

ISSUE 12

04/2025

IMAGING ATMOSPHERES

EDITED BY

Francesco Bergamo, Marina Marques

Imaging Atmospheres

ESSAYS

Elena Abbiatici

Marco Addona

Letizia Artioli

Francesco Bergamo

Gianmarco Bezzi

Alessio Bortot

Enrico Boccioletti

Giuliana Bruno

Elisabetta Canepa

Bob Condia

Juan Carlos Dall'Asta

Elena D'Arsiè

Achille Filippini

Francesca Flora

Vincenza Garofalo

Tonino Griffero

Moreno Elia Hebling

Andrea Jelić

Silvana Kuhtz

John Latto

Elena Mancioffi

Marina Marques

Maria Milano

Clara Muller

Nuvola Ravera

Michael Renner

Federico Rita

Sandro Rolla

Christian Scenini

Camilla Sette

Alessia Ugolin

Nicola Zolin

ISSN 2724-2463

DOI 10.60923/issn.2724-2463/n12-2025

www.img-network.it

<http://img-journal.unibo.it>



img journal
Interdisciplinary journal
on image, imagery and imagination

IMAGING ATMOSPHERES

Issue 12

April 2025

EDITED BY

Francesco Bergamo, Marina Marques

ISSN 2724-2463

DOI 10.60923/issn.2724-2463/n12-2025

EDITORS-IN-CHIEF

Alessandro Luigini, Chiara Pancioli

ASSOCIATE EDITORS

Demis Basso, Stefano Brusaporci, Enrico Cicalò,
Roberto Dainese, William Grandi, Massimiliano Lo
Turco, Valeria Menchetelli, Matteo Moretti, Antonella
Nuzzaci, Elena Pacetti, Antonella Poce, Daniele Rossi,
Daniele Villa, Franca Zuccoli

JOURNAL MANAGER

Ilaria Trizio

EDITORIAL BOARD

Flavia Camagni, Margherita Cicala, Gianluca Ciucca,
Alessandra De Nicola, Alexandra Fusinetti, Amedeo
Ganciu, Elisabetta Caterina Giovannini, Anita
Macauda, Federica Miconi, Alice Palmieri, Giovanna
Ramaccini

SCIENTIFIC COMMITTEE

Fabrizio Apollonio, Paolo Belardi, András Benedek,
Emma Beseghi, Giorgio Camuffo, Eugene Ch'ng, Pilar
Chías Navarro, Alessandra Cirafici, Manuel de Miguel,
Agostino de Rosa, Antonella Di Luggo, Edoardo Dotto,
Francesca Fatta, Maria Linda Falcidieno, Roberto
Farnè, Franz Fischnaller, Marco Gaiani, Fabrizio Gay,
Andrea Giordano, Nicole Goetschi Danesi, Nicolás
Gutierrez, Robert Harland, Ricard Huerta, Elena
Ippoliti, Pedro António Janeiro, Francesco Maggio,
Stuart Medley, Raffaele Milani, Andrea Pinotti, Paola
Puma, Fabio Quici, Ana Margarida Ramos, Michael
Renner, Pier Cesare Rivoltella, Pier Giuseppe Rossi,
Rossella Salerno, Maurizio Unali, Tomaso Vecchi,
Carlo Vinti, Ornella Zerlenga

PUBLISHERS

> on line version:

Department of Education studies "Giovanni Maria Bertin"

<http://www.edu.unibo.it/>



SPONSORSHIP



img journal is a on line, open access and peer reviewed interdisciplinary scientific journal.

Articles, excluding keynote essays, are subject to double blind peer review.

img journal publishes manuscripts in English and, optionally, in mother language (published in only-text format on website), and use APA citation style.

The linguistic editing of articles is the responsibility of the authors.

Open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International (CC BY 4.0) license.

img-network ©

<https://img-journal.unibo.it/>

www.img-network.it/img-journal/

journal@img-network.it

Imaging Atmospheres

edited by

Francesco Bergamo, Marina Marques

ESSAYS

Elena Abbiatici

Marco Addona

Letizia Artioli

Francesco Bergamo

Gianmarco Bezzi

Alessio Bortot

Enrico Boccioletti

Giuliana Bruno

Elisabetta Canepa

Bob Condia

Juan Carlos Dall'Asta

Elena D'Arsiè

Achille Filipponi

Francesca Flora

Vincenza Garofalo

Tonino Griffero

Moreno Elia Hebling

Andrea Jelić

Silvana Kuhtz

John Latto

Elena Mancioppi

Marina Marques

Maria Milano

Clara Muller

Nuvola Ravera

Michael Renner

Federico Rita

Sandro Rolla

Christian Scenini

Camilla Sette

Alessia Ugolin

Nicola Zolin

6

EDITORIAL

Francesco Bergamo, Marina Marques

10

Imaging as Atmospherizing

Francesco Bergamo

24

Imaging Atmospheres: from Visual Diagnosis to Olfactory Imagination

Marina Marques

KEYNOTE

38

Atmospheres in Architecture and Moving Images: Isaac Julien's *Lina Bo Bardi - A Marvellous Entanglement*

Giuliana Bruno

52

If, How, and When an Image Can Be Said to Be Atmospheric

Tonino Griffero

CONTRIBUTIONS

72

Bulle Cybernétique.

Vaporizing the Scent of Cyber Threats

Elena Giulia Abbiatici

92

Staged Intimacy. The Atmospheric Logic of Carlo Mollino's Bedroom for a Farmhouse in a Rice Field

Marco Addona

106

Weatherscaping: an Atlas of Bits, Atoms and Clouds

Letizia Artioli

122

For a Hetero-Genesis of Atmosphere

Gianmarco Bezzi

142

Ghosting About.

Notes on Indeterminacy as Method

Enrico Bocchioletti

162

Ephemeral Atmospheres. Clouds, Points and the Representation of Natural Elements

Alessio Bortot

180

Introducing ATLAS: A Visual Stimuli Database for Studying the Affective Experience of Architectural Atmospheres

Elisabetta Canepa, Bob Condia, Andrea Jelić

202

Atmospheres of Shanghai: Scenarios of Ascent, Fading, and Transition

Juan Carlos Dall'Asta, John Latto, Sandro Rolla

232

When Air Touches: Cicatrix of Time in the Artistic Practices of Teresa Margolles and Maria José Arjona

Elena D'Arsiè

252

A Realm Potentially Ready to Be Touched. About Machinism of Proximities and Its Non-Defining *Ab Aeterno* Circulating Transparency

Francesca Flora, Achille Filipponi

264

The Project and Representation of Emotions in Inhabited Space

Vincenza Garofalo, Maria Milano

294

The Fog is Coming: Semiotic Atmospheres and Mental Decay in Internet Aesthetics

Moreno Elia Hebling

318

Capturing and Creating Atmospheres: a Sensory Design Approach for Education, Entertainment, and Participation

Silvana Kuhtz

340

Osmospheric Images. Reveries, Smells, and Memories in Gaston Bachelard

Elena Mancippi

366

Materially Imagining Earth's Atmospheres: Remembering/Futuring the Air in Breathable Artworks

Clara Muller

390

Environmental Therapy Through Art Practices: Memory, Agency, and the Care of Wounded Places

Nuvola Ravera

418

Atmospheres. A Contribution of Design to Understand How They Appear

Michael Renner

438

Bucolic Life in the Digital Realm. Exploring the Aporias of Digital Design: the

**immateriality of Digital Experiences and the
Depth of Sensory Atmospheres**

Federico Rita

454

**Sealing Atmospheric Landscapes in Resonant
Simulations**

Christian Scenini

468

**Atmospheres and Phaenomenography.
The Ability of Images to Generate Atmospheres**

Camilla Sette

490

**From the 'Genitive' Modality to the
Atmosphere: an Osmological Study in to
Epistemic Space**

Alessia Ugolin

512

**Unbound Acoustics. Embracing Complexity in
Virtual Soundscapes**

Nicola Zolin

EDITORIAL

ISSUE 12 APRIL 2025 Imaging Atmospheres

Francesco Bergamo

Università Iuav di Venezia
Department of Architecture and Arts
fraberg@iuav.it

Marina Marques

Contemporary Art Curator
marinamarques22@gmail.com

and Tonino Griffero's keynote article. The second, more directly connected to an ecological approach involving space and climate, is represented by Francesco Bergamo's text and Giuliana Bruno's keynote contribution.

The contributions associated with the first category engage atmosphere from multiple perspectives. Some draw on philosophical and phenomenological traditions to examine the affective and spatial intensities generated by images like Elena Mancioppi, Clara Muller, Alessia Ugolin, Gianmarco Bezzi. Others attend to material and environmental practices involving air, breath, memory, ecological damage, and embodied perception like Elena Giulia Abbiatici, Camilla Sette, Nuvola Ravera. Several adopt artistic and speculative strategies, working through technological mediation and experimental visual languages to explore how atmospheres are constructed, simulated, or destabilized. These include contributions by Enrico Boccioletti, Elena D'Arsiè, Francesca Flora and Achille Filipponi.

Giuliana Bruno sets the stage for the second category of contributions, which addresses atmospheric research, neuroscience and spatial perception, meteorological and climatic approaches to representation and design, worldbuilding and virtual spaces, digital aesthetics, and the architectural and urban applications of atmospheric approaches. Together, these positions frame imaging as a relational process unfolding across bodies, infrastructures, environments, and perceptual apparatuses, and are reflected in contributions by Elisabetta Canepa, Alessio Bortot, Letizia Artioli, Nicola Zolin, Christian Scenini,

Federico Rita, Moreno Elia Hebling, Michael Renner, Juan Carlos Dall'Asta–John Latto–Sandro Rolla, Marco Addona, Vincenza Garofalo–Maria Milano, and Silvana Khutz.

Across these heterogeneous approaches, atmosphere is treated not as an aesthetic supplement, but as an operative condition that reshapes the very functioning of imaging. Images here do not simply render phenomena legible; rather, they disclose perceptual thresholds, temporal residues, and zones of indeterminacy in which sensing precedes recognition. Taken together, the contributions propose atmosphere as a critical site from which imaging may be rethought and understood not merely as the production of visual representations, but as the practice of generating, perceiving, and inhabiting perceptual and affective fields. In this sense, imaging emerges as a relational and experimental process, one that emphasizes modulation, attunement, and embodied exposure, while continuously negotiating the unstable boundaries between matter, perception, and imagination.

Taken together, the two suggested categories articulate a bifocal structure that also reflects the complementary curatorial logic of the issue: one grounded in artistic and olfactory imaginaries, the other in spatial, sonic, and design-oriented practices. Rather than advancing a unified definition, *Imaging Atmospheres* proposes a wide field of inquiry into the ways atmospheres are produced, sensed, mediated, and inhabited, foregrounding their emergent, relational, and often imperceptible nature.

IMAGING AS ATMOSPHERING

Francesco Bergamo

Università Iuav di Venezia

Department of Architecture and Arts

fraberg@iuav.it

ATTUNEMENT

ORDINARY

SOUNDSCAPE

SMELLSCAPE

DRAWING

This introductory essay argues that we may be witnessing the emergence of an “atmospheric turn,” part of a broader epistemological shift in the ways we perceive, represent, and design the world. Moving beyond the visual bias that has long shaped architecture and other image-based disciplines, it proposes a more embodied and multisensory perspective, in which atmospheres are understood in relation to situated and affective phenomena. Drawing on theories of affect and interaction, as well as on the fundamental contributions of sound studies, the essay emphasizes how sensory

experience arises from the interplay of environments, bodies, memories, and more-than-human agencies.

Within this framework, drawing, imaging, and surveying are reconsidered as practices that can engage with dimensions exceeding vision alone, including sound, smell, touch, and climatic conditions. The text therefore highlights both the limits and the potential of conventional representation, calling for the development of new strategies to represent atmospheric qualities by integrating subjective, embodied, and aesthetic forms of knowledge with analytical and data-driven methods.

"Descriptions, however, can give only a rather poor idea of what a real boomerang flight is like. One should stand in the open air to see how very three-dimensional this phenomenon is and hear the soft, pulsating, swishing sound of the boomerang arms moving rapidly through the air." (Hess, 1968, p. 126)

ATMOSPHERIC TURN

The contributions in this issue of the *IMG Journal* testify that we are already pretty much into what can be called an *atmospheric turn*. This was already precisely observed by Elisabetta Canepa (2022, pp. 109–114), but it may be worth beginning this introduction by attempting to look at this turn from a wider perspective, since it implies a fundamental epistemological turn.

We owe some of the first important steps toward a scientific theory of atmospheres to Tonino Griffero (see, e.g., Griffero, 2014) and, while the neurosciences are providing revolutionary instruments and methodologies to measure and observe humans' responses to combinations of stimuli (Mallgrave, 2013), scholars are making major efforts to build proper theoretical frameworks to observe, analyze, represent, and design atmospheres by drawing from many disciplines, one of the most notable examples being the work carried out by Canepa (2022) for her doctoral research. Still, it remains very difficult for most designers to anticipate—to project—what the atmosphere of their building, product, or other kind of artifact will "be" once it is set in a specific site or space, unless the project is carried out on site, *in the field*, and with a sensitivity and an attention that, in contemporary architecture, Peter Zumthor (2006; 2010) shares with not so many other colleagues.

We experience every day that "a particular piece of music can change the atmosphere in a room, [...] a particular article of clothing can change the impression a person makes,

[...] a certain architecture can modify the expression of a city” (Seel, 2005, p. 92); sometimes we are more aware than at other times of this influence because it also depends on our disposition, on the condition of us as subjects. For this reason, when dealing with atmospheres, it is appropriate to consider the presence and position of the observing subject together with the observed object, that is, to draw less from theories about influences and more on theories of affects (Deleuze & Guattari, 1987) and, more generally, of interaction (Canepa, 2022, p. 101; Pérez-Gómez, 2016, p. 32). “Atmosphere (*atmos* = exhalation or vapor, *sphaire* = sphere or globe) is [...] something we all know, even outside the nonetheless relevant meteorological field” (Griffero, 2014, p. 1), but if asked why a certain place makes someone feel at ease, or uncomfortable, an immediate reply is often difficult. It takes time, attention, and an observation keenly aware of what each of our senses perceives in the environment to begin understanding how those sensations connect with our previous experiences in the phenomenal world.

Most people involved in the design of spaces and environments are trained to analyze and represent them visually and through visual devices, whether photographs, or drawings made by hand or with digital tools. It is one of the reasons why, during and after modernity, architecture has usually been considered mostly for its visual appearance. The same applies to the ways ancient architectures have been treated as models for modern architecture: Palladio focused on the ratios and appearances he could control by tracing and studying drawings, even though Pliny wrote about the stucco that covered the marbles of Greek temples that “if one wets one’s thumb with saliva and rubs it on the plaster, it still gives off the smell and taste of saffron” (Pliny the Elder, 1938, vol. 36, p. 40, cited in Emmons, 2019, p. 137).

Some decades before the current atmospheric turn, a *sonic turn* began to radically modify approaches that had been taken for granted at least since the fifteenth century. Acoustemological approaches (Feld, 1996; Haskell, 2022)

demonstrate that focusing on listening, rather than looking, changes humans' ways of being in the world, of thinking about it, and of representing it. This renewed attention to listening certainly helped shape attitudes and methodologies across almost every scientific field toward using our other senses to investigate reality, both through our bodies and through representations that are no longer only visual (sonification is now widely recognized and deployed in virtually every field). The notion of *soundscape* (Schafer, 1977) is nowadays considered problematic and denotes an ongoing "vicariousness" of the senses toward vision: one of Tim Ingold's objections to the term is that, if we accept *soundscape*, we should equally have to use *lightscape* for any visual experience and representation of a landscape (Ingold, 2011, p. 137). Nonetheless, *soundscape* has largely helped architects and urban planners take account of the acoustic aspects of buildings and cities (Blesser & Salter, 2007).

In another text, Ingold showed how "the idea of landscape, in its modern guise, entails a transition from the gathering of experiences to their projection, or from a haptic to an optical mode of perception" (Ingold, 2022, p. 155), but his argument can apply to every sensory register. His insight comes from comparing his experience inside a lodge—a conical space defined by wooden poles and caribou skins—with the common experience of being in a modern or contemporary building. In the latter, windows allow our gaze to stretch virtually to the horizon while keeping out the weather (but also sounds and smells); in the former, the only visible thing outside is a small portion of the sky, but all the other senses are connected with the surroundings.

Smellscapes (McLean, 2018) and *touchscapes* (Borer, 2013) have more recently followed soundscapes: what it is worth noting here is that they have helped reshape and redefine the notion of landscape itself, which initially emerged in relation to visual representation during the early Renaissance in Europe and has since been continually reshaped, especially in scientific terms since the nineteenth century (Jakob, 2022). When

it comes to finding the words to describe haptic (Brand, 2023) or—even more—olfactory sensations, however, it becomes even more evident how strongly the Western world has kept them relegated to the margins (Corbin, 1986; Hajdini, 2024, pp. 1–31; Karageorgos, 2024). One general problem with these *-scape* declinations is that they keep different sensory registers separated from one another, so that they can be studied with relatively consolidated methodologies. The notion that today seems to fill this gap, by providing a similar but more comprehensive common ground across the same scientific fields of inquiry, is that of atmosphere. Atmospheres, in fact, invite a rediscovery not only of sensory dimensions long neglected by modernity, which privileged language and visual representation: this turn not only underscores that auditory, olfactory, and other dimensions are integral, but also points to the fact that atmospheres are largely produced by nonhuman and more-than-human entities, including those that affect us in subtle yet significant ways. Capturing these phenomena requires increasingly complex models and computational tools, but sensing them still requires first of all our bodies and minds to “listen” to them and to “tune” with them. Integrating aesthetic, embodied, situated, and subjective approaches with data-driven, mechanized, orthographic, and objective methodologies offers opportunities to innovate in observing, representing, analyzing, and designing the world.

SITUATIONS AND ATTUNEMENT

It should be noted at this point that long before *per-spectives* (looking through) there were *per-fumes* (smoking through), and that the first known examples of human representation are intrinsically—and literally—atmospheric: pigments were projected onto cave walls in Europe and Asia together with the air blown from human mouths, leaving shadows of human hands on the stone (Dobrez, 2014). The projection

was not centered on the human eye, nor on a flame, but on the oral cavity. Throughout Giuliana Bruno's work, we find evidence of the complex relation between projection and atmosphere (Bruno, 2014, 2022), as well as a fundamental awareness of the human body as the subject, or spectator, that activates this relation through perception, memory, and intelligence (Bruno, 2002). Adopting an atmospheric approach to representation therefore means being aware of the mediation introduced by the instruments we use—from the pencil or the straw to the most advanced sensor-based digital tools—while at the same time not allowing our senses to be obfuscated by the attention required to operate those instruments. The myth of objectivity (Daston & Galison, 2007) all too often leads surveyors to forget that every survey operation is always dependent on the *hic et nunc*, whose specificities can now be considered in terms of the atmosphere which is at stake.

Tonino Griffero once again helps us understand what “perceiving atmospherically” implies, its specificity being “not grasping (presumed) elementary sense-data and, only afterwards or *per accidens*, states of things, but [...] instead being involved by things or, even better, situations” (Griffero, 2014, p. 15). Conversely, a situation can be defined as “a multiple and chaotic state of things that can be distinguished from others precisely thanks to its peculiar atmospheric tone. Then, an atmospheric phenomenology will be nothing but a special declination of a more general philosophy of situations” (Griffero, 2014, p. 31). The concept of *situation* is therefore fundamental and inextricably connected to *atmosphere*: to become aware of atmospheres, we must begin by becoming aware of being *in situ*¹.

Without a place (*situ*), neither landscapes nor atmospheres are given. A landscape needs a situated observer to be studied, but an atmosphere needs something more, or maybe different: an active dweller, someone who actively tunes to it. For Pérez-Gómez (2016) this is the key to reappropriating and updating the notion of *Stimmung* to rediscover

the meaning of architecture, in an era when human subjects are increasingly subjected to external powers. We can call it *attunement*, an active tuning to a specific place which implies being aware of it. In 2025, the sound artist and researcher Nicola Di Croce conducted with the singer Beatrice Di Fonzo the active part of a masterclass at the Teatrino of Palazzo Grassi in Venice, titled *Non-Human Listening*, in which participants began by actively listening to the place and later performed exercises of attunement, interacting with its sounds². In the same year, architect Erzë Dinarama curated the Kosovo Pavilion at the Venice Architecture Biennale, situating visitors within an olfactory representation of the cycle of traditional agricultural seasons in her country: olfactory artist Sissel Tolaas designed molecular compositions that were diffused through the space on a timed cycle, presenting visitors with a seasonal calendar through an olfactory, embodied representation of what, across the seasons, is in the air. The landscape was not only represented in its dynamics; it expanded into atmosphere.

DRAWING ATMOSPHERES

Architectural drawing—and, more generally, drawing that must comply with ISO standards because it is meant to convey precise information universally—offers some solutions that can, at times, evoke other sensory reactions. For example, hatches or BIM parameters can be associated with specific materials, and, through them, we can imagine how those materials would feel, smell, or react to light or to climatic conditions. But those artists and architects who are more interested in atmospheres and want to use drawing as a mediator—between sensing and re-presenting information, or between imagining and designing—often develop personal tactics to represent atmospheric features, confronting the paradox of imaging what is not representable to sight because it pertains

mostly to other sensory registers. Among the most compelling contemporary examples are the Swiss architect Philippe Rahm (2023), who has developed precise strategies based on heat maps and diagrams to represent physical phenomena that affect the climatic behavior of places, and the Japanese studio Atelier Bow-Wow, which returns to the existing buildings it has designed to observe how they are inhabited, updating the project drawings with “incidental details” (Atelier Bow-Wow, 2014, p. 117) and adapting them to the ways human and nonhuman presences affect them. Among their references, Atelier Bow-Wow mention Kon Wajiro (see Traganou & Kuroishi, 2014) and Saul Steinberg³, but also Giovanni Battista Piranesi’s Roman views, where “the lives of people in a city” are “observed together with the architecture around them” (Atelier Bow-Wow, 2014, p. 121)⁴. Kon Wajiro offered early examples of graphically innovative sociological investigations into domestic and urban spaces, occurring strikingly at roughly the same time that Egle Renata Trincanato was observing her “uncelebrated Venice” (Trincanato, 2025) by entering the homes of ordinary people in the *sestieri* of Venice to survey and draw them, for the very first time in history. In her beautiful hand drawings, very often traces of everyday life can be found: plants, laundry, pieces of furniture, drapes, vases, foods, human figures dressed in their clothes. Alongside her typological and architectural observations, these elements help us understand that what makes the atmosphere—we might say now—of Venice lies probably more in such uncelebrated places than in the larger *palazzi* owned by wealthy families and designed by famous architects of the past.

Wajiro and Trincanato were working some three decades before Michel de Certeau and his colleagues began developing a revolutionary methodology for analyzing how people creatively engage with mass culture in their daily lives (de Certeau, 1984; de Certeau, Giard, & Mayol, 1998), and before Deleuze and Guattari proposed groundbreaking theoretical tools—relevant here mostly for their

aesthetic and ecological implications—for thinking about the world and engaging with it. Even if this issue of *IMG Journal* mostly hosts contributions in the fields of aesthetics, arts, design, and architecture, we should not forget that the notion of atmosphere—much as has happened, and is still happening, with that of landscape—can be transformative in fields that may seem light-years away. Just as one example, more than a century ago the economist Alfred Marshall described “industrial atmosphere” (Marshall, 1919) as something very specific—situated, we might say today—that cannot be relocated to another industrial place. It is elusive yet fundamental, because this atmosphere allows craft knowledge to circulate and be transmitted “in the air”: an industrial atmosphere contains tacit knowledge, productive habits, know-how, networks, and social conditions that provide benefits that are impossible to quantify in monetary terms, yet crucial both to the quality of human life and to the well-being of the industry.

ORDINARY BACKGROUND NOISE

Today, half a century after de Certeau and after Deleuze and Guattari, new epistemic and ecological challenges arise from discoveries about the intelligence of plants, fungi, and other biological entities (Tripaldi, 2022), as well as from artificial intelligence (Pasquinelli, 2023). Yet the apparent universalization of data and shared information still largely depends on calibrations that must be carried out under the guidance of humans who are acutely aware of where they are situated and of the conditions around them and with which they interact—in other words, of the atmosphere⁵. The Acid Horizon collective of theorists invites us to pursue “the imageless image” (Acid Horizon, 2023, pp. 182–183) by invoking James Hillman’s invitation to “stick with the image” (Hillman, 1989, p. 74): to move inward with attention, to enter the image and inhabit it. This suggests that situations—and

therefore atmospheres—can also be explored within our minds, in an isolated practice that “involves a qualitative shift in our attention, one keen on noticing and supposing versus prefiguring and presupposing” (Acid Horizon, 2023, p. 183). It is an invitation to be attentive to the situation rather than projecting overbuilt fantasies onto it. But by reading Hillman within the wider framework of Jungian collective consciousness and connecting this approach to images with the work of the philosopher Mark Fisher (2009)⁶, they also identify ways of collectively inhabiting the same images—or situations: if an image is shared, it offers the possibility of learning from the ways others relate to it and of acting together.

This is true not only with other humans, but also with animals and other entities. The video *The Nightwatch* (2004) by Belgian artist Francis Alÿs displays CCTV surveillance footage recorded after Alÿs released a fox into London’s National Portrait Gallery at night. The spectator follows the animal as it slips in and out of view across empty galleries, seen only through the museum’s monitoring system, unsettling the power dynamics of surveillance and control and inviting the watcher to learn how a fox makes sense of a space designed for humans with a specific function and organization, that visitors tend to take for granted. In this sense, *The Nightwatch* is an invitation to becoming-animal. Extending Hillman’s approach to images through Deleuze, becoming-animal can be considered as a search for an intermediate state “between human and animal, a relational space evocative of intensities, affects and movement—a becoming-other” (Acid Horizon, 2023, p. 188): a possible strategy to research atmospheres.

Sensing, thinking, imaging, drawing, and designing atmospherically implies a situated approach that goes hand in hand with attunement to the situation. It requires awareness of affects and empathy with situations (Canepa, 2022, pp. 150–156). It invites attention to what dominant cultures treat as background noise, as the Forensic Architecture team does when investigating events in violent and chaotic

situations⁷ (Weizman, 2017). It also implies becoming familiar with complexity in order to learn from it, deriving new information and grasping new possible orders (Daston, 2019) to question or subvert the current ones.

NOTES

1 The Situationists were already aware of this, since they adopted the term *ambiance* “to describe the emotional potential that pervades a place, namely its atmospheric identity” (Canepa, 2022, p. 57).

2 See <https://www.pinaultcollection.com/palazzograssi/en/non-human-listening-masterclass> and Andreani (2025).

3 They make a specific reference to the 1946 drawing titled *Doubling Up* (Steinberg, 1949), first published in *Architectural Forum* in 1946, which was also an explicit inspiration for Perec (1987).

4 In his series of drawings *Capricci* (2005-ongoing), Luca Vitone adds small musical notes to Piranesi’s views. Emerging from ground level, they suggest acoustic (musical) presences within otherwise dense but silent representations.

5 The video *Skyvelære* (While Attempting to Balance) (2013) by Swedish artist Ellen Røed documents the 11th International Pyrheliometer Comparison (IPC-XI), where metrologists from dozens of countries gather to calibrate pyrheliometers, instruments used to measure solar irradiance. The video lingers on the repetitive, carefully timed routines of tracking the sun and reading instruments, foregrounding the gestures, rhythms, and collective coordination through which “objective” measurements are produced. In doing so, it turns a technical procedure into a reflection on how standards and reference points are enacted through bodies, devices and the environment working together.

6 Acid Horizon, “Mark Fisher Meets James Hillman: Melancholy, Manic Culture & the End of Capitalist Realism (with Emma Stamm)”, podcast, October 23, 2025. <https://acidhorizonpodcast.buzzsprout.com/1064269/episodes/18032920-mark-fisher-meets-james-hillman-melancholy-manic-culture-the-end-of-capitalist-realism-with-emma-stamm>.

7 The results are available on the constantly updated website <https://forensic-architecture.org>.

REFERENCES

- Acid Horizon. (2023). *Anti-Oculus: A philosophy of escape*. Repeater.
- Andreani, L. (Ed.). (2025). *Millesuoni. Paint It Black*.
- Atelier Bow-Wow. (2014). *Graphic anatomy 2*. TOTO Publishing.
- Blessner, B., & Salter, L. R. (2007). *Spaces speak, are you listening? Experiencing aural architecture*. MIT Press.
- Borer, M. I. (2013). Being in the city: The sociology of urban experiences. *Sociology Compass*, 7(11), 965–983. <https://doi.org/10.1111/soc4.12085>
- Brand, A. R. (2023). *Touching architecture: Affective atmospheres and embodied encounters*. Routledge.
- Bruno, G. (2002). *Atlas of emotion: Journeys in art, architecture, and film*. Verso.
- Bruno, G. (2014). *Surface: Matters of aesthetics, materiality, and media*. University of Chicago Press.
- Bruno, G. (2022). *Atmospheres of projection: Environmentality in art and screen media*. University of Chicago Press.
- Canepa, E. (2022). *Architecture is atmosphere: Notes on empathy, emotions, body, brain, and space*. Mimesis International.
- Corbin, A. (1986). *The foul and the fragrant: Odor and the French social imagination* (M. L. Kochan, Trans.). Harvard University Press. (Original work published 1982)
- Daston, L. (2019). *Against nature*. MIT Press.
- Daston, L., & Galison, P. (2007). *Objectivity*. Zone Books.
- de Certeau, M. (1984). *The practice of everyday life* (S. Rendall, Trans.). University of California Press. (Original work published 1980)
- de Certeau, M., Giard, L., & Mayol, P. (1998). *The practice of everyday life: Vol. 2. Living and cooking* (T. J. Tomasik, Trans.). University of Minnesota Press.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia* (B. Massumi, Trans.). University of Minnesota Press. (Original work published 1980)
- Dobrez, P. (2014). Hand traces: Technical aspects of positive and negative hand-marking in rock art. *Arts*, 3(4), 367–393. <https://doi.org/10.3390/arts3040367>
- Emmons, P. (2019). *Drawing imagining building: Embodiment in architectural design practices*. Routledge.
- Feld, S. (1996). Waterfalls of song: An acoustemology of place resounding in Bosavi, Papua New Guinea. In S. Feld & K. H. Basso (Eds.), *Senses of place* (pp. 91–136). School of American Research Press.
- Fisher, M. (2009). *Capitalist realism: Is there no alternative?* Zero Books.
- Griffero, T. (2014). *Atmospheres: Aesthetics of emotional spaces* (S. de Sanctis, Trans.). Ashgate. (Original work published 2010)
- Hajdini, S. (2024). *What's that smell? A philosophy of olfaction*. MIT Press.
- Haskell, D. G. (2022). *Sounds wild and broken: Sonic marvels, evolution's creativity, and the crisis of sensory extinction*. Viking.
- Hess, F. (1968). The aerodynamics of boomerangs. *Scientific American*, 219(5), 124–136.
- Hillman, J. (1989). *A blue fire: Selected writings* (T. Moore, Ed.). Harper & Row.
- Ingold, T. (2011). Four objections to the concept of soundscape. In *Being alive: Essays on movement, knowledge and description* (pp. 136–139). Routledge.

- Ingold, T. (2022). The conical lodge at the centre of the earth-sky world. In *Imagining for real: Essays on creation, attention and correspondence* (pp. 153–165). Routledge.
- Jakob, M. (2022). *Le origini tecnologiche del paesaggio*. LetteraVentidue.
- Karageorgos, C. (2024). Putting scent to words. *Viscose*, 7, 10–13.
- Mallgrave, H. F. (2013). *Architecture and embodiment: The implications of the new sciences and humanities for design*. Routledge.
- Marshall, A. (1919). *Industry and trade: A study of industrial technique and business organization; and of their influences on the conditions of various classes and nations*. Macmillan.
- McLean, K. (2018). Communicating and mediating smellscape: The design and exposition of olfactory mappings. In V. Henshaw, K. McLean, D. Medway, C. Perkins, & G. Warnaby (Eds.), *Designing with smell: Practices, techniques and challenges* (pp. 67–78). Routledge.
- Pasquinelli, M. (2023). *The eye of the master: A social history of artificial intelligence*. Verso.
- Perec, G. (1987). *Life: A user's manual* (D. Bellos, Trans.). Godine. (Original work published 1978)
- Pérez-Gómez, A. (2016). *Attunement: Architectural meaning after the crisis of modern science*. MIT Press.
- Pliny the Elder. (1938). *Natural history* (H. Rackham, Trans.). Harvard University Press. (Original work published ca. 77–79 CE).
- Rahm, P. (2023). *Climatic architecture*. Actar.
- Schafer, R. M. (1977). *The tuning of the world*. Knopf.
- Seel, M. (2005). *Aesthetics of appearing*. Stanford University Press.
- Steinberg, S. (1949). *The art of living*. Harper & Brothers.
- Traganou, J., & Kuroishi, I. (Eds.). (2014). *Design and disaster: Kon Wajiro's modernologia*. Parsons The New School for Design.
- Trincanato, E. R. (2025). *Uncelebrated Venice: Venezia minore by Egle Renata Trincanato. A new critical edition* (A. Maggi, Ed.). Anteferma.
- Tripaldi, L. (2022). *Parallel minds: Discovering the intelligence of materials*. Urbanomic. (Original work published 2020)
- Weizman, E. (2017). *Forensic architecture: Violence at the threshold of detectability*. Zone Books.
- Zumthor, P. (2006). *Atmospheres: Architectural environments. Surrounding objects*. Birkhäuser.
- Zumthor, P. (2010). *Thinking architecture* (3rd ed.). Birkhäuser.

