to the phenomenon of behavior” (Merleau-Ponty, 1945/1963, p. 127). Researchers who seek to show that higher behaviors, such as learning, are mechanical, take the normal expression of the animal in its surroundings for granted. Those who seek to show simple mechanical responses to environmental stimuli must limit the range of expression from the normal to that required by the experiment.

A study of behavior should not aim to study all reactions of an animal that are possible in laboratory conditions, but only those reactions proper to the animal under the conditions characteristic of its species (Merleau-Ponty, 1945/1963, p. 151). Such a study should aim to respect the normal expression of the animal in its natural surroundings—an expression that takes the form of “... acts ... addressed to a certain milieu, present or virtual; the act of taking a bait, of walking toward a goal, of running away from danger” (Merleau-Ponty, *ibid.*).

Direct, sensitive observation to animals as active agents has more to offer than experiments that expose animals to unusual stimuli and record the resulting behavior over short periods of time.

Charles, recalcitrant octopus

In the 1950s, Peter Dews joined a group of octopus researchers at the Naples Zoological Station to investigate learning behavior in the soft-bodied invertebrate. He chose as his subjects three individuals of the common octopus (*Octopus vulgaris*), naming them Albert, Bertram and Charles.

He attempted to teach them to pull a lever which turned on a light and at the same time delivered a small piece

of fish. With Albert and Bertram, Dews obtained “reasonable consistent lever-pulling behavior.” Charles proved to be somewhat more of a challenge:

Whereas Albert and Bertram gently operated the lever while free-floating, Charles anchored several tentacles on the side of the tank and others around the lever and applied great force. The lever was bent a number of times, and on the 11th day was broken, leading to a premature termination of the experiment.

The light, suspended a little above the level of the water, was not the subject of much "attention" by Albert or Bertram; but Charles repeatedly encircled the lamp with tentacles and applied considerable force, tending to carry the light into the tank. This behavior is obviously incompatible with lever-pulling behavior.

Charles had a high tendency to direct jets of water out of the tank; specifically, they were in the direction of the experimenter. The animal spent much time with eyes above the surface of the water, directing a jet of water at any individual who approached the tank. This behavior interfered materially with the smooth conduct of the experiments and is, again, clearly incompatible with lever-pulling (Dews, 1959, p. 62).

Dews was at a loss to explain Charles’s recalcitrant behavior: “The variables responsible for the maintenance and strengthening of the lamp-pulling and squirting behavior in this animal were not apparent” (Dews, *ibid.*).

Dews was working within the framework of Alfred Thorndike’s theory of behavior, where an animal’s spontaneous response to a stimulus is conditioned through reinforcement. The reinforcement can be either positive, in the form of a reward such as food; or negative, in the form of a punishment such as a disgusting taste or a painful sting (Thorndike, 1898).

As Peter Godfrey-Smith explains,

Animals of a given species will start out the same, on this view, and if they diverge in behavior this must be because of rewarding (or unrewarding) experiences ... However, one message of octopus experiments is that there is a great deal of individual variability. Charles, most likely, was not an octopus who started with the same behavioral routines as the others and was reinforced for squirting experimenters, but an octopus with a particularly feisty temperament (Godfrey-Smith, 2016, p. 37).

Octopuses are known to direct jets of water at annoyances, such as a potential predator that comes too close to the octopus’s den. Charles “was either annoyed by the researcher or had a low tolerance for annoyances in general. Individual octopuses have different personalities, and octopuses with some temperaments just aren’t suitable for this kind of experimentation” (Mather, Anderson & Wood, 2010, p. 98).

Fish welfare as bodily expression

How is it possible to characterize the behavior of animals very different from us as human beings? In the previous section, I pointed out how mistakes were made. Experiments that do not respect the normal expression of an animal’s nature or its normal milieu, provide misleading results.

Criticisms of these experiments are lodged by experimenters who have observed the animals for longer periods, in conditions more closely resembling the animals’ natural habitats and acknowledging how they would express themselves in nature: “... by spending plenty of time with geese, fish or bees, and by observing their behaviour under a wide variety of circumstances, these animals’ expressions may gain transparency in increasing detail ... Gradually, an under-

standing of what it is like to be these animals will grow” (Wemelsfelder, 2001, p. S136).

For example, I inherited my Siamese fighting fish, Gustav, from a friend during my time in California. He was a beautiful male betta, with trailing red and orange fins. Whenever my wife approached wearing a red top, he edged menacingly toward the glass, puffing out his gills to make himself look as large as possible. He danced too, turning slowly and gracefully through the water, fins trailing, actively displaying his beautiful colors.

Much of what I learned about Gustav is based on Marcus Song’s excellent guide for keeping bettas (Song, 2006). Song explains that bettas belong to the labyrinthine fishes, named for the labyrinth organ that, while moist, allows the fish to breathe air. In fact, bettas need to come to the surface to breathe from time to time. Bettas have a variety of interesting behaviors. The male is territorial, repelling other males, hence his pugilistic behavior. Once established in his territory, the male creates a bubble nest to attract the female to mate with him.

The ideal size of tank for a betta is a contentious question, even among experienced fishkeepers. In California, we saw slim tanks being sold especially for bettas. In the wild, the fish are to be found in small pools and, according to one school of thought (e.g. Julian, 1974, p. 35, 37), they prefer confined spaces. Song’s bettas always made use of all the tank space available to them. He reports a case of one fish, Charlie, that was sickly and lethargic in the little vase he had been kept in at the pet shop. Now in a large tank, the fish spends his days “frolicking through the water, exploring pathways through the plants, and flinging around his gravel” (Song, 2006, p. 25).

When confined, the betta is likely to manifest its distress by swimming in circles or pressing against the glass (Song, 2006, p. 13). Rather than becoming simply listless, more a sign of ill-health (Song, 2006, ch. 6), bettas are said to become “sulky” if conditions are not to their liking (Wainwright, 1976, p. 129).

Bettas thrive if their tank is enriched with plants that provide hiding places and with aquarium gravel, which encourages the growth of waste-filtering bacteria (Song, 2006, p. 27-29). The fish respond well to stimuli coming from outside the tank: the presence of caregiver, or the swirling images of a TV or lava lamp (Song, 2006, p. 18).

Flaring, the aggressive puffing out of the gills, is a part of normal behavior and to be encouraged for the well-being of the fish (Song, 2006, p. 17). Betta keepers arrange for their fish to flare—either at their own reflection in the side of the tank, or preferably another male kept safely behind a wire mesh (Song, *ibid.*).

A betta manifests its well-being as an engagement with its surroundings, seeking hiding places among plants, making use of the full length of the tank for swimming, and flaring at real or supposed rivals. Well-being represents a fullness of the animal's bodily expression and engagement with its surroundings. Distress, on the other hand, takes the form of a withdrawal of bodily expression or of attempts to escape from the distressing surroundings.

Wemelsfelder, in her studies of animal welfare in farming, expresses the polarity of well-being and distress in the same terms:

Are the animals contented, sociable, playful, or do they appear irritable, unsettled, uncomfortable, or withdrawn into themselves? These seem important questions, not just for farm animals, but for all animals under our care (Wemelsfelder, 2007, pp. 29–30).

If a good relationship of care develops between keeper and betta, the fish will come to greet his caregiver by dancing or wagging its tail (Song, 2006, p. 15). One of my colleagues at London's Natural History Museum had just such an experience with a tench that he kept in a tank in his office. Each morning as he arrived for work, the tench would greet him by wagging its fins. My colleague told us this

with a warm pride that his fish remembered and recognized him.

My colleague had got to know his fish—how best to feed it and to recognise when its water needing changing. The pet responded by coming near and being content to stay in his caretaker's presence. Human emotional reactions testify to the presence of emotions in fish, as the two are linked by empathy. Coming to understand animal behavior requires a sensitivity to “the entire animal's interaction with its surroundings ... an engagement with the animal's situation and is essentially built on relationship and empathetic communication” (Wemelsfelder, 2007, p. 30).

With his sensitivity to the behavior of bettas, Song identifies many individual peculiarities (Song, 2006, p. 15). Different individuals have different temperaments, from very calm to very aggressive. Some, often females, are very particular about cleanliness and will always defecate in the same spot in the tank, underneath a plant. One fish, Paul Bunyan, would follow Song around while he was cleaning the tank of debris and point out pieces that he had missed!

Getting to know animals well

A perception of animal personalities is shared by ethologists who choose to study their animals over extended periods of time: “When observers spend hours recording behavior, they end up not only with behavioral data, but with clear impressions of individuals” (Stevenson-Hinde and coworkers, 1980, p. 66, quoted in Wemelsfelder, 2007, p. 26). The study of temperament and personality in animals, now a burgeoning field, is based on methods of assessment “often applied and tested by animal caretakers and owners, who, having observed the animals over long periods of time, tend to know them well” (Wemelsfelder, *ibid.*).

The experienced animal keeper sees that characteristic behaviors differ among individuals and that unusual behaviors may simply be the expression of a unique personality. Familiarity with the behavioral repertoires of individuals brings a

more acute awareness of whether the animal is thriving or distressed. An experienced keeper, with the benefit of long experience with the animal in question, is in a privileged position to understand the “welfare-for-the-animal.”

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Out-of-Place in Liminal Space

Claudia Mausner

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Beckoned by a neon highway sign flashing “MISSING ADULT,” I wondered Could that missing person be me? Certainly, this would hold true if “who we are is partly where we are” [1]. I find myself jettisoned from an area where I lived for the past two decades because of skyrocketing rents amid proliferation of luxury housing, high taxes, and no “affordable” housing.

During this transitional period, I am fortunate to have friends and family who generously offered interim accommodations, albeit in liminal space. In this essay, I explore my displacement and experience of life in-between, where British philosopher J.G. Bennett’s constructs of “interaction” and “identity” have been temporarily uprooted [2].

I reach deep within myself for resources to keep afloat during this “transitory emplacement” [3], unanchored as I sojourn between two places of residence. My new homes are in the adjacent states of New York and New Jersey, separated by the Hudson River and about 25 miles apart as the crow flies. Soon after making this transition, I go hiking along the Palisades cliffs high above the river’s edge. Peering across the river from one state to the other, I feel the cold sting of my exile status.

I am homesick for a permanent abode in the Hudson Valley’s “Rivertowns,” revered for their natural beauty, expansive views, and direct access to the water’s edge. My belongings remain boxed and ready to move at a moment’s notice, eliminating any suggestion of an extended presence in either abode as I eagerly anticipate emerging in some as-yet-undetermined place of my own.

Little can be taken-for-granted while living this “fragmented mode of existence” [4], residing simultaneously in one of the Rivertowns and in my childhood home in New Jersey. I maintain heightened awareness of where I am at all times, careful to avoid interfering with the habitual patterns of my gracious hosts. My body-space routines are also upended as I adjust to life in two distinctly different built structures.

In one house, I race up and down the staircase, safely lost in thought and oblivious to my body movements; in the other house, the same unself-conscious behavior causes my knees to scream in agony, as the stairs were not designed in accordance with more recent building codes that require lower riser heights.

In one residence, my behaviors must heed shared occupancy with two cats: I am careful to close toilet lids; leave inside doors open and outside doors closed; and clear food off the kitchen counter after each meal. Both homes demand focused attention when using the dishwasher: I carefully adjust my arm and finger positions to match the appropriate latch and carefully calculate my arm kinesthetics to avoid calamitous slamming or dropping of either dishwasher door.

Place ballet is especially precarious in the kitchen of one residence [5]. Upon arriving at this new home and preparing my meals, I casually open the fridge door with outstretched arm, only to find my housemate striding across the room and abruptly encountering my arm-as-blockade. I reach for the dish towel with hands dripping wet, discovering after-the-fact a pile of bills underneath with their now-bleeding ink. Swinging from kitchen sink to cutting board with chopping knife in hand, I closely miss my host as she pivots in the

same direction on a dangerous collision course. I soon conclude that this space had better remain a kitchen-for-one!

