

# Environmental & Architectural Phenomenology

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his EAP includes "citations received" and a "book note" on archeologist Christopher Tilley's Interpreting Landscapes, the third volume in his series, "Explorations in Landscape Phenomenology." We also include information on the annual conference of the International Association for Environmental Philosophy (IAEP) to be held this October in Atlanta. The conference will include a panel discussion on "Twenty-Five Years of Environmental and Architectural Phenomenology," organized by philosopher and IAEP Co-Director Steven Vogel. We hope to have more information about this event in the fall 2015 issue.

Also included in this *EAP* issue are two feature essays, the first by philosopher and place researcher **Giorgi Tavadze**, who presents two examples of the "gathering power of place." His first example is the restoration of the Poti Cathedral, a Georgian Orthodox church in the Georgian port city of Poti, located on the Black Sea's eastern coast. His second example involves field research that he conducted in

Khevsureti, a mountainous region in northern Georgia. He describes the seasonal routine of grass cutters of that region and their communal approach to bridge building.

The second essay, by designer Malte Wagenfeld, introduces a "phenomenology of air." An integral part of any architectural phenomenology is lived accounts of various modes of "materiality," including fluids and atmospheres. Wagenfeld makes use of devices such as foggers and lasers to make visible the invisible atmospheric patterns of air. "How," asks Wagenfeld, "does a designer use visualization to conceptualize an

intangible atmospheric medium such as air? How do we conjure a vivid inner imagery to formulate conceptual models that capture the dimensional complexity and temporal capriciousness of atmosphere?" His essay describes several intriguing discoveries in relation to these questions.

#### **Creativity & Human Science**

The current issue of the Danish peer-reviewed, on-line Academic Ouarter [Akademisk Kvarter] focuses on "Creativity in Human Science Research." This special issue includes several articles that were originally presentations at the 2013 International Human Science Research Conference (IHSRC), held at the University of Aalborg in northern Denmark. Articles include: "Creativity as Opening toward New Beginnings" (S. Halling and F. T. Hansen); "How do Artists Learn and What Can Educators Learn From Them?" (T. Chemi and J. Borup Jensen): "Creativity in Phenomenological Methodology" (P. Dreyer, B. Martinsen, A. Norlyk and A. Haahr);

"Finding Oneself Lost in Enquiry" (M. Mandić); "Considering Collaborative Creativity" (T. Jensen); "Creativity in Ethnographic Interviews" (L. Teglhus Kauffmann); "Looking at a Photograph—André Kertész's 1928 Meudon: Interpreting Aesthetic Experience Phenomenologically" (D. Seamon); "Narratives and Communication in Health Care Practice" (M. B. Sørensen); "Transformative Wonder. An Ex-Con Talking about Heidegger to a Class of Graduate Students" (M. Nosek, E. Marlow, E. Young and Y. Lee); and "The Sublime In Nursing Practice" (E. Goble B. Cameron). www.akademiskkvarter.hum.aau.dk/UK/allissues.php.

Below: Video stills of two strikingly similar vortex formations, appearing about one-and-one-half minutes apart. The video was shot by Malte Wagenfeld in New York City in 2008 and illustrates "the propensity of a self-organizing system to generate aperiodic patterns." See Wagenfeld's essay, "The Phenomenology of Visualizing Atmosphere," p. 9.





#### **IAEP Conference. Atlanta**

The 19<sup>th</sup> annual meeting of the **International Association for Environmental Philosophy** (IAEP) will be held October 11–12, 2015, in Atlanta. The conference follows the annual meetings of the **Society for Existential and Phenomenological Philosophy** (SPEP); and the **Society for Phenomenology and the Human Sciences** (SPHS). <a href="http://environmentalphilosophy.org/">http://environmentalphilosophy.org/</a>; <a href="http://environmentalphilosophy.org/">http://environmentalp

### **Geography of the Lifeworld** reprinted

EAP editor David Seamon's A Geography of the Lifeworld: Movement, Rest, and Encounter has been reprinted in Routledge Press's "Revival" series. Originally released in 1979 by the London publisher Croom Helm, the book presents a phenomenological examination of everyday environmental experience—"the sum total of a person's firsthand involvements with the geographical world in which he or she typically lives." Seamon describes a common lived core of everyday environmental experience via the three overarching themes of movement, rest, and encounter. His introduction to the Routledge reprint is available at: www.taylorandfrancis.com/reference/blog/category/routledge\_revivals/.

#### **Citations Received**

Julio Bermudez, ed., 2015. Transcending Architecture: Contemporary Views on Sacred Space. Washington DC: CUA Press.

The 18 chapters of this edited collection examine "the mysterious, profound, and real power of designed environments to address the spiritual dimension of our humanity." Contributors include: **Thomas Barrie** ("The Domestic and the Numinous in Sacred Architecture"); **Julio Bermudez** ("Le Corbusier at the Parthenon"); **Karsten Harries** ("Transcending Aesthetics") **Lindsay Jones** ("Architectural Catalysts to Contemplation"); and **Juhani Pallasmaa** ("Light, Silence, and Spirituality in Architecture and Art").

Janet Donohoe, 2014. Remembering Places: A Phenomenological Study of the Relationship between Memory and Place. NY: Lexington Books.

Focusing largely on the lived dimensions of monuments and memorials, this philosopher draws on phenomenological and hermeneutic perspectives to explore the complex relationship between place, memory, and history. The emphasis is on how "deliberate places of collective memory can be ideological, or can open us to the past and different traditions."

Wilfred M. McClay and Ted V. McAllister, eds., 2014. Why Place Matters. NY: New Atlantis Books.

"Contemporary American society, with its emphasis on mobility and economic progress, all too often loses sight of the importance of a sense of 'place' and community. Appreciating place is essential for building the strong local communities that cultivate civic engagement, public leadership, and many of the other goods that contribute to a flourishing human life. This anthology brings together an array of distinguished scholars-historians, philosophers, geographers, urban planners, and others—to explore the problems of place and placelessness in American society." The 17 authors include: Philip Bess ("Metaphysical Realism, Modernity, and Traditional Cultures of Building"); Russell Jacoby ("Cosmopolitanism and Place"); Witold Rybczynski ("The Demand Side of Urbanism"); Roger Sruton ("A Plea for Beauty: A Manifesto"); and Yi-Fu Tuan ("Place/Space, Ethnicity/Cosmos").

Jeff Malpas, 2012. Putting Space in Place: Philosophical Topology and Relational Geography. *Environment and Planning D: Society and Space*, vol. 30, pp. 226–42.

Offering a penetrating critique of the "relationalist" approach to space that currently dominates geographical and architectural thinking, this philosopher of place "explores the concept of space as it stands in connection with time and place, making particular use of the notions of boundedness, extendedness, and emergence while also shedding light on the idea of relationality." Includes some useful "deconstruc-

tion" of some of the most prominent "relationalist" thinkers today, including **Doreen Massey**, **Ash Amin**, **Nigel Thrift**, and, more peripherally, **David Harvey**. See sidebar, below.