Article available at

DOI: 10.60923/issn.2724-2463/24532

How to cite

Bergamo, F. (2025). Imaging as Atmospherizing. *img journal*, 12, 10-23



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

IMAGING ATMOSPHERES: FROM VISUAL DIAGNOSIS TO OLFACTORY IMAGINATION

Marina Marques

Contemporary Art Curator

marinamarques22@gmail.com

IMAGING
OLFACTION
INTERFORM
BLINDSIGHT

This introductory paper proposes a shift from the image as object to imaging as act, approaching atmosphere as a condition that emerges through processes of mediation. Drawing from medical imaging technologies, imaging is understood here as a diagnostic operation: a probing mechanism that renders internal, otherwise inaccessible processes visually representable. Within this framework, atmosphere operates as a relational field that, like the interior of the body, resists direct observation and becomes legible only through its effects, symptoms, and dispersions. Here, the neurological condition of blindsight offers a critical lens, revealing a mode of perception in which something is regis-

tered without entering conscious recognition, complicating the assumption that visibility coincides with knowledge. Within this framework, the olfactory realm emerges as a crucial model: operating through proximity, affect, and involuntary recognition, it dissolves the separation between subject and environment, offering an alternative mode of imaging grounded not in capture, but in attunement. Atmospheric imaging thus unfolds at the limits of visibility, where perception exceeds recognition. Engaging with authors like James Hillman, Paul Virilio and Luce Irigaray among others, the text situates atmosphere as a field of subliminal emergence.

IMAGING – A VISUAL DIAGNOSIS

After coining the wordplay that gives this issue of IMG its title, I found myself in a situation where “imaging” stopped functioning as a pun and became a precise technical language.

In contemporary medical practice, imaging designates a set of technologies—X-ray, CT, MRI, PET—developed to visualise what is structurally inaccessible to direct perception.

What had once been a playful turn of phrase suddenly referred to a concrete diagnostic apparatus, searching for what was actually wrong with my kidneys.

Imaging, in this context, does not represent. It penetrates. It traverses the body through radiation, magnetism, and contrast agents—substances that operate like visual revelation inks. Rather than depicting organs as stable forms, they render internal processes legible through mediated interaction. What becomes visible is not the body as object, but its thresholds: circulation, permeability, intensity, delay.

In Italian as in English, *imaging* remains untranslated, it signals a domain where language yields to the mechanism of observation, where knowledge is produced through technical intervention rather than descriptive clarity. These images are not illustrative but evidentiary: sensitive images that function as data, as thresholds between visibility and diagnosis¹. They do not offer the body as appearance, but as a field of signals to be interpreted.

This medical understanding of imaging provides a foundational model for *thinking* atmosphere. Atmosphere, like the interior of the body, resists frontal access. It cannot be observed directly, only inferred through its effects. Imaging an atmosphere thus becomes an epistemological paradox: an attempt to visualise something whose mode of existence is immersive, relational, and fundamentally unstable.

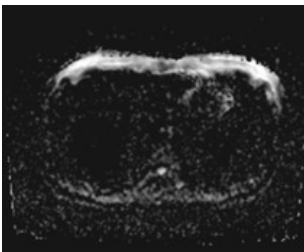


Fig. 1 Magnetic resonance imaging (MRI) scan of the kidneys, axial cross-section through the pelvic region.

META-IMAGE: EDGING THE MEDIUM

The distinction between *image* and *imaging* is crucial here. An image suggests a bounded entity, an *object of vision*.

Imaging, by contrast, is a process—procedural, durational, and often invasive. Atmosphere inhabits precisely this intermediary space—what Proust (1913/1981) calls the *intermediary of an image*.

In his *Swann's Way*, he articulates this condition with striking precision when he describes perception as always surrounded by a “thin spiritual border,” an evaporative zone that prevents direct contact with *substance*²; objects dissolve before we can touch them; proximity never coincides with grasp.

A comparable insight emerges in Paul Virilio's reflections in *Negative Horizon's* introduction (1985/2005), where he introduces the notion of *interform*: the invisible, transparent relation between a form and its background. Virilio identifies the interform as a point of suspension between form and anti-form, an interstice habitually ignored by Western visual regimes³ which privilege isolated objects over the margins and differences that condition their appearance. As he recalls while attempting to paint an object, vision begins to waver: what comes into view is no longer the object itself, but its unstable fusion with its background—an interval that perception tends to repress.

Atmosphere, like the *interform*, occupies this neglected zone: neither object nor void, but the relational field in which visibility is continually undone by what surrounds it.

Imaging atmospheres requires precisely this movement: pushing visual regimes to the point where they must acknowledge what they cannot contain. The task is to go to the limits of the image medium, where form risks collapse and coherence becomes unstable (Gallagher, 2014). In fact atmospheres do not persist as stable entities but unfold, dissolve, and reconstitute themselves through time.

Imaging an atmosphere therefore cannot aim at fixation; it must engage temporality, emergence, and loss as constitutive elements.

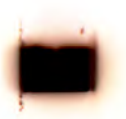


Fig. 2 Marina Marques, 2022. Negative scan of a 35mm film sprocket hole. From the series *Negative Origins*.

This is where imagination becomes operative—not as fiction, but as a cognitive and perceptual faculty capable of bridging what sensory data alone cannot provide.

As Huppauf and Wulf (2013) argue in the introduction of their curated anthology of essays *Dynamics and Performativity of Imagination*, imagination leads from information to intuition, making visible what exists only as potential. *Imaging atmospheres* is thus less a documentary practice than an imaginative one: a mode of unfolding latent connections absent from raw sense data.

BLINDSIGHT AND THE SILENT IMAGE

If imaging atmospheres unfolds connections that escape direct sensory capture, the neurological condition of blindsight reveals that such gaps are already embedded in perception itself. There are forms of seeing that operate below recognition, where presence is registered without becoming image. The condition of *blindsight* occurs primarily in patients with damage to the primary visual cortex, who respond to visual stimuli without conscious awareness — offering a productive model for thinking about atmospheric imaging⁴. In blindsight, vision persists without awareness: stimuli are registered, acted upon, yet remain inaccessible to representation. Something is seen without being recognised as such.

A comparable dynamic often emerges in encounters with atmospheric images, where viewers register a presence or a shift without being able to name, locate, or stabilize it. Perception occurs, but without the reassurance of conceptual mastery. Within this gap between sensing and knowing, imagination takes on a different role. Ludger Schwarte describes it not as a faculty of fabrication, but as the capacity to “unfold a space of appearance”⁵—a space in which intuition precedes cognition and perception unfolds before interpretation can intervene. Images, in this sense, do not first present themselves as legible forms; they open a field

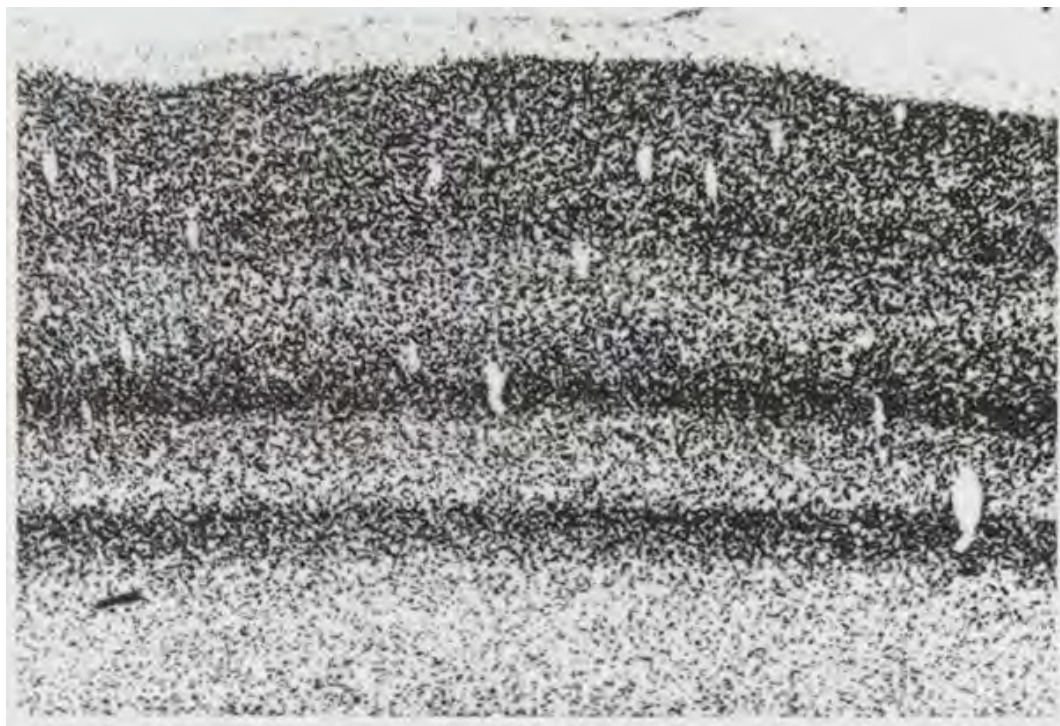


Fig. 3 High-magnification optical micrograph of the primary visual cortex (V1). Neuronal layers responsible for visual processing, which in phenomena such as blindsight can transmit visual signals without conscious perception. Adapted from *Vision: How It Works and What Can Go Wrong* (John E. Dowling & Joseph L. Dowling Jr., The MIT Press, 2016), Fig. 5.4B, p. 112. e.

in which something may appear without yet becoming an object of thought.

Dieter Mersch further sharpens this inversion by suggesting that to see an image is not to dominate it, but to encounter its transparency within visibility: what, in the image, looks back at us rather than what we succeed in grasping⁶.

Atmospheric images operate precisely at the threshold where seeing becomes exposure rather than control, and where visibility no longer guarantees comprehension. What matters here is not the solidity of forms, but their tendency to emanate, to give rise to something that exceeds them.

Atmospheres are not objects to be isolated, but by-products of matter in flux—secondary yet pervasive, intangible yet effective. They call for a mode of attention that suspends interpretation and extraction in favour of receptivity, attunement, and being-with what cannot be fully seen. “A stare is perhaps as far from history, as close to eternity.” (Sontag, 1969)

If atmospheric imaging operates in a regime where perception precedes recognition, then silence and non-resolution are not secondary effects but intrinsic conditions. What is at stake is not the absence of meaning, but the impossibility of stabilising what remains fundamentally diffuse, emanative, and contingent.

In this sense, Susan Sontag's reflections on silence are useful not as an ethical injunction, but as a description of a limit-condition: silence marks the point at which representation ceases to add clarity and begins to interfere with what it seeks to show.

Atmospheric imaging frequently approaches this threshold: rather than producing images that clarify or delimit, it suspends definition, allowing perception to remain open-ended and unresolved. What might appear as failure—the inability to fully articulate, frame, or complete the image—does not signal a lack of content, but the persistence of a phenomenon that exceeds the image's capacity to contain it. The image does not fail because it is insufficient; rather, it reflects the fundamental nature of atmospheric conditions, which resist reduction to stable, fully graspable forms. As Dieter Mersch observes through Joseph Beuys's works, paradox is not a problem to be solved but a structural tension that defines perception: something appears only to the extent that it withdraws from complete visibility. In this light, the impossibility of fully imaging an atmosphere is not an obstacle, but the very condition that allows atmospheric perception to unfold. It is in this in-between—where visibility is partial, and forms emanate without closure—that the viewer encounters the generative potential of the image: a perceptual space in which sensation, intuition, and imagination operate together, beyond the confines of representation.

SEE YOU ON A DARK NIGHT: OBLIVION AND VISIBILITY

Philosophical engagements with atmosphere have often circled around a paradox: that which most pervasively sustains life remains structurally neglected precisely because

it resists capture. Luce Irigaray (1996) names this condition the *oblivion of air*—a forgetting that does not stem from absence, but from excess: air is overlooked because it cannot be grasped, possessed, or fixed within the regime of objects.

A similar concern animates Gaston Bachelard's *rational materialism*, which calls for sustained attention to elemental conditions—air, vapour, diffusion—not as symbolic motifs or poetic metaphors, but as material processes. For Bachelard, matter is never simply given to perception, nor does it appear as a self-contained object, but it must be approached through an experimental rational system (Bachelard, 1975). Within this framework, the elements do not present themselves as discrete entities but as dynamic fields of action: air circulates, vapour condenses and disperses, matter infiltrates and propagates (Bachelard, 1943/2007). These processes exceed objecthood and undermine the logic of form by which things are usually apprehended. What is material, in this sense, is not what can be isolated and grasped, but what operates through things.

One does not look at an atmosphere; one finds oneself immersed within it. To attend to an atmosphere, following Bachelard (1943/2007), therefore requires a shift away from representational capture toward an engagement with material forces that shape experience. In his *The Aesthetics of Disappearance*, Paul Virilio argues that contemporary visual experience is dominated by fleeting images whose significance lies not in permanence but in their temporal and operational effects on perception. He highlights the increasing militarization of vision, showing how technologies of warfare—from aerial reconnaissance to drone surveillance—mediate experience by privileging speed, immediacy, and target-oriented observation over sustained attention (Figure 4). In this context, images are ephemeral not only because of their transience but also because they are produced within systems designed for action rather than contemplation (Virilio, 1991). To image an atmosphere, from this perspective, is to acknowledge its intrinsic tendency toward dissolution, blur, and loss.



Fig. 4 Clément Lambelet, *Two Donkeys in a War Zone*. Film still extracted from military drone footage.

The work repositions automated imaging from targeting to the registration of peripheral life within zones of conflict.

Atmosphere marks the limit at which visibility begins to erode, where perception is shaped as much by what vanishes as by what remains. This legacy resonates with Georges Didi-Huberman's notion of aesthetic immanence (Didi-Huberman, 2013), understood as a generalised flux in which each thing continuously folds into every other, dissolving stable representational boundaries. Within such a framework, atmosphere can be understood as a site of folding rather than framing: a zone of turbulence in which visibility is constantly undermined by what exceeds it. Atmospheres thus inhabit the threshold between appearance and disappearance, not as neutral backgrounds, but as active forces that render perception contingent, and porous.

THE OLFATORY AS IMAGINAL PRACTICE

In atmospheric terms, smell exemplifies what cannot be separated from its source. There is no distance between object and odour, no clean division between subject and environment. This indivisibility challenges the logic of *imaging* as extraction and control, a logic that underpins dominant visual regimes in which phenomena are rendered legible by being detached from their conditions of emergence. Smell, instead cannot be represented without being diminished. As such, olfaction disrupts the assumption that representation operates through mastery and distance, proposing instead an immersive mode of imaging grounded in proximity and porosity. Within this framework, olfaction emerges as a privileged analogue for atmospheric imaging and as pointed out in Hillmans' *Perceiving Images Through the Senses* (2002) smell offers the most precise sensory analogy for the activity of imagination¹.

Olfaction operates at depth, precisely because it lacks an autonomous language or a stable representational system. Unlike vision, it does not externalise its objects or organise them into discrete forms. Smell is therefore at once the most

concrete and the least concrete of the senses: concrete in its immediate material impact on the body, yet elusive in its resistance to fixation, naming, and voluntary recall.

Odours cannot be deliberately summoned or held at a distance; they impose themselves upon perception, often triggering involuntary memory, uncontrolled association, and singular, unrepeatable apprehensions. To know through smell, then, is not to know conceptually or analytically, but to recognise—to be affected by something one cannot fully articulate, yet nonetheless unmistakably registers as present.

Heraclitus believed that the gods judged humans by their smell, precisely because odour escapes deception and representation.

The non-representability of smell renders it epistemologically significant. As long as it resists full capture and visual domination, olfaction troubles regimes of visibility that equate knowledge with display. It foregrounds an image that has a body but no fixed form—an image that cannot be fully externalised or stabilised as an object. This notion of olfaction as an immaterial yet corporeal image finds a remarkable precedent in the experiments of H. Devaux (1938) (Figure 5) a plant physiologist who visualised the volatilisation of odorous substances. As he described, when an odiferous material is enclosed in a cell a few millimetres above a clean mercury surface, it is possible to collect a monomolecular layer of the volatile substance on the mercury. If the surface is initially dusted with talc, the gradual formation of this layer can be observed as the talc is pushed aside from the point beneath the specimen. Devaux's images, published in the 10 September 1938 issue of *The Illustrated London News* and exhibited at the 83rd Annual International Exhibition of the Royal Photographic Society, capture this subtle process, rendering visible the otherwise invisible movement of odoriferous molecules.

In this sense, olfaction safeguards its imaginal dimension from visual overdetermination, allowing images to return to an archetypal condition.



Fig. 5 The Odour of Lily Made Visible: Photography of A Smell by F. Breitenbach. Exhibited in the Royal Photographic Society's Annual Exhibition with an Explanatory Note Headed 'Experiments of Professor H Devaux.'. *Illustrated London News*, 10th September 1938.

“In scent and taste, it is not only the object that is perceived, but the atmosphere that conditions our affective relation with the world.” (Tellenbach, 1981)

As Hubertus Tellenbach elaborates, atmosphere is an existential field in which individuals are already immersed.

For Tellenbach, the atmospheric is rooted in the oral sense — the primary unity of taste and smell — which provides an immediate, pre-personal contact with the world and with others, long before conceptual categorisation occurs (Tellenbach, 1968/2013). This approach situates atmosphere as a kind of *Mehr* or “surplus” beyond the factual, a perceptual field that cannot be reduced to what is merely perceived but conditions how experience takes shape. Tellenbach argues that in everyday life we do not simply register smells; we engage with them as affective cues that guide acceptance, rejection, trust and familiarity, precisely because they emanate and diffuse without stable boundaries. Rather than presenting itself as an object to be fixed in perception, the atmosphere for Tellenbach is a pervasive medium of contact that shapes our “being-with others” and our sense of belonging to a world. It operates like a pre-verbal, pre-conceptual field of resonance that conditions affective orientation long before we can articulate or conceptualise it.

IMAGING ATMOSPHERES AS CURATORIAL POSITION

To image an atmosphere is a predatory yet inevitably futile task: akin to following a scent in a field without knowing whether a source exists. The effort is guided by traces, intensities, and absences. The aim is not capture or resolution, but remaining open to the unfolding process itself, attending to hints and gradients as they emerge.

The contributions gathered in *Imaging Atmospheres* occupy a similar in-between space. They operate within the tension itself—between sensing and seeing, between diagnostic apparatuses and imaginative projection, between silence

and articulation. Nothing to be fully captured but a condition to be traced provisionally present.

Imaging atmospheres sustains a generative curatorial position of provisional forms, subliminal encounters, and facilitating legibility of something fundamentally indivisible and unrepeatable.

NOTES

1 Imaging is understood as evidentiary data rather than representation.

2 “When I saw an external object, my consciousness that I was seeing it would remain between me and it, surrounding it with a thin spiritual border that prevented me from ever touching its substance directly; for it would somehow evaporate before I could make contact with it, just as an incandescent body that is brought into proximity with something wet never actually touches its moisture, since it is always preceded by a zone of evaporation.”

Marcel Proust, *Swann’s Way*, trans. C.K. Scott Moncrieff and Terence Kilmartin, rev. D.J. Enright (1981), in F.R. David, “Rectoverso,” *Rectoverso*, Summer 2019.

3 “Western” refers to a historically specific tradition in which visual regimes rooted in Renaissance perspective and modern science privilege discrete, isolated objects.

4 For discussions of *blindsight*, see the neuropsychological literature cited in: Huppauf, Bernd, and Christoph Wulf, eds. *Dynamics and Performativity of Imagination: The Image Between the Visible and the Invisible*. (London and New York: Routledge, 2013).

5 See also Ludger Schwarte, “Intuition of Imagination,” in *ibid.*, 72.

6 See Dieter Mersch, “Imagination, Figurality and Creativity,” in Huppauf and Wulf 2013.

REFERENCES

- Bachelard, G. (1975). *Materialismo razionale* (L. Semerari, Trans.). Milano, IT: Dedalo.
- Bachelard, G. (2007). *Psicanalisi dell’aria*. Milano: Red Edizioni. (Original work published 1943)

- David, F.R. (2019). *Recto verso* (Summer 2019 issue). de Appel. <https://www.deappel.nl/en/archive/books/19812-f-r-david-summer-2019-recto-verso>
- Devaux, H. (1938, September 10). *The odour of lily made visible: Photography of a smell by F. Breitenbach*. Illustrated London News. (Exhibited in the Royal Photographic Society's Annual Exhibition)
- Didi-Huberman, G. (2013). Aesthetic immanence. In B. Huppau & C. Wulf (Eds.), *Dynamics and performativity of imagination* (pp. 45–68). New York, NY: Routledge.
- Dowling, J. E., & Dowling, J. L., Jr. (2016). *Vision: How it works and what can go wrong*. Cambridge, MA: MIT Press.
- Gallagher, T. (2014, December 22). Geometry of Force: Abel Ferrara and Simone Weil. *Screening the past*, 10. <https://www.screeningthepast.com/issue-10-first-release/geometry-of-force-abel-ferrara-and-simone-weil/>
- Hillman, J. (2002). La pratica immaginale: Accogliere l'angelo. In *Fuochi blu: Percepire le immagini con i sensi*. Milano, IT: Adelphi.
- Huppau, B., & Wulf, C. (Eds.). (2013). *Dynamics and performativity of imagination: The image between the visible and the invisible*. New York, NY: Routledge.
- Irigaray, L. (1996). *L'oblio dell'aria*. Torino, IT: Bollati Boringhieri.
- Lambelet, C. (n.d.). *Two Donkeys in a War Zone*. Film still extracted from military drone footage.
- Proust, M. (1981). *Swann's way* (C. K. Scott Moncrieff & T. Kilmartin, Trans.; rev. D. J. Enright). London, UK: Allen Lane. (Original work published 1913)
- Sontag, S. (1969). The aesthetics of silence. In S. Sontag, *Styles of radical will*. New York, NY: Farrar, Straus and Giroux.
- Tellenbach, H. (1981). Tasting and smelling—Taste and atmosphere. *Journal of Phenomenological Psychology*, 12(2), 221–230. doi:10.1163/156916281X00254.
- Tellenbach, H. (2013). *L'aroma del mondo: Gusto, olfatto e atmosfere*. Milano, IT: Raffaello Cortina (Original work published 1968).
- Virilio, P. (1991). *The aesthetics of disappearance* (P. Beitchman, Trans.). Los Angeles, CA: Semiotext(e).
- Virilio, P. (2005). *L'orizzonte negativo: Saggio di dromoscopia*. Milano, IT: Costa & Nolan (Original work published 1985).
- Weiskrantz, L. (1986). *Blindsight: A Case Study and Implications*. Oxford, UK: Oxford University Press.

Article available at

DOI: 10.60923/issn.2724-2463/23852

How to cite

Marques, M. (2025). Imaging Atmospheres: From Visual Diagnosis to Olfactory Imagination. *img journal*, 12, 24-37



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

ATMOSPHERES IN ARCHITECTURE AND MOVING IMAGES: ISAAC JULIEN'S *LINA BO BARDI* - A MARVELLOUS ENTANGLEMENT

Giuliana Bruno

Harvard Faculty of Arts and Sciences

Department of Art, Film, and Visual Studies

carta@fas.harvard.edu

ISAAC JULIEN

LINA BO BARDI

ARCHITECTURAL ATMOSPHERE

ENVIRONMENTAL MEDIA

MUSEUM AND MOVING IMAGES

EXHIBITION DESIGN

This essay examines Isaac Julien's multiscreen installation *Lina Bo Bardi—A Marvellous Entanglement* (2019) as an atmospheric encounter between moving images, architecture, and the cultural imagination of public space.

Through Julien's cinematic traversal of Bo Bardi's buildings in São Paulo and Salvador, the article explores how montage, screen arrangement, choreography, and the use of elemental agents produce a relational environment. Particular attention is given to MASP's open museographic dispositif

and exhibition design, the SESC Pompéia's bridges and apertures, and Bo Bardi's ecological thinking of air, ventilation, and collective inhabitation.

The installation is read as a filmic architecture in which the material and social energies of Bo Bardi's work are reanimated through projection, rhythm, and spatial passage. By linking atmosphere, spectatorship, and environmental media, the essay argues that Julien's work constructs a moving, breathable form of architectural memory and public culture.

"Atmosphere is a metaphysical space in which everything depends on everything else, [...] a space in which each person's life is mixed with the life of others" (Coccia, 2019 pp. 48-49).

"Phenomena are the ontological inseparability/entanglement of intra-acting agencies" (Barad, 2007, p. 139)¹.

Isaac Julien's 2019 multiscreen installation *Lina Bo Bardi - A Marvellous Entanglement* is perfectly titled, for the work itself offers the feeling of a creative entanglement². Here, one breaths the air of relationality between an artist and an architect, both keen on creating ambiance and displaying atmospheres. The installation is not simply an homage to Lina Bo Bardi (1914–1992), the visionary Italian-born Brazilian architect, but profoundly entwined with her creative, multiform architectural environments³. Versatile and wide-ranging, Bo Bardi's modernist practice involved, along with architecture proper, the design of exhibition spaces, interiors, furniture, costumes, and jewelry. It also spanned across the realms of landscaping and urban planning, theater and film, and furthermore engaged writing and editorship. As Julien unfolds his vision on nine interrelated screens, he reveals the depth of this practice, its very atmosphere. Adopting an errant mode of filming, he traverses Bo Bardi's work intimately, in a journey that displays both aesthetic and political sympathies. A process of cultural and artistic bonding takes place as the artist's multiscreen construction becomes intertwined with the architect's building structures. A montage of their public forms is elegantly interlaced across the screens, rhythmically crafting a poetic, relational ambiance. Layers of elective affinities take shape in this aesthetic dance that is a choreography of encounters.

The intensity of the intellectual and artistic relationship that Julien established with Bo Bardi's practice took proper time to be developed. The poetic journey of entanglements spanned several years of research devoted to absorbing

the cultural atmosphere of the architect's creations⁴. The installation makes one feel this active journey of exploration. In *A Marvellous Entanglement*, the present time is knotted together nonlinearly with several past memories of the architect's cultural itinerary, gathered through archival research of documents and films. These include findings in the archive of the French-born anthropologist and photographer Pierre Verger. Long interested in West African diasporas, Verger collaborated with Bo Bardi on projects such as the Casa do Benin, which Julien visited and filmed for the installation. His presence is evoked among that of others who were part of a marvelous entanglement of artistic friendships and intellectual collaborations in her life. These include the theater director, playwright, and actor José Celso Martinez Corrêa (known as Zé Celso), who co-founded Teatro Oficina, an experiment in theatrical display, and who makes an appearance at the end of the film.

Extensive visits to the various buildings designed by Bo Bardi led Julien to single out the locations to feature in the

Fig. 1 SESC Pompéia bridges in Isaac Julien, Lina Bo Bardi: *A Marvellous Entanglement*, 2019. *Nine screen installation*. Installation view, Victoria Miro Gallery, London, 2019. Courtesy of the artist and Victoria Miro



installation, and to link them together in an animated journey of architectural atmospheres. *A Marvellous Entanglement* traverses in interconnected, nonlinear ways three of Bo Bardi's São Paulo buildings: the São Paulo Museum of Art (MASP), the SESC Pompéia Leisure Center, and Teatro Oficina, all considered landmark examples of Brazilian Modernism. Further north, in Salvador, Julien filmed, in addition to Casa do Bonin, the Museum of Modern Art of Bahia, the Gregório de Matos Theater, and the Coatí restaurant, built as part of the Ladeira da Misericórdia Housing and Commercial Complex and now abandoned.

CHOREOGRAPHING MUSEUM SPACE AND EXHIBITION DESIGN

A meditative, choreographed way of filming takes us on a figurative dance through Bo Bardi's spaces, sometimes engaging actual dancers who interact with the architecture, while always employing a kind of motion that forms not simply an architectural but an atmospheric entanglement around sites of passage. With this strategy, Julien exposes the architect's airy vocabulary of openness and links it to her register of sociality and collectivity⁵.

Filming MASP, Julien engages the conceptual design of Bo Bardi's Modernist museum to reveal its vision of art exhibition. He showcases her innovative art collection display, exploring how it encourages creative readings of art history. All nine screens are used to their full potential to show the museum's spatial flow and affirm that the architectural fluidity creates a more open design of both museography and spectatorial space. Such fluidity emerges via filmic intercutting between the two aerially suspended and intersecting red staircases of the museum as well as in shots that traverse the grand exhibition hall that is the museum's central core. In this journey, Julien's installation treats visitors to a historic moment: the striking visual

experience that affected those who first viewed the layout of the museum's principal gallery in 1969⁶.

This was no ordinary white cube. There were no walls, no dividers, not even movable partitions. In Bo Bardi's original exhibition design, artworks were not hung on any kind of wall surface. Paintings were instead placed across the open space of the luminous glass-enclosed room, laid out in asymmetrical rows and irregular grid patterns, hovering as if floating in space. Each painting, with its frame, was mounted on a stand of the architect's design, which she appropriately called 'crystal easel'. This was a vertical glass panel that was fixed to a concrete base. The canvases appeared to be perched on the huge panes of glass as well as suspended in space as if they were being aerially lifted and thrust across the space by a wind while supported by the cubic concrete base, simultaneously grounded into the earth.

Bo Bardi's exhibition room design revolutionized museum space, and Julien wanted his luminous screen panels to show, precisely, this. To do so, he reproduced

Fig. 2 MASP's crystal easels and exhibition design in Isaac Julien, Lina Bo Bardi: A Marvellous Entanglement, 2019. *Nine screen installation*. Installation view, Victoria Miro Gallery, London, 2019. Courtesy of the artist and Victoria Miro.



features of the architect's design, including the stands. The installation screens, modeled on her crystal easels, filmically reinvent their form. Like the display of her canvases, they project translucency, and they, too, are fastened to a concrete base. A structural bond between architectural and moving image display is created here in a projection of luminous waves. It is further activated with a ritual rhythm, as the excursion through the MASP progresses in a choreography of spectatorial movements, with a resounding sense of thresholds.

To enhance the atmosphere of architectural motion in public space, Julien filmed extensively with traveling shots that track paths of reception. He retraced Bo Bardi's assemblage of artworks to further highlight how visitors experience art historical links while traversing a translucent art gallery whose associative, sequential mode of display is itself cinematic. Exuding from the breath of the MASP as well as other spaces designed by the architect to be lived in such collective, social, or ritual form, is an undulant motion, which becomes the defining oscillation of the installation.

The filmic editing, both within and across screens, is itself an energetic architectural choreography. Devised by Julien in collaboration with his longtime editor, Adam Finch, the montage joins the nine screens together by moving across their planes rhythmically, like the motion and sound of waves. This movement is nonlinearly fashioned in a way that resonates with Bo Bardi's own sense that non-Western temporality moves in folds, in a processual and relational mode. As she put it, "Linear time is a Western invention; time is not linear, it is a marvellous entanglement". Julien's own dynamic is fluctuating, intent on actively conjoining artistic and architectural materials in a dance of moving relationality. It is as if his screens respond to one another in an associative mode of motion that is both performative and atmospheric. The movement and sounds fluidly ricochet in this ambient way across the screens that display the atmosphere of MASP, and, in this way, connect the

museum to other public sites. Ultimately, these passages create vaporous filmic architectures of public culture. They also produce a formal bond with Bo Bardi's nimble capacity for bridging spaces and for building with light and air. Such process of entanglement finally results in an aesthetic that turns her buildings' ecosystems into resounding, airy environments of moving images.

AIRY AMBIANCES: ARCHITECTURES OF WEATHER

"Air is the most essential element to terrestrial life, and it is also the element that has the greatest power to ensure a mediation between the different states of matter, within us and outside of us" (Irigaray, 2016, p. 27).