What does it mean to lack a permanent address? I’m surprised to discover that, despite our highly mobile society and the dearth of adequate housing, the expectation that everyone has (at least) one single, permanent residence remains deeply entrenched in both practices and privileges of our public and private institutions. It is notable that the term “transient,” in its Latin origin, referred to the process of “going across” or “passing through” without any negative connotation; this is in stark contrast with present day use of this term as a pejorative for “home-less” individuals [6].

According to my employer’s change-of-address form, our living options are binary: place of residence can be “permanent” for employees living in their own home, or “temporary” for those living in the “local” area within commuting distance to work.

An explicit category for liminal status is offered by the U.S. Decennial Census: people who “stay” at a residence during hours of wakefulness and sleep for an “indefinite” but temporary period of time. Moreover, this definition specifically excludes “visitors” who have a permanent address elsewhere. As mandated by the United States Constitution, the Census also enumerates people with no home address at all—in short, those living a life that reflects a more profound degree of liminality. According to the Census, individuals “experiencing homelessness” must be counted wherever they are “known to sleep,” whether at an indoor or outdoor location [7].

Recent controversy around U.S. election protocol has further amplified the importance of one's residential address, as citizens lacking a permanent residence may be unable to vote. Even individuals with a permanent "home" may be excluded if they have not lived in-state or at their listed residence for a legally mandated period of time prior to an election.

Other examples of institutional demand for permanent residence include the public library, where borrowing privileges require written proof of residence, and the Division of Motor Vehicles, which prohibits use of a post office box address for the license application. Whereas my automobile insurance company requires a single, permanent address to link vehicular coverage to the location where a car is regularly driven and parked, my renter's insurance is less place-based, protecting the owner's possessions wherever they may be housed.

Feelings of disorientation engulf me when I travel within and between my current places of residence. With familiar mental maps now tucked away in the far recesses of my mind, I struggle to recall preferred driving routes; navigation is no longer taken-for-granted and operating on automatic pilot. Instead, my internal GPS swings wildly as it continuously "recalculates," accompanied by the constant refrain of "Where am I?" and "Where am I going?"

I have derived great satisfaction and pride from the place-based knowledge I amassed over the past 20 years while living in Westchester County, 500 sq. miles reaching from the Long Island Sound to the Hudson River. My mental maps for this extensive area are broad and deep, integrating highways, public transit, bike and pedestrian paths, and local roads in each of the towns where I've lived here.

Access to this knowledge has enhanced my quality of life by offering myriad opportunities to enjoy scenery; efficiently complete errands; escape from poorly designed traffic patterns; and, most importantly, avoid rush hour traffic. Given my present circumstances, I more fully appreciate this rich palette of mental maps—an insider's gift mirroring the strong sense

of place attachment and place identity that evolved while living in this County for so many years.

In contrast, upon returning to my home town in New Jersey during this transitional period, I've been dismayed to discover my limited assemblage of mental maps. Without sufficient knowledge to guide me, all destinations feel distant and I remain an "existential outsider" even in my place of origin [8]. Except for the George Washington Bridge that spans the Hudson River, few landmarks were imprinted on my memory from childhood. In fact, the Hudson has served as my north star for decades: an internalized compass and longitudinal grid guiding me during my travels throughout the northeastern United States.

Months pass before I realize that certain errands could be done while en route between my transitional homes rather than relying on past time-space routines from my former home in Westchester County. I've been reluctant to change habits-in-space, however, as less mental energy is required to follow familiar routes and routines despite the inconvenience. When I reluctantly make the effort to adopt new patterns, my unconscious remains disoriented and unsettled. Acting on instinct, I search for and assume I've recognized familiar faces in a parking lot or store aisle, only to experience surprise and disappointment with the unpleasant realization that I'm not where I think I am and "they" are not who I think they are.

I had hoped this essay would conclude with my emergence from liminal space onto solid ground, in a home of my own where a new life could take root and flourish. But my world has recently taken unanticipated twists and turns, leaving me stranded in-between. An unexpected family death reshaped my relationship to and responsibility for my transitional residence in New Jersey. And who could have predicted a devastating pandemic with "stay-in-place" and "shelter-at-home" mandates, forcing so many into their own liminal existence? Together we experience life-on-hold, living in suspended animation with our only certainty being the here-and-now of both time and place.

Although it is reasonable to conclude that "stability of home allows people to [more effectively] . . . address their problems" [9], my recent personal experience suggests another possibility. Despite the intrinsic lack of equilibrium in liminal space, perhaps there are occasions when living in-between can offer a measure of freedom and flexibility that facilitates transformation and allows fortuitous new designs-for-living to unfold.

Straddling my life across state lines, I have learned how to be-in-place with a lighter step and a smaller footprint. Over time, it has also become easier to resist the temptation of being "there" when my embodied self is "here." As I acclimate to this transitional space, I consider whether my search for permanent, solid ground might be expressed most aptly in the Welsh concept of "*hiraeth*," the "yearning for a home that you cannot return to, no longer exists, or maybe never was" [10]. For me, "*hiraeth*" may simply be an alluring mirage that distracts from the uneasy truth that liminal space is in fact where much of life is actually lived [11].

Notes

1. D. Seamon *Life Takes Place*, London: Routledge, 2018, p. 2.
2. J.G. Bennett, cited in Seamon 2018, p. 74.
3. Seamon 2018, p. 49.
4. J. E. Malpas Comparing Topologies, *Philosophy and Geography*, 4 (2001), p. 232.
5. D. Seamon, *A Geography of the Lifeworld*, NY: St. Martin's Press, 1979.
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7. How the 2020 Census Counts People Experiencing Homelessness. D-1254; <https://www.census.gov/content/dam/Census/library/factsheets/2020/dec/census-counts-homeless.pdf> (retrieved Oct. 14, 2020).
8. E. Relph, *Place and Placelessness*, London: Pion, 1976.
9. *New York Times*, cited by Seamon 2018, p. 4.
10. J. Manley, Longing for a Distant Home amid a Pandemic. *New York Times*, Sept. 14, 2020, p. B6.
11. I dedicate this essay to friends and family who have generously shared their homes with me, and to the built and natural places that have sustained me with much-needed respite during my transitional period of dis-location. I express appreciation to Gina Sharpe for inspiring this essay and to Mary Ellen Lewis for editorial comments that challenged and helped to clarify articulation of my liminal experience.

Why We Don't Mind Walking

Joys and Lessons of Florence Streetscapes

Edward T. White

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In this essay, I consider the walkability of the streets of Florence, Italy. I highlight some of the ways that Florence might offer useful lessons for planning and designing today's urban projects. At the start, I emphasize that my observations are personal and, in that sense, modest and provisional. I make no claims for generalizability other than the common-sense relevance of lived experience and the possibility that one person's observations might apply to more generalizable human situations.

I compiled these descriptions of Florence's streets and street life while teaching in Florence during the 1996–1997 academic year and during seven subsequent six-week summer terms. My last Florence teaching assignment was summer, 2016. I taught two courses, one involving the origins, evolution, history, architecture, piazzas, and street patterns; the other, a drawing course focusing on Florence's public spaces.

As an architect, my commentary emphasizes urban form, public space, path typologies, environment–behavior relationships, and signature building patterns versus the fabric of ordinary, everyday buildings not typically distinguished aesthetically or architecturally.

The physical form of Florence

Florence's origins and its shaping forces are important for understanding the city's



streets and foot traffic. Despite its legacy as the cradle of the Renaissance, the city's core is essentially medieval in character. Post-World-War-II reconstruction, when Florence was temporarily the Italian capital, has not appreciably altered the city's twisting web of tight, bent, narrow streets punctuated by open piazzas.

The evolution of Florence was typical of many Italian city-states with urban growth enclosed and protected by a series of concentric, defensive stone walls. As the city

grew, new walls were built to surround the expanding city area. The final walls were built in the late 13th and early 14th century. These walls were demolished in the late 1800s to modernize Florence as Italy's new capital, a title that lasted from 1865 to 1870. The footprint of these earlier walls is now the *Viale*, Florence's ring road that surrounds and defines the historic city core.

One result of a settlement surrounded by a succession of walls is that, within the walls, land was finite, valuable, and urban development compressed. Streets were sized for foot, horse, and cart traffic. Any unused land was first employed for agriculture until it became required for city expansion.

Piazza space was reserved for important buildings, usually churches and government buildings; later, palaces. Piazzas honored these structures by fronting or surrounding them with generous open land in a city of otherwise tight, utilitarian urban space. Piazzas also provided open areas for large crowds and citizen functions associated with the honored buildings' purposes—for example, religious celebrations and political ceremonies.

Because the present urban environment in the *Centro Storico* was formed centuries ago, current-day Florence cannot take credit for its walkable streets in the historic city core. Much of the charm of Florence's pedestrian environment is due to the odd marriage and happy accident of a current-day culture inhabiting a medieval urban fabric.

Inside the *Viale*, the city's urban form is largely the result of the founding of Florence by Roman soldiers in 68 BC and the gradual extension and growth of the city out from the original rectangular, gridded, Roman-camp geometry. The lines of the camp's main north-south road and east-west road are still major arteries in Florence today and serve as important organizers of city layout. The outer walls of the Roman settlement, together with the gridded streets inside the camp, are still evident in Florence's street pattern at the center of the city. Many of Florence's major buildings and public spaces are located and related in significant ways to the original Roman camp geometry.

Walking in Florence

Florence's walkability begins with its size, shape, and compactness. The historic core inside the *Viale* is approximately 1250 acres in area and roughly 1.5 miles across. Using the Duomo's Baptistery as Florence's geographic center, one finds that it takes roughly the same amount of time to walk to the *Viale's* edges in all directions. The diameter of the city core can be covered on foot in about 30–40 minutes. Most of the frequented walking destinations can be reached from any point in 15 minutes or less. This sense of the city-in-reach-on-foot promotes a general disposition of city-at-hand for pedestrians.

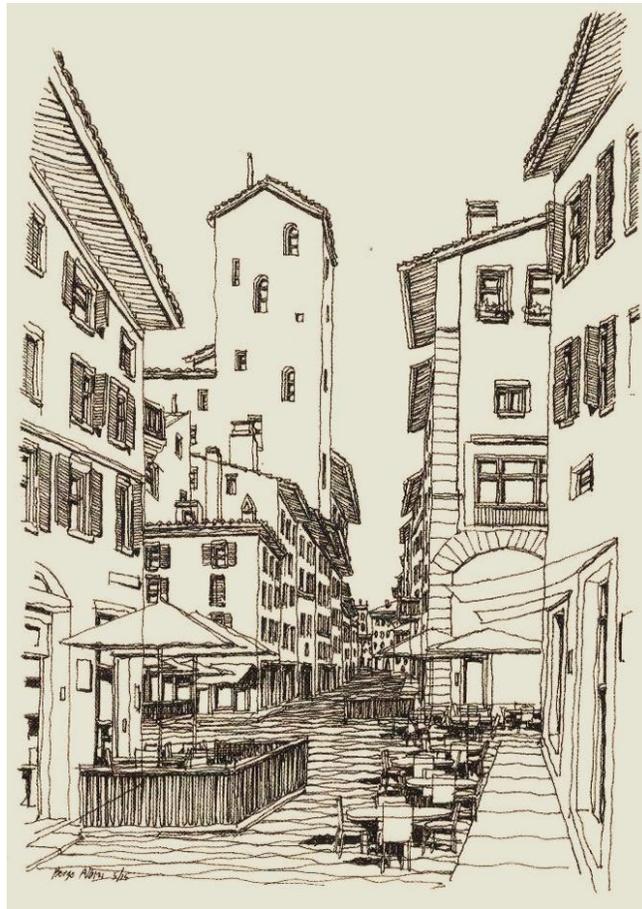
Because of the challenges of driving in Florence, the dense housing inside the *Viale*, and the availability of necessities of daily life in the city core, most Florentine residents traverse their city on foot. Walking in Florence is habit, tradition, and necessity. Daily walking cultivates knowledge of city layout and discovery of efficient routes and leisurely routes, locations of desired destinations, and path options to reach them. Cognitive maps are refined over time to approach the reality of actual city geography. We learn what to expect in the streets and are less thrown by the inevitable discomforts and inconveniences

of pedestrian life. This street savvy arms us with strategy, technique, and etiquette to reduce or avoid many typical walking negatives.