#### **Place as only relational**

...[Doreen Massey's] own view of space and spatiality can be taken as representative of... what is now the dominant view of space and spatiality within geography and many related disciplines—a view of space and spatiality as essentially *relational*.

Moreover, far from contributing to a clearer analysis of space, this relational conception has itself contributed to a further proliferation of spatial tropes and figures that often serve further to obscure the concepts at issue. Thus, within much contemporary literature, in geography and beyond, space appears as a swirl of flows, networks, and trajectories, as a chaotic ordering that locates and dislocates, and as an effect of social process that is itself spatially dispersed and distributed....

On the face of it, Massey retains a commitment to the concept of place in her work.... The way place actually appears, however, is almost entirely in terms of a "meeting" of relational flows or trajectories or as "articulated moments in networks of social relations and understandings...."

The images and ideas that can be seen to be at work here... demonstrate the persistent influence (sometimes contrary to Massey's own claims) of a certain form of diagrammatic, or even cartographic, envisioning of relational organization and configuration. Relations are themselves understood as like lines drawn on a surface....

It is one thing to emphasize the character of places as always interconnected with other places (such interconnection, evident in both the embeddedness of places in other places as well as the implication of places with other places through their mutual locatedness), but it is quite another thing to treat places as primarily points of linear intersection or relational convergence.

In this respect, Massey's attempt to preserve a sense of place actually depends not on the defense of a sui generis concept of place but on the collapsing of the distinction between place and space: place becomes simply a moment (a meeting point) in space—a moment constituted through spatial flow and movement (Malpas, p. 228 & p. 229).

# Annelise Norlyk, Bente Martinsen, and Karin Dahlberg, 2013. Getting to Know Patients' Lived Space, *Indo-Pacific Journal of Phenomenology*, vol. 13, no. 2 (Oct.), pp. 1–12.

These professors of nursing science consider "patients' experience of lived space at the hospital and at home" and demonstrate that "the hospital space means alien territory as opposed to the familiar territory of home." In regard to the latter, the authors explain that "the combination of illness and general discomfort may influence patients' experience of home negatively; the former experience of home as a sanctuary changes into feelings of being left on one's own and burdened by too much responsibility."

# Robert B. Olshansky and Larure A. Johnson, 2010. *Clear as Mud: Planning for the Rebuilding of New Orleans.* Washington, DC: Planners Press.

Based on interviews with many of the parties involved, this study describes the process whereby the Unified New Orleans Plan was designed and carried out in the four years following the devastating 2005 Hurricane Katrina. Some key questions helpfully addressed: "How does one organize and finance the rebuilding of a city in the accelerated time frames expected by its public officials and citizens? What should a planner, local or state governmental official, or involved citizen do when faced with such circumstances? To what extent can planning politics and strategies help to facilitate a successful recovery? How important are government-led planning efforts, as opposed to self-organized efforts by neighborhood organizations or nonprofits?" A useful contribution to an area of study that might be called a "phenomenology of place recovery."

# Julie M. Raimondi, 2012. Space, Place, and Music in New Orleans. Doctoral dissertation. Univ. of California, Los Angeles: Dept. of Ethnomusicology.

This dissertation explores ways in which many people in New Orleans use, experience, form emotional attachments to, and make sense of space through music. The author argues that music enables people to socially construct space because it accesses the nexus of memory and emotion, operates in a greater cultural context, and is a useful tool for variable expression. The research draws on four case studies: place attachment through the "second line" parading tradition and North Claiborne Avenue; the fixing of memories in space at the Ernie K-Doe Mother-in-Law Lounge; the negotiation of public space through musical performances in various contexts; and the creation and growth of a music community in the New Orleans Habitat Musicians' Village.

### Scott Timberg, 2015. Culture Crash: The Killing of the Creative Class. New Haven, CT: Yale Univ. Press.

This journalist examines the current disintegration of the American *creative class*—all persons who create, help create, or disseminate culture. These individuals include not only artists, architects, composers, choreographers, playwrights, and so forth, but also journalists, deejays, musicians, librarians, book editors, bookstore clerks—in short, "those who deal with ideas, culture, and creativity at street level."

Chapter by chapter, Timberg considers the various causes of this "culture crash"—social shifts, technological change, economic recession, digital piracy, the erosion of place-grounded entrepreneurship, and the destruction of "middlebrow consensus"—the sense of "a shared body of artistic and intellectual touchstones that educated middle-class people should know about, that 'serious' fare was somehow good for you, and that these works were to be passed down through education, journalistic coverage, and family rituals."

The sidebar, right, includes passages from Timberg's chapter, "Disappearing Clerks and the Lost Sense of Place."

### **Everything around subtly changed**

The loss of the people who labor to put books and music and movies into our hands is bad enough, but their departure doesn't just cut into the number of people who can make a living from working in culture.

Every time a shop selling books or records, or renting movies, closes, we lose the kinds of gathering places that allow people oriented to culture to meet and connect; we lose our context, and the urban fabric frays.

Americans have long worried about big cities and the endemic poverty that seemed to take root in them. These days, plenty of cities—Detroit, Baltimore...—remain devastated. But it's excessive wealth, not poverty, that's making some cities unlivable. Culture merchants close their doors for a mixture of reasons, but next to disruptive technology, it's skyrocketing rents that are pushing these places out.

The most recent economic recession has led to tenacious unemployment and a severe wounding of the American middle class—median family has recovered only 45 percent of the wealth it lost since 2007.... But even in the face of these hard times, real estate prices are rising and in some cases spiking. The stock market surge, record corporate profits, and a plutocrat class thriving in an age of tax cuts and offshoring mean that the very rich can move into cities and force others out.

In New York City, the prices of luxury condos from uptown to downtown are pushing the creative class deeper into Brooklyn and Queens. Even outlying Hoboken, New Jersey, has seen its creative class pushed out by junior bankers who can pay \$4,200 a month for a one-bedroom condo. The indierock club Maxwell's, a longtime watering hole for musicians and writers there, closed in 2013.

In the Bay Area, real estate prices have begun to wage the economic equivalent of ethnic cleansing on the middle class. Rents in San Francisco increased by about 30 percent between June 2011 and two years later, with an accompanying surge in evictions. Cities such as Oakland, Denver, Miami,

and Boston have seen annual increases above 10 percent since the recession.

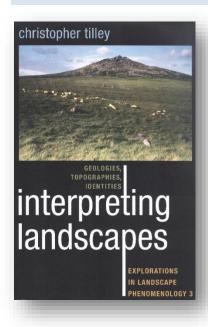
For objects with fixed prices—books and CDs, for instance—such enormous increases in overhead are hard for a small retailer, no matter how diligent or innovative, to keep pace with. And this sort of climb makes it nearly impossible for writers and musicians—not to mention bookstore workers—without trust funds to live in the kind of urban setting that allows for a critical mass and cultural friction.