Projected from the translucent exhibition space of the MASP, the moving sense of aperture flows into the other spaces of the installation. In filming the SESC Pompéia Leisure Center, Julien continues to enhance this atmosphere of openness. The camera focuses on openings and especially on the suspended bridges across the Center's buildings, which function to connect them. As the aerial bridges appear in the film and are made to cross over all nine screens, their connective structures become even more linked architecturally. With this gesture of architectural joining on screens, Julien bridges sites and distances. Even the space that separates the screens in the gallery site appears diminished, as he effectively makes their planes closely intersect as the bridges do. This crossover montage of bridges floating on air throughout the installation space produces a structural, open reflection on how film and architecture create environments of passage, and especially on how they might construct a connective social space.

In this intra-active process, Julien's atmospheric, airy cinematic views become totally entangled with how Bo Bardi's creation of such openings and crossings affect

the ambiance of museums and public sites. To make the importance of atmosphere clearer, the film recounts how, in 1976, Bo Bardi entered the abandoned steel barrel factory in the Pompéia neighborhood of São Paulo for the first time. She returned over the weekend and noticed that “the atmosphere was different.” As Fernanda Montenegro, one of the two actresses who impersonates Bo Bardi in the film narrates, “The elegant and innovative concrete structure” no longer “felt solitary” but inhabited, for “there was a happy crowd of infants, mothers, fathers, older people passing from one pavilion to another” (Bo Bardi, 1986a)⁷.

The airy renovation, which spanned from 1977 to 1986, was guided by the atmosphere of social openness that the architect had witnessed. Aiming to continue to provide the neighborhood with the sense of a community plaza, Bo Bardi created an open library configuration that invited people to study and read but also to experience as communal social space. The entrance to the former factory was likewise transformed into an attractively breezy, translucent space, covered by a glass-tiled roof that allowed natural light into the open large volume. The architect removed doors from the original spaces to make more transits possible and enable air flow. Bo Bardi's furniture, designed specifically for the space, further mobilized it. Its modular design turned it into an adaptable environment, capable of hosting the variability of what was “in the air” in the community. The theater chairs, for example, were designed in a particular relational fashion to create the kind of reserved intimacy that produces closeness. As the architect put it, she aimed “to give back to the theater its capacity to distance and embrace” (Bo Bardi, 1986a)

Drawn to the openness of the SESC Pompéia space, Julien explored the airy features of Bo Bardi's architecture, extending his atmospheric way of filming from the suspended bridges to the design of her windows. Returning from a trip to Japan, the architect had been inspired to change the geometry and rectangular shape traditionally assigned to fenestration in Western culture. Instead of conventional

Fig. 3 Isaac Julien, *Tecnologia pré-histórica / Prehistoric Technology* (Lina Bo Bardi – A Marvellous Entanglement), 2019. Endura Ultra photograph facemounted. Courtesy of the artist and Victoria Miro.



Fig. 4 Isaac Julien, *Um maravilhoso emaranhado / A Marvellous Entanglement* (Lina Bo Bardi – A Marvellous Entanglement), 2019. Endura Ultra photograph facemounted. Courtesy of the artist and Victoria Miro.



windows, she designed irregular openings for the largest tower of the complex. Matching the kind of outlines and contours that can be created with a die-cutting instrument, these windows resemble large undular holes punched into the building to let the air in. As Julien captured the shape of these glassless apertures, he recreated in film the fluid form of the passage of pneuma. As in her architecture of weather, in this film installation a stream of movements also overcomes the boundary between interior and exterior, bridging and joining the two together.

Bo Bardi's windows evoke such relational forms not only

spatially, with their moving shapes, but also temporally, because the nonlinear forms appear even to bridge times of human inhabitation. Looking from inside the irregular holes cut into the Modern concrete building, as one does in Julien's installation, the space feels cavernous. Indeed, the hollow apertures give the impression of actually being inside a cave. In a sort of time warp, while inhabiting Modern architecture one can imagine dwelling in an ancient grotto, looking out into the open. Bo Bardi's future-leaning experimental construction was intentionally primordial. An architect who declared herself to be "horrificed by air conditioning," as well as carpeting, thought of a more ecological way to aerate and cool a building with windows that "suggested the prehistoric holes of caves with no glazing, nothing." Reprising this statement in Julien's film, the actress, speaking Bo Bardi's views, emphasizes that in the caves, the first "glassless" holes achieved "permanent cross ventilation," producing natural air technology (Bo Bardi, 1986b)⁸.

Building this entangled relation between different experiences of time and spaces of inhabitation, the construction ecologically engineered air and atmosphere while being grounded in the earth. The conjoined filmic-architectural journey through this Modern cave featuring environmental apertures thus enhances the connections between architecture, atmospheric formations, and geological processes.

Julien filmed the ecological windows in a way that releases the atmospheric sensation of Bo Bardi's architecture of weather, for he framed the cavernous holes in a way that allows them to open up to a breath of air. With a fluid framing as well as liquid motion that flows across the screens, environmental agents make their presence felt, entering both the architectural and filmic space. One senses the warm tropical air virtually flowing in and out of the space of the installation, rhythmically passing across the screens. The environmental apertures are reframed even more atmospherically when the actress impersonating Bo

Bardi opens the screens on the windows, herself breathing in the air, as if to absorb a metaphoric, cultural form of cross ventilation.

The flow of air passing through Bo Bardi's windows thus floods into the installation, becoming in time a palpable gesture of elemental philosophy and ambient relationality⁹. As if reprising the architect's conception of cross ventilation, the moving architecture of *A Marvellous Entanglement* itself becomes environmental in nature. As in Julien's other fluid multiscreen installations, natural elements physically come to life here. An environment of atmospheric fluidity is architected in filmic form. With camera movement and editing that join nine screens together in waves of motion, all elements can, indeed, float. The more the flow of air moves across these screens, the more it joins the flux of water. As Julien technologically harnesses the force of these environmental agents on screens, his moving-image installation communicates an ambient vitality. The energy one feels here is released by an atmosphere of projection in which waves of light and air are not simply elements but active 'elemental media'¹⁰. In this cinematic space, air perceived as the undulation of sea waves spirals across the gallery as if it were the whirling of wind.

Historically, air has functioned as an interface through which social bodies can be linked with one another as well as to landscape and atmosphere. But this force of air became somewhat obscured in later Western thinking, which has been largely characterized, as the feminist philosopher Luce Irigaray points out, by "the forgetting of air" as a form of dwelling (Irigaray, 1999).

It is therefore highly significant that the fluid materiality of air, and its circulation, is revisited in *Lina Bo Bardi—A Marvellous Entanglement*. Julien underscores that, by transferring primordial ventilation to a modern dwelling, Bo Bardi communicated the transitive capacities of air as a moving and connective social tissue and cultural substance. Bo Bardi and Julien's interventions, thus ethereally entangled, are a

needed breath of fresh air.

NOTES

- ¹ This sentence is italicized in the text.
- ² For further development of the topic of this essay, see Bruno (2025).
- ³ For an introduction to the work of Lina Bo Bardi see, among others, de A. Lima (2013); Esparza Chong Cuy et al. (2020); including writings by Bo Bardi edited by Ponce de Leon (2022). See also, Cobas (2021); Veikos (2014) which reproduces Bo Bardi's *Propaedeutic Contribution to the Teaching of Architecture Theory* (1957); Carvalho Ferraz (1993), and *Lina Bo Bardi 1914–1992*, the special issue, *AV Monographs* 180 (2015). Bo Bardi's work is contextualized in Bergdoll et al. (2015). For further publication of her writing, see, among others, Lina Bo Bardi (2013).
- ⁴ Julien first became fascinated by Bo Bardi in 2012, when he was invited to show at SESC Pompéia. The process of making the installation over time was documented as part of *Lina Bo Bardi—A Marvellous Entanglement*, an exhibition of Julien's work at the MAXXI museum in Rome, September 23, 2020–February 26, 2021, where the work premiered in Italy.
- ⁵ On the importance of the social in Bo Bardi's practice, see Buerger (2011).
- ⁶ By the 1990s, Bo Bardi's original design was badly altered but it was restored in 2015.
- ⁷ There are different translations of this text in English. My citation, slightly different from the adaption of the text in the film, is from Bo Bardi (2014). Montenegro's daughter, Fernanda Torres, also impersonates Bo Bardi, and speaks her voice.
- ⁸ The translation in the film is slightly different from mine.
- ⁹ For an introduction to elemental theories, see Macauley (2010).
- ¹⁰ For further articulation of this 'atmospheric thinking', see Bruno (2022), which considers the interrelations of projection, atmosphere, and environment, both in history and in contemporary art.

REFERENCES

- Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press.
- Bergdoll, B., Comas, C.E., Liernur, J.F. & del Real, P. (Eds.). (2015). *Latin America in Construction: Architecture 1955–1980*, exh. cat. New York: Museum of Modern Art.
- Bo Bardi, L. (2014). The Architectural Project. In Bo Bardi, L. *Stones Against Diamonds*.
- Bo Bardi, L. (2013). *Stones Against Diamonds, Architecture Words* 12. London: Architectural Association.
- Bo Bardi, L. (1986a). *Notes on SESC Pompéia*, c. 1986. Instituto Lina Bo e Pietro Maria Bardi.

- Bo Bardi, L. (1986b). *Notes on Interview with Casa Vogue*, no. 6, São Paulo, 1986. Instituto Lina Bo e Pietro Maria Bardi.
- Bo Bardi, L. (1957) *Contribuição Propedêutica ao Ensino da Teoria da Arquitetura* (Propaedeutic Contribution to the Teaching of Architecture Theory)
- Bruno, G. (2025). Epiphytic Entanglements: Breathing the Air of Relationality. In Julien, I. *Lina Bo Bardi: A Marvellous Entanglement*. New Haven, CT: Yale Center for British Art; Yale University Press.
- Bruno, G. (2022). *Atmospheres of Projection: Environmentality in Art and Screen Media*. Chicago, IL: University of Chicago Press.
- Buerger, R.M. (2011). This Exhibition Is an Accusation: The Grammar of Display According to Lina Bo Bardi. *Afterall: A Journal of Art, Context and Enquiry*, no. 26 (Spring 2011): 51–57.
- Carvalho Ferraz, M. (Ed.). (1993). *Lina Bo Bardi*, exh. cat. São Paulo: Instituto Lina Bo Bardi e Pietro M. Bardi.
- Cobas, M. (2021). *Liminal Creatures, Liminal Topographies: Rhetorics of Excess in the New World*. PhD diss., Princeton University, Princeton, NJ.
- Coccia, E. (2019). *The Life of Plants: A Metaphysics of Mixture* (Dylan J. Montanari trans.). Cambridge: Polity Press.
- De A. Lima, Z.R.M.(2013). *Lina Bo Bardi*. New Haven, CT: Yale University Press.
- Esparza Chong Cuy, J., Gonzáles, J., Pedrosa, A. & Toledo, T. (Eds.). (2020). *Lina Bo Bardi: Habitat* (exh. cat.) Munich: Prestel.
- Irigaray, L. (2016). The Generative Potential of the Elements. In Irigaray L. & Marder, M. *Through Vegetal Being: Two Philosophical Perspectives*, pp. 27–33, New York: Columbia University Press.
- Irigaray, L. (1999). *The Forgetting of Air in Martin Heidegger* (Mary Beth Mader trans.). Austin, TX: University of Texas Press.
- Lina Bo Bardi 1914–1992, Special Issue, *AV Monographs* 180 (2015): 1–119.
- Macauley, D. (2010). *Elemental Philosophy: Earth, Air, Fire, and Water as Environmental Ideas*. Albany, NY: State University of New York Press.
- Ponce de Leon, M. (Ed.). (2022). *Lina Bo Bardi: Material Ideologies*. Princeton, NJ: Princeton School of Architecture, Women in Design and Architecture Series.
- Veikos, C. & Bo Bardi, L. (2014). *The Theory of Architectural Practice*. New York, NY: Routledge.

Article available at

DOI: 10.60923/issn.2724-2463/24024

How to cite

Bruno, G. (2025). Atmospheres in Architecture and Moving Images: Isaac Julien's *Lina Bo Bardi - A Marvellous Entanglement*. *img journal*, 12, 38-51.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

IF, HOW, AND WHEN AN IMAGE CAN BE SAID TO BE ATMOSPHERIC

Tonino Griffiero

University of Rome Tor Vergata

Department of History, Cultural Heritage, Education and Society

t.griffiero@lettere.uniroma2.it

ATMOSPHEROLOGY

ICONIC TURN

PATHIC AESTHETICS

TWILIGHTNESS

The paper questions the atmospheric scope of images. First, it aims to critically discuss the enthusiastic excesses of the so-called iconic turn, showing both its relatively limited novelty compared to other phases of culture and the current risks of aesthetic manipulation. Secondly, it examines briefly some traditional ideas on iconic atmospherics, and in more detail, what could be the iconic atmospheric generators, referring to

both perceptual images and artificial-artistic ones. The identified generators (vagueness, distance, ephemerality, foggy, twilightness) suggest that the image is more powerfully atmospheric when it blurs the boundaries of reality, subverts the teleology of clarity embedded in its representational function, thus triggering a felt-bodily resonance that is not antagonistic but based on a certain balance between contraction and expansion.

INTRODUCTION

An aesthetics of atmospheres should reconsider Baumgarten's concept of *aesthetica* (1750) as a theory of sensitive perception, while also exploring today's late-capitalist "widespread design" and "staging value" (Böhme, 2001, 2017), as well as the socio-affective repercussions of the iconic deluge, both in the so-called society of *Erlebnis* (Schulze 1992) and, even more so, in the AI-driven society. Nevertheless, one must remain cautious of the overzealous enthusiasm stirred by the iconic turn.

Could the current iconic intermediality merely represent the long-term effect of the Wagnerian dream of the "total work of art," which, however, materializes not in art (the fusion of all arts), but rather in the atmospheric blend of artifice and everyday life? In any case, as the continuation of the "non-extreme indirect total work of art" (Marquard, 1989, pp.110-111), once sought in earlier aestheticization (the global musealization, shopping malls as paradisiacal non-places), the iconic turn does not seem to offer a true novelty.

This iconic aestheticization is by no means wholly positive, not least because when the aesthetic illusion nearly coincides with reality, reality inevitably risks transforming into illusion. In an era marked by changes so swift that they fail to settle into experience, and by media-driven cultural distortions (beginning with the multitude of so-called 'turns' in the humanities), there exists an exaggeration that would be prudent to partially demystify, namely, that ours is the age par excellence of the image.

THE PRIMARY EXAGGERATION: THE ICONIC TURN

We encounter images everywhere. Yet, their widespread misuse, particularly in the absence of proper education in the pragmatics of images, is not the mature consequence of the asemantic direction of the visual arts, but rather the

perverse fulfilment of the prophecy that “any person today can lay claim to being filmed” (Benjamin, 2008, p. 33). However, even if one prefers not to see in the exaggerated, iconically immersive turn the decline of the rational world, it remains pertinent to underscore the limitations of this euphoria. In the worst cases, it serves even as a strategy to obscure socially (and often legally) indefensible behaviours, while in the best, it simply reflects the amplification of mimetic-illusory iconic technologies (from digital effects to virtual reality and AI).

Clearly, not all scholars are uncritical defenders of images or backward-looking detractors. Some, however, expertly explore the immanent logic of the visual pre-predicative realm, without reducing the iconic to a mere substitute for language. They also delve into what images “afford” rather than what they “tell.” Indeed, before we interpret “X in an image,” we are already emotionally engaged with the image’s atmospheric impression, which is influential and even contagious, not so much because of its cultural (semiotic-hermeneutic) reference, but due to its ability to evoke a felt-bodily resonance—precisely the focus of the neo-phenomenological approach.

Accordingly, when discussing iconic atmosphere, we are not referring to the cognitive-recognitive task of images, but rather to what they “want” from us (Mitchell, 2005). As with any other quasi-thing (Griffero, 2017), in the case of images as well, atmospherology must challenge the conventional distinction between being (substance) and its appearance (accidents), thereby promoting an appearance-ontology that focuses not so much on the causes of appearance but on its emotional effects. Just as cold and wind, night and sunset, shame and pain, or feelings in general are not properties of a substance, but (so to speak) ‘pure acts’, similarly, an image, when understood as an ‘actual’ rather than a ‘factual’ fact (Böhme, 2001), is fully realized in the mood (*Stimmung*) or token-atmosphere it (as a type-atmosphere) generates.

However, the limits to which the iconic turn must be subjected are also of a historical nature. Indeed, there have been eras that can be more accurately described as “ages of images” than our own. In those times, it was commonplace to believe that a powerfully desired or emotionally contemplated image could generate an ontologically new and independent reality *in distans* -a belief that marks the millennia- long history of plastic or transitive imagination (Griffero, 2003). Or that, to punish someone, it would suffice to destroy their image (as in the case of iconic *damnatio*) (Freedberg, 1989, pp. 246-282). Not even the most ardent supporter of the iconic turn would truly subscribe to the beliefs held by the “imaginationist” Renaissance. They are content to acknowledge the psychological and social (rather than ontological) power of the iconic and to embrace the (seemingly) democratic proliferation of iconic media.

Moreover, the current apologia of images pales in comparison to the truly ontological-performative conception of images proposed a century ago by Ludwig Klages (1929-1932). For Klages, if properly and pathically experienced, reality is not primarily composed of things —mere constructs of instrumental value and projections of a “soulless” ego increasingly subjected to the ‘spirit’— but of appearing, fluctuating, and irreproducible primordial images (*Urbilder*). In Klages’ Heraclitean polydaimonism, the image becomes a pathic-atmospheric reality, whose power manifests only in its singular and unrepeatable appearance, and is all the more real (*wirklich*, i.e., active) the less it is tied to a physical support and the more it is ecstatically contemplated. It should therefore come as no surprise that, for Klages, the current iconic deluge does not pertain to the images themselves but only to their degraded forms (ghosts, *larvae*) (Griffero, 2024a).

Thus, a somewhat paradoxical hypothesis emerges: the global ubiquity and vast circulation of images, rather than demonstrating their power, in fact reveals their increasing semantic and performative emptiness, their loss of aura, if it is indeed true, as Benjamin asserts, that:

“the trace is appearance of a nearness, however far removed the thing that left it behind may be. The aura is appearance of a distance, however close the thing that calls it forth. In the trace, we gain possession of the thing; in the aura, it takes possession of us”. (Benjamin, 1999, p. 447)

The erosion of the aura of images appears to be a consequence of their increasing physical and “spiritual” proximity, which is fundamentally anti-pathic. Consequently, an image can be considered atmospherically active primarily when it is experienced pathically, involuntarily, and in its uniqueness and irreplaceability. In other words, when, regardless of how physically close, we encounter it within an insurmountable-transcendent distance that makes us more subjects-to than subjects-of it. The thesis that “the reality [*Wirklichkeit*] of images can only be suffered [endured]!” (Klages, 1929–1932, p.861) is utterly incomprehensible to anyone today who posts their images on social media in search of their own (and for this very reason improbable) identity.

To put it briefly: our iconic and hypermediated era cannot properly be defined as the ‘age of images’ (in the ontological sense), for far from affirming their autonomous ontological value, it seems to be a desperate response to their growing derealization and manipulability. While the autotelicity of the iconic represents one way of preserving the affective dimension against the consumptive or aesthetic ideals and the increasing industrialization of vision, it is certainly not the defining feature of our media practices. To put it humorously: the compulsion to watch television precisely undermines the erotic-pathic tele-vision of primordial images (Klages’ *Eros der Ferne*).

WHAT ATMOSPHERE FOR IMAGES?

It may seem trivial to say that the atmospheric image does not primarily serve a denotative or documentary function.

Indeed, Turner's painting of a stormy sea emotionally transports us to the very heart of the event, and even an advertising image undeniably awakens in us an atmosphere of desire for what it depicts. Yet, images captivate us atmospherically most profoundly when they represent (in the strict sense) or reproduce nothing at all. Through a piercing (Barthes' *punctum*), they "do not merely convey an atmosphere; they create it. The images themselves become the atmosphere, not just its representation." (Mersch, 2002, p.36) It is precisely for this reason that post-impressionist abstraction, perhaps the purest form of the image in general (Seel, 2005), embodies a particularly intense atmospheric function. In a sense, these images allow us to experience atmospheres visually that are not only expressed (represented) by the image but, above all, diffused within it and triggered by it (Böhme, 2004, p.149).

Nevertheless, asserting that the "beautiful" image is atmospheric is hardly sufficient. First and foremost, because atmospherology, as "pathic aesthetics" (Griffero, 2014, 2020, 2021), aims to contribute to the aesthetic rehabilitation of a broader field of felt-bodily sensitivity, thereby revaluing the entire sentimentally tonalized space and extending beyond the confines of art. And all the more so, it moves beyond the singular atmosphere long deemed legitimate by traditional aesthetics—the beautiful (Böhme, 20102, p.175 ff.). Within the framework of a (neo) phenomenological approach to philosophy, which reflects on how one feels in the here and now (Schmitz, 2003; 2019), the affective engagement and felt-bodily suggestions of contemporary art are far more compelling than the interpretation of artworks as static, closed, and discrete objects (Hauskeller, 2002).

Like other entities, and especially quasi-things, images radiate an atmosphere within perceptual space. Yet perceiving this atmosphere does not simply mean receiving and processing data organically and neurally; it involves holistically and peri-corporeally sensing a feeling that pre-

cedes the subject/object dichotomy, diffused throughout the (lived) space, also through its distinct (lived) dimensionality. As the “primary object of perception” (Böhme, 1995, p.48), atmospheres captivate the perceiver from the outside, without being arbitrary projections of inner-subjective emotional states, whether intentionally impossible to produce (as Schmitz frequently underscores) or ‘ecstatic’ radiations of things, potentially shaped by competent “aesthetic job” (Böhme, 1995, pp.155-176; 2001). Yet, up to this point, little has been said about the image as a specific generator of atmosphere.

WHEN DOES THE IMAGE BECOME (MORE) ATMOSPHERIC?

Let us begin by addressing certain exclusions.

1) The iconic atmosphere need not necessarily be “responsive,” as this would limit it to the exceptional case of existential attunement. On the contrary, the most prototypical atmospheric quality (for an ideal-typical distinction among atmospheres, see Griffero, 2021, pp.29-55) is the ingressive-dystonic one, where there is a contrast between the quasi-objective iconic atmosphere and the more subjective mood of the perceiver. This explains why an image of joy, although inherently joyful, can often evoke sadness in those with a negative disposition.

2) To define the atmosphere of the image in terms of the so-called “institutional” theory (Danto’s “world of art”), which involves an ontological metamorphosis (musealization) of the common object into a work of art, is applicable only to contemporary art and, moreover, overlooks the essential felt-bodily dimension of atmospheric experience (Griffero, 2024b).

3) The thesis that the image becomes especially atmospheric when, by accentuating the oscillating perception between the physical support (*tableau*) and the phenom-

enal effect (the full-fledged image), it draws attention to itself, seems scarcely applicable to the entire artistic sphere—let alone to the broader aesthetic domain.

4) It is equally untrue that the iconic atmosphere is merely a condition for the possibility of its perception, rather than a perceptual-thematic subject in itself, nor that only the affective resonance arising from the first impression—which, while crucial as a paradigm for subsequent ones—holds true atmospheric value, and not that which emerges from a ‘second’, more cognitively penetrable ‘glance’ (Bockemühl, 2002, p.212).

5) To claim that images are atmospheric when they depict not so much things but rather “the envelope that embraces everything” (Mahayni, 2002, p.62) renders them something rare and, in any case, exclusively artistic—at the expense of the undeniable atmospheric quality of extra-artistic images.

From an atmospheric perspective, it is crucial to note the following: first, images are atmospheric when, by reducing their hermeneutic and semiotic referentiality, they provoke the affective and felt-bodily involvement of a (pathic) ‘me’ that is not yet fully a (cognitive) ‘I’. Being looked at, they, in turn, look back at us (as in many portraits) (Griffero, 2017, pp. 93-99), stirring us as long as we surrender to them pathically, as evidenced negatively by the iconoclastic or even vandalistic tendencies directed towards them. Second, once the transcendental conception—according to which the iconic atmosphere primarily reveals the mode of its own appearing, its “figurality as a process” (Bockemühl, 2002, p.219)—is excluded, we can view atmosphere as the qualitative specificity of an actual iconic appearance.

This need not be artistic, for from this standpoint, the aesthetic experience (in its strict sense) merely ‘trains’ individuals to better engage with atmospheric emotions in controlled conditions (Böhme, 1989; Griffero, 2023a), allowing one to immerse in them while also re-emerging from them (Griffero, 2023b). Yet, it achieves this only

because it intensifies an atmospheric experience already active in ordinary life (Hauskeller, 2002, p.180). Thus, the iconic atmospheric generators to be discussed further are active both in iconic artworks and in everyday images.

GENERATORS OF ICONIC ATMOSPHERES

a) The iconic atmosphere is characterized not by 'beauty', which here is relegated to one among many possible atmospheres (Böhme, 1989, p.159), but by a vagueness that is experienced as a surplus "which exceeds real factuality and yet we feel it with and in it" (Tellenbach, 1968, p.47; see also Luhmann, 1997, p.181). It is a supervenience that appears to thrive through non-objective vividness, rendering objects less 'objects' and attesting to the fact that clarity is not an absolute value, but rather one mode of existence among many others (Minkowski, 1936, ch. XIV). Whether *de dicto* (due to intentionally obscure images or the limitations of the perceiver) or *de re* (images of entities that are inherently indeterminate), this atmospheric vagueness holds the merit of manifesting not 'something as something' (i.e., an individual instance, but entirely framed within a specific genus), but rather a 'chaotic-impressive situation', whose internally diffused significance sparks a unique form of intercorporeal communication."

b) The atmospheric potency of the image intensifies with the remoteness and auratic intangibility of its subject. Through this irreducible, cognitively unanalyzable distance—an affective rather than metrical one—primeval images serve as vehicles for temporal remoteness. This distance, which hinges not so much on the physical proximity of the object as on the mode of observation (as both Klages and later Benjamin suggest), becomes particularly atmospheric when it presents an intangible remoteness, thus rendering visible, in a certain sense, what is irreducibly absent. Whether it is a star shining despite its extinction, the door-

mat of the Guermites, symbolizing for Proust the seemingly unattainable refinement of the faubourg Saint-Germain, or any other such image, this phenomenon echoes Goethe's dictum: *Schön ist alle Nähe fern...*

However, placing too much emphasis on the mnemonic nature of the iconic atmosphere risks overlooking the potential for 'new' atmospheres. If the phenomenal existence of an object depends less on its 'what' than on its immersive, transient qualities, an image becomes atmospheric primarily when it embodies its radical opposition to the realm of fixed and solid things, presenting itself as an actual-active pre-thingly reality. In this context, the 'ratification' of an image, through its objectual focalization, may even operate in a de-atmospheric manner.

c) The images whose objects are ephemeral—that is, those with an “optical presence, despite not being physically tangible” (Schurmann, 2003, p.350), such as the light works of artists like James Turrell or Dan Flavin—are undeniably de-objectualizing. Whether it's a sudden flash or the shadow of an object, the shimmering of asphalt in the heat, or the distant bark of a dog, what fascinates atmospherically is precisely the de-thingly effect of ephemerality: its irreducibility to substantial properties and, consequently, its subversive value in relation to duration. This can manifest in various forms: the constant chromatic perceptual variation over time (as artistically mimicked, for instance, by Monet), the metamorphic cosmic becoming, the fading of all distinctions between figure and background, the pre-dichotomous fusion of subject and object, the “light in things” that is “fundamentally responsible for the impressions it produces on us” (Böhme, 2006, p.103), whether it arises from artistic production or physical-climatic events, the striking ‘moment’ (this tree, in this light, with this sky, and that smoke in the background, etc.) so cherished by Impressionism, and so forth.

To properly appreciate the atmosphere of the ephemeral is to escape the pressure to accept the sensible only when

it conveys an idea (from Plato to Hegel), instead emphasizing the affective and felt-bodily envelope that surrounds and precedes subject and object, without necessarily being an omen, as Benjamin (2008, p.276 ff.) anticipates in photographs that manage to preserve a certain aura.

d) An eminent example of a *de re* iconic atmosphere is that of fog. Whether it is the “foggy clarity,” characteristic of the Mediterranean landscape according to Goethe (Lehmann, 1986, pp.155-156, p.159, p.190), or the dense fog that veils and envelops everything, it radiates, even when generated exclusively within the image (without reproducing the external fog), a sense of unlocalized yet gentle oppression for the viewer—a lack of salience of things that imbues them with a “newly menacing character,” akin to the “total dematerialization of the surrounding world” (Bollnow, 2020, p.244, p.246) also brought about by a snowfall. “Having a foggy mind,” in fact, refers to having a world narrowed and obscured. Wrapped in fog, one feels solitary; every pre-vision becomes impossible, sounds result in threatening, amplified echoes, and a sensation of “floating in empty space” (Bollnow, 2020, p.246) emerges, intrinsically linked to the characteristic, intangible humidity that blends sensory impressions and hidden tonic influences.

Images rendered vague and imprecise by smoke, vapours, and especially fog undeniably acquire a more suggestive atmospheric power, regardless of whether the mood is more negative (anguish) or positive (muffled tranquillity). The vagueness and pervasive greyness produced by fog on colour are quintessential atmospheric generators, perhaps because, stimulating “a perceptual modification that entails an emotional tone of space” (Böhme, 2006, p.67) —so devoid of depth that it creates, for instance, in Japanese landscape painting and the technique of *sfumato*, the effect of a flat wall without objectual salience (Böhme, 2006, pp.71-72)— they most effectively promote the Kantian ‘free play’ of the faculties. Alternatively, because, less traditionally, fog can cause, perhaps aided by backlighting,

“the entirety of what is seen [to be] crossed by light or acquire a unified tone” (Böhme, 2006, p.67). Therefore, images of fog distance the nearby and allow it to re-emerge suddenly, as if from nothing, in its nascent, epiphanic, and even archaic form.

e) It is widely recognized that certain days, and particularly specific moments within them, possess a distinct atmospheric quality: from the unbearable inaugural vividness of dawn to the paralyzing demonic force of midday (both Nietzschean in their intensity), to the myriad colours of the night. The primal and poetic atmosphere of night envelops and disorients us, reifying sound and dissolving the boundaries between perceiver and perceived, leading to a state of diminished motor freedom and a regression to a surfaceless, animistic, prelogical, and extraobjectual spatiality (Merleau-Ponty, 2005, p.330; Schmitz, 1969, p.389 f.; Bollnow, 2020, pp.249-253; Minkowski, 1936, ch. XIV) —a realm where everything becomes terrifyingly possible, yet where, paradoxically, the self discovers its own irreducible identity (Hauskeller, 1995, p.127).

However, while blinding brightness fails to generate atmospheres, so too does the absolute darkness of night. What truly creates atmospheres, especially through images, and perhaps more so in an age of universal illumination, is the light emerging faintly from the dark, or resisting it—a struggle that, both literally and pictorially, carves matter into being. Consider, for example, the (both iconic-pictorial and everyday) motif of the seductively protective candlelight, or the so-called gum print technique employed by early photographers to cultivate a more haptic and kinaesthetic perception. Most notably, however, it is the diminishing light and the felt-bodily tension inherent in twilight that powerfully evokes atmosphere.

Twilight, with its ability to blur contours and generate a vague, overarching impression, proves far more conducive than daylight to evoking various moods. This is why what appears as an ugly ‘sea of houses’ by day transforms into a captivating play of light by evening, particularly when fog

envelops the scene. Indeed, iconic twilight—an indistinctly emotional realm, both felt-bodily and climatic—ultimately resists analysis due to its intermodal and synesthetic nature, as it is “suffered” in a deeply immersive manner. Twilight falls (not metaphorically!) upon everything, an irreducible quasi-thingness that emanates from without, making things less discrete. It dissolves the distinction between identity and difference, a distinction typically upheld by rational thought, while compelling light into an arresting, fragmented residue. The only luminous remnants that survive, heightening the fascination of the scene (and of the night image), are the stars, the lights in the houses, and those objects with their own light—objects that, in the harsh clarity of daylight, lack significance, but now, within the semidarkness, sparkle with an unexpected, magical kinetic independence.

Inhibiting any spatial direction, twilight alienates us from familiar things, reducing them to mere silhouettes, thereby suggesting a necessary dematerializing experience, both of the perceived and the perceiver. Even in its semidarkness, it evokes an impression of numinosity and immemoriality. It also brings forth a vague feeling of sadness, generated by the threatening sense of the futility of things, and, at times (especially when the departure of light alludes to other farewells), real despair. The fact that we are assailed by it as a quasi-thing is also evident from the way in which, just as “the brightness of objects on earth is seen essentially as a property of their own rather than as a result of reflection” (Arnheim, 1974, p.304), their shadowiness is felt not so much as an absence (contrasting the ancient tendency, dating back to Eleaticism, to de-ontologize darkness), but as a positive and felt-bodily active quality—in short, more as an enigmatic emission of darkness than as a mere banal statistical relativization of the bright values of the field of view.