The habit of walking in Florence has a cultural and social component. There is a life-enhancing spirit, attitude, joy toward walking in Florence—an anticipation of going out, being out, being with, joining, belonging; sense of being a citizen; empowering feeling of a body that moves; satisfaction of a journey free of technology and mechanical assistance; inherent positives of exercise.

Medieval carryover

Another aspect of history's influence on Florence's walkability is the carryover of the medieval relationship between housing and public space. Florence's apartments have always been small with pinched, uneventful views, odd layouts, walkup stairs, and little sunlight.



This dwelling situation originally resulted from settlement compactness stemming from medieval perimeter wall limits and necessary urban compression and density, from medieval social and economic stratification, and from the Italian genius of crafting quirky, workable apartments from impossible leftover space geometries. These limited interiors are in sharp contrast to the carefully planned, generous, open, sunlit, lively piazzas with their expansive skies, beautiful signature buildings, and welcoming accommodation of vibrant urban life.

With the exception of the palaces, Florentine life has always happened in the streets and piazzas. Florentines have literally been squeezed out of their apartments into the city's life-enhancing public spaces. They fill squares and streets and support commerce, urban vitality, and sense of community. This tendency to join publicly is supported by the Italian love of contact, participation, engagement, and belonging. Florentines love their city and love walking in it. Witness the *passeggiata*, the tradition of strolling in the evenings and on Sundays with no particular place to go.

Walking in history

Walking in Florence is walking in history. The city itself is a museum—a sweeping story with gravitas laced with drama, feuds, intrigue, mystery, heroes, and villains. Walking the streets and piazzas is more meaningful, enjoyable, and edifying if we know these stories.

Even in a short time, being in Florence we become aware of its history. A street is not just a street if we know who lived there and what happened there. There is a delicate sense of personal elevation when immersed in Florence's history. We somehow borrow a bit of its value and dignity. There is an abiding mental and emotional backdrop of reverence, appreciation, and gratitude behind all we do as we move through the central city.

This positive predisposition toward place and story can move us to look past and forgive the necessary

and inevitable frustrations of city walking and to feel that our lives play out on a higher plane.

Beauty

To move through Florence is to move through beauty. Not the pretty, ornate, colorful, light, open, delicate, water-based beauty of Venice, but a rugged, muscular, brown, heavy, protective, thick kind of severe Spartan handsomeness. Venice is a *she*. Florence is a *he*.

Tan and cream, stucco and stone, green shuttered fabric facades with roofs of terracotta tile shape Florentine streets and piazzas. These colors and elements are fitting frames and settings for intricately marbled signature buildings, elegant store windows, piazza and street space, the city's bustling urban life, and the river Arno with its handsome bridges, including the *Ponte Vecchio*.

Vegetation is scarce in Florence's historic core, though greenery is to be found at the *Centro Storico*'s margins, at the hilly south side of the river, and in church cloisters. When one does encounter trees, one notes the surprising color and texture contrast with the otherwise paved, built-over environment, the predominance of which renders the lacy greenery a soft, gem-like gift.

Sensuality

In encountering Florence's streets, our senses are awake, not as a disconnected series of isolated experiences but as a steady stream of variegated, layered sensuality. Christmas season is particularly lovely in Florence. Festive lights are strung over streets and reflect in fractured patterns off wet stone pavement while enticing displays fill store windows.

Our hearing is treated to the sounds of conversations, music lessons, and clinking pots and pans coming from apartment windows on quieter streets at dinner time. In the busiest part of the city, we hear such contrasting sounds as sirens, church bells, street musicians, horse hooves on pavement, barkers touting fresh fruit, cars racing off from traffic lights, homogenized hum of street-crowd conversations, loud arguments, guides informing tour groups, organ music from open church doors, pings

of bicycle bells navigating through pedestrians, and car horns.

Florentine scents fill the streets. As we move past open shop doors and street vendors, we detect leather, candle wax, soap, baking bread, coffee, pasta and sauces. In the winter, roasting chestnuts and fireplaces. These welcome scents are joined periodically by dumpsters, bus exhaust, and horse manure.

Palette is in play if we pause for street food along our path. Gelato, pizza slices, glasses of wine, panini, fresh fruit are all in the street or open to it. A quick espresso and brioche in the morning are a tradition and of course the world class Florentine cuisine is there when we want to pause for an extended leisurely meal.

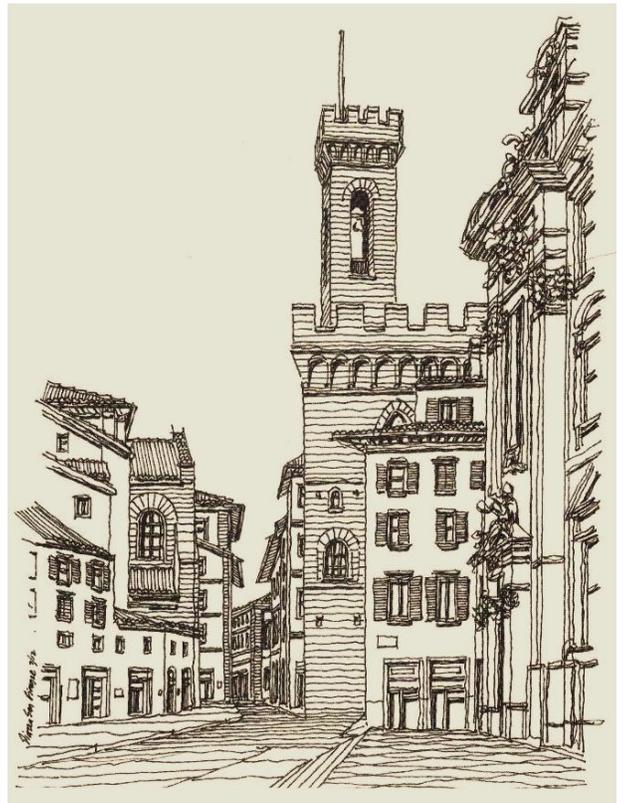
A particularly enjoyable Florentine practice is *aperitivo*. After work and before the dinner hour, restaurants and bars offer a sumptuous buffet of free finger food when we order drinks.

In the streets, our haptic sense fields and processes the city: uneven pavement under foot, shoulder brushes of passers-by, cool door handles, weight of purchased goods, feel of merchandise we're browsing, grip of handshake, support of bench or café seat, flatware at lunch all engage sense of touch.

As we move, we feel our bodies in motion. Air on our face, clothes moving over skin, muscles working, shifting perspectives, sense of progress past stone facades are a few of the kinetic experiences.

Integrated circulation

When we walk in Florence, our attention is engaged, alert, and occupied, navigating the unlikely jumble of mixed movement types in the crowded streets. Despite Florence's ongoing project of converting streets in the historic core to pedestrian-only paths, many streets remain a compressed mix of pedestrian and vehicular



circulation. Streets are often narrow with thin sidewalks inadequate to sort out and separate the different pedestrian types, directions, and speeds.

These pathway configurations regularly force pedestrian circulation into the street and compress walking bodies into a messy vitality of homogenized incompatibilities. On foot, tour groups, students, and locals move briskly with purpose toward serious destinations. Elders stroll slowly, enjoying walking for its own sake. Mothers push buggies. Older women walk their dogs. Shoppers slow and stop in front of store windows. Friends meet and huddle in quiet conversation. Store owners stand outside their shop doors waiting for customers. Beggars sit in the street or approach for a handout.

This great variety of movement results in pedestrian pinball that must be finessed. To this challenging variety of interwoven foot traffic, now add vehicles sharing the same narrow street space. Cars, delivery trucks, mini-busses, and horse-drawn carriages part the pedestrian flow and force crowds temporarily to the street wall to let vehicles pass. Scooters use the noise of their revved

engines to part the street crowds and clear the street. Bicycles ping their “coming through” bells and frequently zip past at frightening speeds just inches from pedestrians’ shopping bags and arms.

While not all of Florence’s streets are this movement-dense, walking most streets in the historic core requires skill and full concentration. There are several terms that describe this congested mix of movement types. Compressed heterogeneity, muted boundaries, exposure and immersion come to mind. Incompatible modes of movement are squeezed together into narrow pathways dissolving the sense of boundary and personal space between disparate path users, while the close quarters between people and vehicles foster a feeling of vulnerability, risk, and openness to city life.

Serial punctuation

There is a close fit in Florence’s streets between walking scales and speeds and the grain of presentation and encounter the built environment offers pedestrians. Store windows, curbside displays, street performers, fruit stands, food carts, signage and graphics, entry treatments, façade detailing are designed, sized, and positioned to fit the kinds of attention that those on foot give them. This intimate fit has been refined and matured over centuries of walking tradition in Florence.

This movement experience is enhanced and reinforced by dense serial eventfulness, inflection, and path punctuation. Progress and orientation markers along pathways are frequent and varied in type and power of impression. As we learn the city, we form our cognitive maps. These mental constructs, together with pathway clues, provide both bold and subtle reads on foot speed, progress, and location.

Large journey articulations are piazzas, river and bridges, major landmarks, busy cross streets, glance vistas up side streets to fragments of familiar buildings. Less obvious are tops of church towers, glimpses of Oltrarno greenery, specific shops, and street vendors. Small-scale examples are signage, entry treatments, roadside grottos,



family crests, streetlamps, and façade details. Sounds and scents, level changes, pavement texture shifts also provide orientation. Once we learn the city, we usually know where we are.

Retail type, scale, and density

The density, distribution, scale, and types of retail in Florence’s core contribute to the city’s walkability. Tiny shops specialize in one thing and, as a group, satisfy most daily needs. Hardware, butcher, leather, newsstand. Café, grocery, pharmacy, art. Pasta, clothing, wine, coffee. Jewelry, toys, shoes, candy. Gelato, panini, pizza, luggage. Soap, perfume, bakery, dairy. Hats, fruit, books, art supplies. Computers, ceramics, maps, stationary.

Store types are randomly spread across the city. This disbursement invites pedestrians to all parts of the city core to frequent favorite vendors. Foot-traffic distribution fosters contact with other shops and supports economic and street life vitality. Stores are small and numerous on most streets, activating paths with a dense series of diverse window displays and shopping options that change every 20 or 30 feet.

Activation is supported by narrow streets that promote close contact between pedestrians and storefronts.

Many stores display wares on the street and, when weather permits, shops often keep their front doors open to the street to enhance entrance invitation. This practice renders typical walled street boundaries porous and transforms the path wall character at ground level from continuous solid plane to perforated edge. Our sense of street space shifts from sharply defined channel to a softer undulation and enhances our journey with side glimpses through doors into store space, merchandise, people, décor, and action. Store interiors effectively become integrated with the street environment.

Path typology

Florence’s city blocks are small, and streets are numerous and frequent. This dense path network supports fluid, multi-option pedestrian navigation, city connectivity, and promotes building access to street space light and air. The many streets configure a rich and varied path typology.

The list of attributes over which Florence’s streets vary is long as is the number of streets fitting each category. This generous menu of street types enlivens our perceptual, attentional, and intentional faculties. It invites our continual participation in reading and responding to the walking environment.

Some of Florence’s streets are primarily vehicular, while others are primarily pedestrian. Many are an uneasy mixture of both. A street may be dedicated to retail, housing, or service such as tenant parking, deliveries, or trash pickup. Some streets enjoy high status and prestige because they are formed by famous structures or lead to important piazzas, buildings, or landmarks. Most streets are lined with day-to-day errand shops. Certain streets in the *Centro Storico* are busy tour-group routes, while others farther out are slower paced and quieter.