There's an extensive literature about what makes neighborhoods function, including much by the New Urbanists, with Jane Jacobs as the most eloquent of the city's mid-century chroniclers.... Jacobs argued... in favor of small shops that encourage pedestrian traffic and serendipity, along with mixed-use districts and buildings that can be accessed at street level—all things fostered by an interplay of independent culture merchants with other sorts of places....

"Remove one record shop from a neighborhood, and it's not just records or personal history or memories and friends that are knocked out (you can find all those elsewhere); it's everything around it that is subtly changed" (pp. 64–65 & p. 69).

#### **Book Note**

Christopher Tilley, 2010. Interpreting Landscapes: Geologies, Topographies, Identities. Explorations in Landscape Phenomenology 3. Walnut Creek, CA: Left Coast Press.



his is the third volume in archeologist Christopher Tilley's "Explorations in Landscape Phenomenology," a remarkable series of first-person phenomenological efforts to interpret the lived nature of natural place via geological, topographic, and environmental phenomena like springs, beaches, prominent hills, escarpment edges, ridges and spurs, bogs and marshy areas, and so forth.

The seven real-world sites that Tilley explores are all in southwestern England and include the three contrasting chalk landscapes of the area around Stonehenge;

the northern edge of Cranborne Chase; and the South Dorset Ridgeway.

Tilley's work has consistently demonstrated the interpretive value of careful, prolonged firsthand encounter and engagement with landscapes and natural places. In relation to the archeological and historical value of his studies, Tilley writes:

How closely connected were different communities in the Neolithic and Bronze Age? How localized were their worlds? The various studies in this book suggest that there was a very strong relationship among monuments, places, and landscapes, that individual and social identities were constructed in place, by the people of that place, who belonged to that place and landscape. The relationship was intimate and enduring (p. 469).

To give readers a sense of the author's perceptive vision, we reproduce, in the sidebars below, passages from the book's first and last chapters.

#### **Materiality of Landscape**

Landscapes have a profound effect on our thoughts and interpretations because of the manner in which they are perceived and sensed through our bodies. We cannot, therefore, either represent or understand them in any way we might like. This approach stresses the *materiality* of landscapes: landscapes as real and physical rather than as

simply cognized or imagined or represented. The physicality of landscapes acts as a ground for all thought and social interaction. It profoundly affects the way we think, feel, move, and act.

The phenomenologist is a figure immersed within the ground of landscape. Landscape is fundamental for human existence because it provides both a medium for and an outcome of individual and social practices. The physicality of landscapes grounds and orientates people and places within them; it is a physical and sensory resource for living and the social and symbolic construction of lifeworlds.

A phenomenological study takes time.... [T]he longer one experiences a landscape the more that will be understood—first of all, because only familiarity can produce a structure of feeling for the landscape that a phenomenological account attempts to evoke.

Second, landscapes, unlike their representations, are constituted in spacetime. They are always changing, in the process of being and becoming, never exactly the same twice over. Places alter according to natural rhythms such as the progression of seasons, time of day, qualities of light and shade, and so on. The weather, for which an entire archeology might be developed, is a fundamental medium surrounding and affecting both people and their land-scapes....

Temporality is thus at the heart of a phenomenological study, in which we must learn how to see and how to experience and try to learn about the experience of others (Tilley, p. 26).

#### **Imagining via the body**

In carrying out the fieldwork for this book, I was struck by the manner in which the landscape itself changes so radically within a short walking distance.

In relation to the Pebblebed landscape of East Devon...., I walk from where I dwell toward the east, crossing the river Otter, climb up the East Hill Ridge, and pass over its flat top. I leave the smooth multi-colored pebbles behind, walk over red sandstone, which I can see exposed in the river cliffs, encounter brittle grey and yellow chert and small cairns made of the same material.

I descend to the valley below. My journey takes several hours. The topography is now totally different. Ahead is a ridge very different from the ridge that I have just passed over. The aspect of the East Hill ridge seen from the east is a ragged affair, broken up by numerous valleys and spurs. Seen from the west, the line is smooth, continuous and unbroken.

I have entered a very different sensuous and experiential world. I feel lost and uneasy in this landscape that I have not walked or studied. My relationship with the earth and the sky has changed; all the landmarks and water course that were familiar to me have gone, my knowledge has vanished.

In order to dwell here, rather than over there, I need to find myself again, establish a new embodied relationship with place, establish a new kind of identity with the land. I have maintained throughout the book that something of value can also be inferred from this kind of view of the people of the past, an imagining taking place through the medium of the body rather than through a text (Tilley, p. 470).

### Stages of phenomenological research

- **1.** Familiarizing oneself with the landscape through walking within and around it, developing a feeling for it, and opening up oneself to it.
- **2.** Visiting known places of prehistoric significance and recording the sensory affordances and contrasts they provide. This requires *writing* and then visually recording, through still or video photography, these experiences in the place, creating a written and visual text (rather than a series of abbreviated notes) because the very process of writing is a primary aid and stimulus to perception.
- **3.** Revisiting the same places during different seasons or times of the day as far as is possible, experiencing them in and through the weather.
- **4.** Approaching these places from different directions and recording the manner in which their character alters as a result.
- 5. Following paths of movement through the landscape and recording the manner in which this activity may change the manner in which places within it are perceived in relation to one another. Paths of movement will usually be suggested by features of the landscape itself, for example, following the lines of ridges or the course of valleys or prehistoric moments within it—for instance, walking along the line of a stone row, a Cursus Monument, a cross-ridge dyke, a Roman road, or between nearby groups of barrows or settlements.
- **6.** Visiting and exploring and recording 'natural' places within the landscape for which there is little or no archaeological evidence of human activity.
- **1.** Drawing together all these observations and experiences in the form of a synthetic text and imaginatively interpreting them in terms of possible prehistoric lifeworlds: how people in the

past made sense of, lived in, and understood their landscapes (Tilley, pp. 30–31).

#### **Cherishing the land**

Phenomenological approaches attempt to explore landscapes on the basis of the full depth of their human sensory experience. The process of dwelling in these landscapes and developing an understanding of them is not a value-free exercise. It is part of a radical politics whose imperative is to teach us to respect and to value, love, and cherish the land on which we dwell and the planet on which we live—and to challenge capitalist values in which everything and its worth becomes measured in terms of money, as well as the "rationalist" and calculating logic associated with such an evaluation.

[This perspective] encourages thought about these landscapes that may allow us to emotionally re-connect with them, through an alternative poetic and metaphoric logic, rather than to destroy them. It is to further develop an understanding that, if we destroy these landscapes, we destroy not only our past but also our present and our future.