One should not discount the possibility that, with the loss of a thingly orientation, the twilight atmosphere might evoke relatively distinct moods in different subjects. For instance, it

could provoke deep concern or induce mature self-reflection. However, what remains certain is that the force behind these feelings is an intersubjective, quasi-thingly atmosphere, whose felt-bodily resonance—before it is individualized in its emotional variations—presents itself universally as the “horried retreat into the narrowness of one’s felt-body in the face of an extraneous vastness that surrounds us” (Schmitz, 1964, p.157), alongside the intensification of hearing as, following Nietzsche (1979, p.143), the organ of fear.

The twilight atmosphere is, without question, less potent in regions or seasons where the transition from day to night is swift, or in urban environments where the very act of switching on artificial lights subdues its effect. Yet, should it persist, it would undeniably draw the subject back into their “primal and ultimate element: an ominous feeling” (Böhme, 1998, p.32). This feeling is tinged with a quiet nostalgia, one which, curiously, seems increasingly necessary in our time. This is evidenced by the widespread use of dimmers in an age governed by the relentless pace of 24/7 work and the omnipresence of artificial light and, in parallel, from the passion for images in which blurriness, shadowiness, and graininess play the central role. Moreover, in our attempts to craft an intimate atmosphere within our living spaces, we instinctively reject the harshness of natural light, cold fluorescent lighting, and the uniformity of bright lights. Indeed, we actively resist the light whose unforgiving effect—intolerable unless one is engaged in precise, analytical tasks (such as surgery)—renders all objects at an equal, flattened distance from the observer, a stark contrast to the nuanced depth of haziness and twilight.

CONCLUSIONS

All the atmospheric generators explored thus far—whether natural-climatic or artistic-iconic—converge towards the realm of blurriness. This is because an image

appears most atmospheric when it subverts the teleology of clarity embedded in its representational function. According to the neo-phenomenological theory of felt-bodily communication (Schmitz, 2011; Griffero, 2024, pp.129-136), it triggers a felt-bodily resonance that is not antagonistic but mutual if not solidary, where the constriction of perception is encouraged to expand into the vastness of the peri-corporeal space, even in the face of immediate optical and motor inhibition. Through filters that produce colors which obscure the material structure and form of things, or by generating shadowed regions that evoke a *Stimmung* which the image itself could never suggest in isolation, the twilight image —understood in its broadest sense— effaces the objectivity of the world, fully cultivating the indeterminate and the ephemeral.

However, this emphasis on the twilight atmosphere serves merely as the starting point for a broader contemplation on whether and how the image can generate the intermodal atmosphere, one that radiates from an array of sensible yet non-thingly qualities, such as the following:

“dusty, cloudy, humid, smoky, fiery, incandescent, stony, metallic, woody, wet, dry, gaseous, fragmented, soft, heavy—the rustling of leaves in the tree, the roughness of bark, the pulsing sap of the canopy, the fleshy tone of the skin, the character of hair, the rough softness of animal fur, the texture of fabric, the draping folds of garments that now flow, now fold heavily, now wrinkle and stiffen, the woolly, the silky, the brocade, the satin, the carpet, the veil, and so on”. (Klages 1929-1932, p.1128)

These are not merely real qualities; they are atmospheric images in themselves, even before they find expression —whether approximate or not— in proper representations. They precede and transcend the often-exaggerated apologia of the iconic world that our era so frequently champions, pointing to a more profound and expansive realm of sensibility.

NOTES

¹ For Klages (1929–1932, pp.176–177), twilight, which resists reduction to discrete properties as a singular image, is instead the vertiginous interpenetration of elements: the fluttering of a flag in the twilight, the fluttering itself, and the twilight in turn, each implicated in the other in an intricate, coalescing dynamic.

REFERENCES

- Arnheim, R. (1974). *Art and Visual Perception: A Psychology of the Creative Eye*. Berkeley: University of California Press.
- Benjamin, W. (1999). *The Arcades Project* (1982). London: The Belknap Press of Harvard UP.
- Benjamin, W. (2008). *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media* (1936). London: The Belknap Press of Harvard UP.
- Bockemühl, M. (2002). Atmosphären sehen. Ästhetische Wahrnehmung als Praxis. in Mahayni, Z. (Eds), *Neue Ästhetik. Das Atmosphärische und die Kunst* (pp.203-222). München: Fink.
- Böhme, G. (1989). *Für eine ökologische Naturästhetik*. Frankfurt am Main: Suhrkamp.
- Böhme, G. (1995). *Atmosphäre. Essays zur neuen Ästhetik*. Frankfurt am Main: Suhrkamp.
- Böhme, G. (1998). *Anmutungen. Über das Atmosphärische*. Ostfildern v. Stuttgart: edition tertium.
- Böhme, G. (2001). *Asthetik: Vorlesungen über Ästhetik als allgemeine Wahrnehmungslehre*. München: Fink.
- Böhme, G. (2004). *Theorie des Bildes*. München: Fink.
- Böhme, G. (2006). *Architektur und Atmosphäre*. München: Fink.
- Böhme, G. (2010). *Anthropologie in pragmatischer Hinsicht*. Bielefeld-Basel: Sirius.
- Böhme, G. (2017). *Critique of Aesthetic Capitalism*. Milan: Mimesis International.
- Bollnow, O. F. (2020). *Human Space* (1963). Milan: Mimesis International.
- Freedberg, D. (1989). *The Power of Images. Studies in the History and Theory of Response*. Chicago-London: University of Chicago Press.
- Griffero, T. (2003). *Immagini attive. Breve storia dell'immaginazione transitiva*. Firenze: Le Monnier.
- Griffero, T. (2014). *Atmospheres: Aesthetics of emotional spaces* (2010). London-New York: Routledge.
- Griffero, T. (2017). *Quasi-Things. The Paradigm of Atmospheres*. Albany (N.Y.): Suny Press.
- Griffero, T. (2020). *Places, affordances, atmospheres. A pathic aesthetics*. London-New York: Routledge.
- Griffero, T. (2021). *The Atmospheric "We". Moods and Collective Feelings*. Milan: Mimesis International.

- Griffero, T. (2023a). Erfahrung des Atmosphärischen im geschützten Raum. Anmerkungen zu einer neuphänomenologisch-pathischen Ästhetik. In Kluck, S., Puchta, J. (Eds), *Neue Phänomenologie im Widerstreit. Kritische Perspektiven auf Ertrag und Potential* (pp. 289-324). Baden-Baden: Alber Verlag.
- Griffero, T. (2023b). Immersion and (Re)Emersion. Atmospherological Ideas. In Bremer, M., Heinzelmann, M. (Eds), *Eintauchen in die Kunst/ Diving into Art* (pp. 61-72). Bochum: Verlag Für moderne Kunst.
- Griffero, T. (2024a). Urbilder, Abbilder oder gar Phantome? Ludwig Klages und die Atmosphären. In Großheim, M., Smiljanic, D. (Eds), *Ludwig Klages und die Neue Phänomenologie* (pp.179-225). Baden-Baden: Alber Verlag.
- Griffero, T. (2024b). *Being a Lived Body. From a Neo-Phenomenological Point of View*. London-New York: Routledge.
- Hauskeller, M. (1995). *Atmosphären erleben. Philosophische Untersuchungen zur Sinneswahrnehmung*. Berlin: Akademie Verlag.
- Hauskeller, M. (2002). I could go for something Koons. Neue Ästhetik und Kommunikative Kunst. In Mahayni Z. (Eds), *Neue Ästhetik. Das Atmosphärische und die Kunst* (pp.173-182). München: Fink.
- Klages, L. (1929–32). *Der Geist als Widersacher der Seele* (Voll. 3). Leipzig: Barth.
- Lehmann, H. (1986). *Essays zur Physiognomie der Landschaft*. Wiesbaden-Stuttgart: Steiner.
- Luhmann, N. (1995). *Die Kunst der Gesellschaft*. Frankfurt a.M.: Suhrkamp.
- Mahayni, Z. (2002). Atmosphäre als Gegenstand der Kunst. Monets Gemäldegalerie der Kathedrale von Rouen. In Mahayni Z. (Eds), *Neue Ästhetik. Das Atmosphärische und die Kunst* (pp.59-69). München: Fink.
- Marquard, O. (1989). *Aesthetica und Anaesthetica. Philosophische Überlegungen*. Paderborn et al.: Schöningh.
- Merleau-Ponty, M. (2005). *Phenomenology of Perception* (1945). London: Routledge.
- Mersch D. (2002). Was ist ein Bild? Yves Kleins Anthropometrien (1958-61). In Mahayni, Z. (Eds), *Neue Ästhetik. Das Atmosphärische und die Kunst* (pp.35-49). München: Fink.
- Minkowski, E. (1936). *Vers une cosmologie: fragments philosophiques*. Paris: Aubier Montaigne.
- Mitchell, W.J.T. (2005). *What Do Pictures Want? The Lives and Loves of Images*. Chicago-London: University of Chicago Press.
- Nietzsche, F. (1997). *Daybreak. Thoughts on the Prejudices of Morality* (1879-1881). Cambridge: Cambridge University Press.
- Schmitz, H. (1964). *System der Philosophie, Bd. I, Die Gegenwart*. Bonn: Bouvier.
- Schmitz, H. (1969). *System der Philosophie, Bd. III.2, Der Gefühlsraum*. Bonn: Bouvier.
- Schmitz, H. (2003). *Was ist Neue Phänomenologie?* Rostock: Koch.
- Schmitz, H. (2011). *Der Leib*. Berlin-Boston: de Gruyter.
- Schmitz, H. (2019). *New Phenomenology. A Brief Introduction* (2009). Milan: Mimesis International.

- Schürmann, E. (2003). So ist es, wie es uns erscheint. Philosophische Betrachtungen ästhetischer Ereignisse. In Hauskeller, M. (Eds), *Die Kunst der Wahrnehmung. Beiträge zu einer Philosophie der sinnlichen Erkenntnis* (pp. 349-361). Die Graue Edition, Kusterdingen.
- Schulze, G. (1992). *Die Erlebnisgesellschaft: Kultursoziologie der Gegenwart*. Frankfurt am Main: Campus.
- Seel, M. (2005). *Aesthetics of Appearing*. Stanford: Stanford University Press.
- Tellenbach, H. (1968). *Geschmack und Atmosphäre*. Salzburg: Müller.

Article available at

DOI: 10.60923/issn.2724-2463/24025

How to cite

Griffero, T. (2025). If, How, and When an Image Can Be Said to Be Atmospheric. *img journal*, 12, 52-71.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

BULLE CYBERNÉTIQUE. VAPORIZING THE SCENT OF CYBER THREATS

Elena Abbiatici

Albertina Academy of Fine Arts of Turin
elena.abbiatici@gmail.com

ESSAY 170/12

CYBER WARS

ENIGMA CODE

TRADE AND MIGRATION ROUTES

VOLATILITY OF DATA

BACTERIAL POWER

Bulle Cybernétique is an artistic project conceived by Elena Giulia Abbiatici and developed with the professional nose Diletta Tonatto, that explores cybernetic warfare through olfactory language as both an aesthetic and political tool. It explores the use of the olfactory code as an unconventional means of communication capable of circumventing government restrictions and media censorship. Considering essences as a multidimensional medium, olfactory stimuli challenge traditional methods of information transmission,

assuming a crucial role in the processes of encoding and decoding messages. Through an interdisciplinary approach that interweaves art, cybersecurity and geopolitics, the paper analyses three key dimensions of the project: 1) the need for new communicative codes that, involving little-explored senses, overcome transnational barriers and digital surveillance; 2) the relationship between digital attacks and chemical-bacteriological strategies; 3) the impact of submarine network infrastructures on ecosystems.

INTRODUCTION

Contemporary wars are fought on multiple fronts, redefining the very concept of conflict and power. Cyberspace has become a strategic battleground, characterised by targeted attacks on critical infrastructures, information control and national security. In parallel, the manipulation of the environment through chemicals and biological agents remains a real threat, capable of altering living conditions and exerting invisible but pervasive forms of social control. Against this backdrop, *Bulle Cybernétique* introduces an innovative paradigm that explores olfactory language as a tool for transmitting and decoding information, transforming cyber-war data into an interpretable essence and raising questions about the materiality of the global network and its physical infrastructure.

Air, a ubiquitous and indispensable medium, is now at the centre of a complex web of ecological, political and technological issues. The concept of *atmoterrorism* (Sloterdijk, 2009)- i.e. the pervasiveness of particulate matter, nitrogen oxides, carbon monoxide and other suspended pollutants - reflects an insidious form of environmental and health aggression that affects human life in a deceptive and constant manner. As Peter Sloterdijk suggests, the beginning of the modern era can be traced back to the use of tear gas and blister agents during the First World War –including chlorine, phosgene, and mustard gas– followed by Zyklon B in the Nazi concentration camps, the deployment of sarin and chlorine gas in Syria during the 2010s, and more recently the growing concerns around genetic manipulation and the potential production of advanced biological weapons. These examples demonstrate how the biochemical dimension of warfare remains an unresolved and ever-present field of tension: suffice it to recall that as early as 1763, during the war for control of North America, the British army distributed blankets contaminated with smallpox to the Ottawa people, employing them as a bacteriological weapon.

Bulle Cybernétique thus proposes a critical reflection on the gaseous dimension of power. The sense of smell and breath, understood as measurable and manipulable biochemical data, are in fact part of the dynamics of bio-surveillance, delineating new forms of interaction between body, technology and environment. The recent Covid-19 pandemic has made the centrality of air and breath in global crisis dynamics even more evident, prompting a critical reassessment of the relationship between bioattacks, biopolitics and sensory perception. The enemy is no longer only physical, but increasingly aerial.

In this context, the project questions the role of olfactory design not only in the purification and conditioning of air –factors that contribute to environmental and economic inequalities– but also in its capitalisation and potential use as a tool of power and control. The attempt to decode the invisible is a topic that is particularly close to the most current reality: the invisible is found between the lines of information, in memory databases, in biometric controls, and manifests itself in a virus, encrypted information, a biometric parameter or an act of cyber warfare.

CONCEPT OVERVIEW

Bulle Cybernétique (BC) is the first gesture of a speculative research that embodies the perturbing aspects of technology, unveiling underground and invisible facts through a mysterious, seductive, aerial, and ephemeral essence. Specifically, *Bulle Cybernétique* is a scented essence designed as an *enigma code*, a cipher code, to hypothetically communicate and decrypt successful, foiled, or still fearsome cyber attacks and reflect cyberwarfare through the aromatic volatility of data. The submarine wired network –dominated by content providers, social media and private companies– shape the current *Undersea Continuous Monument* by Superstudio (fig. 1): one of the most influential and polluted places in the world.



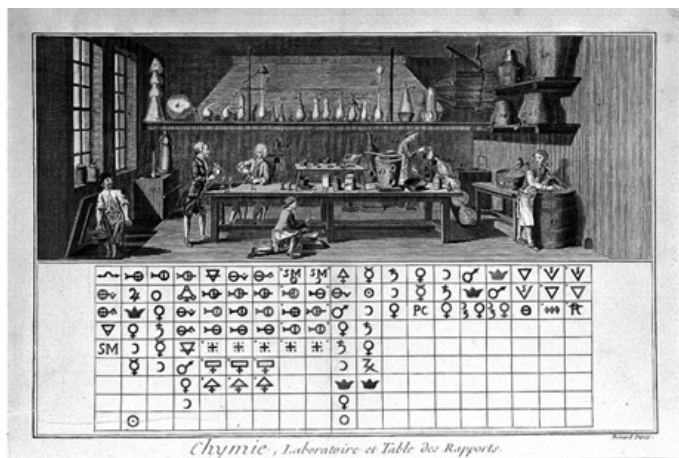
Fig. 1 On the left: Superstudio, The Continuous Monument, 1970; on the right: Subsea cables traversing the Red Sea seabed (Source Middle East Eye).

Bulle Cybernétique is a luxury product potentially able, as a marketable product, to avoid state confinement measures and information control, while containing encrypted data. Unlike people crossing sea and land, flow of data and capital in movement are not interrupted. *Bulle Cybernétique* is thus a hypothetical artistic form of secret communication that, by engaging with the transnationality of air, reveals the potential bio-chemical threats constantly present in the atmosphere, which indeed remains largely unconfined.

Practically, the scent formula has been developed by analyzing World Cyber Crime Index and three major cyber incursions involving countries and large companies. Each type of attack, as well as the States or companies involved, is associated with specific olfactory notes based on precise associative criteria, which the code has been instructed with. The code is designed to inform the essences with salient components of cyber offensives (offending or affected countries, type of threats, impacts, risks), in order to translate them into a geopolitical and eco-systemic chronicle.

The development of a code that can facilitate the creation and decoding has been conceived in collaboration with Diletta Tonatto –a fine nose and sociologist of olfaction, and founder of Tonatto Profumi, one of the most prestigious Italian perfume houses– and with the Cybersecurity Expert, Eng. Eridia Bozzetti. The focus has been placed on essences of a bacterial nature in order to dwell

Fig. 2 Laboratory and Table of Affinities. Engraving from *Recueil des planches sur les sciences, les arts libéraux, et les arts mécaniques*, vol. 2, Paris, 1768 (entry “Chimie”), illustrating an 18th-century chemical laboratory and an affinity table. Public domain.



on the ambivalence reserved for the microcosm of viruses and bacteria (fig. 2). In an era where spaces tend to be increasingly sterilized and devoid of character, the intention is to exorcise the anesthetization of environments, creating fragrances capable of redefining sensory and cultural codes of smell, challenging the social construction of the concepts of ‘good’ and ‘bad’ odors. The use of bacteria fermentation in the production of essences offers several advantages: sustainability –avoiding deforestation and the intensive exploitation of plants; olfactory consistency– the essences obtained through fermentation are more stable and free from the typical variations of natural extracts; innovation –it allows for the creation of new molecules or the enhancement of existing ones, expanding the olfactory palette for perfumers. Therefore, the fragrance would be decrypted either through the fine experience of professional noses and analytical chemists by using a technique called *headspace analysis* in combination with *gas chromatography*, to determine the chemical components of the essences formula and read the ‘encrypted message’ they carry. Headspace analysis plays a crucial role in identifying volatile compounds in the gaseous part of the fragrance. Gas chromatography facilitates the separation and analysis of these components, enabling a precise formulation of the essence.

Bulle Cybernétique seeks to embody the unsettling nature of technology –both geopolitically and environmentally– while rethinking the relationship between digital and bio-chemical codes, transforming it into a multidimensional tool for understanding digital threats. As Arthur C. Clarke famously stated.

METHODOLOGY BEHIND THE OLFATORY CODE

Mapping the global geography of cybercrime

The study adopted an interdisciplinary approach, integrating both quantitative and qualitative analyses of cyber threats, with a sensory translation of the data through olfactory design.

To situate the research within existing knowledge, a first step was the examination of global mappings of cybercriminal activities. This included consulting geopolitical publications and cybersecurity treaties, as well as real-time cyber-attack maps. Two key references guided this phase: the *World Cybercrime Index* (Bruce et al., 2024), which identifies the principal actors and countries most active in cybercrime, and the *ENISA Threat Landscape 2023*, the annual report of the European Union Agency for Cybersecurity (figg. 3-5). Together, these sources provide both a geopolitical overview and a typological classification of threats. The ENISA report, in particular, outlines the most relevant forms of attack (Ransomware, Malware, Social Engineering, Data Breaches, Denial of Service, Web Threats, Supply Chain Attacks, and Foreign Information Manipulation and Interference) while also assessing their impacts across economic, military, social, reputational, physical, political, and environmental domains.

Building on these mappings, the research isolated the 97 countries most involved in cybercriminal activities, either as perpetrators or as targets. From this dataset, the project developed its own methodological

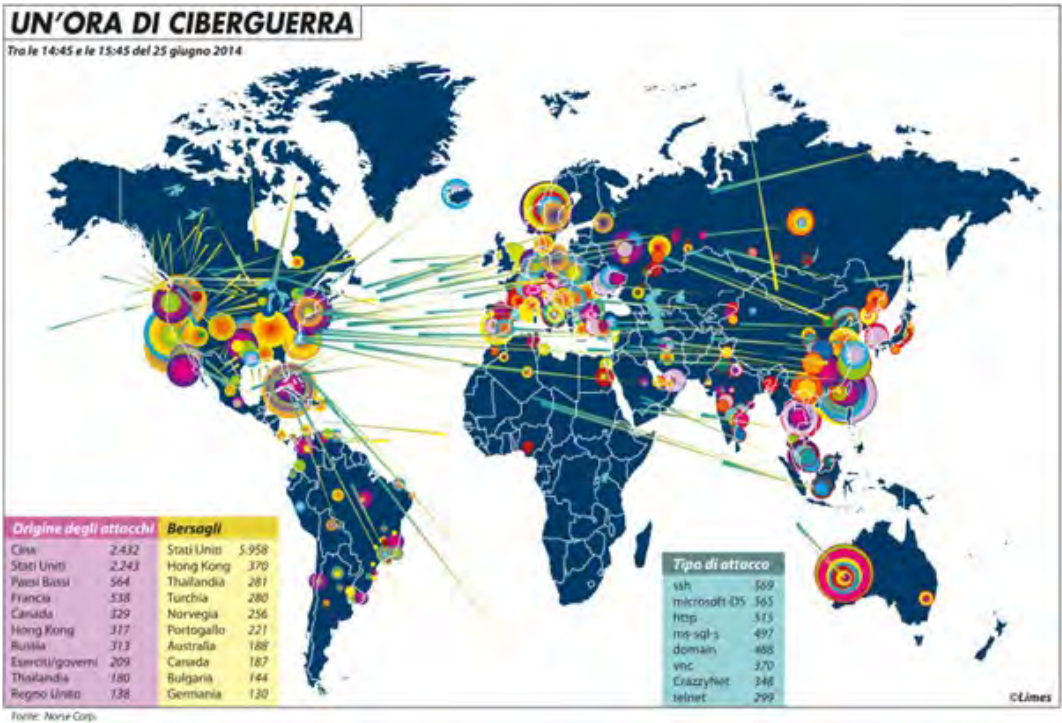


Fig. 3 Map designed by Laura Canali for Limes, Italian geopolitical magazine. (It should be understood as an evocative reference, rather than a direct source of data).

contribution: a sensory translation of threat typologies and their impacts through olfactory design. In this way, the study does not simply replicate existing cartographies but extends them into an embodied, experiential dimension that reveals the often intangible nature of digital offensives.

Three emblematic case studies of cyber attacks were selected on the basis of their geopolitical relevance, technological sophistication and multiple impacts: the Stuxnet malware, the NotPetya ransomware and the Office of Personnel Management (OPM) data breach. Each type of attack was analysed in terms of actors involved, risk vectors and strategic consequences. This information was then associated with specific olfactory notes through the writing of a code, so as to create a correlation between the characteristics of the attack and the selected essences. The resulting olfactory code

Rank	Country	I	P	TS	WCI Score	Tech	Attacks	Data	Scams	Cash
1	Russia	8.96	8.81	8.73	38.39	82.17	81.34	65.18	21.70	41.56
2	Ukraine	8.37	8.29	8.24	36.44	52.97	50.76	36.01	11.20	31.27
3	China	8.22	7.70	7.81	27.86	40.22	24.24	34.89	15.83	24.13
4	United States	7.99	7.21	7.21	25.01	27.64	17.68	30.36	22.72	26.63
5	Nigeria	8.25	6.49	5.80	21.28	7.93	8.41	23.04	52.17	14.86
6	Romania	7.12	7.04	7.15	14.83	17.83	9.17	22.50	13.15	11.49
7	North Korea	7.91	7.23	7.38	10.61	8.66	25.33	13.01	2.17	3.88
8	United Kingdom	7.86	7.21	6.75	9.01	5.04	4.75	5.80	7.86	21.63
9	Brazil	6.90	6.35	6.32	8.93	13.70	8.77	10.29	7.28	4.64
10	India	7.90	6.60	6.65	6.13	4.46	3.62	6.81	12.75	3.01
11	Iran	6.88	6.45	6.64	4.78	8.62	10.00	3.59	0.94	0.72
12	Belarus	6.84	7.20	7.32	3.87	11.92	5.58	1.85	--	--
13	Ghana	8.57	6.83	6.09	3.58	1.23	0.76	2.97	10.36	2.57
14	South Africa	6.95	5.35	5.50	2.58	1.20	0.65	0.58	7.17	3.30
15	Moldova	7.38	7.19	7.56	2.57	6.70	0.98	2.43	0.83	1.88

I = Impact; P = Professionalism; TS = Technical skill, Technical = Technical products/services, Attacks = Attacks and extortion, Data = Data/identity theft, Cash = Cashing out and money laundering. I, P, and TS are scored out of 10. 'WCI Score', and all columns following, are scored out of 100. Each country's top score across all cybercrime types is shaded in grey.

Fig. 4 From: Bruce, M., Lusthaus, J., Kashyap, R., Phair, N., & Varese, F. (2024). *Mapping the global geography of cybercrime with the World Cybercrime Index*. PLOS ONE, 19(4), e0297312. <https://doi.org/10.1371/journal.pone.0297312>

was then tested and validated by means of professional noses and headspace analysis in combination with gas chromatography techniques, which made it possible to isolate and identify the volatile compounds responsible for the final scent.

Diagram

The olfactory triangle used to map cyber warfare follows the structure of traditional perfumery pyramids (fig. 6), where top notes represent the most volatile and immediately perceptible elements, heart notes emerge gradually over time, and base notes linger the longest, leaving a lasting impression.

In this model, the first elements to surface are the targeted countries (X) and the nature of the risk (W), both embodied in the top notes. The affected nations are represented by fresh, herbaceous essences, while the risk level is conveyed through balsamic notes, distinguished by two intensities: basil for medium risk and eucalyptus for high risk.

Next, the heart notes unveil the type of cyber intrusion (Y1) and its impact (Y2). The different forms of cyber threats are distinguished through subtle floral hints: eight flower essences representing eight attack categories (Ransomware, Malware, Social engineering, Data breach, DDos atmoterrorism –Denial of Service, Web Threats, Supply Chain Attacks,

This table represents the list of olfactory notes associated to countries involved in cyber attacks as attacker or attacked

LIST OF COUNTRIES
(1-49)

LIST OF COUNTRIES
(50-97)

Table S1. World Cybercrime Index - Overall

X	Rank	Name	Country	I	P	TS	Overall	WCI Score	Z
Location	1	USA	United States	6.06	4.51	5.11	5.24	56.14	0.42
	2	UK	United Kingdom	6.17	4.29	5.11	4.46	36.14	0.41
	3	FR	France	6.22	7.79	7.81	7.81	27.88	0.40
	4	DE	Germany	5.99	7.21	7.21	7.47	26.91	0.39
	5	IT	Italy	6.15	6.49	5.89	6.45	25.28	0.38
	6	RU	Russia	5.12	7.96	7.51	7.26	14.41	0.37
	7	JP	Japan	7.21	7.25	7.28	7.21	10.61	0.36
	8	IN	India	7.86	7.21	6.71	7.27	9.81	0.35
	9	BR	Brazil	6.96	6.51	6.52	6.52	9.01	0.34
	10	ES	Spain	6.64	7.29	7.22	7.22	8.47	0.33
Other	11	SE	Sweden	6.09	6.41	6.61	6.68	4.75	0.32
	12	NO	Norway	6.04	6.29	6.51	6.43	4.11	0.31
	13	CH	Switzerland	6.07	6.51	6.59	7.51	3.58	0.30
	14	DK	Denmark	6.05	6.29	6.59	6.59	2.59	0.29
	15	FI	Finland	7.26	7.19	7.19	7.19	2.07	0.28
	16	IL	Israel	6.10	6.21	6.27	6.21	1.87	0.27
	17	PL	Poland	6.46	7.29	7.11	7.41	2.02	0.26
	18	CA	Canada	6.49	7.14	7.14	7.41	1.17	0.25
	19	US	United States	5.71	7.25	7.68	7.38	1.92	0.24
	20	IE	Ireland	6.174	7.19	7.19	7.19	1.68	0.23
Other	21	LA	Laos	7.09	6.51	7.01	7.09	1.67	0.22
	22	VN	Vietnam	7.09	6.51	6.51	6.11	1.59	0.21
	23	TH	Thailand	6.46	7.09	7.19	7.19	1.58	0.20
	24	PH	Philippines	7.09	6.79	6.89	7.19	1.51	0.19
	25	SG	Singapore	6.49	7.09	7.71	7.71	1.24	0.18
	26	MY	Malaysia	6.13	6.19	6.19	6.19	1.11	0.17
	27	PT	Portugal	6.17	6.19	6.27	6.19	1.14	0.16
	28	TR	Turkey	6.10	6.29	6.49	6.49	1.12	0.15
	29	PR	Puerto Rico	6.49	6.49	6.49	6.49	1.11	0.14
	30	AE	United Arab Emirates	6.49	6.49	6.49	6.49	1.11	0.13
Other	31	SA	Saudi Arabia	6.49	6.49	6.49	6.49	1.11	0.12
	32	GB	Great Britain	7.43	6.57	5.71	6.57	1.09	0.11
	33	AE	UAE	7.11	6.11	6.11	6.49	0.98	0.10
	34	AR	Argentina	6.10	5.19	4.99	5.49	0.96	0.09
	35	RU	Russia	7.49	7.49	7.49	7.49	0.96	0.08
	36	SE	Sweden	7.49	7.49	7.49	7.49	0.96	0.07
	37	CA	Canada	6.10	6.49	6.49	6.49	0.96	0.06
	38	US	United States	7.10	6.49	6.49	6.49	0.96	0.05
	39	FR	France	6.10	6.49	6.49	6.49	0.96	0.04
	40	DE	Germany	6.10	6.49	6.49	6.49	0.96	0.03
Other	41	IT	Italy	6.10	6.49	6.49	6.49	0.96	0.02
	42	ES	Spain	6.10	6.49	6.49	6.49	0.96	0.01
	43	PT	Portugal	6.10	6.49	6.49	6.49	0.96	0.00
	44	GR	Greece	6.10	6.49	6.49	6.49	0.96	0.00
	45	TR	Turkey	6.10	6.49	6.49	6.49	0.96	0.00
	46	IN	India	6.10	6.49	6.49	6.49	0.96	0.00
	47	JP	Japan	6.10	6.49	6.49	6.49	0.96	0.00
	48	US	United States	6.10	6.49	6.49	6.49	0.96	0.00
	49	CA	Canada	6.10	6.49	6.49	6.49	0.96	0.00

50	SE	Sweden	7.23	6.67	6.27	6.78	0.44
51	SE	Sweden	6.49	6.23	2.99	6.11	0.42
52	SE	Sweden	6.29	6.29	6.29	6.29	0.41
53	SE	Sweden	6.49	6.49	6.49	6.49	0.40
54	SE	Sweden	6.47	6.47	6.47	6.47	0.39
55	SE	Sweden	6.11	6.11	6.11	6.11	0.38
56	SE	Sweden	6.11	6.11	6.11	6.11	0.37
57	SE	Sweden	6.11	6.11	6.11	6.11	0.36
58	SE	Sweden	6.11	6.11	6.11	6.11	0.35
59	SE	Sweden	6.11	6.11	6.11	6.11	0.34
60	SE	Sweden	6.11	6.11	6.11	6.11	0.33
61	SE	Sweden	6.11	6.11	6.11	6.11	0.32
62	SE	Sweden	6.11	6.11	6.11	6.11	0.31
63	SE	Sweden	6.11	6.11	6.11	6.11	0.30
64	SE	Sweden	6.11	6.11	6.11	6.11	0.29
65	SE	Sweden	6.11	6.11	6.11	6.11	0.28
66	SE	Sweden	6.11	6.11	6.11	6.11	0.27
67	SE	Sweden	6.11	6.11	6.11	6.11	0.26
68	SE	Sweden	6.11	6.11	6.11	6.11	0.25
69	SE	Sweden	6.11	6.11	6.11	6.11	0.24
70	SE	Sweden	6.11	6.11	6.11	6.11	0.23
71	SE	Sweden	6.11	6.11	6.11	6.11	0.22
72	SE	Sweden	6.11	6.11	6.11	6.11	0.21
73	SE	Sweden	6.11	6.11	6.11	6.11	0.20
74	SE	Sweden	6.11	6.11	6.11	6.11	0.19
75	SE	Sweden	6.11	6.11	6.11	6.11	0.18
76	SE	Sweden	6.11	6.11	6.11	6.11	0.17
77	SE	Sweden	6.11	6.11	6.11	6.11	0.16
78	SE	Sweden	6.11	6.11	6.11	6.11	0.15
79	SE	Sweden	6.11	6.11	6.11	6.11	0.14
80	SE	Sweden	6.11	6.11	6.11	6.11	0.13
81	SE	Sweden	6.11	6.11	6.11	6.11	0.12
82	SE	Sweden	6.11	6.11	6.11	6.11	0.11
83	SE	Sweden	6.11	6.11	6.11	6.11	0.10
84	SE	Sweden	6.11	6.11	6.11	6.11	0.09
85	SE	Sweden	6.11	6.11	6.11	6.11	0.08
86	SE	Sweden	6.11	6.11	6.11	6.11	0.07
87	SE	Sweden	6.11	6.11	6.11	6.11	0.06
88	SE	Sweden	6.11	6.11	6.11	6.11	0.05
89	SE	Sweden	6.11	6.11	6.11	6.11	0.04
90	SE	Sweden	6.11	6.11	6.11	6.11	0.03
91	SE	Sweden	6.11	6.11	6.11	6.11	0.02
92	SE	Sweden	6.11	6.11	6.11	6.11	0.01
93	SE	Sweden	6.11	6.11	6.11	6.11	0.00
94	SE	Sweden	6.11	6.11	6.11	6.11	0.00
95	SE	Sweden	6.11	6.11	6.11	6.11	0.00
96	SE	Sweden	6.11	6.11	6.11	6.11	0.00
97	SE	Sweden	6.11	6.11	6.11	6.11	0.00

* <https://doi.org/10.1371/journal.pone.0297312>

Fig. 5 Full indices for the World Cybercrime Index Overall and each WCI Type. <https://doi.org/10.1371/journal.pone.0297312>

FIMI– Foreign Information Manipulation and Interference). The consequences of the intrusion, on the other hand, are conveyed through fruity notes symbolizing its economic, military, social, reputational, physical, political, or environmental ramifications.