Florence’s street network evolved over centuries of changing historical circumstances and planning pressures. The result is a patchwork of rotated, colliding grids that create bent streets, odd intersections,



shifting vistas, and constant variation in the walking experience. Very few streets are straight over any distance. Numbness and inattention from routine and repetition are opposed by ever-new ways that the city presents itself.

Street typology includes path profile in section. All Florence street space is some version of *narrow and tall*. Most streets in the city center are 20 to 30 feet wide, wall-to-wall, and four to six stories tall. The walking experience is one of moving through canyon-like spaces. Varied building heights, bent streets, and randomly jagged roof-eave patterns create diverse sky shapes above and, together with time of day and season, illuminate path space and surfaces in endless sun/shade/shadow geometries. Compressed path space amplifies the contrast of emerging from tight shady streets into generous, open, large-sky, sunny piazzas.

Temporal morphing

Florence's walking conditions and street qualities constantly change with time, multiplying the types and intensities of path environments in a given street. This temporal morphing keeps path experience new, fresh, engaging, and rich with attention-renewing variety and surprise. These shifts can be subtle or bold and apply to all

street qualities and time scales—seasonally, monthly, weekly, and daily.

In early morning before the city comes to life, streets are quiet and uncrowded. Storekeepers toss buckets of water on the pavement to scrub and clean their shop entrance. Delivery trucks make their runs before traffic congests streets and complicates travel and double-parking for deliveries. Street sweepers cruise and clean while pathways are clear of activity. Street vendors set up their carts and wares in high-traffic tourist areas. Sidewalk artists set out samples of work and assemble easels for the day's commissions and demonstrations.

In the evenings, the city quiets down. Tour groups return to their hotels. Vehicular traffic tails off. Early restaurant dinner crowds are typically tourist families, while late-night diners tend to be residents. Some trattorias close the street in front of their establishment and fill the road with tables and chairs to expand seating capacity.

After work, popular *enotecas* (wine bars) overflow to fill sidewalks, streets, and church steps with young singles enjoying a wine and a good conversation. Piazza energy tapers off to a few grandparents gossiping on benches as small children squeal and giggle while kicking a soccer ball.

Urban space and surfaces change with sun path, time of day, day length, air quality, and weather. Sense of place and architectural emphasis change when daily and seasonal sun/shade/shadow patterns fall differently on buildings and walking surfaces. The front facades of many of Florence's most important public buildings face west and are dramatically lit by west sun in the late afternoon.

Sun path and position shape a piazza's thermal comfort/discomfort zones at mealtimes and affect piazza café popularity and success. On Sundays, the city is quieter. Streets are less crowded with pedestrians and vehicles. Pace is slower, energy more relaxed, church bells more noticeable. Pathways are littered with debris from Saturday night's partying.

Reflections and lessons

To conclude this essay, I provide a series of statements that gather and focus my earlier descriptions of Florence walkability. These maxims are meant as provisional principles relating to pedestrians and Florence streetscapes. They are in no particular order.

- A tradition and culture of walking, a clear advantage of walking over driving, and an urban geography that is commonly understood as accessible on foot are necessary contexts and conditions for a walkable city environment. A city is walkable because people expect to walk and do walk without questions or complaints. Walking is simply a given. It is how life gets done.
- The city becomes an extension of self when it is skillfully used as equipment for life tasks. Boundaries between self and place dissolve and advance the person-environment relationship from occupancy to habitation to dwelling. We come to identify with the environment.
- Routine activities seem elevated when enacted in important environments. Our actions, our very selves and lives borrow gravitas from the heavy history and significance of the place.
- When there is reverence and respect for a place, the inherent negatives of

street life are more readily forgiven and considered less troublesome.

- Self-activation, empowerment, and life are nurtured when we take responsibility for learning the city, visualizing routes to destinations, navigating journeys, and managing walking experiences.
- Varied, eventful paths require exercise and application of our full human faculties. Our whole self is called upon, activated, and put in play. We feel in full form with all our capacities working.
- The expenditure of self in the exertion of walking is a satisfying pleasure when the path environment is rewarding and life-affirming.
- City life on foot is self-expansive and self-refining. Our perception, attention, discernment, and decision-making are tuned and enlarged. We experience a more intimate fit between senses and cognition and between reading and responding to environments.
- Streets teach life. We see and learn more ways that people can be and ways life can be lived. We realize the wide ways of relating and doing. We live in a larger world.
- A challenging street life invites self-reflection and personal assessment. We confront our personal values, preferences, attitudes, dispositions, fears, and beliefs. We read the city and the city reads us.
- Habitual encounter with strangers in the streets and with the inevitable frustrations of crowded paths engenders tolerance for the “other” and patience with challenging environments.
- Hubris shrinks and humility grows with our necessary adaptation and relentless accommodation to uncompromising path environments and street life that is indifferent to personal intentions and pursuits.
- Regular invasion of personal space in crowded streets reshapes our territoriality and privacy standards toward more modest dimensions.
- Daily participation on foot in city life promotes a sense of joining and be-

longing, a feeling of kinship, community, citizenship, identification, and identity. To conduct life in the streets of Florence is to *feel* Florentine. At some level, Florence is ours, and we share responsibility for valuing and caring for the city.

- Life is lived at a higher level when the quality of the journey experience is as elevated as the quality of the destination experience. Getting there is as important as being there.
- Our need for beauty and appreciation of the well-made are met and satisfied where care and craft are fiercely valued traditions.
- When streets present themselves differently each day, there is less drift into numbing habit and tired repetition. We look forward to encountering the day’s surprises.
- Environmental attributes that are dense, frequent, varied, and intense sustain attention, interest, and our presence to place. Fully engaged is fully mindful, fully alive.
- Walking means exercise, and exercise means fitness, health, and vitality. Expanded capacities broaden life horizons. Disposition toward our days moves from acceptance to affirmation.

Character-shaping places

These observations point to an overarching relationship between walking environments and pedestrian attitudes and behaviors. The accent in Florence’s walkability is not on the conventional pragmatic concerns for measurable path criteria such as safety, health, comfort, utility, proximity, convenience, and efficiency. What makes Florence walkable are the messy, unmeasurable, difficult-to-explain street qualities and human responses that often ignore, violate, oppose, and even contradict many of our current professional design standards. Those qualities that make Florence walkable might be difficult to defend in a budget hearing or a meeting to determine planning priorities.

The streetscapes of Florence are about the qualitative, soft-edged, ephemeral, character-shaping, world-enriching celebration of our humanity and the enlargement of human faculties, enhancement of

experiential quality, and expansion of lived possibilities. Whether this manner of urban environment can today be somehow explicitly planned, designed, and made to happen effectively is one of the most important 21st-century questions for architects, planners, and policy makers.

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The Future of Place

Edward Relph

Relph is Emeritus Professor at the University of Toronto and one of the key founders of research that has come to be identified as “phenomenologies of place.” His books include Place and Placelessness (1976; reprinted 2008); Rational Landscapes and Humanistic Geography (1981; reprinted 2016); and Toronto: Transformations in a City and its Region (2013). This essay is based on earlier entries on his website placeness.com. Ted.relph@gmail.com. Text and photographs © 2021 Edward Relph. Photograph captions are on p. 25.

For some time, I have wondered about the future of places and how they might change or stay the same over the rest of the 21st century. The Covid-19 pandemic, which has had a demonstrable impact on place experiences, has brought this to the foreground of my thinking [1].

By places, I mean those aspects of the world, especially built environments, where everyday life happens. They have their own names and identities. They include homes, neighborhoods, cities and regions, both those where we live and those we experience when we travel. They are the material, landscape expressions of sense of place, and the ways place is experienced.

There have been numerous imaginative speculations about places in future utopian or dystopian societies. My aim in this essay is far more prosaic. I consider how the identities of places might alter over the next 75 years given the legacy the present will leave to the future, and projections of trends in population, urbanization, and climate warming that have clear implications for places.

These four factors have a high degree of certainty because they have well-established momentum that will only be slowed or deflected through major shifts in political attitudes and social practices. They also have clear implications for anticipating



The record of landscapes, townscapes, and archaeological sites reveals that, from time to time, these broad processes have undergone transformations in the ways that places were made and experienced. These transformations often endured for several centuries (during which there were, of course, more modest shifts in fashions and practices around a prevailing character).

Most transformations seem to have been associ-

ated with a combination of technological or ideological innovations. For instance, places were transformed when cities were invented about 3500 BCE; in Classical Greece, aesthetic and spiritual sensibilities were manifest; in Medieval Europe, towns and villages were organically structured around religion but, in the Age of Reason, landscapes, town plans, and colonial settlements were given a geometric order.

what places will be like later in this century. Somewhat more speculatively and positively, I reflect on indications of long-term shifts in worldviews that suggest a possible change in placemaking practices as a response to these factors. I focus mostly on more developed regions (as they are defined by the United Nations—Europe, North America, Japan, Australia, and New Zealand) because those are the ones with which I am most familiar.

Historical changes in places

A new type of place identity came with the mines, factories, railroads, and grim cities of the industrial age. Most recently, the suite of innovations associated with the present age—urban planning, motor vehicles, modernism, globalization, and urban growth—have variously remade, preserved, and enormously expanded all previous places in ways that have no precedent.

Because built environments involve enormous investments of time, effort, and money, they are kept for as long as they continue to have value. Consequently, each historical period inherited a legacy of

What we usually regard as special about places is their distinctiveness, whatever makes them different from everywhere else. For all their idiosyncrasies and apparent uniqueness, however, the identities of particular places are both locally determined and the product of broader processes that sweep around the world like epidemics affecting almost everywhere in similar ways.

Because built environments involve enormous investments of time, effort, and money, they are kept for as long as they continue to have value. Consequently, each historical period inherited a legacy of

places from its predecessors and left its own legacy to the future.

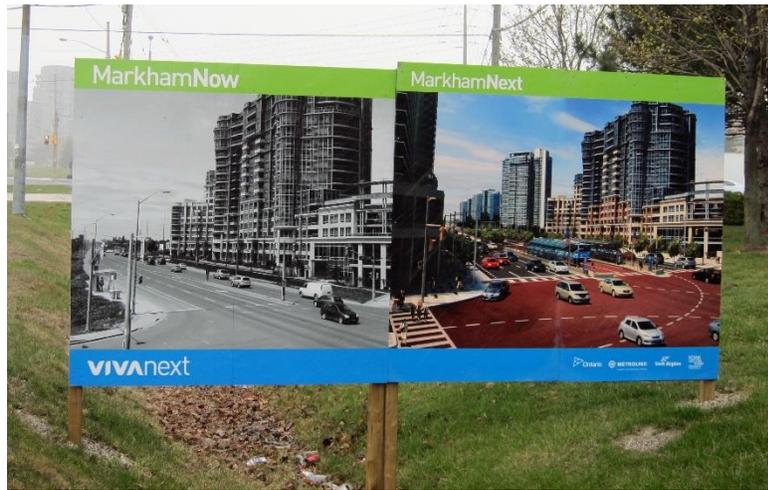
Some of this legacy, such as place names, street patterns, and great institutional buildings, has endured for centuries or even millennia through many shifts in placemaking practices. The result is that the identities of towns and cities, especially older ones, usually have a mixture of juxtaposed elements that display both continuity with and difference from previous eras. This will be the case in the future.

Present-day places and the future

The present's place legacy to the future is the largest there has ever been and the largest there ever will be. This is not an arrogant claim about the accomplishments of modernity. The fact is that the world's population has grown by 5.25 billion in the last 70 years, which is twice all growth before 1950. But over the next 70 years it is projected to grow by no more than three billion (or according to the most recent projections by no more than two billion) because the rate of population growth is now in steep decline with no likelihood of reversal [2].

The recent surge of population growth has required more places than ever before to be made to accommodate more people. The evidence is obvious in new towns and cities, vast suburbs, downtown skylines transformed by skyscrapers, social housing projects, shopping malls, apartment towers, commercial strips, industrial parks, resort developments along coasts and in mountains, plus all the related infrastructures of expressway networks, airports, communication towers, container ports, high-speed railways, sewage treatment plants, and all the other paraphernalia of modern urban growth.