To be a good phenomenologist is to try both to think through and to develop an intimacy of contact with the landscape akin to that between lovers. In so doing, we may develop not only a better understanding of our present-past but also of ourselves and our relationship to others (Tilley, p. 490).

### Place as Gathering: Building, Care, and Dwelling

#### Giorgi Tavadze

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hat is the essence of place? How do places influence our every-day life? What kinds of lived relationships do we have with places and how do we make them better or worse? In the modern world of globalization, glocalization, information flows, and social networks, these questions are of utmost importance but often neglected. *Placeless-ness*—the weakening of the identity of places—threatens the very notion of place itself (Relph 1976).

In this sense, it is important to analyze the *gathering nature* of place, for it shows that "place is central to human life because, just by being what it is, it gathers worlds spatially and environmentally, marking out centers of human action, meaning, and intention that, in turn, contribute to the making of place" (Seamon 2015, p. 41).

Here, I discuss two examples illustrating the gathering nature of place. First, I consider place as a *gathering symbol*, a concept developed by psychoanalyst and sociologist Alfred Lorenzer (1968) in his reflections on the meaning of urban symbols. Second, I discuss the gathering nature of place in light of the *practical need* of individuals and a place-making process.

#### **Place as Gathering Symbol**

In his essay on urban development, Lorenzer (ibid.) notes that humans need emotional relationships with the built environment [1]. This affective contact with architectural forms is established through the whole city, its streets, squares, houses, gardens, churches, monuments, railway stations, and so on. The structure of the city influences its inhabitants. For example, the experience of a city's silhouette—the whole image of that city—then becomes an

inner moment of city dwellers, who identify themselves with it. Their feelings are permeated by the city and its architecture.

Lorenzer rejects architectural functionalism, which, he claims, considers the city as a "machine for dwelling." Functionalism in architecture and urban development cannot satisfy the emotional and communicative needs of city dwellers. In its essence, urban

communication is mediated through symbols, and the city is a place of symbolic interaction.

Individuals establish emotional relationships with the built environment through symbols via which city dwellers unite in a shared, symbolic "ideal I" that is sustained through interpersonal communication. In this sense, an urban symbol can be understood as a gathering symbol in that it draws together individuals and is formed, reinforced, and reinterpreted simultaneously through interpersonal awareness.

#### **Cathedral as Gathering**

In 1906–1907, through the initiative of prominent Georgian public figure Niko Nikoladze (1843–1928), Poti Cathedral was built in the Georgian port city of Poti, located on the Black Sea's eastern coast. This cathedral was intended as an imitation of Hagia Sophia, the great Byzantine church in Istanbul, Turkey. In 1933, during the era of Soviet occupation, Poti Cathedral was converted into a theatre. In 2005, the cathedral was restored and returned to the Georgian Orthodox Church.



The location of the Cathedral is unique: The city's main streets connect to the central square where the Cathedral is located. The restoration of the Cathedral was rife with difficulties. Along with the clergy (guided by His Eminence Metropolitan Grigol of Poti and Khobi), many Poti inhabitants participated in the restoration, and the Cathedral quickly became one of the most powerful new symbols of post-Soviet Poti and an important tourist destination.

For many of the city's residents, the Cathedral is not only a place for prayer but has become an integral part of their collective identity. Because of its architectural style and its history and location, the church represents Poti's best traditions: positive change, mutual assistance, openness (Poti as a Black Sea seaport and "gateway to Europe"), and multiculturalism (a distinctive, Byzantine architectural style significantly different from a more traditional Georgian style). In this sense, Poti Cathedral is a *gathering symbol* and *an authentic place* (Relph 1976) that serves as a *topos* of collective memory.







#### **Place as Practical Need**

In his "Building, Dwelling, Thinking," Heidegger (1971) describes the *gathering* nature of places and the importance of *building*. His example is a bridge gathering the riverbanks: "The banks emerge as banks only as the bridge crosses the stream" (p. 152). The bridge gathers places and humans in that it connects them with each other: "The bridge lets the stream run its course and at the same time grants their way to mortals so that they may come and go from shore to shore" (ibid.).

Moreover, the bridge gathers earth, sky, gods, and mortals—what Heidegger calls "the fourfold" (*das Geviert*). As Malpas (2006) explains, "It is only through the gathering of the fourfold in the thing that nature comes to salience as nature, just as it is only in the gathering of the fourfold in the thing that the human comes to salience also" (p. 234).

How does gathering happen practically via place? One possibility is place ballet, which Seamon (1980) defines as "a fusion of many time-space routines and body ballets in terms of place" (p. 159). The concept of "place ballet" is especially helpful in understanding how places gather via everyday lifeworld situations. If researchers aim to "delve" deeply into a place, they should participate in place ballet, an experience that enables them to bring to light specific places where different bodily routines intersect and contribute to that place's lived context. Moreover, place ballet offers clues as to the inner rhythm—the "pulsation" of the place.

#### **A Sphere of Care**

In summer, 2012, I was conducting participant observation in Khevsureti, a mountainous region in northern Georgia, near the border with the Russian Federation [2]. I was staying with grass cutters in the village of Shatili, and my aim was to observe their interactions with places during their daily routines.

The grass cutters worked hard. They began their work at dawn and worked until dusk. Like their ancestors, they did not use any modern technology and mowed exclusively with a scythe. Because there is a lack of flat land around Shatili (and, in fact, throughout Khevsureti) grass cutters mow on steep slopes. After the seasonal mowing finished, the "guleba" begins in which locals, using rope, pull small haystacks from fields to stables, either manually or with the help of horses. These smaller piles are

gathered into larger haystacks.

One day, the grass cutters suddenly went to the nearby place of Tsukvisdziri to help a neighbor (who had returned from the lowland and begun house building) to construct a temporary bridge across the Ardotistskali River. This river is very swift and dangerous and has claimed many lives.

Before the bridge construction began, the men used a van to pull the necessary logs to the bridge-building site. The next step involved constructing the "ear of the bridge" (*khidis kuri*), the term for the two bridge abutments, of which one was a log placed horizontally on top and tied with wire to two parallel logs beneath. The second abutment was a log placed on and attached with wire to two large boulders. To strengthen and stabilize the bridge, large stones were then piled on the abutments.

Once the abutments were in place, men on one riverbank secured a rope to a long log and threw the rope across the river to men on the opposite side. As the log was pushed into the river, these men began to pull the rope and position the log across the river. This effort was the most dynamic, tension-filled action I saw during the expedition.

When the first log was properly positioned across the river, a second log was placed with much less effort. The rope was







tied to this second log and, again, the rope was thrown to the men on the opposite bank. But unlike the first log, which the men pushed into the river, the second was pulled along the first log and then placed parallel to it. Once these two long logs crossing the river were in place, the men piled more large rocks on the two abutments and then nailed short laths perpendicularly across the two crossing logs.