Finally, the base notes, the last to fade yet the most enduring, correspond to the identity of the attackers (Z), expressed through woody, musky, and amber essences, embodying the origins of the cybercriminal act. The distinctiveness of each resulting fragrance mirrors the uniqueness of digital signatures.

THREE EXEMPLARY ATTACKS

Stuxnet: the cyber attack that shook the nuclear infrastructure

The Stuxnet attack (2010) is considered one of the most sophisticated and innovative cyberattacks in history. It has been widely attributed to a collaboration between the

This diagram represents the code message used by the cyberattacker countries to send secret information

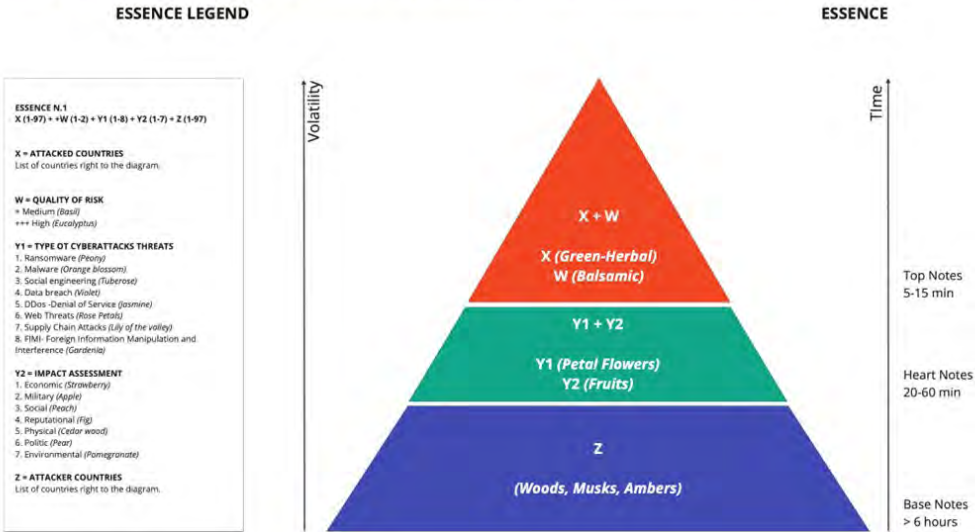


Fig. 6 Diagram illustrating an olfactory coding scheme used to encode the components of a cyber attack. The figure combines an essence legend with a structured olfactory pyramid (top, heart, and base notes), mapping geopolitical actors to scent-based attributes, risk level, threat types and impact categories. The pyramid maps top notes (target country and risk level), heart notes (attack types and impact categories), and base notes (attacker country), illustrating the temporal persistence and qualitative attributes of the encoded elements.

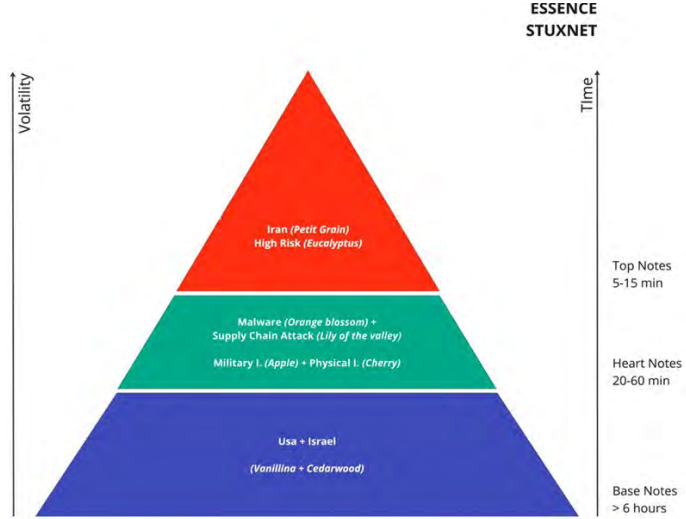
United States and Israel, although neither country has ever officially confirmed the operation. Designed specifically to target physical infrastructure, Stuxnet aimed to disrupt Iran's nuclear development, particularly the uranium enrichment facility in Natanz.

This malware-based attack spread via infected USB flash drives that, once inserted into the Supervisory Control and Data Acquisition (SCADA) system, exploited vulnerabilities in Siemens software, which controlled the centrifuges. The malware sabotaged the machines by manipulating their rotational speed, causing malfunctions and, ultimately, their destruction.

The impact of Stuxnet was primarily military, with direct physical repercussions on Iran's nuclear program. By deliberately slowing down Iran's nuclear capabilities, the attack reduced the country's ability to produce weapons-grade nuclear material. Stuxnet was not just a cyberattack—it caused real-world damage, leading to centrifuge failures through covert digital interference.

In the olfactory code, Stuxnet would manifest as an initial petit grain essence, followed by balsamic eucalyptus notes (representing the high level of risk). The heart of the

Fig. 7 Olfactory encoding of the Stuxnet cyberattack represented through a three-tier pyramid of top, heart, and base notes.



fragrance would feature orange blossom and lily of the valley (signifying the malware and supply chain attack), while apple and cherry notes symbolize its military impact and disruption of physical infrastructure. The attacking nations are represented by persistent base notes of Cedarwood (Israel) and Vanillin (USA) –olfactory markers that remain perceptible over time, mirroring the lasting geopolitical implications of the attack.

NotPetya: The Ransomware That Paralyzed the Global Economy

NotPetya, which struck on June 27, 2017, is considered one of the most devastating cyberattacks in history and is primarily classified as a ransomware attack. Although similar to Petya ransomware –which encrypts victims’ data and demands a ransom for decryption– NotPetya’s true purpose was far more destructive: to irreversibly wipe data, making recovery impossible even if the ransom was paid. The malware exploited EternalBlue, a Microsoft vulnerability originally developed by the National Security Agency (NSA) and later leaked by a hacker group known as Shadow Brokers. By leveraging a flaw in Windows systems, NotPetya enabled remote code execution

Fig. 8 Olfactory encoding of the NotPetya cyberattack represented through a three-tier pyramid of top, heart, and base notes.



without user interaction, allowing it to spread rapidly across corporate networks and infect interconnected systems.

The attack is widely attributed to a hacker group allegedly affiliated with the Russian government, though Russia has denied any involvement. Many experts, however, point to Ukraine as the primary target. In Ukraine, NotPetya crippled much of the country's digital infrastructure, affecting government agencies, banks, airports, public offices, and energy networks. Countries such as Germany, France, the United Kingdom, and other European nations reported significant disruptions. Among the hardest-hit multinational corporations were: Merck (U.S.), a leading pharmaceutical company; Maersk (Denmark), a global shipping and logistics giant; FedEx (U.S.), a major international transport company. The economic impact was catastrophic, with global losses estimated between \$10 and \$12 billion.

In the olfactory code, NotPetya's primary target, Ukraine, is represented by initial lavender notes, complemented by eucalyptus, which signifies the high-risk level of the attack. The heart of the fragrance is defined by peony essence, associated with ransomware, and orange blossom, symbolizing malware. These are enriched with fruity accents

of strawberry and pear, reflecting the attack's economic and political repercussions. As in forensic investigations, the presumed attacker –Russia– emerges only in the base notes, represented by amber, embodying its persistent and underlying influence on the event.

OPM Data Breach: The Cyberattack That Shook the United States

One of the most significant attacks in terms of national security was the Office of Personnel Management (OPM) Data Breach, which occurred in 2015. Hackers infiltrated OPM databases, stealing extremely sensitive data on approximately 21.5 million U.S. federal employees, including background check records, personal information (names, addresses, Social Security numbers), and even fingerprints. The attack was attributed to groups linked to the Chinese government and had severe consequences, putting U.S. national security and intelligence operations at risk. The data breach caused major reputational and political damage, seriously undermining the credibility of the U.S. government and raising concerns about its ability to safeguard sensitive employee data. The incident escalated tensions between the United States and China, fueling diplomatic and cybersecurity conflicts. Beyond its political ramifications, the attack had an inevitable social impact. The personal data of approximately 22 million people was exposed, leaving them vulnerable to identity theft, blackmail, and other forms of manipulation –a particularly alarming risk for those working in high-security government positions.

In the olfactory code, the attack initially emerges with a fresh green note of cut grass (USA), followed by basil, signifying, all things considered, a moderate risk level.

The heart of the fragrance is characterized by violet, representing the data breach typology, accompanied by fig, pear, and peach notes, which respectively symbolize the reputational, political, and social impact of the attack.

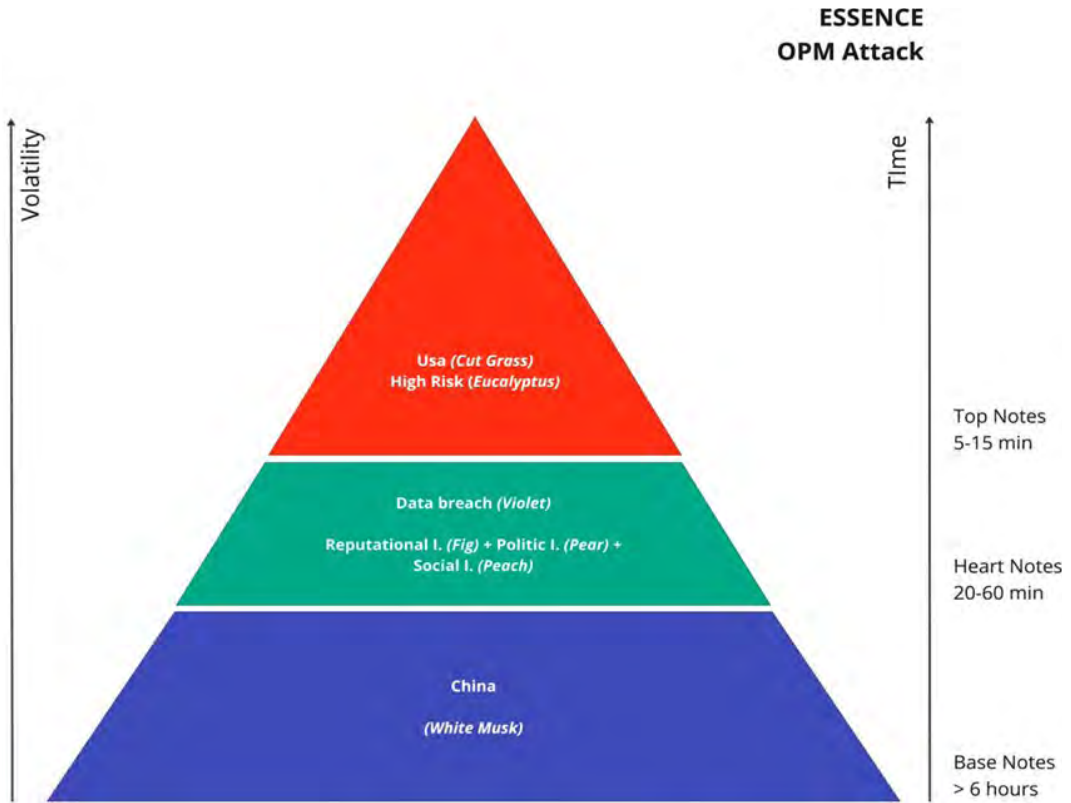


Fig. 9 Olfactory encoding of the OPM Attack represented through a three-tier pyramid of top, heart, and base notes.

Bulle Cybernétique is designed to train the nose, evoke emotions, and provoke thought, reflecting the complex interplay between digital language and the evocative power of scent. More than just a product, it is an immersive aesthetic experience that explores odours as a means of encryption and secret communication. While certain attacks and impacts are associated with specific essences (figg. 7-9), this translation is not intended as a simplistic one-to-one mapping. Rather, it is a deliberate strategy to render the code legible, opening the way for more nuanced interpretations in which fragrance becomes a layered medium—at once aesthetic, sensory, and political.

Research Framework and Key Themes

Olfactory data offers a unique form of communication,

often overlooked by conventional methods. While information can be blocked or censored, airborne substances such as scents are difficult to filter out, creating a paradox that BC explores. Despite the volatility to which both scent essences and digital data are subjected, scents can bypass censorship and governmental restrictions, communicating silently yet powerfully and providing a nuanced form of dissent.

This research seeks to rethink the transterritorial nature of geographical boundaries by examining how an essence vaporizes and carries its molecular compounds through the air, sparking a reflection on the political potential embedded in the atmosphere's metabolism. The study is driven by several key objectives, including rethinking the relationship between bio-chemical and digital codes and analyzing the environmental and financial consequences of data extraction.

THE IMPACT OF THE SUBMARINE CABLE NETWORK ON THE MARITIME ECOSYSTEM

The concept of the *continuous monument*, introduced in the 1960s by the avant-garde architecture and design collective Superstudio, can today be reinterpreted within the marine subsoil through the vast network of submarine Internet cables. This underwater infrastructure establishes an invisible grid that interconnects the world, though not without enacting a profound technological intrusion into the oceans. The Internet, in this sense, inhabits the seas, circulates through them, and facilitates the exchange between peoples and nations. It assumes the qualities of seawater—blue in color, infused with a phytoplankton-like scent, and imbued with a saline taste. Approximately 95% of global Internet traffic is transmitted via submarine cables, a system that is both indispensable and inherently fragile (Sherman, 2021).

The first public initiative of *Bulle Cybernetiqué* took place

in Malta during the symposium *Figure it Out: The Art of Living through System Failures* (September 18–20, 2024, Malta Society of Arts, Valletta). This project, co-funded by the European Union's Creative Europe program, investigates strategies of *sub-surveillance* in relation to technology and climate, with the aim of countering systemic exclusions frequently resulting from necessity or restricted access to essential services.

By situating its presentation in Malta, *Bulle Cybernétique* positioned itself at the very center of the Mediterranean—a region traversed by a dense network of submarine cables that connect Europe, Africa, and Asia. According to the European Institute of the Mediterranean (IEMED), up to 95% of trans-regional communication relies on these infrastructures. Such figures underscore the strategic centrality of the Mediterranean and its submarine routes in sustaining global connectivity.

However, the rapid expansion of this submarine infrastructure has profound environmental consequences. Cables laid along the ocean floor can damage fragile marine habitats, disrupt ecosystems, and interfere with the navigation and migration of marine species. Yet the impact is not confined to the sea. The digital infrastructure as a whole—submarine cables, data centers, and satellite networks—also has a measurable cost in the atmosphere. The extraction of rare earth minerals needed for the production and maintenance of these systems entails deforestation, air pollution, and greenhouse gas emissions, linking the seabed directly to the quality of the air we breathe.

The environmental cost of connectivity continues with the circulation and storage of data in the so-called “cloud,” whose physical manifestation requires vast energy resources. Data centers alone consume nearly 1% of the world's electricity and are responsible for approximately 0.6% of global CO₂ emissions, a figure projected to grow with ongoing digitalization (IEA, 2023). Every click, stream, or transfer of information thus generates an atmospheric trace, reminding us that immaterial flows are sustained by highly material, carbon-intensive infrastructures.

This convergence of marine disruption and atmospheric pollution raises urgent ethical and ecological questions: to what extent can the relentless pursuit of global connectivity justify the transformation of both oceans and skies? In an accelerating cycle of technological dependence, the submarine cable network becomes a material expression of what Max Weber termed the 'iron cage'—an economic and technological system advancing inexorably, driven by invisible data flows yet producing visible ecological costs.

CONCLUSION

Subjectively variable, immersive, spatially dissipated, olfactory spaces allow us to challenge the concept of *form*, shaped by an oculocentric perspective, and to look at the political and ecological sublimation of *matter* and its transcendence.

Bulle Cybernétique proves a lens to open up an ecological and digital problem, and allows us, through artistic research, to investigate the transnational condition of the atmosphere and its bio-political and aesthetic permeability on living organisms.

Besides being an olfactory experiment, *Bulle Cybernétique* is a critical reflection on the dematerialisation of conflict in the digital age, on the invisible infrastructures that sustain technological power, and on the transformation of the air into a sensory archive of data. Through the fading of the scent, the work invites the audience to question what remains after a cyberattack: traces that are imperceptible, but have concrete effects.

At the time of *atmoterrorism*, the nose fully regains its ancestral function as guardian and custodian.

REFERENCES

Sherman, J. (2021). *Cyber defense across the ocean floor: The geopolitics of submarine cable security*. Atlantic Council. <https://www.atlanticcouncil.org>

org/in-depth-research-reports/report/cyber-defense-across-the-ocean-floor-the-geopolitics-of-submarine-cable-security/
Sloterdijk, P. (2009). *Terror from the Air* (A. Patton & S. Corcoran, Trans.). Los Angeles: Semiotext(e) / MIT Press. (Original work published 2002 as *Luftbeben*, Frankfurt: Suhrkamp). ISBN 978-1-58435-072-9

ADDITIONAL READINGS

- Bruce, M., Lusthaus, J., Kashyap, R., Phair, N., & Varese, F. (2024, April 10). *Mapping the global geography of cybercrime with the World Cybercrime Index*.
ENISA - European Union Agency for Cybersecurity. (2023, October). *Threat landscape 2023*.
International Energy Agency. (2023). *Data centres and data transmission networks* https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks?utm_source=chatgpt.com
IEMed. (2023). *The Mediterranean subsea: Protecting a super data highway*. European Institute of the Mediterranean. <https://www.iemed.org/publication/the-mediterranean-subsea-protecting-a-super-data-highway/>

Article available at

DOI: 10.60923/issn.2724-2463/21508

How to cite

Abbiatici E. (2025). BULLE CYBERNÉTIQUE. Vaporizing The Scent of Cyber Threats. *img journal*, 12, XXX-XXX.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

STAGED INTIMACY. THE ATMOSPHERIC LOGIC OF CARLO MOLLINO'S BEDROOM FOR A FARMHOUSE IN A RICE FIELD

Marco Addona

Sapienza Università di Roma

Department of Architecture and Design

marco.addona@uniroma1.it

ESSAY 171/12

CARLO MOLLINO

ATMOSPHERE

INTERIOR ARCHITECTURE

SPATIAL PERCEPTION

ARCHITECTURAL DRAWING

The concept of atmosphere extends beyond its physical definition as a «gaseous envelope surrounding the Earth», encompassing a broader sensory and emotional dimension. Drawing on the work of Gernot Böhme, Tonino Griffero and Peter Zumthor, this article explores how architecture, through spatial composition and material choices, functions as a medium for generating specific atmospheres. Carlo Mollino's interior design serves as a compelling case study, particularly his Bedroom for a Farmhouse in a Rice Field (1943), conceived for "Domus". This project

exemplifies how Mollino integrated layers of materials, colors, and spatial elements to create an immersive, protective environment. Through archival analysis and a qualitative approach, this study investigates the interplay between materiality, perception, and enclosure, highlighting Mollino's commitment to designing spaces that are not only evocative but also feasible. The article contributes to the discourse on atmosphere in architectural interiors, demonstrating how Mollino's design strategies transform space into a sensory and narrative experience.

INTRODUCTION

The concept of atmosphere has gradually assumed an increasingly significant role within contemporary architectural discourse, revealing a distinctive capacity to connect perception, technique, and imagination. While the term originally refers to the «gaseous envelope surrounding the Earth», its etymology –from the Greek *atmòs*, meaning “exhalation, vapor, breath, air”– already suggests an immaterial dimension, composed of sensory conditions rather than tangible matter. Like breath, atmosphere eludes direct tactile and visual comprehension, manifesting instead through subtle variations of light, thermal modulations, and impressions that precede language and address the perceptive body directly. It is through this conceptual shift that atmosphere can be understood as a quality of space offered to the senses.

Since the mid-1990s, authors such as Juhani Pallasmaa, Alberto Pérez-Gómez, and Harry Francis Mallgrave have reinterpreted the question of spatial experience by reaffirming the centrality of perception, often through a renewed engagement with the work of Merleau-Ponty. More recently, these and other scholars have introduced the notion of atmosphere more explicitly into architectural debate, following the writings of the German philosopher Gernot Böhme, who established a direct connection between atmosphere and architecture (2006; 2010). Böhme identifies atmospheres as the “primary object of perception” (Böhme, 2010, p. 81), that is, what a subject senses immediately upon entering a space, prior to any process of cognitive interpretation.

Similarly, in Tonino Griffiero's study (2010), atmosphere is described as a collection of immaterial feelings: “There is a conviction that atmosphere, at least in its prototypical sense, is not so much in the eye of the beholder as it is a relatively objective (and intersubjective) experience encountered in external space” (Griffiero, 2010, p. 150). It emerges from the interplay between the objectivity of a place and the subjectivity

of those who inhabit it. “To enter a place means to step into a different (atmospheric) world” (Griffero, 2010, p. 86).

In the same way, Peter Zumthor defines atmosphere as an immediate and intuitive experience, shaped by specific elements that enhance spatial perception: materials, light, and proportions. “Materials react with one another and have their radiance, so that their composition gives rise to something unique” (Zumthor, 2006, p. 25). His theories suggest that spatial composition –and architecture itself– functions as a *medium* capable of evoking precise sensations, perceptions, and emotions typically associated with the concept of atmosphere.

Although this theoretical constellation is, in many respects, relatively recent, it enables a retrospective reading of Carlo Mollino’s work, and, in particular, of the notion of *ambientazione* (setting), which appears frequently in his projects. In Mollino’s vocabulary, the *ambientazione* does not correspond to the domestic interior nor to a simple scenographic arrangement, but rather to a form of inhabitable *mise-en-scène* –a device in which materials, surfaces, furnishings, and light converge to construct a sensible world. It is in this perspective that certain reflections on the term *environment*, developed from the 1960s onward, become relevant as a counterpoint.

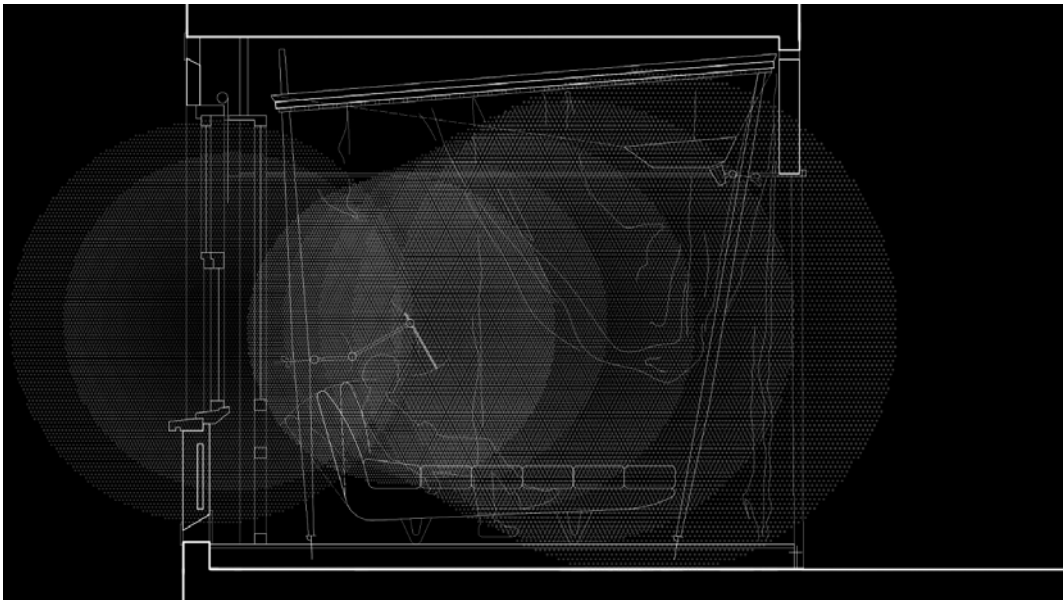
In *La speranza progettuale* Tomás Maldonado (1970) redefines the environment as a complex system of material, technological, and perceptual conditions capable of shaping human experience. Maldonado conceives the human environment as a fragile structure, the outcome of interactions between ecological, behavioural, and informational processes, and calls for a form of design able to assume responsibility for these interdependencies. If the notion of atmosphere allows one to grasp the sensible quality of space, the idea of environment reminds that such quality is always the result of multiple factors –material, technical, and social– that converge in a single place.

Within the broader debate on design understood as a complex system, Mollino’s *ambientazioni* reveal a remarkably

early attention to that interplay of material, technical, and perceptual conditions that Maldonado would later identify as the foundation of the human environment. It is precisely at this intersection that Mollino's work can be situated: his *ambientazioni* are spaces in which functional devices, symbolic elements, and perceptual conditions are woven together in an integrated manner, anticipating a way of thinking about space as a unified field.

One particularly insightful example is his *Bedroom for a Farmhouse in a Rice Field*, designed for "Domus" as part of the *The House and the Ideal* series in 1943. This bedroom is conceived not merely as a place for rest but as a protective shell that gradually guides its occupant from sleep to wakefulness—a liminal space mediating between the dream world and reality. Analyzing this project not only deepens the understanding of the relationship between inhabitable space and atmosphere but also highlights how such environments can be tangibly realized. Mollino placed great importance on the viability of his ideas, consistently striving to translate his most intimate and dreamlike visions into spaces that could be constructed

Fig. 1 *Inhabitable Atmospheres*, 2025, digital drawing, author's elaboration. Section of the *Camera da letto per una cascina in risaia*, illustrating the sense of enclosure and intimacy. The image makes visible the spatial and atmospheric stratification, emphasizing the layered construction that defines the protective nature of the space.



and inhabited. Conceived as a self-contained retreat within a rural context, the bedroom presents a compact and meticulously choreographed interior: a rotated plan that generates two lateral alcoves, a central bed partially enclosed by layers of drapery and mosquito nets, padded walls that soften the perimeter, and a concealed access from an adjoining gallery. The space unfolds as a sequence of thresholds—fabric, upholstery, mirrored surfaces—through which the occupant moves from exposure to increasing degrees of protection. Although modest in scale, the room is articulated through a surprising complexity of devices, whose interaction forms the basis for the atmospheric reading developed in the following sections.

MAPPING THE INTERIOR: DRAWINGS AS ATMOSPHERIC TOOLS

As an unrealized work conceived solely for publication, the analysis of the *Bedroom for a Farmhouse in a Rice Field* is necessarily grounded in its surviving documentary traces. The primary sources include the archival materials preserved at the Politecnico di Torino (figs. 5, 6), the article published in *Domus*, and the staged photographs accompanying the same publication (fig. 4). These are complemented by a broader reading of Mollino's theoretical and design writings, which provide an essential framework for contextualising the project within his architectural imagination.

The analytical methodology adopted here is qualitative and reconstructive, relying on the multilayered integration of diverse sources. Their heterogeneity—technical drawings, interpretative sketches, staged photographs published in *Domus*, and the accompanying text written by Mollino himself—makes it possible to read the project from multiple and complementary perspectives. The approach is philological insofar as it interrogates the available documentation, yet it becomes phenomenological when it seeks to identify the sensible conditions that emerge from the project: materials, light, geometries,

chromatic and tactile surfaces, and the array of spatial devices. Bringing these elements into a single system does not aim to reconstruct an existing atmosphere—an impossible task for an unbuilt work—but rather to identify the atmospheric potentials inscribed within the project's internal logic.

Within this framework, the interpretative drawing proposed (fig. 1) should not be understood as a philological reconstruction but as a critical tool for exploring the sensory density of the space. The aim was to render the spatial impression experienced by the imagined inhabitant, giving 'thickness' to the perception of being inside the room while simultaneously being projected outward through the spatial devices conceived by the designer. Following Federico De Matteis's reflections (2019), architectural drawing is structurally unable to represent the transient, immaterial, and atmospheric components of space, as it is conceived to measure stable objects and configurations. For this reason, the interpretative graphic elaboration becomes a crucial tool for probing those sensory qualities and perceptual relationships that escape technical representation, revealing tonalities and nuances that orthographic drawings cannot express.

To clarify the interpretative process underlying the atmospheric reading of the bedroom, the analysis builds upon two complementary graphic devices: the analytical plan and the stratified sectional sequence.

The plan (fig. 3) isolates and numbers the architectural and material components of the room—padded enclosure, textile membranes, dressing alcoves and concealed access from the gallery—clarifying the project's operative structure independently of its perceptual effects. This preliminary step establishes the spatial framework within which Mollino's design unfolds, showing how the room functions as a constellation of devices rather than as a homogeneous interior. It also reveals the oblique geometry of the composition, a fundamental aspect that cannot be grasped from the elevation alone and that conditions the distribution of perceptual densities within the space.

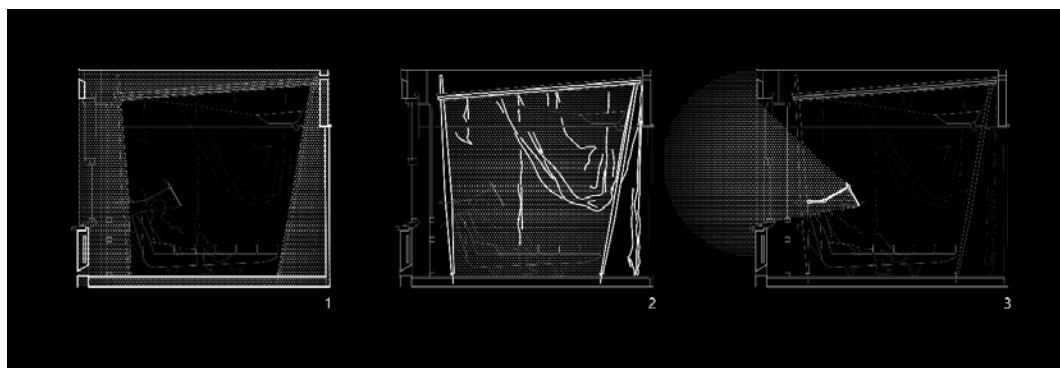
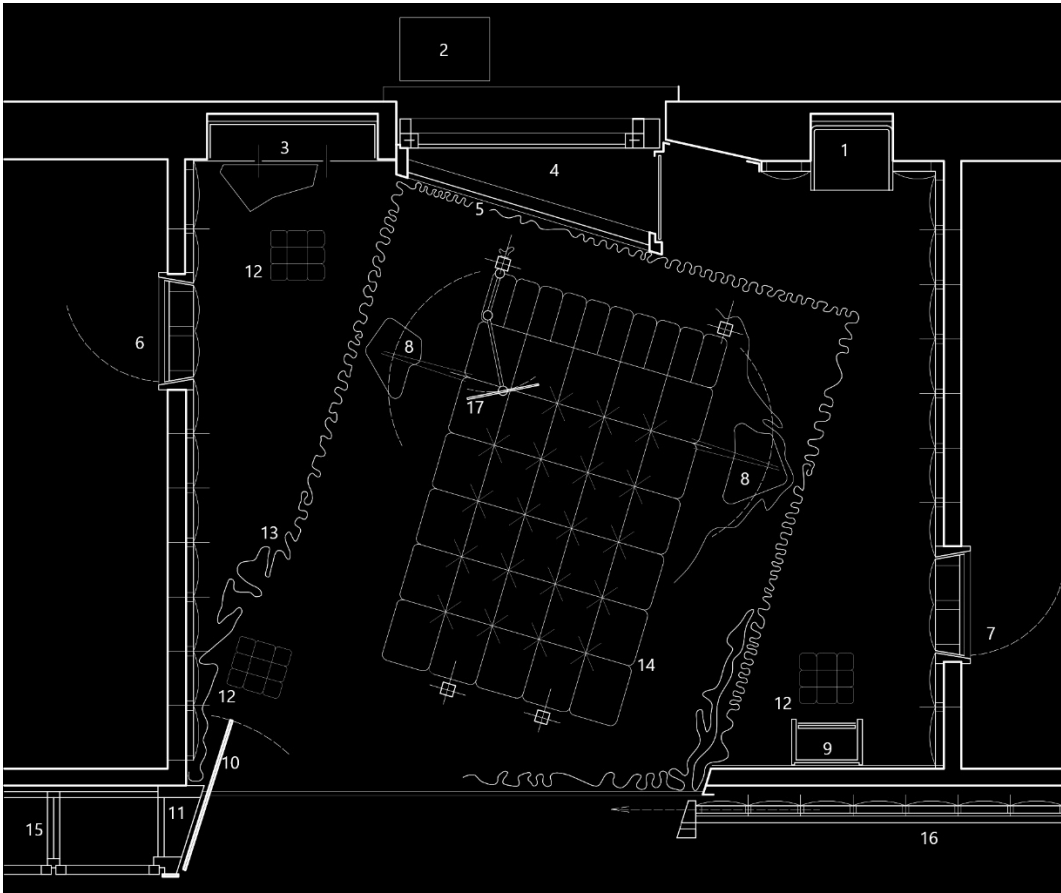


Fig. 2 *Atmospheric stratification* sequence, 2025, digital drawing, author's elaboration. Primary enclosure (1): the padded perimeter wall defines the first layer of spatial protection, establishing the room as a soft, acoustically insulated shell. Filtering membranes (2): system of draperies and mosquito nets introduces a second atmospheric layer, thickening the perceptual density of the space through graduated opacity and textile stratification. Perceptual device and outward projection (3): the adjustable mirror above the bed acts as a directional device, redirecting vision and modulating the room's relation to the exterior. The diagram visualizes the emergence of a perceptual field that anticipates the atmospheric gradient developed in the final elaboration.