Never again will there be a place legacy of this magnitude. Furthermore, because heritage preservation as it is now understood only dates from the early 1970s, the modern age is the first to bequeath to future



generations thousands of heritage sites and environmental areas deliberately protected from change for the foreseeable future.

Because the place legacy of the present is so new, extensive, and protected, most places are likely to stay much the same as they are now, at least for the next 30 years, which is well within the lifetime of most buildings. In the longer run, perhaps after about 2050, the place legacy of the present will begin to age, and incremental changes will be made in response to fashions, technological innovations, aging populations, and climate change. But the steadily increasing maintenance burden for aging infrastructure combined with slowing growth will discourage rapid or substantial redevelopment.

In short, much of what we see and experience in places now is likely to be around for a long time.

Peak population and implications

The twenty-first century is demographically exceptional. Underlying the whole history of places and placemaking has been the growth of the world's population, very slowly over the millennia before about 1750 and then accelerating exponentially to the current total of 7.8 billion. There have been occasions and local cases when populations dropped because of wars, plagues, or disasters, but the clear long-term trend has been one of more people dispersing into more and larger places.

This pattern is about to end. The annual rate of world population growth peaked at 2.1% in 1968, has dropped to about 1.0%

and will fall to 0.1% toward the end of the century. The consequence, according to a carefully argued recent projection in *The Lancet*, will be that the world's population will peak at about 9.7 billion in the 2060s and will then begin to decline (this refines a 2018 projection by the UN that suggests a peak in 2100 at about 10.9 billion) [3].

After thousands of years of growth, populations and places are about to begin shrinking. Before that happens, populations will age and places will gradually change, becoming slower and quieter, with fewer children, schools, and child-care centers; more retirement communities; and more long-term care facilities as the proportion of the elderly increases.

That's the broad picture. In fact, global population projections mask considerable variations in time and space. Most future growth will happen in Asia and Africa, and after 2050 will be concentrated in sub-Saharan Africa (the difference between the UN and *The Lancet* population projections is largely the result of different assumptions about the impacts of contraception and education in Africa). For those regions, the challenge will continue to be one of making new places and expanding existing ones until growth peaks at the end of the century.

In most more developed countries, however, population growth through natural increase (i.e. internal growth as the number of births exceeds deaths) peaked several decades ago. In some of those (e.g., Britain, France, Canada, and Australia) the resulting decline in population has been offset by immigration. Where this has not been the case, national populations are already beginning to decline, and this rate will accelerate over the rest of the century. *The Lancet* projects that by 2100, populations of Japan, China, Spain, Italy, Thailand, Poland, Hungary, and about twenty other countries, could drop by half.

These shifts, however, don't quite convey their scale and implications. There could be 700 million fewer people in

China, 60 million fewer in Japan, 40 million fewer in Russia, and 25 to 30 million fewer in Spain and Italy. The unavoidable consequence is that huge swathes of places will be thinned out or abandoned. Smaller and increasingly elderly populations will struggle to maintain the extensive place legacies of the early twenty-first century and the heritage of previous centuries.



The alternative to decline is immigration to maintain populations or achieve slow rates of growth. Current indications are that this pattern will continue in Britain, the United States, Canada, and Australia. In those instances, the built environments of many places will acquire increasingly hybrid identities as the legacy of current buildings is reworked to reflect the racial and cultural diversity of immigrants.

Urban places and the future

Recent trends indicate that future places will be overwhelmingly urban because urban areas are expanding faster than populations, a trend that has been underway for centuries and has accelerated in the last 70 years. This will happen even where overall population declines. There are four aspects of this future urbanization [4].

1. More people in more urban places

At the global scale, the UN projects that the proportion of people living in “urban agglomerations” (which it has measured since 1950 when it was about 30 percent) will increase from 55 percent in 2020 to almost 70 percent in 2050. Urban agglomerations include everything in some way urban—towns, cities, slums and shanties, suburbs, exurbs, and satellite cities.

The number of urban places with over one million people is projected to increase from 579 with 24 percent of the world’s population in 2020, to 760 with 30 percent of the world’s population in 2035 (the latest year for which projections are currently made). The number of megacities with over 10 million people is expected to grow from 34 now to 48 in 2035. The trend to

larger cities is expected to continue for most of the century. Many will expand to join with other towns and cities into huge urban megalopolises with built-up areas stretching hundreds of kilometers.

Large cities can support a range of employment opportunities and cultural, medical, and sports facilities that smaller cities cannot. But it is unclear whether the overall size of an urban agglomeration makes much difference to the experience of places at the scale of neighborhoods, where people know their neighbors, buy groceries, and children go to school. What is clear is that the character of future large urban places will vary enormously depending on context and location.

2. New cities in less developed regions

About 95 percent of future urban growth will be in less developed regions, mostly Africa and Asia, where about 2.1 billion additional people will probably be added to urban areas by 2050. This is equivalent to building ten megacities the size of London or Jakarta every year for the next 30 years.

In fact, several hundred more modestly sized cities are already under construction or planned (about 100 in India alone) [5]. Most are satellites of existing urban areas, and they give a sense of what future places in new cities will be like. The preferred model seems to be new cities in China—skyscraper offices and apartment towers, wide boulevards with ample space for vehicles, an emphasis on hi-tech industries, a mixture of moderately dense residential areas, both high-rise and low-rise, with some attention to sustainability and low-carbon emissions.

A major aim usually seems to be to attract foreign investment rather than accommodate population growth. Indeed, according to one observer, these new cities do not pay much attention to the socio-economic realities of local people and appear to be “planned without inhabitants in mind.” Jane Lumumba, a planner based in Nairobi, writes that: “what is worrying is that there is little recognition of place, economy, context and even poverty in these cities” [6].

Furthermore, it is likely that these new cities will meet only a fraction of projected population growth in less developed countries, most of which will probably be accommodated in slums (places defined by the UN as lacking some combination of running water, sanitation, infrastructure, and sufficient dwelling space). In Nigeria, 42 million people live in slums, in India about 100 million, in the Congo 22 million, in Kenya 6 million.

There have been remarkable achievements in reducing poverty in many less developed countries, but the scale of slums and informal settlements has nevertheless increased because achievements have been outpaced by population growth. Globally, about 900 million people currently live in slums, an increase from about 700 million in 1990. Given this trend, the scale of slums can be expected to increase substantially over the course of the century as populations grow.

In short, for all the new planned cities in Asia and Africa, most new future places will be in slums and informal settlements. It is especially unfortunate that many of these disadvantaged places with vulnerable populations will be in regions of the world where the consequences of climate change are expected to be especially harsh because of rising temperatures and more intense rainfalls [7].

3. Urban change in more developed regions

In the 1960s, about 110 million people were added to cities and towns in Europe and North America; the annual growth rate of urban populations was about two percent. The growth rate is now one-half percent and is expected to drop to one-third percent a year by 2035. By mid-century,

overall urban growth in developed countries will slow to a crawl.

This slowdown might seem to be belied by reality if you live in a city in Europe, Australia, or North America with a skyline crowded with cranes, and suburbs that always seem to push outward. A reason for this apparent disparity is that many larger cities and a few smaller ones seem to attract most of the limited



growth, perhaps because of the quality of their environments or because of their role in the network of world cities.

This selective urban growth is expected to continue and will happen even in countries where there will be population decline. Madrid and Tokyo, for example, are expected to maintain their population size, even though national populations could fall by 50 percent or more.

Where growth does occur, it seems unlikely that the character of urban places will alter quickly or significantly. This inertia is because of the enduring place legacy of the present, partly because growth will be quite slow, and partly because current plans and policies will guide development along well-established lines for the next two or three decades (many official plans are for 25 or 30 years). The cumulative effects of incremental developments on places may in due course be considerable but, currently, there is little to suggest that they will hold any great surprises in the near future.

In city centers, there will probably be more densification through taller buildings, various forms of infill, redevelopment of former industrial sites, and more bike lanes because these all contribute to reductions of greenhouse-gas emission.

At urban fringes, there will be more place-branded, master-planned suburban developments, especially around satellite cities. What ought to happen is that new fringe developments should be planned around retail and employment centers that

are easily accessible by walking and cycling and designed as neighborhood centers.

There are, however, few indications to suggest that cars and automobile-oriented suburbs are declining in popularity. Apart from anything else, automobile manufacturers are unlikely to abandon their primary market in the foreseeable future. Global growth in the number of automobiles since 1990 has been 62 percent compared with a growth rate in population of 45 percent. The number of motor vehicles per capita has increased in all parts of the world, including European countries [8].

The greatest changes will be social and demographic. Populations will age, with fewer workers supporting more retirees, fewer child-care centers, more long-term-care facilities, especially for dementia patients, and more retirement homes. In addition, places will become more racially diverse as previously dominant cultural groups will be challenged by new immigrants from less developed parts of the world who will make up for shortfalls in natural population increases.

In the United States, the Census Bureau projects that with current immigration policies by 2060, the “non-Hispanic white population” will have shrunk by 19 million people, while every other racial group will have increased in size. This shift will have social and political consequences and will lead to changes in the landscapes and place identities of neighborhoods in ways that will reinforce the hybrid character of urban places that has already developed in many large cities [9].

4. Shrinking cities

In countries where immigration is not encouraged, such as Japan, Hungary, and Spain, or in regions that are bypassed by growth, most urban places (except perhaps for one or two prime cities) will shrink. Without radical changes in immigration policies and attitudes regarding racial differences, this shrinkage will accelerate toward the end of century as populations decline.

There really is no precedent for understanding the consequences of place shrinkage on this scale, and no firm way to grasp its political and economic consequences. Should remaining inhabitants be clustered into compact settlements? How can that be accomplished? Should some form of low-density, dispersed patterns of settlement be permitted? But in that case, how can the infrastructure of sewage, water supply, and transit be maintained? What will happen to networks of expressways with half the number of vehicles, and to hundred-story skyscrapers no longer needed? What are reasonable ways to live in the ruins of urban places?

Some hints about the details of what might happen are given by recent instances of shrinking cities in the rustbelts of America and Germany—boarded-up buildings, abandoned neighborhoods, and failing infrastructure. Detroit has policies for the demolition of abandoned houses and apartment towers to protect the well-being of remaining residents. Youngstown, Ohio, has accepted that its future will be smaller than its past and has converted abandoned lots into green spaces.

These initiatives suggest that future shrunken places could possibly be refashioned into demographically stable and environmentally sustainable communities. But it is equally possible to imagine that some will simply be abandoned to the forces of nature as aging populations lose the will and financial resources to do anything else [10].

Places & climate change

Climate change permeates the future of places everywhere and is a slow-moving version of the Covid-19 pandemic. Both are global in range, ignore national boundaries, put the poor and vulnerable at greater risk than wealthy elites, and involve exponentially increasing consequences that are easily dismissed before they become obvious by which time it is too late to do much to mitigate them effectively.

They also both have intense but erratic local effects and demand forceful actions by governments. The main difference is that, if concerted actions to mitigate climate warming are not taken very soon, consequences will be much more severe and longer lasting than Covid-19.

Climate warming has three types of consequences for places: Changes in weather; effects of mitigation measures; and impacts of adaptations [11].

1. More extreme weather

Climate change will affect regional and local weather patterns by making them more severe and erratic. These shifts might take decades to reveal themselves, though some have already become clear as record temperatures, flood levels, and records for number of wildfires and droughts are repeatedly broken.

The 2018 Special Report of the Intergovernmental Panel on Climate Change considers what needs to be done to keep the increase in global mean temperature (which so far is about 1.1C above pre-industrial levels) to no more than 1.5C, an aim consistent with the Paris Climate Accord on 2016 signed by almost 200 countries.