The temporary bridge was now finished, and the men returned to their fields where the grass-cutting place ballet resumed [3]. This bridge-building event, which at first to me seemed out of the ordinary in terms of daily routine, helped me understand another important part of these grass cutters' everyday life: a sphere of mutual responsibility and care.

Locals told me that in the mountains it is practically impossible to live without mutual assistance. This is especially evident in winter, when Upper Khevsureti is largely severed from the rest of Georgia. The actions and movements of these men involved in mutual assistance are in no way deviations from time-space routines or place ballet. Rather, they are an *extension* of these regular, taken-for-granted events and an inseparable part of a broader place ballet.

From Relph's phenomenological perspective, these activities reinforce *existential insideness*—a taken-for-granted sense of attachment to the place and an unself-conscious individual and collective local identity (Relph, 1976, p. 55).

#### **A Constant Care for Places**

In *Building, Dwelling, Thinking,* Heidegger (1971), claims that "only if we are capable of dwelling, only then can we build." He goes on to say that "The fundamental character of dwelling is... sparing and preserving" (p. 149). If humans do not care for places, then there is a good chance that placelessness and the "fragility of places" (Malpas 1999, p. 234) will manifest starkly. Therefore, only *with constant care for places, can we dwell and grasp better our essence.* 

The care for places offers a new dimension of thinking, understanding, and mutual aid. Nowadays, when global processes directly impinge on local places, these reflections are as necessary as never before.

#### **Notes**

- 1. I am indebted to Prof. Helmut Schneider's public lecture, "Symbolics of the Utopian City," Feb. 24, 2011, Central Library, Poti.
- 2. This research was sponsored by the Institute of Philosophy and Social Sciences, Grigol Robakidze University, Tbilisi, Georgia; see Tavadze 2013.
- 3. The bridge was "temporary" because, when the Ardotistskali River floods (which happened in June, 2013), bridges are regularly destroyed. The men built a temporary bridge so that the house building could proceed quickly before winter snows began.

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Images: p. 6, Aerial view of Poti Cathedral, Poti, Georgia; p. 7, gathering hay and making haystacks; p. 7, preparing a bridge abutment; p. 8, crossing the river with the first spanning log; a completed bridge (photographs by Giorgi Tavadze).

### The Phenomenology of Visualizing Atmosphere

#### Malte Wagenfeld

Wagenfeld is a Senior Lecturer in Industrial Design at RMIT University in Melbourne, Australia, and a practicing designer and researcher whose explorative designs (furniture, objects and appliances) and texts have been internationally exhibited and published. In his current projects, he has turned toward the investigation of sensuous and perceptual encounter, including the realms of sound, light, air, breezes, smells, humidity, and temperature. He draws on this research for his designs of experiential environments and interior atmospheres. This essay is based partly on his doctoral dissertation, Aesthetics of Air (Melbourne: School of Architecture and Design, RMIT University, 2013). <a href="malte.wagenfeld@rmit.edu.au">malte.wagenfeld@rmit.edu.au</a>. Text and images © 2015 Malte Wagenfeld. See pp. 14–15 for image captions.

The inventor Nikola Tesla "could project before his eyes a picture complete in every detail, of every part of the machine"... more vivid than any blueprint.... Further, he claimed to be able to test his devices in his mind's eye, "by having them run for weeks—after which time he would examine them thoroughly for signs of wear" (Gardener 1993, pp. 187–88).

or Nicola Tesla to perform such conceptual gymnastics, visualizing a complex unbuilt machine and letting it "run" in his mind over a period of time and then analyzing the mechanical outcome, he would first have had to develop an innate working knowledge of the materials from which this imaginary machine was made.

As designers, we experiment with materials to explore their properties and qualities and to consider how best to work with, manipulate, and determine what we can make. Through iterative physical exploration, we develop a tacit material knowledge gradually internalized as a feeling—a "Gefühl." Developing this "feeling" allows a means to visualize the material in new design contexts. The more we work with a material, the more attuned we are to this feeling, which in turn amplifies our ability to inventively explore and manipulate that material in a conceptual realm.

The tantalizing question arises: How does a designer use visualization to conceptualize an intangible atmospheric medium such as air? Explore it, alter it, adjust it, feel it, smell it, walk through it, languish in it? How do we conjure a vivid inner imagery to formulate conceptual models that capture the dimensional complexity and temporal capriciousness of atmosphere? Lucy Irigaray (1999) even asks, "Is air thinkable?"

#### **An Aesthetics of Air**

Now in its seventh year, the project, *Aesthetics of Air*, is an ongoing exploration into atmospheric phenomena, perceptual encounters, and our social, cultural, philosophical and physiological relationship with air. The aim is to reimagine interior atmospheres and to devise a method for designing with air. The perceptual phenomena carried by air, breezes, temperature, moisture, sounds, scents, density, weight and so forth, as a combined effect, is what I refer to here as "atmosphere." As philosopher Gernot Böhme (1998, p. 114) writes:

aesthetics of atmosphere shifts attention from the "what" something represents, to the "how" something is present. In this way, sensory perception as opposed to judgment is rehabilitated in aesthetics, and the term "aesthetic" is restored to its original meaning, namely the theory of perception.

Attention to "how something is present" raises a design dilemma, namely, how is an atmosphere—emergent, intangible, and invisible—to be mastered, manipulated, and transformed? How can air be explored and modulated as a perceptual design medium? Typical meteorological instruments such as anemometers, barometers, and thermometers are useful for collecting quantifiable data but largely unhelpful as tools to analyze the perceptual qualities of an aesthetic atmosphere or to inform its design.

How, for example, would one quantify the experience of Walt Whitman's "mystical moist night-air" (Whitman 1855), a phrase that speaks to a qualitative phenomenological encounter, the perceptual qualities of which lie beyond the narrow dataset yielded by instruments? The perceptual qualities of atmosphere are in constant flux and relational and subjective. An investigation into the aesthetic qualities of atmosphere calls for a different approach involving our senses as the perceptual instrument.

In this paper, I explore how visualization, both literally—by making something visible—and conceptually—by visualizing something in the "mind's eye"—is a critical design tool, even when what one visualizes is invisible and ephemeral. I discuss several experiments and installations that mark the heart of Aesthetics of Air. Much of the investigation explored the qualitative, perceptual "materiality" of air, just as a designer would explore any other material. Because air is essentially immaterial and invisible, however, various methods and techniques were employed, including laser visualization to "reveal" air as a visible presence in a space—as an observable material.