Building on this spatial foundation, the three-step sectional sequence (fig. 2) reconstructs the progressive emergence of the room's atmospheric conditions. Each drawing isolates one of the layers that contribute to the modulation of perception: the padded shell as primary enclosure; the system of draperies and mosquito nets as filters that thicken and soften the interior; and the adjustable mirror as a directional device that reorients the inhabitant's gaze and subtly reconnects the enclosed space with its exterior surroundings. Far from being independent additions, these elements operate cumulatively, producing a gradual intensification and differentiation of the sensory field.

The final atmospheric elaboration (fig. 1), which visualises a gradient of perceptual intensity through concentric, fading spheres, should therefore be understood not as an autonomous interpretative gesture but as the synthetic outcome of this analytical process. The gradient renders visible the 'field of presence' generated by the interplay of enclosure, filtering, and projection, giving graphic form to an atmospheric thickness that cannot be represented by technical drawings alone. In this way, the combined use of plan, sectional stratification, and phenomenological diagram establishes a methodological continuum that grounds the atmospheric reading in the project's own spatial and material logic, while simultaneously revealing the sensory potential embedded in Mollino's design. These tools provide the analytical foundation for the reading of the project developed in the following section.



MATERIAL LAYERS AND ATMOSPHERIC EFFECTS

A close reading of the floor plan and of the textual notes published in *Domus* reveals a spatial composition designed to produce a gradual modulation of perceptual intensity. The rotated geometry of the room creates a subtle displacement of the inhabitant's orientation: the two lateral recesses generated by the bed's alignment act as pockets of retreat, guiding movement and perception along an oblique axis rather than a frontal one. This slight torsion already introduces a differentiated atmospheric field, in which the centre of the room is never fully static.

Fig. 3 Plan of the *Camera da letto per una cascina in risaia*, 2025, digital drawing, author's elaboration. The plan reveals the rotated geometry of the space and the articulated system of devices that structure the room: the padded enclosure, the suspended draperies supported by metal rods and the mosquito nets surrounding the bed, the dressing alcoves, the concealed access from the gallery. The diagram clarifies the spatial logic behind Mollino's composition, showing how the room operates as a sequence of thresholds and micro-enclosures that prepare the conditions for the atmospheric field analysed in the drawings. 1. Food warmer and icebox; 2. Weather station on the windowsill; 3. Psyche mirror on the wall; 4. Air-chamber ventilation window frame; 5. Curtain; 6-7. Access to the respective bathrooms; 8. Glass shelves on movable brackets; 9. Cabinet set into the mirrored wall; 10. Hinged mirror; 11. Coat closet; 12. Stools; 13. Mosquito net; 14. Bed; 15. Wardrobes; 16. Sliding door; 17. Adjustable mirror above the bed.

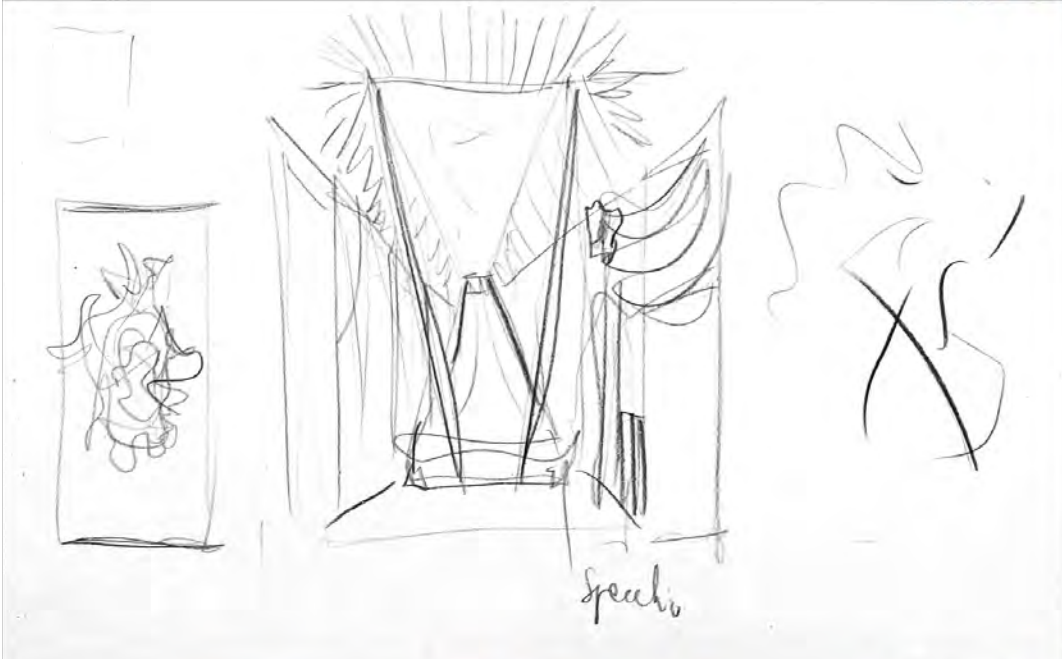
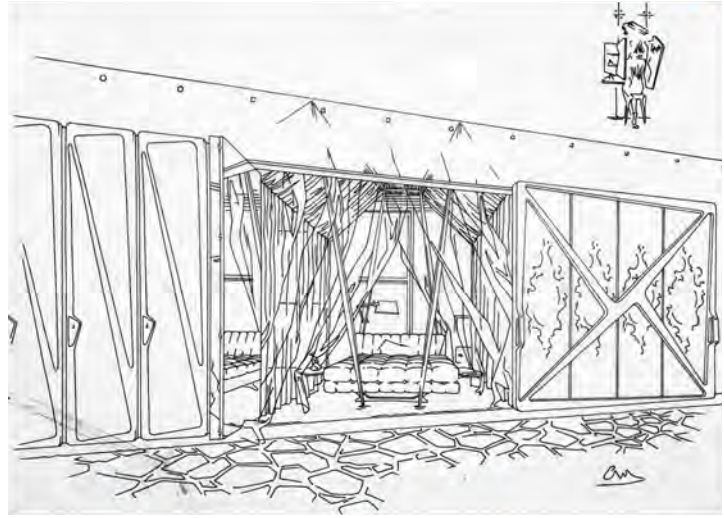
The upholstered perimeter establishes the room's first atmospheric register. Its padded surface softens acoustics, absorbs light, and compresses visual depth, producing an enveloping condition in which the boundaries of the space appear thickened rather than sharply defined. This material shell does not simply enclose the room; it lowers contrast and prepares the perceptual ground upon which the subsequent layers act. Toward the centre, the layered draperies introduce a second modulation. Their overlapping opacity slows the transmission of light and colour, generating a suspended, almost nocturnal quality. The drapes do not divide the space but rather *densify* it, creating a sense of progression from peripheral enclosure to an increasingly intimate core. Their textile thickness operates as a perceptual filter, softening perceptual contrasts and deepening the gradient initiated by the padded walls.

The mosquito nets surrounding the bed form a more diaphanous threshold, delicate yet decisive. Functionally modest, they nonetheless produce a micro-environment within the room: a barely perceptible veil that blurs the boundary between body and space. The bed becomes an atmospheric nucleus—an interior within the interior—where the sensory field is at its most concentrated. The sliding door that disappears into the decorative scheme of the gallery reinforces the sense of seclusion by removing any visual trace of entry. Its vanishing mechanism heightens the transition between circulation and stillness, contributing to the room's calibration of thresholds and atmospheric shifts.

Finally, the adjustable mirror above the bed introduces a controlled opening toward the exterior. Rather than breaking enclosure, it refracts it, producing a mediated relation with the outside world. Through this device, the transition from sleep to wakefulness is staged as a gentle reorientation: the inhabitant remains enveloped while simultaneously perceiving a displaced fragment of the landscape beyond.

Taken together, these devices construct a space in which atmosphere is not an aftereffect but an operative principle.

STAGED INTIMACY. THE ATMOSPHERIC LOGIC OF CARLO MOLLINO'S BEDROOM FOR A FARMHOUSE IN A RICE FIELD



Figs. 4-6 Three different representations of the *Bedroom for a Farmhouse in a Rice Field*—the staged photograph published in *Domus*, the technical drawing, and the preparatory sketch—all depict the same viewpoint through distinct visual registers. Considered together, they reveal the layered spatial and material construction that defines the room's atmospheric character: the system of draperies, the lightweight structural frame supporting the canopy, the padded bed as the protected nucleus of the space, and the sequence of thresholds that mediate access and perception. The coexistence of photographic documentation, precise architectural drawing, and interpretative sketch makes it possible to approach the sensory experience imagined by Mollino, rendering visible the immersive quality and intimate enclosure that the project sought to evoke.

Each layer—acoustic, textile, diaphanous, reflective—acts upon perception, gradually intensifying the room's interiority. The bedroom emerges as a finely tuned field of sensory conditions, whose cumulative effects prepare the interpretative reading developed in the discussion.

FROM MATERIAL TO IMMATERIAL: THE INTERIOR AS A PERCEPTUAL DEVICE

Ultimately, the spatial composition of this bedroom demonstrates how materials and their arrangement contribute to creating an environment that evokes intimacy and protection, recalling the imagery of a nest, a cave, or the maternal womb. Additionally, the drapery, supported by metal brackets, introduces another archetypal reference: the tent, one of the most ancient forms of human shelter. The layering of these elements defines a deeply enclosed atmosphere, where materiality and sculptural spatiality play a fundamental role. The atmospheric reconstruction presented earlier thus finds its justification in the spatial logic itself, which unfolds as a sequence of perceptual thresholds rather than a static configuration.

While Mollino never explicitly stated an intention to create a specific atmosphere, his design approach suggests a strong narrative dimension—an aspect that consistently emerges in his interior work. His spaces share affinities with theatrical scenography, constructing settings that transport inhabitants into an alternate dimension, detached from the ordinary domestic environment. In this sense, the *Bedroom for a Farmhouse in a Rice Field* is a particularly revealing example of his ability to orchestrate materials and spatial geometries to generate an immersive experience.

A key takeaway from this analysis is Mollino's attention to the feasibility of his designs. Although this work was conceived for publication and never built, the precision of the drawings, the detailed descriptions, and the careful articulation of space suggest that Mollino envisioned the room as something that

could be physically realized. The photographic installation created for *Domus* further supports this idea –it was not a mere conceptual exercise but a meticulously crafted *mise-en-scène* designed to faithfully convey the spatial effect of the project.

While this study does not claim to be exhaustive, it opens the way for further exploration into the role of atmosphere in interior architecture and the strategies through which Mollino constructs complex, sensory-driven spatial experiences.

CONSTRUCTING OTHER WORLDS: ATMOSPHERE AND NARRATIVE IN MOLLINO

In this sense, the atmospheric reconstruction developed here can be positioned within a broader understanding of Mollino's architectural imagination. In the 1950 interview *Tutto è permesso sempre salva la fantasia* (*Everything is permitted, as long as imagination endures*), the architect describes his work as the activity of someone who moves “in a world closely related to utopia” (Mollino, 1950, p. 20), where the constraints of function, convention, or expectation momentarily dissolve to allow the emergence of other worlds. The architect, he suggests, is not merely a technician of forms but a “demiurge” (Mollino, 1950, p. 20), capable of shaping conditions in which life and space are jointly reinvented.

Seen from this perspective, the atmospheric field visualised in the final drawing does not merely describe a perceptual effect: it echoes the deeper logic of Mollino's practice, in which the interior becomes a medium for constructing an alternative reality – an inhabitable fiction that precedes and exceeds the built object. The *Bedroom for a Farmhouse in a Rice Field* (Mollino, 1943) thus appears not only as a carefully orchestrated composition of materials and devices, but as the threshold to a different existential dimension, where the environment is shaped to suspend, intensify, or reconfigure the experience of dwelling.

By engaging with the project through analytical drawings, sectional sequences, and atmospheric mapping, this study

attempts to approach that “other world” not as a metaphor but as an operative principle. Mollino’s architecture invites one to consider the interior as a site where perception becomes design material and where the act of imagining space is inseparable from the act of inhabiting it. In this sense, the atmospheric potentials identified here do not represent a departure from his thought, but a continuation of it: a way of recognising how his *ambientazioni* construct worlds that are at once tangible and imaginary, technical and poetic – worlds in which architecture becomes, as he believed, a form of life-making.

REFERENCES

- Böhme, G. (2006). *Architektur und Atmosphäre*. Monaco, DE: Wilhelm Fink Verlag.
- Böhme, G. (2010). *Atmosfera, estasi, messe in scena. L'estetica come teoria generale della percezione*. Milano, IT: Christian Marinotti Edizioni.
- De Matteis, F. (2019). *Vita nello spazio. Sull'esperienza affettiva dell'architettura*. Milano, IT: Mimesi Edizioni.
- Griffero, T. (2010). *Atmosferologia: Estetica degli spazi emozionali*. Milano, IT: Mimesi Edizioni.
- Maldonado, T. (1970). *La speranza progettuale. Ambiente e società*. Torino, IT: Einaudi.
- C. Mollino, 1943, Camera da letto per una cascina in risaia. *Domus*, 181, pp. 12-16.
- Mollino, C. (1950). Tutto è permesso sempre salva la fantasia, intervista a un architetto. *Domus* n. 245, april, pp. 2-11.
- Zumthor, P. (2006). *Atmospheres: Architectural Environments. Surrounding Objects*. Berlin, DE: Birkhäuser.

ADDITIONAL READINGS

- Mollino, C. (1944). Disegno di una casa sull'altura. *Stile* n. 40, pp. 20-27.
- Pignatelli, P. C. (1982). Spazio e immaginario. *Maschile e femminile in architettura*. Rome, IT: Officina Edizioni

Article available at

DOI: 10.60923/issn.2724-2463/21438

How to cite

Addona, M. (2025). Staged Intimacy. The Atmospheric Logic of Carlo Mollino's Bedroom for a Farmhouse in a Rice Field. *img journal*, 12, pp. 92-105.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

WEATHERSCAPING: AN ATLAS OF BITS, ATOMS AND CLOUDS

Letizia Artioli

Università Iuav di Venezia

Department of Project Cultures

lartioli@iuav.it

HYBRID
ELEMENTAL MEDIA
DATA ATMOSPHERES
WEATHERSCAPING
COMPLEXITY

This essay navigates the intersection of artistic research and elemental media, adopting the epistemology of "Weatherscapes" as a basis for exploring the parallels in the terminology of uncertainty, transparency, and control shared by data and meteorology. It reflects on the shifts in scale from digital bits to atoms in processes of ontology, employing metaphors such as clouds and turbulence to interrogate the epistemological dimensions of digital knowledge. Weatherscaping emerges as an epistemological and speculative framework for process-

ing the experiential nature of fragmented knowledge that defines human terrestrial existence living on a planet enveloped by its atmosphere. Between Bits and Atoms, the Atlas is an investigation of the relationship between human beings, data and weather, weaving together the individual with the global, questioning the jump of scales and the invisible layers that intrinsically entangle us with the surrounding matter(s) in time of layered crisis. The scope is introducing Weatherscaping Epistemology: a shift from being in the weather to be a weather being.

WEATHERSCAPING

(Verb).

The process of entangling the human identity within a broader system, by freeing

Identity/Society boundaries aesthetically and practically designing them as the behaviours and emergences of atmospheric phenomena (such as clouds, fogs, flows, ebbs, waves, storms).

This could imply echoing within the awareness of a belonging to a complex adaptive system that transcends the sole human being (ego-tistical) scale in favour of an eco-systemic one. The shift from being in the weather to be a weather being.

Epistemologically embodying and embedding transparency, uncertainty and fluidity.

As a practice, Weatherscaping is a practical act of de-territorialization, a way of putting back into the initial conditions of turbulence matters such as: volumes and voids of the urban (buildings and public spaces), bodies (as citizens and specimens), ideas and dreams.

Example.

“Do you remember what the weather in your dreams was?”

Shifts to

“Do you remember which weather you are in your dreams?”

WHAT HAPPENS UNDER THE ATMOSPHERE: HUMANS AS INHABITANTS OF THE AIR AND DATA ASSEMBLAGE

Atmosphere:

*A: the gaseous envelope of a celestial body
(such as a planet)*

B: the whole mass of air surrounding the earth

C: a surrounding influence or environment (Cambridge Dictionary, 2025)

Weather:

Weather is defined as the state of the atmosphere at a given time and place, with respect to variables such as temperature, moisture, wind speed and direction, and barometric pressure. The atmosphere is responsible for weather patterns and climate. Without it, there would be no clouds, rain, wind, or any other weather phenomena. (Cambridge Dictionary, 2025)

We move through air, yet we cross invisible layers: of particulate matter, of lost (yet noble) gases, of data. The atmosphere is the boundaryless medium in which these constant feedback loops take place, at the crossover of bits and atoms (Ishii, 1992).

“Humans have become increasingly datafied with the use of digital technologies that generate information with and about their bodies and everyday lives. The onto-epistemological dimensions of human–data assemblages and their relationship to bodies and selves have yet to be thoroughly theorised.” (Lupton, 2018).

This offers an opportunity of speculation, a crossover of elemental media (Furuhata, 2012) for human-data assemblages.

Data and atmospheric phenomena share fundamental common terminology around the concepts of transparency, uncertainty and control. Nevertheless, these terms can deeply share different meanings and open up a debate around the implications between the superposition of the two domains in building new paradigms for our identity. An in-tangible part of our identity is coded (and de-coded) into data, transforming us into “human-data assemblages” (Lupton, *ibid.*). This particulate knowledge is stored into Cloud systems. In 1807, Alexander von Humboldt’s representation of Chimborazo Volcanoes became the precursor to any technology that now allows us to see through the solid matter. (Figure 1). Its “X-Ray” vision of Chimborazo resonates with the data we could see if we imagine the Cloud System of our personal data flowing above our heads, across the in-visible matter.

CLOUD(Y) KNOWLEDGE

As intrusive thoughts slip through consciousness, above us drifts a fragmented stratum of our digital selves: traces of identity dispersed across networks, suspended in the air like an ethereal digital cumulonimbus. Our movements through the city are entangled with these intangible emissions; we continually generate, feed, and circulate data (Floridi, 2009) that expands this invisible Weatherscape. The stream of information we scroll each day are stored in “Clouds”, invisible agglomerates floating above our heads, where our identities, stocked and stored in a series of binomial bits (0 and 1).

Just as clouds coalesce, drift, and dissipate in the atmosphere, one is left to ask: where do the ephemeral traces of our digital lives accumulate? These are virtual meteorological formations, digital clouds: constructed landscapes composed of archived memories, residual data, and traces of what once existed materially but now persists in immaterial form (Floridi, 2015). Control increasingly permeates these formations: we geoengineer meteorological clouds and amplify the capacity of digital ones, extending surveillance and storage far beyond the visible.

In this paradigm, identity becomes a datafied entity—encoded, stored, and modulated as part of a human-data assemblage (Lupton, 2018). The cloud no longer signifies lightness or freedom, but becomes a dense and energivore (Montserrat, 2022) repository of subjectivity, stripped of the fluidity that characterizes atmospheric vapors. This shift raises fundamental questions concerning what it entails to be human in a hyperconnected era (Floridi, 2015), and whether our identities might now be understood as cloud-beings embedded within a changeling gaseous Weatherscape. Our digital presences (Goriunova, 2019) are condensed into invisible binary structures suspended overhead, shaping and shadowing our lived experience. These atmospheric archives,

composed of particulate knowledge, recast us as cloud-beings, entangled formations in a constantly modulating system of memory, control, identity. Does this particulate knowledge make us human-cloud assemblages?

Luke Howard, referred to as “The Godfather of Clouds”, the “Namer of the clouds”, and the “Father of Meteorology”, spent the majority of his life dedicated to trying to define and classify the changeling gaseous matter flying above his head and his house in London.

His definition of Cirrus, made in 1802 is the following:

“Parallel, flexuous, or diverging fibres, extensible in any or all directions” (Howard, 1802)

The particulate knowledge (Bits and Atoms) that constitutes our floating identity, makes it very cloudy. The experienceability of atmospheric knowledge is rather a luminous force that disrupts our homogenized, flattened representation of space. While data generate abstraction, they simultaneously restore an identity that moves fluidly within the cloud of experienceable atoms. Experienceable atmospheres, as connotated by Y. Furuhashi (2019) as which obfuscates “obvious” visibility yet also makes visible and revealing qualities such as temperature, humidity, and wind, making the physical environment more “sensible and tangible”.

These opaque zones create dense glitches and blurred boundaries in our society of transparency (Han, 2015). No horizon visible, just a white intangible filter between us and the world.

“Gazing into the sky during the day, it’s tough to get a handle on what’s happening up there. Our atmosphere seems tantalizingly close and yet mysteriously distant. The life-sustaining air we breathe envelops our planet like a pale-blue security blanket, clinging to us by the force of gravity. We see birds, planes, an ever-changing patchwork of clouds and, in some places, air pollution. Farther out, our Moon glows down on us and a blazing Sun hangs in the sky. From our Earth-bound perspective, it’s hard to tell where our atmosphere ends and space begins.” (Buis, 2019)

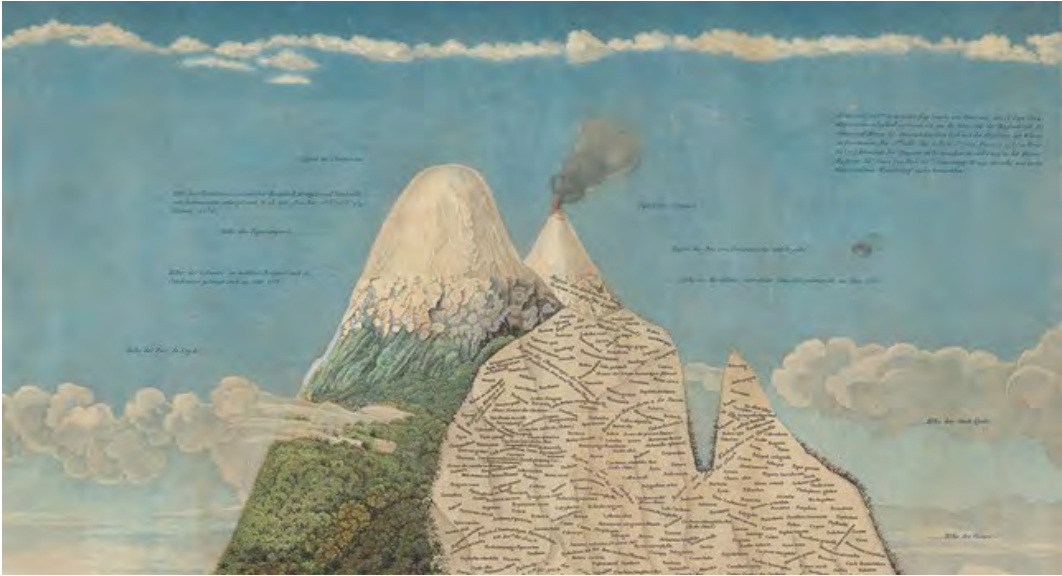


Fig. 1 Alexander von Humboldt, *Tableau Physique Cross-section of the Chimborazo* (1807), published in: German History Intersections, Zentralbibliothek Zürich.

The atmosphere under (and in) we live below is boundariless (NASA,2019). We are a turbulence in this matrix of data. We compose space, and at the same time we avoid thinking of our “state”(Shaw,1964) as a necessity. Casualty and necessity. At the same time, we live in interesting and hybrid times (Kluitenberg,2006) where technology collects, amplifies, and senses the invisible layers that escape our perception (Haskell,2024).

Could we dissolve identity boundaries and create new systemic structures, more compatible with the interconnectivity that runs between the individual and the earthly scale?

A WEATHERSCAPING EXERCISE: CLOUD SWIMMING

An exercise of Weatherscaping.

An observation session on the gaseous state of matter. Conditions: 3pm, February Afternoon. Light Blue Sky, Clouds in flashes. Length of the exercise: 3 hours with up-and-downs of attention span, pauses for the eyes to

rest and to write down the observed variations.

The sky passes above us, while we are closed in boxes that block our view, and suddenly the windows seem like the only way out.

Of some soft masses, I don't understand if they are made up of greyer parts or are their shadows.

The shadow of the clouds.

Gradually, all levels of the sky are distinguished. We flatten reality into infinite scrolling on a flat screen, but the sky has infinite depth.

The endlessly frayed edges of the clouds no longer appear white after a while. The clouds move very fast.

Something deep and very high at the same time. Without warning, the drawings of an imperceptible and unexpected rain appear on the ground. I've lost count of how many clouds there are.

What is made of light and what is not. Who touches your grey areas and who wears wool hats.

Now, a meeting of waves, like a satellite photo imprinted in blue, which isn't blue, but we perceive it as such. How strange, some human beings have their portals to the world: the colour of the sky, the colour of the sea, and others the colour of the ponds, the woods and all the organic living things that make up this planet. in 16 x 16 billion shades.

"Parallel, flexuous, or diverging fibres, extensible in any or all directions".

A background of clouds that look like the traces left by the waves on the sand. Imprinte (Impresse) and imprints that overlap an imperceptible scythe.

The sun reflects on your feathers and the blonde highlights of your hair and then you take off without thinking, and that's why you fly so well. I know that we are under the same blanket of atmospheric layers that envelops us, and I feel when you reach out and think of me. I practice searching for the moon in the afternoon sky, even if it's 3.25pm.

End of the exercise. Nothing happened, I just stared at the clouds for all the hours of light I was given today. And

everything happened, in this stasis, everything moved, a quadrant of the sky moved and is reflected on your wings, which have always been spread.

Only now do I realize that my grandfather carried in his eyes all the clouds that allowed him to always be a clear sky and a natural bastion in an airy perspective.

Today nothing happened, I just looked at the clouds for hours, and everything happened.

(Maybe, I'm better at resonating with clouds than with people.)

The sun passes through the feathers, and I think it is not a question of free will but of a stubborn idea that our human brains can explain the world without caring about the empty universes of which we are the accumulation in dense points.

If you are an antenna for the universe, you feel confused if too many electromagnetic storms overlap between you in the sky, as if you were a jinn lost between the centuries and created from energy and vaporous matter.

Maybe it's inside where you have to fill the space before you start emptying it. Gradually, fade away.

Cirrus, Cumulus, Layers.

First the Cumulus, then the layers.

Nothing has changed, everything has changed. Pupils of the air in a liquid society, under the same layers of pm10, which make our horizons orange and carcinogenic, but in the end, from one hemisphere to the other, from a frog's breath taking mine and vice versa entering our lungs and make us permeate each other. Fernweh baby.

On bridges of clay, gold, or maybe just glass and water.

I see.

Under this post-industrial god of ours who says that we are made of the same substance as dreams, but also as our parents, more specifically and literally, made of the same molecules of clouds, icebergs and water.

Now, in this world of grandfathers-glaciers that will flood us, of galaxies of dances in garages, we are ready to regenerate constantly, because life is this flying over our invisible

attacks, trying to wrap them in an embrace which makes us cross them like Eurydice who vanishes at the exit of the cave.

We, lost Orpheus, turn around and no longer see anything, standing on foot at the flashing level crossing, smiling at the blossoming of Spring being back.

Ready to float, again and again.

A TURBULENCE OF POETIC BREVITY - PARTICULATE KNOWLEDGE

The experienceable tangibility of atmospheric knowledge is rather a luminous force that disrupts our homogenized, flattened representation of space. While data generate abstraction, they simultaneously restore an identity that moves fluidly within the cloud of experienceable atoms.

In Giorgione's *The Tempest*¹, weather ceases to function as a passive backdrop and instead emerges as a destabilizing force that fractures the coherence of the scene. Much like Campbell's (2003) notion of "a landscape rendered according to momentary, fleeting appearances," the storm in *The Tempest* resists fixity, asserting itself as a volatile presence that unsettles the pictorial order.

The lightning does not illuminate but rather ruptures the scene, foregrounding turbulence as both subject and structuring principle of space. Here, the Weatherscape is neither a frame nor a background, but an in-between that envelops both human and non-human existence in it, shifting the locus of meaning from anthropocentric stability to the ephemeral, unpredictable forces of the changeling elemental world.

The uncertain boundaries of the atmosphere, bridges our floating identities in a constant, ebbing flow of bits and atoms. Wind keeps blowing over our turbulences, that shakes us from the micro-scale of the blood turbines inside our organs' cavities, and over our heads while bombs, earthquakes or toxic clouds shake our existence in the constant emergence of being Weatherscapes.

What happens in between this state of matter/knowledge/chaotic events? The thick-time (Neimanis,2017) interstitial matter of the turbulence in-between:far from cloud swimming, or fog permeating, far from iceberg's cracking trajectories.

Between the density of molecular memory and the abstraction of empty space (Agamben,2008), between human perception and the inaudible frequencies of more-than-human dreams (Haskell,2024), lies a field of fractured relation, where perception fails to encompass the full ontological "weight of the world". Here, the self dissolves into a diffuse, cloudy, liquid, gaseous, entangled intimacy with the Earth's ongoing composition.

Suspended in a state of perpetual tension, particulate knowledge is assembled either in solid or gaseous form, as in Magritte's "The Battle of the Argonne"(1959)². The cloud and the stone-like islands float as aggregates that hold both identity and matter. What unfolds between them is an invisible struggle between gravitational and attractive forces. The thick-time (Neimanis and Walker,2014) produced through the interaction of these two floating forms of particulate knowledge above the Argonne is a space of possibility: an intangible atlas in which humans operate as turbulence across multiple scales.

According to Neimanis and Walker, "the relationship between human bodies and climate according to what we call "thick time," a transcorporeal stretching between present, future, and past, that foregrounds a nonchronological durationality" (2014). This might be what holds the cloud and the granite in perfect balance, over the sleeping city of Argonne.

Encountering Earth's constant flow of turbulence. Fog, Clouds, Icebergs "forces" us to put our human turbulence into perspective, and to adapt to navigate a dense time, a chaotic amount of data typhoons, a series of uncertain transparencies.

Foremost, as a strange knotted syllogism, we changed the weather and the climate during the last centuries. We are now navigating into the ebb,flows and storms of our actions



Fig. 2 L.Artioli, *Weatherscapes Atlas*, 2025, An Exercise of Cloud Swimming, digital collage

and our moody behaviour. We are a conglomerate of turbulences, that flows into our veins, and runs between the infinity of scales that characterise our Weatherscapes.

“But what if we zoom in even further, to the atomic level? At the very smallest level, according to Jeremy Rifkin, there are only vibrating quantum particles that don’t seem to sit in one place. That means, on a basic level, there are only oscillations and waves — there are no fixed things. Everything is moving and changing, always — ‘a non-material world of pure temporality,’ he writes. What we perceive as a phone, a rock, or a person is merely a temporary coming-together of matter that will inevitably fall apart at some point. This is, of course, how we think about the weather — a storm, for example, as a temporary and passing phenomenon. But we can think of all things like that.

In this sense, we are the same as the weather.”(Brain and Nathanson,2023).

NOTES

- 1** Giorgione, *The Tempest*, c. 1508. Oil on canvas, 82 × 73 cm. Gallerie dell'Accademia, Venice. Image source: Wikimedia Commons
- 2** René Magritte, *The Battle of the Argonne*, 1959. Oil on canvas, 50 × 61 cm. Private collection.