The report offers a bleak prognosis if no actions are taken and business continues as usual. By 2100 the global mean temperature will increase by about 3.0C. There will be decreased life expectancies, huge reductions in outdoor labor productivity (because it will be too hot to work), and a lower quality of life almost everywhere. And as if this picture is not bleak enough,



subsequent research has shown that the build up of greenhouse gases over the last two centuries will almost certainly lead to an increase of 2.6C, regardless of any mitigation measures [12].

There are indications that intolerable combinations of heat and humidity could make large areas of Africa and South Asia, parts of the Middle East, and even parts of the southwestern United States uninhabitable. In addition, rising sea levels, associated storm surges, and salt-water incursions could impact 300 million people by 2050, not only in China, Indonesia, the Nile and Mekong deltas, but also cities that include Miami, New York, and San Francisco. These regional effects will almost certainly lead to substantial population displacements [13].

In the absence of stringent measures to reduce greenhouse gas emissions, it is probable that by the end of the century some places, especially in the tropics, will have to be abandoned because the weather is intolerable. Even where changes in weather are more moderate, the character of everyday life is likely to become very different.

For instance, in Toronto, the number of days when the temperature stays above 30C is projected to increase from about 12 in the 1980s, to 40 in 2050 to 55 in 2100. Models for the United States that consider the combined consequences of climate warming, urban population growth, and the heat-island effect of larger cities, indicate that, by the end of the century, overall heat exposure (associated with health risks, including mortality) in sunbelt cities such as Austin, Phoenix, and Miami could increase by more than 100 times over

2000–2009 levels and, in northern cities such as New York and Washington DC, the increase could be 30 times.

In effect, the consequences for places of temperature increases will be compounded by continuing urban expansion and population growth [14].

2. Effects of mitigation measures

The main purpose of the IPCC 2018 Special Report is to argue that “far reaching” mitigation measures to reduce carbon emissions need to be taken before 2030 to limit future temperature increases. It is clear from what has been done thus far that some mitigation measures, for example, retrofitting buildings to be more energy efficient, are largely invisible, but others, such as fields of solar panels and wind farms and urban densification to reduce commuting and therefore use of fossil fuels, have a clear impact on the built environments of places.

Substantial gaps remain between what has been done, what governments have promised to do, and what is probably necessary to prevent potentially severe and irreversible consequences of climate warming. This complex situation is why the 2018 Report calls for “far reaching” measures that, to be effective, will require radical changes to the character of urban places, including much greater densification, limited use of personal vehicles, doubling urban forests, and somehow redistributing employment and commercial activity into local centers to reduce commuting.

The scale and rigidity of places legacies will more than likely make widespread mitigation measures both difficult and expensive. Place-based adaptations will be needed to deal with severe and erratic weather events resulting from climate warming [15].

3. Impacts of adaptations

The IPCC Special Report’s recommendation makes this need for place-based adaptations very clear: “Pursuing place-specific adaptation pathways towards a 1.5C

warmer world has the potential for significant positive outcomes for well-being in countries at all levels of development.”

The report refers to these shifts as “transformational adaptations” that acknowledge the various scales of places, the different groups and uneven power structures in them, as well as historical legacies and the local priorities and trade-offs that shape the sustainability of everyday life [see Chapter 5, Executive Summary 5.3.3].

Some adaptations will be obvious in built environments, such as walls to combat rising sea levels in coastal cities and innovative building technologies to deal with melting permafrost in the Arctic. Other adaptations, such as larger stormwater drains to deal with intense rainfall events or the warning systems and evacuation plans for floods and storm surges caused by typhoons in Bangladesh, will have few obvious impacts on the physical characteristics of places.

The most significant adaptations will involve the relocation of places from areas rendered uninhabitable because of extreme temperatures or flooding or rising sea levels. As many as 13 million people in America might have to move elsewhere as Boston, New York, New Orleans, Miami, San Francisco, and many other communities will all be affected in some measure.

In Africa and in India, particularly the deltas of the Indus and Ganges, more than 100 million people may have to move. Where they might go is not clear, though it seems likely that regions where populations are shrinking and climate warming is relatively mild will become extremely attractive destinations [16].

At least for the moment, the Covid-19 pandemic has shifted attention away from climate change. Though several countries have indicated that climate change remains a priority, the likelihood is that it has become less significant in some political agendas at the very time that mitigation measures are urgently required. A probable outcome is that strategies already being implemented will continue to be pursued—for instance, shifting to renewable sources of energy, increasing densities, adding bike lanes, retrofitting old buildings, and building sea walls.

If, however, the arguments in the IPCC Special Report are correct and if the digital modelling that shows the minimum global average temperature increase will be at least 2.6C is accurate, these measures will be insufficient to keep global warming under 3C by 2100. Well before then, climate-change projections consistently indicate that extreme and unpredictable weather caused by climate warming will make everyday life increasingly stressful in places almost everywhere.

A changing worldview

Major changes in the ways that places have been made, thought about, and experienced have usually been related to historical periods that demonstrate consistency in how the world is viewed. For example, in Medieval Europe, a distinctive approach to placemaking developed with the diffusion of Christianity; industrial-era cities and factories were an expression of utilitarian, laissez-faire capitalism.

There are, I think, indications that another shift in worldview could be underway that has implications for the future of places. Unlike population decline, urbanization, and climate change (which can be projected using recent demographic and environmental trends), these indications are based on qualitative interpretations and are necessarily tentative.

Perhaps the most compelling of these indications is the decline of rationalism, which has held sway for several centuries and informed everything from Newtonian science to the layout of colonial settlements, the American constitution, capitalist economics, and modernist architecture and town planning.

In 2001, philosopher of science Stephen Toulmin wrote of “the sudden loss of confidence in our traditional ideas about rationality in the last twenty to thirty years.” He may have had in mind the arguments of other philosophers such as Thomas Kuhn, Richard Rorty, and Michel Foucault, who in different ways had raised doubts about hitherto taken-for-granted assumptions concerning objectivity and reality, suggesting that these are, in effect, matters of social consensus.

In addition, various social movements of the late 20th century exposed long-held rationalistic certainties about colonialism, gender, and race as biased attitudes of mostly white, male, European and North American elites. More recently and much more problematically, reason has been pushed aside by authoritarian leaders and social-media groups who promote alternative realities based on ideologies and feelings rather than evidence.

The overall consequence is that a worldview based in rationality and evidence-based objectivity is no longer unquestioningly accepted. The implications are expressed eloquently by Chinese artist and activist Ai Weiwei: “Abandonment of rational thinking leads to a collapse in which fear and joy, ignorance and wisdom, all blow in the wind” [17].

But even as the erosion of rationalism creates confusion, it also provides an opportunity for the emergence of a different worldview. At this stage, it is impossible to do more than speculate about the overall character of this shift in mindset. Nevertheless, I think it is possible to identify three aspects of changing place experiences that might be a significant part of any new, emerging worldview.

1. Environmental Responsibility

First, one can highlight the growing responsiveness to and responsibility for natural environments. The details of this shift can be debated, but my impression is that over the last two centuries, there has been a steady trend away from a widespread conviction that nature must be controlled and dominated regardless of consequences, to ways that respond to work with natural processes.

In various forms, this environmental approach has developed since the Romantic movements in art and poetry in the early 19th century; it was given a scientific boost with the coining of the idea of “ecology” in the 1870s, and a practical boost at the same time with the creation of the first national parks and the conservation movement. Since about 1970, this perspective has become increasingly integrated in planning,

development, and popular awareness through environmental assessment, ecological management, and sustainability. While it is far from being a truth universally acknowledged that natural processes should be worked with rather than against, the historical evidence of a trend toward increased environmental responsibility is clear.

This shift may be regarded as too slow by those with an environmental conscience and as too fast by those with vested interests in environmental exploitation. Nevertheless, it seems likely that this trend will accelerate because of the necessities of coping with the combined consequences of climate warming, declining populations, and expanding cities.

2. Electronic Connectivity

A second, very different aspect of changes to place experience is associated with electronic media. Previous shifts in places and placemaking have often been related to innovations in communications technologies. For instance, the invention of cities was contemporary with the invention of writing. And, as media scholar Marshall McLuhan argued, rationalism and its many social consequences, including the spatial expansion of empires with their well-ordered places, were associated with the invention of printing because printing facilitated a detached linearity of thought, popular literacy, and standardized practices that could be conveyed across empires.

From the perspective of the future of places, McLuhan's most relevant argument is that electronic media would have social impacts no less profound and far-reaching as printing. But these impacts will be entirely different because electronic messages circle the world instantaneously and shrink the world into a global village where, as in all villages, oral communications and personal engagement prevail and feelings are more important than detached reflection [18].

McLuhan was writing in the 1960s, when electronic media mostly referred to



television, radio, and film, all directed to mostly passive audiences. Personal computers and mobile phones now make it possible for any user to be a producer of information (or disinformation) rather than just part of an audience; these devices have made the use of electronic communication an essential part of everyday life almost everywhere.

Since the invention of the World Wide Web in 1989, the number of regular internet users has grown from a handful to almost five billion. No other innovation in the history of communications (or perhaps of any technology) has been adopted so rapidly and so widely. The long-term effects of electronic media are impossible to know, but it is abundantly clear that instant global connectivity has already become a widespread fact of daily life.

The indications are that McLuhan's insights were accurate—that feelings have begun to displace reason. It seems as though electronic media have begun to have fundamental impacts on the ways individuals relate to places, simultaneously detaching us in some respects from our immediate surroundings, yet enriching our knowledge of them and intensifying connections with other people with whom we share those places. Furthermore, electronic

media have enormously facilitated ways of connecting with people and places elsewhere.

From a slightly different perspective, these media have brought the relationships of daily social life into correspondence with a key insight of ecology—local distinctiveness is necessarily part of regional and even global connectivity [19].

3. Localism and the openness of place

The third aspect of recent thinking about places is the growing awareness of the political, social, and environmental importance of localism. This can be found in many different contexts. Stephen Toulmin, for example, argues that it is important to maintain reasonableness as rationalism declines, and that to do this we have to return to “the world of where and when, and get back in touch with the experience of everyday life”—in effect, to attend to places.

In a parallel way, the IPCC Special Report 1.5C on climate warming refers frequently to local and indigenous knowledge and defines “local knowledge” as “the understanding and skills developed by individuals and communities specific to the places where they live.” This report claims that local awareness and knowledge is necessary to inform decisions about adaptations to climate warming.

Similarly, the Royal Society for the Encouragement of the Arts, Manufacture and Commerce suggests that “the place-based dimensions of inclusive growth” is gathering pace in Britain. In North America, the Business Alliance for Living Local Environments aims to influence public policy in support of a place-based new economy. This group stresses that localist awareness is a crucial part of a global vision: “Each of us is crafting a piece of a larger mosaic—a global network of cooperatively interlinked local economies.”

More broadly, the merits of enhancing whatever is local have been advanced in heritage protection, the revival of farmers' markets selling local produce, the preservation of local ecosystems, and sustainable design that uses locally sourced material [20].

Although localism does carry with it the negative possibilities of parochialism and exclusion (which can readily poison sense of place), it generally indicates attitudes and practices that champion localities or places and an associated philosophy of a high degree of local control. In this positive connotation, localism has roots in the idea of subsidiarity with its emphasis on social and political issues being dealt with at the most immediate or local level consistent with their resolution. This idea was originally promulgated in the 1890s by the Catholic Church, and has since echoed through the thought of those with reservations about central government, including urbanist Jane Jacobs, who wrote in her last book, *Dark Age Ahead*, that “Subsidiarity is the principle that government works best, most responsibly and responsibly when it is closest to the people it serves and the needs it addresses.”

In other words, most effective policies and plans work best at the small scale of local places. Jacobs was clear that this localist emphasis should not happen in isolation from higher levels of government or business. Localism as a positive politics of place must acknowledge that regional and global processes affect all places and can neither be wished away nor shut out by walls and fences. Localism means being aware of what makes somewhere distinctive, while simultaneously understanding its relationships to other places.