#### **Making Air Visible**

Currently, the dominant design paradigm fashions interior spaces as hermetically sealed containers into which a tightly controlled, standardized, conditioned air is pumped with the explicit aim of making the interior air—atmosphere—imperceptible. I aimed to abandon this conventional paradigm and, once again, to make air "visible to feeling" (Mallinson, 2004, p. 163). Architect Juhani Pallasmaa (2005, p. 19) argues that the "dominance of the eye and the suppression of the other senses tends to push us into detachment, isolation, and exteriority." He explains that "modernist design... has housed the intellect and the eye, but has left the body and the other senses, as well as memories, imagination and dreams, homeless" (ibid.)



not exploring its "feeling" directly, am I not perpetuating this privileging of the "visible"? Here, I examine this apparent internal contradiction and consider the critical difference between visualization and designing for visual effect.

The visualizations of air I developed are tools for "interrogating" the multifarious at- it. We inhale and exhale. Air can even blow mosphere to understand and master this medium as a design material. As I demonstrate, air is best conceptualized as a dynamic amalgam rather than as a material thing. Psychologist Rudolf Arnheim's theory of visual thinking holds that perception is an innate part of cognition. He makes the important distinction between "passive reception and active perceiving" (Arnheim 1969, p. 14). He contends that "truly productive thinking in whatever area of cognition takes place in the realm of images" (ibid., p. v). In other words, we think visually.

Developmental psychologist Howard Gardener (1993) extends the concept of visual thinking into the spatial and temporal dimensions—what he frames as "spatial intelligence." Importantly, he explains how blind people possess spatial intelligence, and he avoids linking this faculty "to any particular sensory modality" (ibid., p. 174). Here, the effect on the perceived visual image, when it is conceptualized in the process of thinking, is critical because, at that moment, it shifts from percept to concept. Arnheim explains that the visual image is transformed in this process, since it is not an actual reproduction of a "real thing" but a deliberate abstraction "as a product of the mind rather than a deposit of the physical object" (Arnheim 1969, p. 108).

Cultural critic Carla Mazzio (2009, p. 160) observes that, because air exists at the "limits of perception," it cannot be handled and assessed like a solid object or even like

mological capture" (ibid., p. 159). How then does design with, something that, in its material qualities, is by all accounts a "nothing"? To conceive air as a "nothing" does not presuppose that it is "nothing" but simply indicates that air is not a

But by making air visible literally and by "thing": a no-thing (ibid., p. 156). One cannot approach the design of a no-thing in the same manner as one would design a thing. since it does not have the same material properties. It cannot be held, carved or sawed. In short, it escapes the very logic of manipulation and production.

> But air does act upon us, and we act upon us over. As I demonstrate, we can even shape air, but not with the tools we might use to shape a thing.

#### **Air Phenomena Outdoors**

My investigation of atmospheric phenomena began with an observational study of air in a natural outdoor setting. My aim was to identify the phenomena that make the perception of air on a pleasant day so sensuous. I conducted my first observations in and around the Melbourne Botanical Gardens. With their rolling hills and sweeping lawns set around a central lake, the gardens make an ideal setting for favorable breezes.

I began by studying the subtle movement of leaves on a tree, observing how leaves on one branch flutter while those on an adjacent branch remain still. The relationship among the moving leaves constantly changes at random intervals—sometimes all

move, then all is still, revealing the air's movementas both temporal and spatial. Its fluctuations-a casual breeze gathering strength and then dying away-are an experience with which we are all familiar, but I was surprised to observe that the effect could occur within a defined spatial zone. As was to become much clearer as I continued my observations,

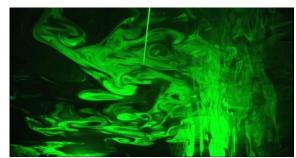
a fluid. It escapes "episte- it is this complex, transient *spatiality* of atmosphere that is so critical to its character.

How might our senses encounter this one investigate, let alone shifting movement? Imagine two people sitting together in a park. Even though in close proximity, they experience a different microclimate. One might feel a cooling breeze, while the other might be getting warmer before the cooling breeze arrives. We may assume that the breeze I feel is felt by the person next to me. In this understanding, however, the wind is conceived incorrectly as a singular spatial force moving across the landscape. Instead, my observations demonstrated that the wind is a highly localized phenomenon, the boundary of which can be delimited by our bodies.

> In other observations, I noted that the surface of a small lake mottled with ripplescapillary waves—revealed leisurely breezes as a two-dimensional cross-section (images, above left). These waves often formed small pools of atmospheric activity with tightly defined boundaries. Study of video footage of the lake surface revealed, to my surprise, that on occasion, a region of atmospheric activity might appear to be fixed in place or progress very slowly-much slower than the air velocity required to generate it. These observations again pointed to the highly spatial nature of air movement.

> The infamous billows of steam released from New York City's manholes, cracks, and buildings produce a beguiling ambience (image, below). These vaporous forms also proved ideal for observing atmospheric phenomena. Of particular interest were Manhattan sites where multiple jets of steam appeared within close proximity, an event I video-recorded over an extended period. Careful examination of these films revealed that, on one hand, adjacent jets of steam





would sometimes move in unison. On the other hand, these jets would sometimes take an altogether different course, revealing how randomized air movement in an open setting is.

Most remarkable was a vigorous jet of steam suddenly released from a building's top floor. These steam clouds revealed how air moves in an enthralling dance-like motion: poetic and elegant, elaborate and complex, emergent and fluid. Of particular fascination was the re-emergence, now and again, of recognizable, sometimes almost identical, pattern formations, the most dramatic of which was a distinctive vortex in which the air appears to turn a somersault (images, p. 1). Such aperiodic patterns, characteristic of self-organizing systems, became a key focus throughout this research and confirmed that we are observing a turbulent system. As science writer Philip Ball (2009, p. 17) explains,

In everyday parlance, "turbulent" is often a synonym for the disorganized, the chaotic, the unpredictable—and while fluid turbulence does display these characteristics to a greater or lesser degree, we can see... that there is a kernel of orderliness in this chaos, most especially in the sense that turbulent flow often retains the organized motions that spawn vortices.

I concluded from these initial investigations that "natural air" behaves much differently from the steady-state "laminar" model of air movement that engineers strive to achieve within hermetically sealed, air-con-

ditioned spaces. Consequently, my research led me to hypothesize that what makes natural air so pleasurable, given the right conditions, is its dynamic and

transient (not static), aperiodic (not regular), and turbulent (not laminar) behavior.

#### **Exploring Air and Fog**

To gain more control and nuance over the exploration of atmospheric phenomena and to move my investigation inside demanded more specialized methods of visu-

alization. The striking effect of light rays being "materialized" by luminescent particles of dust or vapor floating in the air was the inspiration grounding the next technique. Vapor from a fogger emitted into wafer-thin sheets of light produced by specially built scanning lasers proved a spectacular, highly versatile method. The intent was to map a spatial topography of air currents within an interior space. I painstakingly planned my first investigation as a systematic dissection of the atmosphere, taking slices through the x- and y-axes to observe the varying velocity and direction of "well-behaved" air currents. However, it soon became apparent how flawed this reductive visual model was.