REFERENCES

- Bae, S. Sandra, Clement Zheng, Mary Etta West, Ellen Yi-Luen Do, Samuel Huron, and Danielle Albers Szafrir. (2022). Making Data Tangible: A Cross-Disciplinary Design Space for Data Physicalization. In *CHI Conference on Human Factors in Computing Systems*, 1–18. New Orleans, LA, USA: ACM. Available at <https://doi.org/10.1145/3491102.3501939>.
- Baranger, M. (2001). *Chaos, complexity, and entropy*. Massachusetts Institute of Technology.
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.
- Bartlett, Albert A. (1983) *Examples of Atmospheric Arithmetic*. *Phys. Teach.* 1 December 1983; 21 (9): 594–596. <https://doi.org/10.1119/1.2341424>
- Bauman, Z. (2000). *Liquid modernity*. Polity Press.
- Buis, A. (2019). *The atmosphere: Earth's security blanket*. NASA Science. Available at: <https://science.nasa.gov/earth/earth-atmosphere/the-atmosphere-earths-security-blanket/>
- Cambridge Dictionary. (2025). *Weather*. In *Cambridge Dictionary*. Retrieved January 12, 2025. Available at: <https://dictionary.cambridge.org>
- Campbell, Stephen J. (2003). *Naturalism and the Venetian 'Poesia': Giorgione's Tempest and the Pastoral Tradition*. *The Art Bulletin* 85, no. 2 (2003): 251–268. Available at: <https://doi.org/10.2307/1261849>.
- Coccia, E. (Ed.). (2022). *Unknown unknowns: An introduction to mysteries*. Essays. Mondadori Electa.
- Díaz-Kommonen, L., Tenhunen, J., Smite, R., & Smits, R. (2024). Beyond the Hybrid. Narratives, New Media Experiments and Speculations Touching Art and Science Knowledge Exchange. In *Acoustic Space*, Volume 20 / Renewable Futures, Issue 5. Riga, Latvia: RIXC Center for New Media Culture; Espoo, Finland: Aalto University.
- Floridi, L., & Taddeo, M. (2016). *What is data ethics? Philosophical Transactions of the Royal Society A*, 374(2083):20160360. Available at: <https://doi.org/10.1098/rsta.2016.0360>
- Floridi, L. (2009). *Infosfera: Filosofia e Etica dell'informazione*. Torino: Giappichelli Editore.
- Floridi, Luciano (2025). *The Onlife Manifesto: Being Human in a Hyperconnected Era*. Cham: Springer. Available at: <https://doi.org/10.1007/978-3-319-04093-6>.

- Giaccardi, E., & Redström, J. (2020). *Technology and more-than-human design*. *Design Issues*, 36(4), 33–44. Available at: https://doi.org/10.1162/desi_a_00618
- Geoghegan, B. (2019). *Dionysius. An Ecology of Operations: Vigilance, Radar, and the Birth of the Computer Screen*. *Representations* 147, no. 1 (August 1, 2019): 59–95. Available at: <https://doi.org/10.1525/rep.2019.147.1.59>
- Goriunova, O. (2019). *The Digital Subject: People as Data as Persons*. *Theory, Culture & Society* 36, no. 6 (November 2019): 125–45. Available at: <https://doi.org/10.1177/0263276419840409>.
- Han, B.-C. (2015). *The Transparency Society*. *Stanford Briefs*. Stanford University Press.
- Haskell, D. (2022). *Sounds Wild and Broken. Sonic marvels, evolution's creativity, and the crisis of sensory extinction*. London: Penguin Random House.
- Howard, L. (1802). *On the modifications of clouds*. Royal Meteorological Society.
- Kosky, J. L. (2016). *Arts of wonder: Enchanting secularity-Walter De Maria, Diller + Scofidio, James Turrell, Andy Goldsworthy*. The University of Chicago Press.
- Ingold, T. (2011). *Being alive: Essays on movement, knowledge and description*. Routledge.
- Ishii, H., & Ullmer, B. (1997). Tangible bits: Towards seamless interfaces between people, bits and atoms. In *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems* (pp. 234–241). ACM. <https://doi.org/10.1145/258549.258715>
- Ishii, H., et al. (1998). AmbientROOM: Integrating ambient media with architectural space. In *CHI 98 Conference Summary on Human Factors in Computing Systems* (pp. 173–174). ACM. <https://doi.org/10.1145/286498.286652>
- Kluitenberg, E. (2006). *The Network of Waves: Living and Acting in a Hybrid Space*. *Open 2006/No. 11/Hybrid Space*.
- Latour, B., & Porter, C. (2017). *Facing Gaia: Eight lectures on the new climatic regime*. Polity.
- Lupton, D. (2018). How do data come to matter? Living and becoming with personal data. *Big Data & Society*, 5(2). <https://doi.org/10.1177/2053951718786314>
- Mayton, B., Dublon, G., Russell, S., Lynch, E. F., Haddad, D. D., Ramasbramanian, V., Duhart, C., Davenport, G., & Paradiso, J. A. (2017). The networked sensory landscape: Capturing and experiencing ecological change across scales. *Presence: Teleoperators and Virtual Environments*, 26(2), 182–209. https://doi.org/10.1162/PRES_a_00292
- Monserate, S.-G. (2022). *The Cloud Is Material: On the Environmental Impacts of Computation and Data storage*. MIT Case Studies in Social and Ethical Responsibilities of Computing, no. Winter 2022 (January). Available at: <https://doi.org/10.21428/2c646de5.031d4553>.
- Neimanis, A., & Hamilton, J. M. (2018). *Open space weathering. Feminist Review*, 118(1), 80–84. <https://doi.org/10.1057/s41305-018-0097-8>

- Neimanis, A., & Loewen Walker, R. (2014). Weathering: Climate change and the 'thick time' of transcorporeality. *Hypatia*, 29(3), 558–575. <https://doi.org/10.1111/hypa.12064>
- Overbeek, B., & Bessembinder, J. (n.d.). *Dealing with uncertainties communication between disciplines*. n.d.
- Peters, J. D. (2015). *The Marvelous Clouds: Toward a Philosophy of Elemental Media*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226253978.001.0001>.
- Randerson, J. (2018). *Weather as Medium: Toward a Meteorological Art*. Leonardo Book Series. Cambridge, Massachusetts: The MIT Press,
- Sloterdijk, P. (2011). *Bubbles: Spheres volume I: Microspherology* (W. Hoban, Trans.). Semiotext(e). (Original work published 1998)
- Schafer, R. M. (1977). *The tuning of the world*. Knopf.
- Shaw, R. (1984). *The Dripping Faucet*. Aerial Press, Santa Cruz.
- Tsing, A. L., Bubandt, N., Gan, E., & Swanson, H. A. (Eds.). (2017). *Arts of living on a damaged planet*. University of Minnesota Press.
- Tega Brain & Alex Nathanson. (2023). *Weathering computing: The links between computing and weather go in both directions*. Medium. <https://fiber.medium.com/weathering-computing-the-links-between-computing-and-weather-go-in-both-directions-1c5a5f17a1b2>
- Whitehead, B., Andrews, D., Shah, A., & Maidment, G. (2014). Assessing the environmental impact of data centres part 1: Background, energy use and metrics. *Journal of Facilities Management*, 12(1), 46–60. <https://doi.org/10.1108/JFM-09-2012-0044>.

Article available at

DOI: 110.60923/issn.2724-2463/21444

How to cite

Artioli, L. (2025). Weatherscaping: An Atlas of bits, atoms and clouds. *img journal*, 12, 106-121



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

FOR A HETERO-GENESIS OF ATMOSPHERE

Gianmarco Bezzi

University of Salento

Department of Humanities, Philosophy

bezzigianmarco@gmail.com

ATMOSPHERE

OPENNESS

IN-BETWEEN

INTENSIFICATION

STIMMUNG

This article examines the problem of atmosphere through the lens of Heideggerian speculation, with particular attention to his post-*Kehre* writings. Through a thorough analysis of his ontological-existential reflection, it becomes evident that the notion of atmosphere emerges as a space of encounter between two ontologically distinct dimensions: being and entity. However, this encounter is not merely a matter of proximity and convergence but also—above all—of constitutive distance. Atmosphere thus manifests itself as a topology of affective tonalities (*Stimmungen*), revealing to the individual the appearance of the inapparent.

Although this issue has often been explored within aesthetics, its existential dimension remains largely unexamined. *Atmospherology* thus proposes itself as a new speculative field, centered on the topology of *Stimmungen*, where the living subject is not merely considered in existential terms but rather ontologically, following the phenomenological method. The aim is to outline an ontology of the “in-between”, wherein atmosphere is not reduced to an object of aesthetic inquiry but emerges as the very dispositive that enables an *ek-static* and *ek-sistential* mode of thought, thereby rethinking the relationship between being, space, and sensibility.

INTRODUCTION

The object that this study aims to address concerns an issue that, although it has accompanied Heidegger's existential and reflective path in a manner both marginal and significant, has been explored in greater depth only since the 1970s. In particular, Hermann Schmitz dedicated his ten-volume *System of Philosophy*, published between 1964 and 1980, to this theme, followed by the studies of Gernot Böhme (2010)¹, Tonino Griffero (2017, 2019, 2021) and other scholars: the theme of atmosphere.

The goal of this paper is not to investigate the phenomenon of atmosphere as a collective dimension or as a quasi-thing, since these topics have been extensively developed by numerous scholars in recent years. Rather, it seeks to highlight, through a phenomenological method with an ontological orientation, the close relationship between *Gefühlphilosophie* and *Lebensphilosophie* as derived from Heidegger's writings. It is precisely from these texts that a possible *heterogenesis* of atmosphere emerges, laying the groundwork for the formulation of a logic of atmosphere. The reflections of the Freiburg philosopher, focusing primarily on the problem of interiority and intensification, serve as a launching pad for a speculation concerning atmosphere. Only through a genuine interpenetration of phenomenology and ontology can one go beyond describing how a phenomenon —the atmosphere— presents itself, to reveal the ontological status that grounds it².

This study, structured in three sections, attempts to delve into the manifestation of atmosphere as the *heteron* of the environment in which one habitually dwells. In this context, *ἕτερον* does not signify an entity that is merely different or opposed to something else, but rather an entity that becomes itself only through its own intensification. In other words, as will be demonstrated throughout this paper, atmosphere does not manifest itself outside the subject-object dichotomy but rather occurs and takes shape

within the *in-between* (*Zwischen*) into which the individual finds themselves thrown. The *Zwischen* is thus understood *oikonomically* and characterized by the rhythm of the individual's transcendence and the object's rescendence, all situated within the rhythmology of the advent of atmosphere.

ATMOSPHERE AS THE PLACE OF ENCOUNTER: THE INDIVIDUAL AS IN-BETWEEN

Throughout the thought of the so-called 'second Heidegger,' the theme of spatiality assumes a central role, as the Freiburg thinker, in addressing the ek-static character of the individual, aims to «*pensare lo spazio oltre un'angolatura estatico-orizzontale*» (Cesarone, 2020, p. 183) in order to emphasize its historical-evental, that is, atmospheric, dimension—within which the simultaneously encloses *Dasein-Lichtung* and *Gegenstand-Stätte*. This is the reason that leads to a redefinition of Heideggerian philosophizing as topological (Malpas, 2012), precisely because of the primacy it attributes to environment over time—primacy that underpins its resistance to the reduction of time and its dissolution within it³. It is, therefore, through an analysis of the notion of space that one can develop a philosophy no longer subjugated to anthropocentrism and anthropomorphism, as it moves beyond the dualities of subject-object, active-passive, transcendence-*rescendence*. Only through *Raumlichkeit*, which analytically manifests itself as mere spatiality, is it possible to undertake an *atmospherological* reflection.

If, in fact, modern philosophical thought and part of contemporary philosophy have been constituted as chrono-topology—one need only consider Descartes' scientific writings, Kant's transcendental aesthetics, and Hegelian phenomenology—then from Heidegger onward, as seen in Georg Gadamer (2022, 2021), Hermann Schmitz (2011,

2023), Gernot Böhme, Ola Sigurdson (2024), and in Italy with Tonino Griffero, it becomes possible to speak of a *topo-chronology*. The difference between these two concepts (*chrono-topology* and *topo-chronology*) is not merely an inversion of terms, as though it were an empty rhetorical play, since this *anastrophe* signals a new philosophical conception of the human being. No longer anthropomorphic, nor humanist or anti-humanist, this conception is *in-human*. The aforementioned preposition does not indicate a negation of the concept, as in ‘inadequate,’ but rather an intensive form, akin to ‘enlarge.’ This approach does not lead to a philosophy of the all-too-human; rather, it opens a reflection on the human being through the intensification of inhabited space⁴.

Only through a topological reflection—which is, so to speak, a *milk sibling* of the *tropological* reflection—can a philosophy of atmosphere be inaugurated, inevitably linked, whether directly or indirectly, to a phenomenology of the *in-between* (*Zwischen*) and the *meantime* (*Inzwischen*). It is within the phenomenological-ontology of space that the evental character of both human existence (Scheler, 2015) and spatiality⁵ itself emerges, and it is precisely through the Entwurf of the individual that the occurrence of the latter becomes possible. This enables the individual to become, in an ontologically contradictory yet experientially paradoxical manner, themselves within that vague and indeterminate dimension—heterogeneous by nature—that both *lets him be* and *constructs him*⁶. In this regard, Sigurdson writes:

«Atmospheres are entities that envelop us; they fill, or phernaps even create, space as they “make everything appear in a certain light, summarise the multiplicity of impressions in one mood”. The soft light of the blue hour lends a certain mood to our existence in which the contours and distances of things lose some of their clarity and solidity» (Sigurdson, 2024, p.40)⁷.

When an individual lives authentically, they perceive the rhythmic interplay of attractions and distractions, con-

vergences and divergences that mark and structure their existence, allowing them to grasp the unapparent appearing of the Event (Heidegger, 2012, §13). What enables human beings to discern the intensification of spatiality within the topological dimension of dwelling are the *Stimmungen*, which position them in a state of fragmentation relative to both themselves and the Event. However, this fragmentation should not be understood as a radical and irreparable separation, but rather as a form of differentiation that, despite its diversity, maintains a relationship of reciprocal resonance. Within the factual fragmentation in which the individual exists —determined by temporality⁸— there is no instantaneous and mysterious synthetic unity of existential fragments; rather, there is a convergence and attraction among them, made possible by the articulation of the *Da* in its self-occurrence and in the intensification of space into atmosphere. This occurrence is not merely an *Entrückung* —a concept drawn from *Sein und Zeit*— but a *letting oneself be enveloped* by the atmosphere, which takes space and manifests itself as a *topological in-between* within the existential *meantime*. The atmosphere should not be conceived merely as a *Plätze*, a place of everyday dwelling, but rather as a *Gegend*, an *Umhalt* that emerges in the encounter between the individual and excess.

Space, therefore, ceases to be merely a concept tied to limits and boundaries and instead transforms into a frontier between the factual and the transcendental—a passage from empiricism to atmosphere, from individuality to the loss of subjective individuation. It is precisely in this latter state that the Event occurs without fully manifesting *in toto coelo*. The logic of atmosphere is, therefore, a logic of intensity, as it is in the experience of the existential moment that one grasps the existential *instant* and immerses oneself within it.

A striking example is Rembrandt's *Supper at Emmaus* (Figure 1), where warm light guides perception while deepening spatial depth and evoking awe (Alpers, 1983). The work

Fig.1 Rembrandt Van Rijn, *Supper at Emmaus*, Jacquemart-André Museum, Paris, 1629.



manifests a double —or reversed— intentionality (Rigobello, 2010): through observation (*Beobachtung*), the viewer is projected into the painting, becoming a participant in a process where being unfolds alongside the figures, mediated by the intensifying light. Conversely, in Rembrandt's *The Return of Prodigal Son* (Figure 2), light does not illuminate but preserves the negative, revealing through dramatic chiaroscuro the coexistence of light and shadow that structures human experience. But what, then, is atmosphere? Here, too, there are two possible stances: one inauthentic and the other authentic. The inauthentic stance conceives atmosphere as a gaseous envelope or a mere mode of being of an entity. The authentic stance, unable to define it —perceivable through *Stimmungen* but not identifiable— focuses on its truth (*wahr-nehmung*): its eventual character, never fixed within a specific space-time. Atmosphere is the site of encounter between entity and being, understood as proximity—simultaneously distance and nearness. There is no full manifestation, only appearing and perception, always pointing to the inapparent: the existential intensifica-

Fig.2 Rembrandt Van Vijn, *The return of prodigal Son*, Hermitage Museum in St. Petersburg, 1669.



tion of the individual. The individual is not the author of the event, but the medium-*in-between-the-Event*, a non-spatial site where the Event occurs atmospherically. Atmosphere thus becomes an image of the heterogeneity of space and of the existential heteronomy of the individual, a sign of the *in-between* in which *Dasein* finds itself.

THE HETHERON OF THE ATMOSPHERE

To fully grasp the presence of one particular atmosphere over another (Griffero, 2021), it is essential to draw upon the notion of *Stimmungen*, which refers to two distinct

concepts. The first pertains to personal mood—that is, the emotional state in which the individual finds themselves—and corresponds to what is often termed *mood*. In this regard, Dreyfus writes:

«L'atmosphère peut se référer à la sensibilité d'une époque [...], à la culture d'une firme [...], au caractère des époques [...] et, naturellement, à l'humeur d'un individu. Ce sont là toutes les manières de trouver que les choses comptent» (Dreyfus, 1991, p. 196).

The second meaning of *Stimmung*, however, is linked to what Heidegger, in his *opus magnum*, refers to as *Befindlichkeit*—that is, the condition of possibility for openness to and of the world. Emotional tonalities are not static; rather, they constantly shift and overturn. These transformations do not merely constitute a change within the ego but also imply a metamorphosis of the environment in which the individual is *thrown*.

It is precisely this character of openness—the *There (Da)* of *Dasein*—that makes possible an authentic hetero-genesis of atmosphere, which in turn enables the formulation of both a logic of atmosphere and, subsequently, an atmospheric logic. Indeed, *Dasein* is always already emotionally open, as it is an entity entrusted to itself in its very being, for in existing, it has to be (Heidegger, 1977b, §29). Two fundamental elements emerge from this reflection. The first concerns the disclosing nature of *Dasein* (*das Seiende erschlossen*), while the second relates to the German verb «überantwortet», which can be translated as “entrusted” or “remitted”. Openness is not merely the exposure of the individual but rather the appearing of the inapparent—namely, the event of the clearing (*Lichtung*). It presupposes a horizon, understood as the condition of possibility for openness itself. The distinction between the two does not imply an absolute difference: while the horizon constitutes an (atmospheric) space opened in all its focal points, openness represents its disclosure in a specific point. Not coincidentally, as early as his 1924

lectures on Aristotle, Heidegger conceives of truth as an *unconcealment* (*Unverborgenheit*) that manifests in a particular way: through an opening within the horizon. *Dasein* is thus open to its own being in a mode that is not rigidly determined but instead depends on its singular positioning within the ontological-existential horizon.

The second concept to which we now briefly turn is expressed by the verb «*überantwortet*», which denotes a surrendering or responding to oneself. The specificity of this notion lies in its ability to articulate a mediation between two dimensions that, despite their difference, interpenetrate one another: the ontological and the ontic. The *daß* does not merely indicate a factual assertion of existence but also entails an existential dimension.

Through a reflection on emotional tonality and, consequently, on the atmosphere that envelops and inhabits the human being, Heidegger inaugurates a phenomenology of cosmology and mediation—a theme that becomes central, particularly in the wake of the *Kehre*. This perspective allows the Freiburg philosopher to achieve two fundamental objectives: to overcome the subject-object dichotomy by dissolving the separation between the thinker and the world, and to avoid the pitfalls of psychologism. *Stimmung* is not, in fact, a psychological interiorization (ibid.) that reifies the world (Schmitz, 2016); rather, it refers to a more primordial reality—an environment that, in Husserlian terms, can be described as pre-categorical or as the *lifeworld* (*Lebenswelt*).

Emotional tonality is characterized by its capacity to assail (*überfällt*) the individual, placing them in a state of involuntary openness and disorientation, rendering them incapable of grasping its origin. It eludes any attempt at localization: it does not originate from either the interiority or exteriority of the world but emerges from the encounter between the individual and worldliness⁹ (*Weltlichkeit*).

Atmospherology thus emerges as a study and logic of encounter, which takes place in a specific location and un-

der particular circumstances. However, this encounter (*St-reit*) is not a peaceful *cohabitatio* but rather a genuine confrontation—a conflict between two heterogeneous and, therefore, heterological dimensions. A clarifying example of this dynamic can be found in the theology of liturgy¹⁰. The concern of liturgical theology is not to establish *how* the service at the altar should be performed, but rather to comprehend *what* occurs in the moment when human action meets the divine (Marion, 2005). Similar to what is expressed by Heidegger in *Sein und Zeit* and by Hermann Schmitz in *The Atmospherology* (Schmitz, 2016), a religious function does not simply effect an inner transformation in the believer. Rather, the individual is exposed to a place that is not only intensified in relation to the everyday but is also *other* in relation to the self.

Just as the believer is confronted with a radically other dimension—embodied by the priest, who personifies Christ—so too does the transcendent individual collide with an atmosphere that descends, or rather, *re-descends* upon them, meeting them in the instant of impact. This impact is precisely why Heidegger asserts that *Dasein* is not the master of its own emotions through knowledge or will. In certain existential situations, primacy belongs to the encounter with alterity, which compels the individual toward an authentic lived experience, leading them back to themselves.

What manifests within an atmosphere—or rather, what renders the very existence of an atmosphere possible—is the encounter between human being and space as it spatializes itself. As Foucault might put it, man thus appears as a transcendental allotrope, a characteristic already explored by Husserl in various writings, including *Passive Synthesis*, *Zeitvorlesungen*, *the Bernauer Manuscripts*, and the manuscripts belonging to group C. Ola Sigurdson writes in this regard: «The passivity is not absolute but rather a kind of “mediopassivity”, a subject position in which we can relate actively to them only on the basis of having received their request or claim, like the tennis player returning a serve» (Sigurdson, 2024, p.38).

What Heidegger inaugurates —and what atmospherology later takes up— can be understood as a genuine *Gefühlphilosophie* or, alternatively, as a *hetero-logy* of cosmology. This *new phenomenology*, to use Schmitz's term, places at the center of its reflection the *lived body*, which transcends the mere physicality of entities' manifestations. As Sigurdson observes: «we find ourselves in a space that is not only a physical place with certain characteristics but also an atmosphere, and it is through both of these aspects that we sense what kind of space we are in» (Ibid., p.39).

The atmosphere, then, is linked to what Scheler, in *Formalismus*, defines as *Lebensgefühle*: an experience that implies the rhythmic dynamic between *Engung-Weitung* and *Spannung-Schwellung* —that is, between contraction and expansion, between tension and swelling of the *Leib* in relation to the *Körper*. It is only through the former that the presence of an atmosphere can be perceived. As Schmitz himself states: «An atmosphere that is initially just merely perceived becomes an atmosphere that is sensed by the felt-body as such» (Schmitz, 2023, p.49).

An atmosphere generates an *echo* within the individual, a call that does not dissipate into the void like a cry in the desert but instead resonates internally (Rosa, 2020, pp.633-644), propelling them toward an ineffable *where*. A particularly significant aspect is the way in which existential experience is grounded in the tension and union between silence and resonance. Existence, in fact, is not a mere echo of the lived experience of an “*Ego*” isolated in its psychic interiority; rather, it is the sign of a reality irreducible to predication and inaccessible to individual will, as it is situated beyond any possibility of objectification.

Indeed, atmospheres are not produced but rather arise spontaneously and spread through *contagion*, much like a virus, penetrating the individual beyond their control¹². However, this loss of control should not be interpreted in a Dionysian sense, as in Nietzsche, nor as a mystical experience in a scholastic sense. Rather, it marks the entry into

lived experience of an *other* presence, an *heterological* (Pallasmaa, 2009, p. 15; 2012, pp.32, 43, 46, 76) presence, which manifests itself under the guise of saturity, revealing itself in all its enigmatic nature.

Atmospherology thus represents an attempt to construct not only a *neo-phenomenology* centered on the problematics of the *Leib* but also a cosmology no longer grounded in human finitude, as Max Scheler (2018) sought to do in his own way, but rather in what might be called a *topo-logy* of *Stimmung*.

THE ATMOSPHERE AS NON-BEING (NON-DESPITE)

Addressing the question of atmosphere necessitates moving beyond pure theorization and rooting reflection in lived reality. Atmospherology, conceived by Schmitz as a new *phenomenology* (Schmitz, 2009), represents a significant advancement within philosophy. It deepens the problem of the *Lebenswelt*, a theme first introduced in Husserl's posthumous and incomplete work *Krisis*, but developed with particular attention in Italy by scholars such as Giovanni Piana and Antonio Banfi. In this way, atmospherology further elucidates the subtle and unresolved problem between existence and existential posture.

While modern philosophy has primarily focused on the epistemological problem —making the categories of subject and object the core of speculation— contemporary thought, in its various articulations (existentialism, positivism, analytic philosophy, language philosophy, neo-realism, neo-scholasticism, neo-Kantianism), has shifted the center of reflection toward the relationship between human existence and the conditions of its being. The prefix «*neo*» attached to these philosophical movements does not indicate a mere reiteration of past ideas, nor a return to previous paradigms, but rather

their adaptation in response to the needs of contemporary thought.

The innovative element of atmospherology in contrast to these philosophies lies in its transcendence of the subject-object, active-passive, absolute-relative dialectics, situating itself instead within their, the interstitial space that connects and transforms them. This does not imply the dissolution of traditional categories but rather their reformulation: subject and object continue to exist, yet they relinquish their exclusively epistemological role to acquire a topological dimension. They are no longer rigidly opposed terms but rather relational elements whose essence unfolds in the rhythmic alternation of proximity and distance—manifesting as the very event of understanding.

What, then, does atmospherology represent for contemporary philosophy? It constitutes a novel approach to understanding the utopia of the world and the transcendence-descent of the person within the vast horizon of reality. Modern thought had concentrated on the concept of utopia, which also encompassed a *u-chronic* dimension, referring to the time in which one engages and acts. Indeed, societies from the sixteenth to the nineteenth century had structured their *counter-spaces*—utopias situated outside all places—which led to a growing rift between philosophical (utopian) and scientific thought.

Contemporary reflection, however, no longer concerns itself with what lies “outside,” “beyond,” or “elsewhere” but instead focuses on *internality* and *intensification*. It is no longer a matter of opposing or juxtaposing spatially incompatible realms within a physical location, nor of projecting alternative realities beyond externality. Rather, what emerges is the advent of an intensified and rarefied environment that integrates into everyday life.

A prime example of this shift is the museum. In the seventeenth and eighteenth centuries, the museum was conceived as an archive of culture, a space for aesthetic expression. Today, its function has changed. Museums,

like archives and libraries, now *convey* (Ferreira, 2013) the advent of an *other* reality. By *advent*, we do not mean the sudden appearance of something akin to a *deus ex machina*, but rather the entrance of an intense and all-encompassing reality into factual existence, penetrating the ordinariness of the everyday.

This entrance is not peaceful but violent —not in the sense of causing physical harm, but in its forceful transportation of those involved into another dimension. This dimension may be either perpetual or chronic, transitioning from a *proportio excedens* referring to the encountered object to a *proportio excedens* that encompasses the environment or atmosphere in which one is situated.

When an individual stands before a work of art, they no longer see, as Heidegger explains in *Holzwege*, the painting merely as a framed image hanging on a wall. Instead, they perceive the opening and *ex-position* of a world. As the Freiburg philosopher writes:

«Das Werk stellt als Werk eine Welt auf. Das Werk hält das Offene der Welt offen. Aber die Ausstellung einer Welt ist nur der eine hier zu nennende Wesenszug im Weksein des Werkes» (Heidegger, 1977a, p.31). The work is no longer the *Geräumigkeit*, the spatiality of everyday life, nor is it that which merely stands before us —as Heidegger notes (*Ibid.*, p.30), *Welt ist nie ein Gegenstand* (the world is never an object). It is not a simple object placed before our senses but rather the residual trace of worldliness, given in a non-objectifiable manner. It is not a *nicht-sein* but rather an *ungegenständliche*. What thus appears is no longer the determined and identifiable thing —such as a painting— but rather, to borrow Schmitz's grammar, a *quasi-thing*, a *quasi-painting*, for it exists without being fully determined or identifiable. What manifests is not the materiality of the object itself, but the emergence of the world from which the work *pro-venes* and *ad-venes*. In other words, when the individual allows themselves to be enveloped by the atmosphere, a metamorphosis of finitude takes place—one that does not originate

from the subject's intentionality toward the object before them, nor from the object's sheer materiality encountered in the sphere of practical life, but rather from the *event* of the encounter between the two.

This concept is frequently addressed in existential theology and philosophical anthropology, as seen in Scheler's *Ordo amoris* (Scheler, 2023). The focus is not on the transfiguration of the subject into something other than itself, nor on the transformation of the object into another entity, but rather on the very appearance of this transformation. When an individual finds themselves (*thrown*) into a particular environment, they are enveloped by an atmosphere that is not directly dependent on either the object or the subject, yet which alters their mode of sensing, producing what, in Levinasian terms, can be described as a *curvature of extensional space*.

For instance, upon entering a particular church —such as the magnificent Cologne Cathedral (Figure 3)— what one feels no longer coincides with what is merely perceived. The sculptures, paintings, and altar assume a different form, and thus a different meaning, from their usual appearance. The individual, absorbed within what C. Bobant calls «puissance plasmique» and «puissance atmosphérique» (Bobant, 2024, p.28), undergoes a transfor-

Fig.3 Centrale nave of Cologne Cathedral.



mation that Bégout describes as «vaguité» (Bégout, 2020, p.20) and that Bobant qualifies as *immersive* (*imersive*, ivi, p.39). In this state, the individual is transfigured into a new being, existing no longer in function of their own lived experiences but rather through a state of *letting-be*. In other words, the human being sheds their existential “heaviness” and, by *ex-posing* themselves to the atmosphere that *ad-poses* itself upon them and *inter-poses* itself between them and the object, they are *com-posed* and *dis-posed* anew.

Atmosphere, then, seeks to analyze a paradoxical experiential phenomenon, for it centers on a space without place. Atmosphere is not something that presents itself *hic et nunc*, but rather something with a topological character; it is not a real object, but a *perceivable entity* that, from a certain ontological perspective, serves as a bridge between the absolute and the ineffable. Atmosphere thus assumes the characteristics of Derridean ineffability and absolute-ness: elusive, never fully present, and yet experientially perceptible—something that manifests at the very margins of our everyday existence (Derrida, 1997).

CONCLUSIONS

The individual thus finds themselves continuously immersed in atmospheres, which are not merely something that grants the living subject a particular posture but rather a *substantial form*—a *parergonality*, to use Derrida’s term—that generates a true *style* of existence. Despite the difficulty of pinpointing atmosphere due to its inherent heterogeneity, it is not only a bridge connecting humanity to the excess of meaning but also a key element that may help elucidate—and perhaps even resolve—one of the central issues that dominated 20th-century thought and remains unresolved today: the relationship between existence and its posture.

The question that *atmospherology* might explore—more than resolve—is thus the following: *Is atmosphere the condition of possibility for existence, or is it its consequence?* This inquiry could find its answer by adopting the logic of simultaneity, as previously suggested, in order to avoid any form of epistemological dualism and instead privilege an *ontology of the simultaneous* (Meazza, 2022).

NOTES

1 Gernot Böhme (2010), *Atmosfera, estasi, messe in scena. L'estetica come teoria generale della percezione*. Milano: Marinotti; (2013), *Atmosphäre: Essays zur neuen Ästhetik*, Suhrkamp Verlag, Frankfurt am Main; (2013), *Architektur und Atmosphäre*, 2 Auflage, Wilhelm Fink Verlag, München.

2 A clear example of the above is provided by Martin Heidegger in the introductory part of his major work, *Sein und Zeit*, particularly in §7 where he writes «*Der Ausdruck »Phänomenologie« bedeutet primär einen Methodenbegriff. Er charakterisiert nicht das sachhaltige Was der Gegenstände der philosophischen Forschung, sondern das Wie dieser*». HGA 2 p.37.

3 Cf., HGA 9, p.336. In this passage, Heidegger appears to criticize what he wrote in HGA 2, p. 486, where he states that Dasein's entry into space is possible on the basis of ecstatic-horizontal temporality (p. 488). Following the Kehre, the philosopher seems to have almost overturned his approach to philosophy—not only because he prioritizes space over time, but also because he indicates that the latter is given only through the former.