All places are necessarily openings to the world and open to the world. Electronic media and the growing acknowledgement of environmental consequences are intensifying this openness and its associated interconnections. For the foreseeable future, places everywhere will, in countless different ways that reinforce their distinctiveness and share their responsibilities, both contribute to and receive from places elsewhere [21].



Place—a vital aspect of human life

There is considerable evidence that place is not some sort of incidental amenity but a vital aspect of how people everywhere relate to the world. While its expression in the character of built environments has undergone substantial temporal changes, it is nevertheless clear that in some form the value of place spans generations and cultures. This value is manifest in belonging and dwelling somewhere, in putting down roots, in being part of community that shares responsibilities, in a commitment to home and efforts to rebuild after disasters. The conclusion I take from the importance of place is that people always find ways to make places that are distinctive and meaningful, no matter how promising, difficult, or bleak circumstances may be.

Until the end of the 21st century, circumstances seem likely to impel unprecedented difficulties for which past placemaking practices offer few solutions. Besides the challenges posed by peak population and climate change, there are current indications of the decline of democracy, geopolitical realignments, faltering globalization, disruptive effects of social media and electronic communication, growing inequality and concentration of wealth, and undesirable consequences of genetic engineering and artificial intelligence.

Any one of these developments could have profound affects on everyday life in particular places. Together, their impacts will be compounded because now the world is so interconnected that these impacts will echo around the planet.

My hope is that some combination of environmental responsibility, the benefits of electronic connectivity, and globally-informed localism will motivate a new worldview that arises to address these difficult challenges in ways that will respect the importance of places.

Movement in this direction will not come easily. Corporations will continue to pursue placeless-vested self-interests; illusions of perpetual economic growth, regardless of the consequences for peoples and places, will not be soon abandoned; electronically connected non-place communities will promote discrimination and exclusion; deep inequalities will persist between places that flourish and those that stagnate or shrink.

At some point, however—perhaps in the second half of this century—the combined consequences of climate change, aging populations, shrinking communities, slowing growth, and endless cities, will surely make it necessary to find innovative ways to meet the unprecedented challenges for life in everyday places.

Notes

1. This essay is a revised version of several recent posts about the history and future of places on my website at placeness.com.

2. The sources for these population numbers and alternative projections are given in note 3.

3. The primary source I have used for population data is [United Nations World Population Prospects 2019](#). I have supplemented these figures with [Our World in Data](#) information on population, especially for the Wittgenstein Center projections; and with a [recent paper in *The Lancet*](#), which offers a rigorous reassessment of the assumptions in both the UN and the Wittgenstein Center projections. The full reference for the latter is S.E. Vollset et al., “Fertility, mortality, migration and population scenarios for 195 countries and territories from 2017 to 2100: A forecasting analysis for the Global Burden of Disease Study,” *The Lancet*, July 14, 2020.

4. My sources for projections of urbanization are [Our World in Data Urbanization](#); the [UN Habitat Data Booklet](#), which discusses the fact that urban land expansion rates have been increasing faster than population; and the animations at [The Atlas of Urban Expansion](#).

5. For new cities in India, see [Far and Wide](#), and [A Walk Through India](#).

6. For new cities in Africa, see [“Where Newest Cities Look the Same.”](#) [“Africa’s New Billion Dollar Cities”](#); and Jane Lumumba, [“Why Africa Should be Wary of its Newest Cities”](#).

7. On Slums see [UN Habitat Slum Almanac 2016](#): “Tracking Improvement in the Lives of Slum Dwellers.”

8. International Organization of Automobile Manufacturers—see “vehicles in use.” <http://www.oica.net/production-statistics/>. On cars per capita in Europe 2000–2017, see [Odyssee-Mure](#).

9. US Bureau of Census, 2020, [A Changing Nation: Population Projections under Alternative Immigration Scenarios](#).

10. There are several discussions of shrinking cities at the [Shrinking Cities International Research Network](#). On Youngstown, see [“The city that tried to stop growing” *The Atlantic*, 2016](#). Information on demolition policies in Detroit is available [here](#). A more academic discussion is Francisco Sergio Campos-Sanchez et al., 2019, “Sustainable Environmental Strategies for Shrinking Cities based on successful case studies” in

the [International Journal of Environment and Public Health](#).

11. Much of my discussion on climate change is informed by the 2018 [IPCC Special Report Global Warming of 1.5C](#), which is the most up-to-date and comprehensive report about weather consequences, mitigation, and adaptation.

12. S. Sherwood et al., “An assessment of Earth’s climate Sensitivity using multiple lines of evidence,” [Reviews of Geophysics July 2020](#).

13. The research on intolerable temperatures is provided by C. Raymond, T. Matthews and R.M. Horton, “The emergence of heat and humidity too severe for human tolerance,” [Science Advances Vol 6, No 19, May 2020](#).

14. Temperature increases in Canadian cities are shown in Government of Canada 2011, “Communicating the Health Risks of Extreme Events,” Figure 1, available [here](#). The models of heat exposure in US cities are in A. Broadbent E. Krayenhoff, and M. Georgescu, “The motley drivers of heat and cold exposure in twenty-first-century US cities,” *Proceeding of the National Academy of Sciences*, September 1, 2020, 117 (35): 21108–21117.

15. The substantial gaps between targets for limiting temperature increases and what has been achieved thus far are detailed at [The Climate Action Tracker](#).

16. On adaptations to climate change, see [The Global Commission on Adaptation](#); on migrations caused by climate change, see [here](#).

17. Stephen Toulmin, *Return to Reason*, Cambridge: Cambridge Univ. Press, 2001, p. 3; Thomas Kuhn, *The Structure of Scientific Revolutions*, Chicago: Univ. of Chicago Press, 1962; Michel Foucault, 1970 *The Order of Things*, London: Tavistock Press, 1970; Richard Rorty, *Philosophy and Social Hope*, London: Penguin, 1999; Ai Weiwei, “Time has lost all meaning” [The Atlantic July/August 2020](#).

18. Marshall McLuhan, *Understanding Media*, Toronto: Signet Press, 1964.

19. Data on the number of users of the Internet are available at [Internet World Stats](#).

20. Stephen Toulmin, *Return to Reason*, p. 213 (see note 17); IPCC Special Report 1.5C, glossary; [Royal](#)

[Society for the Encouragement of Arts; Business Alliance for Living Local Environments](#); see also my post on my Placeness website about [place and localism](#), which cites these and other sources.

21. Jane Jacobs, *Dark Age Ahead*, NY: Random House, 2003, p. 103.

Photograph captions (All photographs by the author and used with permission)

p. 17. A 2018 mural by Waldimir Manzhos in Victoria, British Columbia, that captures some of the complexity of the future of the Earth and its places—intimations of pollution, surveillance, falling population, and the smoking Rubik’s cube puzzle of it all.

p. 18. A sign in Markham, a suburban municipality of Greater Toronto, in 2012, that suggested how future development might happen along a rapid transit line (Viva). This sign also conveyed the legacy of the present to the future—more apartment towers, an arterial road, and, by implication, the plans behind it all.

p. 19. *¡Ya Basta!* [“Enough Already”], Chiapas, Mexico, 1999. A straightforward message that can apply equally to social inequality, carbon emissions, and life in impoverished places where most remaining population growth will probably be accommodated.

p. 20. An abandoned apartment building in Valencia, Spain, in 2018 offers an intimation of the early consequences of population decline and shrinking places.

p. 21. Signs at a Friday Climate Action Strike, 2019. Recent indications and climate modelling both suggest that more extreme events will make future weather conditions increasingly stressful regardless of the location of the places where these students may live.

p. 23: This sign at The Locavore Store in Waimea, Hawaii, 2019, explains the expanding international movement towards localism.

p. 24: The fact that place is not an incidental amenity and that relationships with place are as important as relationships with people is captured in this sign at the George Jay School in Victoria, British Columbia, at the onset of the Covid-19 pandemic.

Picturing Kevin Lynch's "Image of the City" graphically

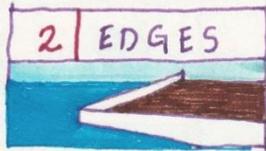
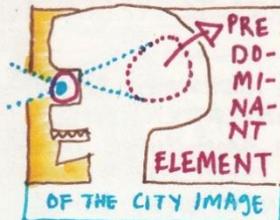
Levent Şentürk

Şentürk is a Professor of Architecture at Eskişehir Osmangazi University in Eskişehir, Turkey. For a seminar in architectural theory, he produced this series of drawings—what he calls an “explicator”—to summarize urban designer Kevin Lynch’s key argument. He also produced explicators for other key figures studied in the seminar, including **Theodor Adorno**, **Le Corbusier**, **Henri Lefebvre**, **Lewis Mumford**, and **Georg Simmel**. LeventSenturk@gmail.com. To see these explicators, go to: <https://orgu.academia.edu/LeventŞentürk>. Drawings and text © 2021 Levent Şentürk.





CHANNELS ALONG WHICH THE OBSERVER CUSTOMARILY, OCCASSIONALLY, OR POTENTIALLY MOVES. STREETS, WALKWAYS, TRANSIT LINES, CANALS, RAILROADS.



LINEAR ELEMENTS, BOUNDARIES BETWEEN TWO PHASES, LINE-

AR BREAKS IN CONTINUITY. SHORES, RAILROAD CUTS, EDGES OF DEVELOPMENT, WALLS.



LATERAL REFERENCES BARRIERS - MORE OR LESS PENETRABLE,

WHICH CLOSE ONE REGION OFF FROM ANOTHER; OR MAY BE SEAMS, LINES ALONG WHICH TWO REGIONS ARE RELATED OR JOINED TOGETHER.



IMPORTANT ORGANIZING FEATURES, PARTICULARLY IN THE ROLE OF HOLDING TOGETHER GENERALIZED AREAS, AS IN THE OUTLINE OF A CITY BY WATER OR WALL.



MEDIUM TO LARGE PARTS OF THE CITY, CONCEIVED OF AS HAVING TWO-DIMENSIONAL EXTENT, WHICH THE OBSERVER MENTALLY ENTERS "INSIDE OF" AND WHICH ARE RECOGNIZABLE AS HAVING SOME COMMON, IDENTIFYING CHARACTER.

1969

10 / 17

4 | NODES

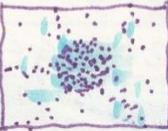
POINTS, STRATEGIC SPOTS IN A CITY, INTO WHICH AN OBSERVER CAN ENTER AND WHICH ARE THE INTENSIVE FOCI TO AND FROM WHICH HE IS TRAVELLING.

JUNCTIONS

PLACES OF A BREAK IN TRANSPORTATION

A CROSSING OR CONVERGENCE OF PATHS

MOMENTS OF SHIFT FROM ONE STRUCTURE TO ANOTHER



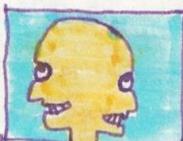
OR THE NODES MAY BE SIMPLY CONCENTRATIONS, WHICH GAIN THEIR IMPORTANCE FROM BEING THE CONDENSATION OF SOME USE OR PHYSICAL CHARACTER, AS A STREET-CORNER HANGOUT OR AN ENCLOSED SQUARE.



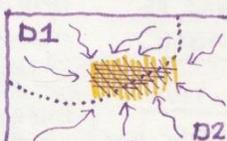
... THEIR INFLUENCE RADIATES AND THEY STAND AS A SYMBOL. THEY MAY BE CALLED **CORES**.



JUNCTIONS ARE TYPICALLY THE CONVERGENCE OF PATHS... EVENTS ON THE JOURNEY...

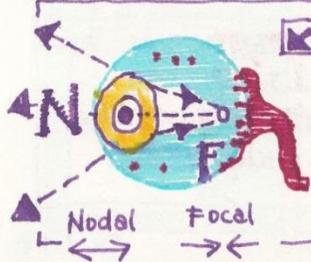


PATH ~ NODE
CORE ~ DISTRICT



A COMMON CORE FOR D1 & D2 facilitating both...

CORES ARE TYPICALLY THE INTENSIVE FOCI OF DISTRICTS - THEIR POLARISING CENTER.