The first visualization revealed an extraordinary complexity and virtual incomprehensibility (image, upper left). The atmosphere appeared as a highly complex set of paisley-like patterns of gently spinning vortices that had the delicacy of fine lace. The air seemed to be moving in no particular direction but, rather, in all directions at once. Swirling bodies of air were seen moving north and south, east and west, up and down and crossways, sometimes slicing past each other like people in a crowd, sometimes spiraling into one another and then moving off together on a new trajectory.

Now and again, a larger nebula of air, the size of an apple, would slowly rotate on its axis, moving leisurely through space at about one centimeter per second. These fine patterns of air were clearly part of a larger complex system created by a multiplicity of







currents, and interactions. My previous visual model of atmosphere was now recast as air exceedingly transient and randomized. The vortex became the recurring visual signature of atmosphere. The fractal scaling of this patterning became remarkably evident, from global weather patterns right down to minute atmospheric interactions.

Most surprising was how human bodies affected the air (images, above). We observed how a person approaching a vertical plane of laser-illuminated atmosphere would cause the air to part, creating a doorlike opening. Once he or she had passed through the plane, a slightly larger, bodily imprint was momentarily visible before the air, then spiraling closed and "shutting."

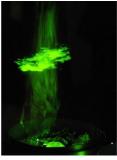
Most captivating was the seemingly ordinary action of breathing (images below). A breath gently exhaled into the laser light was observed to travel some six meters, tracing











a flowing cascade of spiraling eddies led by the distinctive dipolar head of a vortex. Just by inhaling and exhaling breath, we are an intimate part of the atmospheric engine.

I was surprised to discover that some people expressed concern when learning about this intimacy. Even though people may know that they share air with others, it is not until they actually "see" this sharing that it becomes intensely intimate and challenging.

This quality of air as a shared, intimate medium was further explored via a series of public performances and installations held at Melbourne's Craft Victoria Gallery in 2008. In one of these events, three performers formed a circle several meters in diameter. Facing each other, they took turns inhaling the visualized atmosphere and then exhaling it toward the next performer who would then inhale and exhale it to the next, as if they were passing a ball in a children's game.

Another performance, staged during a dinner, explored the effect of a large crowd on the interior atmosphere. One experiment involved visualizing air during cooking (images, above). Guests could not only smell the food being prepared and served but also observe the vapors carrying the smell—a synaesthetic experience, heightened once the food was tasted.

#### **Air and Water Vapor**

The next investigatory phase made use of piezoelectric transducers immersed in a bath of water. These transducers use ceramic discs that expand slightly when an electric current is applied; they contract when the current is removed. They do this at ultrasonic frequencies with the result that the rapid oscillation causes the water above the surface of the disk to literally vibrate into extremely fine water droplets, creating a



a flowing cascade of spiraling eddies led by dense cold fog that can track air currents the distinctive dipolar head of a vortex. Just with extraordinary sensitivity.

A series of investigations was conducted in several different interiors—for example, the transducers were placed near a thirdfloor apartment's slightly open bay window. I was surprised to observe the propensity of air to flow out the window, challenging my intuitive assumption that the predominant

air flow would be from the outside in. The evidence, however, showed a much more dynamic relationship.

Later a much more elaborate version of the device was built for a 2011 Melbourne exhibition, "Atmospheric Sensitivity." Mounted at waist height, this installation included a long, narrow, low-rimmed shelf on which there "floated" a shallow sea of fine, dense fog mysteriously appearing though a thin slit in the wall (images, right). The aim was to allow visitors to explore the extraordinary sensitivity and complexity of atmospheric phenomena via blowing, waving, walking past and so on.

People appeared mesmerized by the dynamics of the fog and would study it at length. But something else, entirely unexpected, also happened. The form the fog took—its appearance and behavior-was highly variable (images, next page). Sometimes, the fog was almost entirely motionless, forming a mirrorstill lake on the surface of the shelf. At other times, its form resembled a rolling cloud front or the rhythmic waves of beach surf. Perplexingly, the fog at times was observed to roll off the edge of the shelf and then rise upward, seemingly climbing the installation walls. This mercurial behavior suggested that an internal weather system was at play within the gallery. Although wavelike formations and other patterns were frequently observed, the vortex was evidenced in virtually any interaction. It appears as though laminar flow in air is highly unusual. Blowing, for example, produces not laminar flow but spinning locks of vortices moving in a general linear direction.

#### **Vortex Rings: Shaping Air**

Another room in this same exhibition housed "Atmospheric Structure," an installation that explored the vortex as a phenomena. A digitally-controlled pneumatic device was designed and precisely tuned to shoot identical self-propelled vortex rings (toroidal vortices) into the gallery space at













one-minute intervals. A vortex ring's structure is particularly robust because of the stabilizing, internal spinning motion propelling it through the air (images, right).

These vortex rings are compelling atmospheric phenomena and visibly elucidate how a parcel of air can form a self-contained structure moving independently from its surrounding medium comprising the same

air. This fact relates to the distinction mentioned earlier between a no-thing (a vortex ring is not a thing) and a nothing (but the ring is manifestly something). If we extrapolate this visualization by envisioning the invisible atmosphere around the vortex ring, our conception of atmosphere changes from its being a formless soup to a complex assemblage of semi-autonomous phenomena sometimes acting independently; sometimes interacting, converging and commingling; and sometimes behaving in unison.

Photographic documentation capturing the vortex from the side the instant it exited the device confirmed that there was formed a virtually identical vortex pattern every time. While great lengths were taken to control the atmosphere within the gallery, the vortex's trajectory and how far it travelled (at what speed, how long it remained before dissipating, and it dimensions) varied every time.

For example, one vortex would rise to the left, while the next would sink to the right. Sometimes, a brilliantly formed vortex would lethargically linger, expanding into an elegantly thin ring. At other times, smaller, squatter vortices would propel themselves energetically forward for considerable distances. These manifestations again demonstrated that a vortex did not move through empty space but constantly collided and interacted with other atmospheric phenomena affecting its particular form and movement.

#### **Night Window**

Partly inspired by artist Edward Hopper's 1928 painting of the same name, "Night Window" was an installation integrating several sensory modalities (image, next page). The critical site was a window, understood as a performative, poetic architectural element. Windows can be interpreted as the eyes, nose and ears of a building—its sensory apertures. Opening and closing windows and drawing drapes are simple actions whereby occupants modulate atmospheric and perceptual relations between inside and outside by letting the outside in or the inside out.

The project site was Melbourne's Bundoora Homestead Art Centre, once an elegant horse farm and now a gallery with white walls, automated lighting, inoperable









windows, and climate-controlled interior. The installation was a re-imagining of the perceptual qualities that the main house's interior atmosphere might have held as the Smith-family residence from 1899–1920.