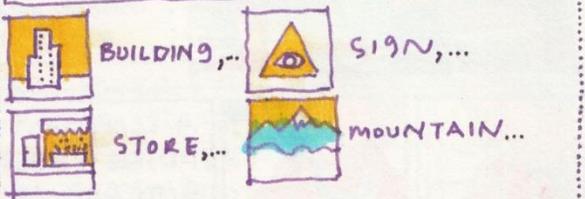


IN EVERY EVENT, SOME NODAL POINTS ARE TO BE FOUND IN ALMOST EVERY IMAGE, AND IN CERTAIN CASES THEY MAY BE THE DOMINANT FEATURE.

5 | LANDMARKS



LANDMARKS ARE ANOTHER TYPE OF POINT-REFERENCE, BUT IN THIS CASE, THE OBSERVER DOES NOT ENTER WITHIN THEM, THEY ARE EXTERNAL.



...THEY ARE USUALLY A RATHER SIMPLY DEFINED PHYSICAL OBJECT.

SOME LANDMARKS ARE DISTANT ONES, TYPICALLY SEEN FROM MANY ANGLES AND DISTANCES, OVER THE TOPS OF SMALLER ELEMENTS, AND USED AS RADIAL REFERENCES.



ISOLATED TOWERS, [SIENA...]



GOLDEN DOMES [FIRENZE...]



GREAT HILLS [...OR WATERFALLS]



EVEN A MOBILE POINT, LIKE THE SUN, WHOSE MOTION IS SUFFICIENTLY SLOW AND REGULAR, MAY BE EMPLOYED.



signs, ...



... trees, ...



... store fronts, ...



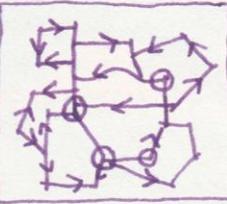
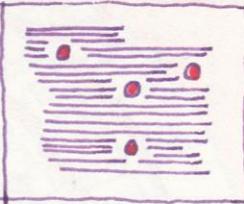
... door knobs ...

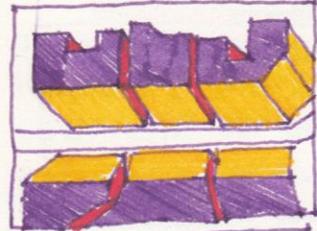
PRIMARILY LOCAL, INNUMERABLE URBAN DETAILS...

31

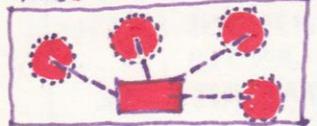
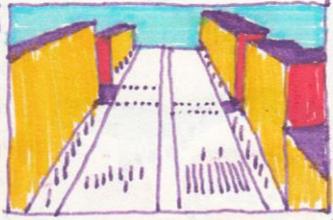
1979

10 / 19

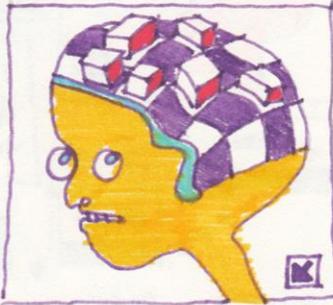
PATHS			
	BEGINNER	INTERMEDIATE	MASTER
	TOPOGRAPHY LARGE REGIONS DIRECTIONS	PATH STRUCTURE	SMALL LANDMARKS



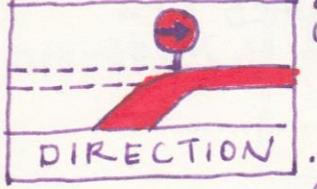
CHARACTERISTIC SPATIAL QUALITIES, [i.e.]... EXTREMES OF WIDTH AND NARROWNESS STRENGTHEN THE IMAGE OF PARTICULAR PATHS. [31]



PROXIMITY... TO SPECIAL FEATURES OF THE CITY INCREASES A PATH'S IMPORTANCE.



CONTINUITY... OF A PATH IS A FUNCTIONAL NECESSITY.

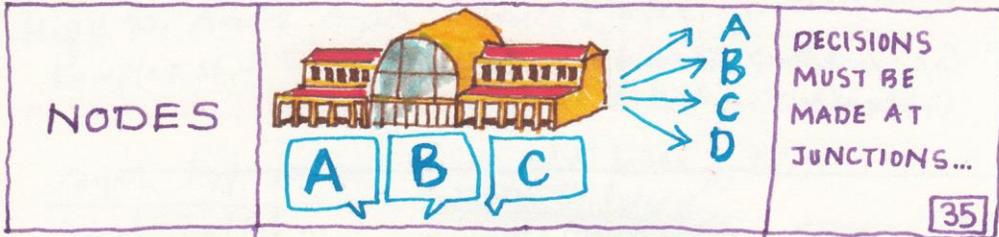


DIRECTION... IDENTIFIABLE AND CONTINUOUS PATHS NEED A DIRECTIONAL QUALITY AS WELL.

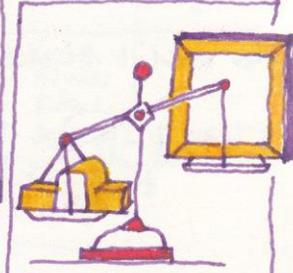
WHERE MAJOR PATHS LACKED IDENTITY, OR WERE EASILY CONFUSED ONE FOR THE OTHER, THE ENTIRE CITY IMAGE WAS IN DIFFICULTY. [32]

1973

10/21



MAJOR RAILROAD STATIONS ARE ALMOST ALWAYS IMPORTANT CITY NODES ALTHOUGH THEIR IMPORTANCE MAY BE DECLINING...



THE IMAGE CANNOT CARRY TOO MANY NODAL CENTERS.



PIAZZA SAN MARCO
VENICE

STANDS IN SHARP CONTRAST TO THE GENERAL CHARACTER OF THE CITY...

NARROW, TWISTING SPACES...

IT IS IN ITSELF HIGHLY DIFFERENTIATED AND STRUCTURED:

PIAZZA & PIAZZETTA

DUOMO ♦ PALAZZO DUCALE ♦

CAMPANILE ♦ LIBRERIA...

1977

10/25

Questions relating to phenomenology and related interpretive approaches and methods:

What is phenomenology and what does it offer to whom?

What is the state of phenomenological research today? What are your hopes and concerns regarding phenomenology?

Does phenomenology continue to have relevance in examining human experience in relation to world?

Are there various conceptual and methodological modes of phenomenology and, if so, how can they be categorized and described? Has phenomenological research been superseded by other conceptual approaches—e.g., post-structuralism, social-constructionism, critical theory, relationalist and non-representational perspectives, the various conceptual “turns,” and so forth?

Can phenomenology contribute to making a better world? If so, what are the most crucial phenomena and topics to be explored phenomenologically?

Can phenomenological research offer practical results in terms of design, planning, policy, and advocacy?

How might phenomenological insights be broadcast in non-typical academic ways—e.g., through artistic expression, theatrical presentation, digital evocation, virtual realities, and so forth?

What are the most important aims for future phenomenological research?

Do the various post-structural and social-constructionist criticisms of phenomenology—that it is essentialist, masculinist, authoritative, voluntarist, ignorant of power structures, and so forth—point toward its demise?

Questions relating to the natural world and environmental and ecological concerns:

Can there be a phenomenology of nature and the natural world?

What can phenomenology offer the intensifying environmental and ecological crises we face today?

Can phenomenology contribute to more sustainable actions and worlds?

Can one speak of a sustainable lifeworld?

What is a phenomenology of a *lived* environmental ethic and who are the key contributors?

Do the “sacred” and the “holy” have a role in caring for the natural world? For places? For lifeworlds broadly?

Can phenomenology contribute to environmental education? If so, in what ways?

Can there be a phenomenology of the two laws of thermodynamics, especially the second law claiming that all activities, left to their own devices, tend toward greater disorder and fewer possibilities? Are there ways whereby phenomenological understanding of lifeworld might help to reduce the accelerating disordering of natural and human worlds?

Questions relating to place, place experience, and place meaning:

Why has the theme of place become an important phenomenological topic?

Can a phenomenological understanding of place contribute to better place making?

Can phenomenology contribute to a generative understanding of place and place making?

What roles do bodily regularity and habitual inertia play in the constitution of place and place experience?

What are the lived relationships between place, sustainability, and a responsive environmental ethic?

How are phenomenological accounts to respond to post-structural interpretations of space and place as rhizomic and a “meshwork of paths” (Ingold)?

Can phenomenological accounts incorporate a “progressive sense of place” argued for by critical theorists like Doreen Massey?

Can phenomenological explications of space and place account for human differences—gender, sexuality, less-abledness, social class, cultural background, and so forth?

Can phenomenology contribute to the politics and ideology of place?

Can a phenomenological understanding of lived embodiment and habitual inertia be drawn upon to facilitate robust places and to generate mutual support and awareness among places, especially places that are considerably different (e.g., different ethnic neighborhoods or regions)?

Can phenomenology contribute to mobility, the nature of “flows,” rhizomic spaces, the places of mobility, non-spaces and their relationship to mobility and movement?

Questions relating to architecture and environmental design and policy:

Can there be a phenomenology of architecture and architectural experience and meaning?

Can phenomenology contribute to better architectural design?

How do qualities of the designable world—spatiality, materiality, lived aesthetics, environmental embodiment etc.—contribute to lifeworlds?

What are the most pertinent environmental and architectural features contributing to a lifeworld’s being one way rather than another?

What role will cyberspace and digital technologies have in 21st-century lifeworlds?

How will they play a role in shaping designed environments, particularly architecture?

What impact will digital advances and virtual realities have on physical embodiment, architectural design, and real-world places?

Will virtual reality eventually be able to simulate “real reality” entirely? If so, how does such a development transform the nature of lifeworld, natural attitude, place, and architecture?

Can virtual worlds become so “real” that they are lived as “real” worlds?

Other potential questions:

What is the lived relationship between people and the worlds in which they find themselves?

Can lifeworlds be made to happen self-consciously? If so, how? Through what individual efforts? Through what group efforts?

Can a phenomenological education in lifeworld, place, and environmental embodiment assist citizens and professionals in better understanding the workings and needs of real-world places and thereby contribute to their envisioning and making?

Is it possible to speak of human-rights-in-place or place justice? If so, would such a possibility move attention and supportive efforts toward improving the places in which people and other living beings find themselves, rather than focusing only on the rights and needs of individuals and groups without consideration of their place context?



Environmental & Architectural Phenomenology

Published digitally twice a year, *EAP* is a forum and clearing house for research and design that incorporate a qualitative approach to environmental and architectural experience, actions, and meanings.

One key concern of *EAP* is design, education, policy, and advocacy supporting and strengthening natural and built places that sustain human and environmental wellbeing. Realizing that a clear conceptual stance is integral to informed research and design, the editor emphasizes phenomenological approaches but also gives attention to related styles of qualitative research. *EAP* welcomes essays, letters, reviews, conference information, and so forth. Forward submissions to the editor.

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Exemplary Themes

- The nature of environmental and architectural experience;
- Sense of place, including place identity and place attachment;
- Architectural and landscape meaning;
- The environmental, architectural, spatial, and material dimensions of lifeworlds;
- Changing conceptions of space, place, and nature;
- Home, dwelling, journey, and mobility;
- Environmental encounter and its relation to environmental responsibility and action;
- Environmental and architectural atmospheres and ambiances;
- Environmental design as place making;
- Sacred space, landscape, and architecture;
- The role of everyday things—furnishings, tools, clothing, interior design, landscape features, and so forth—in supporting people’s sense of environmental wellbeing;
- The progressive impact of virtual reality on human life and how it might transform the lived nature of “real” places, buildings, and lifeworlds;
- The practice of a *lived* environmental ethic.

For additional themes and topics, see the preceding page, which outlines a series of relevant questions originally published in the 25th-anniversary issue of *EAP* in 2014 (vol. 25, no. 3, p. 4).

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