Visitors were invited to imagine Lady Smith opening her dressing room window: It has been a warm day, and cooler air has just arrived accompanied by a gentle rainstorm. The air causes the sheer curtains to billow in the evening breeze that perfumes the room with the smell of cut hay and wet grass. Beyond the wide protecting balcony,



one hears the sound of rain, chirping birds, and now and again a neighing horse.

Inside the gallery, a window and wall section had been dislodged from the building's interior. No longer hermetically sealed, the window once again invites in breezes and fragrant night air, but the window has not only become dislodged in space but also in time: The air carries once familiar, but now long vanished scents and sounds from the grounds of the old homestead.

For the installation, the large reconstructed window incorporated several hidden devices, including an array of computer-controlled fans emulating the aperiodic frequencies of natural breezes. The installation also incorporated a soundtrack composed by sound designer Livia Ruzic and an evaporative cooler directing cool, moist air over a box of dried grass upward toward the fans, which then blew the scented air through the window and into the gallery space.

The installation was sited in a corner of the gallery slightly away from the wall, generating the illusion that the window had been physically dislodged from the rest of the room. Lighting within the room was subdued, with a small spotlight accentuating the rhythmic billowing of the curtains. Translucent, dark blue film applied to the room's three other windows made it appear that night had fallen.

In entering the installation, one felt an uncanny sense of dislocation—a shift, ever so slightly, in time and space. While still aware this was a gallery space, the experiencer encause of the darkened room; the cool, moist fragrant air: subdued, nocturnal sounds; and the glimpse of night through the windows framed by gently billowing curtains.

Several visitors mentioned the tranquil qualities of the installation, a comment that indicates how even a limited number of perceptual stimuli can provoke a strong psychosomatic response. Although the breezes could be seen more than felt, the experiential impact was palpable, highlighting how our senses work together in such a way that, if information from one is slightly amiss or missing, the others compensate for the incomplete data.

#### **Exploring Atmospheric Forces**

Being immersed in atmosphere is an experiential encounter like no other. The experience incorporates an aesthetic medium carrying perceptual effect in constant flux: breezes, sometimes dry, sometimes moist and humid; dappled radiant warmth interlaced with pockets of cool air laden with scents and peripheral sounds. One experiences an interplay of phenomena that are transient and dynamic; emergent and aperiodic. The result is shifting atmospheric environments that are delicate, ambient, and poetic.

As designers, we have no real way of notating atmosphere; we have few means to describe its experienced qualities. The visualizations I undertook explored air as something "observable" and therefore tangible for the mind to grasp. This mode of presence enabled a deeper, internalized knowledge of atmosphere, which in turn evoked vivid inner imagery with which to pre-visualize air in space and time as atmospheric environments and experiences.

The notion that air was made "visible" is perhaps misleading; air as such remains out of reach. What was visualized were the vapors and particles evidencing air-its energies and forces at play, circulating in and through the air. This way of understanding is much more compelling and, for designers, much more valuable. The motivation behind the careful study and documentation was not to reveal the "look" of atmosphere but to explore atmospheric forces-how they be-

countered a momentary disorientation be- have, how they move directionally and temporally, what qualities they possess, and what perceptual information they carry.

> Initially, I aimed to explore air as a "material" but, through my work, I now understand that air is better envisioned as a complex assemblage of interacting energies and forces that together generate a multitude of ever-changing atmospheric phenomena. I was not observing images, but the visual signifiers of atmosphere. By visualizing the energies and forces present in air (and not air itself), we reveal the topography of an otherwise invisible experience. I was able to identify and catalogue several key phenomena that, together, help constitute our experience of atmosphere (images, next p.).

> While neither definitive or complete, this "catalogue of atmospheric phenomena" works as a perceptual model and a conceptual toolbox with which to envision atmosphere as a design typology.

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#### **Image captions**

p. 1: Two strikingly similar vortex formations, appearing about one-and-one-half minutes apart. New York City, 2008. All images by M. Wagenfeld unless identified otherwise.

p. 10, upper left: A sequence of video stills of a lake's surface illustrating how air currents (marked by the small water ripples) fluctuate over a period of three-and-one-half minutes. Melbourne, 2006.

- p. 10, lower right: New York City steam clouds produce a beguiling ambience and illustrate an ideal medium for observing atmospheric phenomena. New York City, 2008.
- p. 11, upper left: Vapor from a fogger emitted into wafer-thin sheets of light from specially built scanning lasers; the result is atmospheric phenomena of extraordinary complexity. M. Wagenfeld, & J. Parmington, Melbourne, 2007
- p. 11, upper right: A laser-illuminated atmosphere revealing the dramatic effect that bodily motion has on the surrounding air; note the spiraling air currents. "Visualising Air Phase 1," Craft Victoria Gallery, Melbourne, 2008.
- p. 11, lower right: A breath gently exhaled into the laser-light observed travelling over six meters and tracing a flowing cascade of spiraling eddies led by the distinctive dipolar head of a vortex. M. Wagenfeld, J. Parmington, P. Watkins, R. Ayyar and I. de Gruchy, Melbourne, 2007.
- p. 12, upper left: Images documenting a performance exploring the synesthetic experience of seeing and smelling cooking vapors and later tasting the food. "Visualising Air Phase 2," Craft Victoria Gallery, Melbourne, 2008. Malte Wagenfeld & P. Watkins.
- p. 12, right: A woman observing phenomena revealed via fine fog. "Atmospheric Sensitivity," *Aesthetics of Air*, RMIT Gallery, Melbourne, 2011.
- p. 12, lower right: Visitors interacting with fog by blowing, waving, walking past and so forth. "Atmospheric Sensitivity," *Aesthetics of Air*, RMIT Gallery, Melbourne, 2011.
- p. 13, left: Highly dynamic forms of fog, sometimes almost entirely motionless; other times, resembling a rolling cloudfront or surf waves. "Atmospheric Sensitivity," *Aesthetics of Air*, RMIT Gallery, Melbourne, 2011.
- p. 13, right: Vortex rings' unique forms and trajectories. "Atmospheric Structure," *Aesthetics of Air*, RMIT Gallery, Melbourne, 2011.
- p. 14, upper left: The installation, "Night Window." Bundoora Homestead Art Centre, 2011.

This page: Key atmospheric phenomena comprising a designer's "toolkit."

# A Catalogue of Atmospheric Phenomena **Aperiodic Fluctuations** Self-Stabilising **Structures** Fragility Vortex / Eddies **Wave Formation** nternal / External Syst Contributors to the System Scent, Space &



## Environmental & Architectural **Phenomenology**

c/o Prof. David Seamon Architecture Department 211 Seaton Hall Kansas State University Manhattan, KS 66506-2901 USA



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- 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 design as place making;
- The role of everyday things—furnishings, tools, clothing, interior design, landscape features, and so forth—in supporting people's sense of environmental wellbeing;
- Sacred space, landscape, and architecture;
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