4 Cf., HGA 5, *Der Ursprung des Kunstwerkes*. In addition to the analysis of Heidegger's writings, from which a philosophy of intensity becomes evident—replacing the philosophy of extensivity typical of the modern era and particularly of positivism—Hans Ulrich Gumbrecht himself (2004) in *Production of Presence: What Meaning Cannot Convey*, Stanford University Press, Stanford, pp. 96-118, talks about “moments of intensity”, “specific appeal of such moments”, “typical situational framework”, “specific dispositions”, “epiphanies”.

5 Cf., HGA 71, pp. 216-217; HGA 94, p.78.

6 By ‘edification,’ two concepts are meant, as suggested by the German word Bauen. The first refers to a caring, in the sense of the Latin colere, while the second denotes a form of guardianship, understood as having mastery over oneself. These two notions, although different and distinct, presuppose a certain proximity, since the space defined between them reveals a reciprocal convergence [Austrag/Eintrag], which consists in exercising mastery over oneself in the name of that appropriating event, as clearly implied by Luther in Genesis 2, 15 «Und Gott der Herr nahm den Menschen, und setzte ihn in den Garten Eden, daß er ihn baute und bewahrete».

- 7 Cfr., Böhme Gernot (1998), *Ammutungen: Über das Atmosphärische*, Stuttgart: Third Edition; (2019) *Atmosphäre: Essays zur neuen Ästhetik*, Fourth edition. Frankfurt am Main: Suhrkamp; Michael Großheim (2008), *Neue Phänomenologie zwischen Praxis und Theorie: Festschrift für Hermann Schmitz*, Ed. Michael Großheim, Baden; Elisabetta Canepa (2022), *Architectures Is Atmosphere*, Mimesis, International, Milano
- 8 It, in fact, derives from the Greek verb τέμνω, meaning 'to cut.' Time is, therefore, as a confirmation of what was stated above, what presents itself ontically fragmented, even though beneath it there is a dimension that unites these fragmentations: Space.
- 9 In this regard Heidegger writes in HGA 2 «Die Stimmung überfällt. Sie kommt weder von »Außen« noch von »Innen«, sondern steigt als Weise des In-der-Welt-seins aus diesem selbst auf», p.182.
- 10 Cf., J.-Y. Lacoste (1994), *Expérience et Absolu*, PUF, Paris, §1-22; §27; §39-43; §46; §65; §70-72; Mircea Eliade (1959), *The Sacred and the Profane: The Nature of Religion*, tr. engl. by Willard R. Trask, Harcourt, Brace Company, Orlando, pp. 20-65.
- 11 Ibid., p.39.
- 12 Schmitz says that man is touched by it, and this being touched is not indicative of an existential passivity, since it refers to an aesthetic-intensive experience that is (actively) presupposed by the man himself.

REFERENCES

- Alpers, S. (1983). *The Art of Describing: Dutch Art in the Seventeenth Century*. Chicago: University of Chicago Press.
- Bégout, B. (2020). *Le concept d'ambiance. Essai d'éco-phénoménologie*. Paris: Seuil, coll. «L'ordre philosophique».
- Bobant, C. (2024). *Inactualité du sensible. Phénoménologie et art contemporain*. Paris: Bibliothèque des temps présent, Éditions des Compagnons d'humanité.
- Böhme, G. (2010). *Atmosfera, estasi, messe in scena. L'estetica come teoria generale della percezione*. Milan: Marinotti.
- Cesarone, V. (2020). Lo Spazio senza Cosa. In A. Ardivino & V. Cesarone (Eds) *I Trattati inediti di Heidegger: temi, problemi, bilanci, prospettive* (pp. 183-201). Milan: Mimesis.
- Derrida, J. (1997). *Margini della filosofia*. Torino: Einaudi.
- Dreyfus, H.L. (1991). *Being-in-the-world: a commentary on Heidegger's Being and Time*. London and Cambridge: MIT Press, London and Cambridge.
- Ferreira, B. (2013). *Stimmung bei Heidegger: Das Phänomen der Stimmung im Kontext von Heideggers Existenzialanalyse des Daseins*. Wien, Paris: Springer.
- Gadamer, H. G. (2021). *L'attualità del bello. Studi di estetica ermeneutica*. Bologna: Marietti 1820.
- Gadamer, H. G. (2022). *Scritti di Estetica*. Milan: Aesthetica.

- Griffero, T. (2017). *The Atmospheric "WE". Moods and collective feelings*. Milan: Mimesis International.
- Griffero, T. (2019). *Atmosphere/atmospheres: Testing a New Paradigm*. Milan: Mimesis International.
- Griffero, T. (2021). *Il pensiero dei sensi. Atmosfere ed estetica patica*. Turin: Guerini Scientifica.
- Heidegger, M. (1976). *Wegmarken (Gesamtausgabe, Vol. 9)*. Frankfurt am Main: V. Klostermann.
- Heidegger, M. (1977a). *Holzwege (Gesamtausgabe, Vol. 5)*. Frankfurt am Main: V. Klostermann.
- Heidegger, M. (1977b). *Sein und Zeit (Gesamtausgabe, Vol. 2)*. Frankfurt am Main: V. Klostermann.
- Heidegger, M. (2012). *Beiträge zur Philosophie (Vom Ereignis) (Gesamtausgabe, Vol. 65)*. Frankfurt am Main: V. Klostermann.
- Malpas, J. (2012). *Heidegger and the thinking of Place, Explorations in the Topology of Being*. London: The MIT Press.
- Marion, J.L. (2005). *Le visible et le révélé*. Paris: Éditions du Cerf.
- Meazza, C. (2022). *Ontologia del simultaneo. La scena dell' il y a*. Napoli: Or-thotes.
- Pallasmaa, J. (2009). *The Thinking Hand: Existential and Embodied Wisdom in Architecture*. Chichester: Wiley.
- Pallasmaa, J. (2012). *The Eyes of the Skin: Architecture and the Senses, Third Edition*. Chichester: Wiley.
- Rigobello, A. (2010). *Intenzionalità rovesciata*. Rome: Rubbettino.
- Rosa, H. (2020). *Resonanz: Eine Soziologie der Weltbeziehung, Third edition*. Frankfurt am Main: Suhrkamp.
- Scheler, M. (2015). *Vom Ewigen im Menschen*. Vero Vorlag.
- Scheler, M. (2018). *Die Stellung des Menschen im Kosmos*. München: Philosophische Bibliothek.
- Scheler M. (2023). *Ordo amoris*. Brescia: Morcelliana.
- Schmitz, H. (2011). *Nuova Fenomenologia. Un'introduzione*. Milan: Marinotti.
- Schmitz, H. (2016). *Atmosphäre, Second edition*. München: Verlag Karl Alber.
- Schmitz, H. (2023). *Atmospheres*. Milan: Mimesis International.
- Sigurdson, O. (2024). *Atmospheres in Everyday Life. On existential spatiality*. Milan: Mimesis International.

Article available at

DOI: 10.60923/issn.2724-2463/21393

How to cite

Bezzi, G. (2025). For a Hetero-Genesis of Atmosphere. *img journal*, 12, 122-141.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

GHOSTING ABOUT. NOTES ON INDETERMINACY AS METHOD

Enrico Boccioletti
Independent Researcher
boccioletti.enrico@gmail.com

POST-IMAGE

LIMINALITY

RADICAL PRACTICES

MIST

The aim of this paper is to propose an approach—structural, conceptual, and aesthetic—that radically departs from the prevailing obsession with content and genre. Instead, it explores alternative pathways drawn from research and artistic practices at the periphery of vision: a descent into the purgatorial waiting rooms of the unspo-

ken, the out-of-focus, the off-screen. The attempt is to extend the gaze beyond objective visibility, in the hope of uncovering new vitality in artistic thought and practice. Or, rephrasing the title of this writing, to reinstate excitement and attraction towards what is secret, subliminal, enshrouded in the haze of latency.



Fig. 1 Chris Marker, *Sans Soleil*, 1983, film still. Screenshot by the author. “The first image he told me about was of three children on a road in Iceland, in 1965. He said that for him it was the image of happiness and also that he had tried several times to link it to other images, but it never worked. He wrote me: one day I’ll have to put it all alone at the beginning of a film with a long piece of black leader; if they don’t see happiness in the picture, at least they’ll see the black.” (Marker, 1983).

OR, TO PUT IT DIFFERENTLY, “WHAT IS THIS ABOUT?”

For the past two decades, this question has lingered over countless casual conversations, fleeting encounters, and social gatherings within and beyond the context of art. But is it even worth pursuing something that can be so easily reduced and oversimplified?

Art and poetry possess the enormous potential to open rifts in reality, disrupting one’s perception and leading to transformative encounters that extend beyond the finitude of the self. They create a space between worlds, where meaning remains fluid, and everything and nothing coincide. However, the assumption that art and poetry can be reduced to simplistic explanations—framing them as works that are merely *about* a particular subject—risks neutralizing their critical force. This reductive impulse, by demanding clarity where ambiguity is essential, constrains their

capacity to challenge, unsettle, and radicalise experience. Such an approach diminishes the liberating possibilities inherent in artistic and poetic practices, as seen in the work of Sue Tompkins, Rana Hamadeh, and Hanne Lippard, where language operates not as a tool of definition, but as a medium of disorientation, difference, and transformation. Art and poetry cannot be *about* anything exactly for the reason that they ought to be about everything, and thus nothing. “A condition of complete simplicity / (Costing not less than everything)” (Eliot, 1943, p. 59).

Art and poetry worth engaging with do not merely encounter reality at its breaking points; rather, they transform its meaning into something else—something that captivates and unsettles us in equal measure. They do not seek to explain life more clearly or to simplify the contradictions of survival; instead, they stage a profound mystery, something that can never be fully understood and that inhabits a peripheral realm of being alive, or a different plane of existence. Art does not teach us how to live, nor does poetry train us to think more clearly. Rather, when they succeed, they materialize an atmosphere—one that allows us to hear silence amid the clamour of existence and to sense the unfathomable presence of death.

If we consider the work of art to be a work of leisure, a non-work floating in fleetingness, it is then unfinished by definition, purposeless yet irreplaceable, uncontained, unrestrainable, ultimately un-understandable: it cannot exist in a space defined by ‘theme’, weighed down by the preoccupation for unity and coherence. The poetic shift that art engenders is bound to happen in a space of contradiction, a void that replaces the banality of orderly ideas with the chaos of endlessness and possibility. Such void fills and exceeds the space of mystery opening up instead of what is calcified by routine and habit.

Most Western art, in countless attempts to describe, explain, and represent the world through vision, intrinsically dealt with incommensurable failure, a structural and

existential uselessness that points at the impossibility to truly understand how to listen to the polyphony of the real: “For twenty-five centuries, Western knowledge has tried to look upon the world. It has failed to understand that the world is not for the beholding. It is for hearing. It is not legible, but audible. Our science has always desired to monitor, measure, abstract, and castrate meaning, forgetting that life is full of noise and that death alone is silent: work noise, noise of man, and noise of beast. Noise bought, sold, or prohibited. Nothing essential happens in the absence of noise. Today, our sight has dimmed; it no longer sees our future, having constructed a present made of abstraction, nonsense, and silence” (Attali, 1985, p. 3). The impulse to engage with visual forms of art and language exists as the result, and despite of, programmatic frustration.

This effort belongs to a place of danger, a dark, uncharted area of the soul where one is confronted repeatedly with their own reckoning. Picture the kneeling figure of Beckett’s *Worstward Ho* (1983) placed within the fog-drenched, pixelated, boundless landscapes of *Silent Hill* (1999). The ones who seek to reconcile to unease, attempting to belong in non-belonging, are therefore challenged with cringing at the sight of their own shadow gesturing under the sun, a naked silhouette of bare being flooded with the light of embarrassment.

This profound sense of non-belonging—which aligns with the potential of making art within a lengthy, indeterminate, and ambiguous space, as well as with the mysteries of the abyssal depths of what is most private and unconscious—stands in fundamental contradiction to the funding structures, distribution channels, and resonance spaces of today’s contemporary art context and market. The latter favours simplification and efficiency over deep exploration, thrives on names, face value, and easily digestible labels (“vibes”) and hashtags, and generates speculative bubbles that, in effect, function as a semi-peripheral caricature of the aspirations, values, and lifestyles inherited from the luxury market.



Fig. 2 Screenshot from the videogame *Silent Hill*, 1999. Retrieved February 19, 2025 from <https://cdn.spaziogames.it/storage/wp/new-images/2022/09/silent-hill-50599.jpg>

Modern and contemporary Western culture has long been preoccupied with (and/or haunted by) the notion of content, plot, classification, and thematic identity—a persistent compulsion over medium, genre, and taxonomy that shapes how we perceive and organize knowledge, art, and experience. This very capacity for classification and identifiability, be it a story or a face, intrinsically linked to the reification of visual perception as the cornerstone of rational thought, constitutes the key factor (from simple face value through the concept of faciality) that the ubiquitous pervasiveness of ‘classic branding’ (in both the personal and the industrial sense) exploits across its multiple forms and contexts. The aforementioned mindset presupposes the presence of a defined, sharp subject unmistakably positioned at the centre of the frame and the gaze, glorified by an environmental context that exists solely in relation to it—confined to the margins, reduced to mere background, more often than not out of focus.

In the video game adventures *Hellblade: Senua's Sacrifice* (2017) and *Senua's Saga: Hellblade II* (2024) by Ninja Theory,

the player assumes the role of Senua, a Celtic warrior afflicted by severe psychosis, which manifests as auditory hallucinations - an unceasing stream of conflicting and contradictory voices that relentlessly comment on her actions. These voices, oscillating between belittling and encouraging, offering guidance, distraction, and self-doubt, shape the gameplay experience. Here, sound is not merely an accompaniment but an equal counterpart to the visual journey, immersing the player in a world of hazy rivers, fog-shrouded mountains, and mist-drenched plains—an eerie liminal space between the realm of the living and the dead.

POETICS OF ZONING OUT

Reality is terminally ill; or so it seems—if one reads or listens to the news more or less daily, it is easy to perceive a certain tendency in which reality is seemingly being overwritten by an aggregate of science fiction and/or dystopian tropes and clichés: it has been deemed agonising, rotting, and declared clinically dead for decades now. In the American blockbuster *The Matrix* by the Wachowski sisters (1999) humanity is found unwarily trapped in a computer simulated scenario, while the “real” world is reduced to a wasteland of ruins; in one of the key sequences in the first section of the movie co-protagonist Morpheus (Laurence Fishburne) shows the hero, Neo (Keanu Reeves), the grim state of the “real” real, while a “residual self-image” of himself exists in one of many possible simulated environments. The condition, one might argue, lies in the eye of the beholder: as the distinction between fact and fiction, computer-generated imagery and actual footage, becomes increasingly elusive, misinformation and rumours intervene to alter, obscure, and ultimately remix reality. In this context, one is left disoriented, navigating a world in which, as Laric (2010) asserts, “just about everything has been photoshopped”. In a recent article published on the website of art magazine

Fig. 3 AI-generated concept video depicting the transformation of Gaza to a real estate resort, posted by an unknown author on the social media platform Truth and reposted by Trump on his accounts, February 2025. Screenshot by the author



Spike, Sam Venis (2025) reflects upon the idea of the American dream gradually turning into a nightmare via the *me-meification* of politics in the increasingly polarised public discourse, stating that: “We’re facing the rise of a new tech-industrial complex, sucking up power from the government

for the sake of its own mysterious designs, producing on-line conflicts to generate attention and ad revenue while distracting us from what's really at stake."

More than ten years prior, artist and researcher Hito Steyerl theorised in her text *Too Much World: Is the Internet Dead?* (2013) that: "If images start pouring across screens and invading subject and object matter, the major and quite overlooked consequence is that reality now widely consists of images; or rather, of things, constellations, and processes formerly evident as images." As a result of the proliferation and ease of access to interconnected pocketable electronic devices, digital imaging and post-production tools, she follows, more images are injected into reality than could ever be digested: "Today, almost everyone is an artist" (Steyerl, 2013) while everyone also becomes the audience to this performance documentation circus at the same time, *LARPing*² at each other in a context where: "A new form of storytelling using emojis and tweeted rape threats is both creating and tearing apart communities loosely linked by shared attention deficit" (Steyerl, 2013).

The fact that "today" everyone is an artist is all but a new thing. It has been long theorised and put to practice throughout the course of the last century, from commonplace reactions to Duchamp conjuring the idea of the ready-made to Benjamin's famed essay *The Work of Art in the Age of Mechanical Reproduction*, (1936), in which he stated that: "photography freed the hand of the most important artistic functions which henceforth devolved only upon the eye looking into a lens" (p. 4), but also didn't fail to see how: "the instant the criterion of authenticity ceases to be applicable to artistic production, the total function of art is reversed. Instead of being based on ritual, it begins to be based on another practice—politics" (Benjamin, 1936, p. 10); and further up to Marker's statement in *Sans Soleil* that: "Poetry will be made by everyone" (Marker, 1983). But in a world where everybody can be called an artist, what gives one the right to appoint themselves as a "true" or truer artist—or the artist's artist,

someone who is somehow more entitled to engage with art-making than everybody else? Self-righteousness? Class and birth privilege? Peers and market recognition? Narcissism? True enlightenment? A connection with obscure forces far beyond common reach? Trauma? Clairvoyance? Predetermination? Self-delusion? Connections and positioning? How does one engage with artistic production without feelings of shame or embarrassment?

The possible response to such questions could be the adoption of a strategically regressive approach: a deliberate choice to shift into the background in an attempt to obscure one's own positioning and intentions. To become mist among the trees, a shadow among shadows—refusing to exist as a subject within the landscape and instead becoming the landscape itself. Amidst the murmur of too many voices speaking over one another, choosing silence over speech; withdrawal over action; the act of waiting over the impulse to participate.

In her short film *The Green Ray* (2001), British artist Tacita Dean documents her attempt to capture the elusive optical phenomenon of the green ray over the course of several days in the summer of 2000, along the coast of Madagascar. This rare event, which can occur in the final moments of sunset as the sun dips below the horizon, remained stubbornly imperceptible—neither visible to the naked eye nor capturable through digital video formats. Yet, in the film's final minute, Dean reveals a moment of wonder and astonishment: months later, upon developing fragments of celluloid film, the green ray unexpectedly emerges for a few fleeting frames: mysterious and elusive, resisting capture yet imprinting itself in the very materiality of the medium and a testament about “the act of looking itself, about faith and belief in what you see” (Dean, 2001).

As in Dean's film, the voiceover in Marker's *Sans Soleil*, through the closing sequence of the film, serves as a reminder that air has indeed a volume, one occupied by what is seemingly absent: “I took the measure of the unbearable

vanity of the West, that has never ceased to privilege being over non-being, what is spoken to what is left unsaid. I walked alongside the little stalls of clothing dealers. I heard in the distance Mr. Akao's voice reverberating from the loudspeakers [...] A piece of chalk to follow the contours of what is



Fig. 4 Tacita Dean, *The Green Ray*, 2001, still from 16mm film. Courtesy of the artist, Frith Street Gallery, London and Marian Goodman Gallery, New York/Paris. Retrieved February 16, 2025 from <https://www.frithstreetgallery.com/exhibitions/115/works/art-works-14459-tacita-dean-the-green-ray-2001/>

not, or is no longer, or is not yet" (Marker, 1983).

Such is the space that mist renders visible, making the landscape disappear in order to become the landscape, filling the volume of air with particles of nebulised water. The act of looking with belief in what you see becomes akin to the act of listening, and to engage in looking without knowing what one should look for becomes comparable to the act of faith in listening and recording typical of the attitudes and approach of certain field recordist artists, from Luc Ferrari to Peter Cusack.

Ferrari long insisted on making music with “almost nothing,” constructing anecdotal compositions through the recording and reassemblage of sounds from various environments (*Presque Rien N°1 Ou Le Lever Du Jour Au Bord De La Mer*, 1967–70; *Hétérozygote*, 1963–74; *Presque Rien Avec Filles*, 1989). These works, as if conjuring a spell, do not simply transport the listener back to the original environment from which the sounds were sampled; rather, they open the door to a third place: an inland atmosphere, a space of the mind that suddenly becomes tangible and accessible.

Cusack follows a similar path, exploring the potential of recorded sound as a means to uncover and understand the complex relationships between environment, memory, and trauma. In his long-term research *Sounds from Dangerous Places* (2012)—a work situated at the intersection of documentary and musique concrète—Cusack employs field recordings from various locations around Chernobyl, reflecting on the environmental catastrophe of 1986, as well as from oil extraction sites across the Caspian Sea, Azerbaijan, and the United Kingdom.

In Michael E. Smith’s installations, seemingly random objects and assemblages of various kinds are presented to the viewer devoid of any context. Smith sources the objects from diverse waste scenarios: machinery parts, organic material, clothing, pieces of plastic, wood, cardboard, rubber and other items are salvaged from oblivion and set to inhabit a different place – a new space where they can be looked at or ignored, worshipped or neglected, without further explanations.

Often small in scale and placed in unassuming positions, Smith’s sculptural work imbues the room with infinite novel potential, it renders the air visible, thicker and heavier. While often perceived and described as ‘haunting’ or ‘ghostly’, one could find Smith’s art, on the contrary, to be endowed with the uncommon power to transmit a sense of abandonment, a state of grace out of time, finally rendering the visitor one with their surroundings. The room itself takes centre stage, as Smith’s interventions conjure nothing out of something.



Fig. 5 Michael E. Smith, *installation view at KOW, Berlin, 2017*. Courtesy of the artist and KOW, Berlin. Retrieved February 19, 2025 from <https://www.contemporaryartlibrary.org/project/michael-e-smith-at-kow-berlin-10665/4>.

Similarly, American artist and writer Paul Chan (2009) has stated that: “because it cannot express what it truly wants to be, art becomes something greater and more profound”, suggesting that although all art have always been engaging with reflecting upon and rendering visible the manifold facets intertwining chaos with order, or how it has often given “expression to how we welcome, ignore, resist, or try to change the forces that push this reality into and over our lives, [...] the best works do this all at once. This is what art of the moment always tries to do: capture a flash of friction in time and make it burn as bright as the night is long.” (Chan, 2009).

CONTENT AWARENESS

A trace of this approach can be identified in the series “Content Aware” (2011—ongoing), a collection of portraits sourced from various websites, primarily fashion editorials and blogs. In each of these images, the photographic subject is transformed into a halo, absorbed into the background; an exaggeration of the automatic fill effect in Adobe Photoshop, a tool originally designed to remove blemishes, minor imperfections, or unwanted details at the margins of an image. The very meaning of each image is challenged by subverting the fundamental relationship between figure and background, disrupting core assumptions about identity, faciality, the body, and gender. Each photograph is accompanied by a caption featuring a name and an address: a fictitious identity randomly generated by the well-known website *fakenamegenerator.com*. The algorithm, based on a predefined set of parameters, produces a seemingly plausible identity, including a name, address, social security number, birthdate, occupation, and basic bodily features.

Expressions like “this last week has been a blur” hint at a feeling of detachment from one’s own experience, as if watching life unfold from the outside; within the range of sensations of “being on autopilot” analogies with NPCs or simulated characters arise. In many video games and simulations alike, non-playing characters follow pre-programmed behaviours without real agency. The disembodied non-figures in “Content Aware” offer a visual rendering for this dissociative state.

Likewise, this research explores strategies for engaging with what is not immediately visible or audible. The sculptural assemblages titled *LOOMER* (2016—ongoing) use coil pickups and wide band electromagnetic receivers to produce a sonification of the electromagnetic landscape existing in the space around the audience and carried by the visitors themselves, establishing a bridge between the viewer and the energy fields surrounding physical objects.

Fig. 6 Enrico Boccioletti, *Daniel A. King 3361 Pratt Avenue Stanwood, WA 98292*, 2011, digital image file. From the series “Content Aware”. Courtesy of the artist. Retrieved February 18, 2025 from <https://content-aware.tumblr.com/post/3434322703/daniel-a-king-3361-pratt-avenue-stanwood-wa>.



In this relationship the viewer becomes at once emitter and receiver, feeding back signals of existence towards the nonhuman. In *Quando non c'è più niente da bruciare devi darti fuoco tu* (NIGHTMARE B4 XMAS), words, smell, and the absence of light became the primary media for an exhibition in which the room itself performed. The show took place on three specific nights—December 9, 12, and 14, 2019, from 7



Fig.7 Enrico Boccioletti, *Quando non c'è più niente da bruciare devi darti fuoco tu* (NIGHTMARE B4 XMAS), 2019, installation view at TILE, Milan, December 2019. Courtesy of the artist and TILE, Milan. Photo: in collaboration with Elena Radice. Retrieved February 21, 2025 from <https://www.moussemagazine.it/magazine/enrico-boccioletti-quando-non-ce-piu-niente-da-bruciare-devi-darti-fuoco-tu-at-tile-project-space-milan-2019>.

to 9 pm —at TILE, an independent (now defunct) space in Milan. Upon entering, visitors were provided with a text and guided by a facilitator, only to find themselves in complete darkness—all gallery lights had not only been switched off but physically removed. Stumbling upon shreds of onions left to rot on the floor, they were struck by the pungent odour of organic decay and left to navigate the space using their phone flashlights, accompanied by tape recordings of plays by Sarah Kane, Jon Fosse, and Samuel Beckett.

CONDENSATION

Contemporary life can be often marked by an overwhelming sense of monotony—an inescapable banality exacerbated by the relentless automatism to document daily experience in ultra-high definition. The

hypervisibility of even the most mundane moments renders them paradoxically unremarkable, inducing a pervasive, almost inevitable, sense of boredom, reducing experience into genres of autofiction. In an era defined by traceability and database-driven structures, the act of storytelling increasingly hinges on the capacity to incorporate, reference, and interconnect disparate elements. Narrative is no longer solely about constructing a linear account but about embedding layers of meaning through the strategic inclusion of external elements, fragments, associations, and detours.



Fig.8 Enrico Boccioletti, *Julian Assange Dancing 800% Slower*, 2012–2023, still from video. Courtesy the artist.

What if the act of consciously blurring boundaries, defocusing visuals, and choosing to obfuscate rather than clarify becomes the only meaningful form of image-making—an intentional counterpoint to the automated precision of subject-tracking, sharpening tools, and algorithmic imaging? An image that conceals rather than reveals could represent the last consciously constructed image, driven by a deliberate desire to un-know the known, to

evoke atmospheres that extend beyond the passive imagery generated by the mechanisms of computational photography.

To conclude, one could argue that mystification could become the releasing force driving artistic exploration, one not rooted in the need for self-explanation but rather in the desire to lose oneself. It is not the urge to define, but the pursuit of disorientation to accomplish broader significance, engaging with mystery precisely because it resists simplification. This approach embraces uncertainty as a generative power, privileging open-ended inquiry over resolution, to negate depiction in order to attain being. Let fog, mist, and haze guide our tiptoeing backwards, floating in abandonment.

Look, it cannot be seen—it is beyond form.
Listen, it cannot be heard—it is beyond sound.
Grasp, it cannot be held—it is intangible.
These three are indefinable;
Therefore they are joined in one.

From above it is not bright;
From below it is not dark:
An unbroken thread beyond description.
It returns to nothingness.
The form of the formless,
The image of the imageless,
It is called indefinable and beyond imagination.
(Lao Tsu, 1972, p. 38)

NOTES

¹ See Stilinović (1993) "My observation and knowledge of Western art has lately led me to a conclusion that art cannot exist anymore in the West. This is not to say that there isn't any. Why cannot art exist anymore in the West? The answer is simple. Artists in the West are not lazy. [...] Laziness is the absence of movement and thought, just dumb

time – total amnesia. It is also indifference, staring at nothing, non-activity, impotence. It is sheer stupidity, a time of pain, futile concentration. Those virtues of laziness are important factors in art. Knowing about laziness is not enough, it must be practiced and perfected. Artists in the West are not lazy and therefore are not artists but rather producers of something... Their involvement with matters of no importance, such as production, promotion, gallery system, museum system, competition system (who is first), their preoccupation with objects, all that drives them away from laziness, from art.”; and Lüt-ticken (2014): “The politics of time can be as aesthetic in nature as it is political; aesthetic in the sense that we are dealing with the senses, with our bodies, with rhythms. A notion such as laziness has freely moved from the political realm to the artistic avant-garde, and in fact it has been particularly dominant in contexts where two avant-gardes mixed or merged.”

2 “The activity of participating in live-action role-playing games” LARPing. (n.d.). In Merriam-Webster online dictionary. Retrieved February 25, 2025 from <https://www.merriam-webster.com/dictionary/LARPing>

REFERENCES

- Antoniades, T. (2017). *Hellblade: Senua's Sacrifice*. Ninja Theory.
- Antoniades, T., & Derham, L. (2024). *Senua's Saga: Hellblade II*. Ninja Theory/Xbox Game Studios.
- Attali, J. (1985). *Noise. The political economy of music*. Minneapolis, MN: University of Minnesota Press.
- Beckett, S. (1983). *Worstward ho*. London, UK: Calder Publications Limited.
- Benjamin, W. (1936). *The work of art in the age of mechanical reproduction*. H. Arendt (Ed.). New York, NY: Schocken/Random House.
- Boccioletti, E. (2011). *Daniel A. King 3361 Pratt Avenue Stanwood, WA 98292*. Courtesy the artist.
- Boccioletti, E. (2019). *LOOMER*. Courtesy the artist.
- Boccioletti, E. (2019). *Quando non c'è più niente da bruciare devi darti fuoco tu (NIGHTMARE B4 XMAS)*. Courtesy the artist and TILE, Milan.
- Boccioletti, E. (2023). *Julian Assange dancing 800% slower*. Courtesy the artist.
- Chan, P. (2009). What art is and where it belongs. *e-flux Journal*, (10). http://worker01.e-flux.com/pdf/article_95.pdf
- Cusack, P. (2012). *Sounds from dangerous places*. ReR Megacorp/Berliner Künstlerprogramm des DAAD.
- Dean, T. (2001). *The green ray*. Courtesy of the artist, Frith Street Gallery, London and Marian Goodman Gallery, New York/Paris.
- Eliot, T. S. (1943). *Four quartets*. Boston, MA: Houghton Mifflin Harcourt.
- Ferrari, L. (2012). *Presque rien*. Editions Mego/Recollection GRM/INA-GRM.
- Ferrari, L. (2017). *Hétérozygote/Petite symphonie intuitive pour un paysage de printemps*. Editions Mego/Recollection GRM/INA-GRM.

- Laric, O. (2010). *Versions. Courtesy of the artist and Tanya Leighton*, Berlin/Los Angeles.
- Lazzarato, M. (2014). *Marcel Duchamp and the refusal of work*. Los Angeles, CA: Semiotext(e).
- Lütticken, S. (2014, February 1). Liberation through laziness. Some chronological remarks. *Mousse Magazine*. Retrieved February 24, 2025, Available at: <https://www.moussemagazine.it/magazine/sven-lutticken-refusal-2014/>
- Mansfield, K. (1988). *The garden-party and other stories*. C. Hankin (Ed.). Auckland, NZ: Century Hutchinson New Zealand Ltd.
- Marker, C. (1983). *Sans soleil*. Argos Films.
- Smith, M. E. (2017). *Untitled*. Courtesy the artist and KOW, Berlin.
- Steyerl, H. (2013). Too much world: Is the internet dead? *E-flux Journal*, (Issue #49). Retrieved February 21, 2025, from <https://www.e-flux.com/journal/49/60004/too-much-world-is-the-internet-dead/>
- Stilnović, M. (1993). *Praise of laziness*. Retrieved February 24, 2025. Available at: <https://mladenstilnovic.com/works/10-2/>
- Toyama, K. (1999). *Silent hill*. Konami Group Corporation.
- Tsu, L. (1972). *Tao te ching: a new translation by Gia-Fu Feng and Jane English*. New York, NY: Vintage Books/Random House.

Article available at

DOI: 10.60923/issn.2724-2463/21493

How to cite

Boccioletti, E. (2025). Ghosting about, Notes on indeterminacy as method, *img journal*, 12, 142-161



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

EPHEMERAL ATMOSPHERES.

CLOUDS, POINTS AND
THE REPRESENTATION
OF NATURAL
ELEMENTS

Alessio Bortot
University of Trieste
Department of Engineering and Architecture
alessio.bortot@units.it

ESSAY 175/12

POINT CLOUDS

ART

REPRESENTATION

In the first part, the text describes some significant episodes related to the representation of clouds in the history of Western painting, particularly in the Renaissance and Baroque periods, highlighting a relation to theatrical representations of sacred scenes belonging to the medieval period. What is most important are the symbolic aspects linked to this atmospheric element, often related to its mystical role. Mention is made of the function assumed by the representation of clouds in traditional Sino-Nipponese painting, in this context

the characteristics of mutability and vagueness explain their use. But the cloud is also an element that enchants the observer and is therefore employed by contemporary artists in their installations for unexpected performances, where the cloud itself is the protagonist. The second part of the article is dedicated to the relationship between data collected by laser scanners (point clouds) and their use as representation tools, beyond metric information. The rendered images of these data highlight artistic values in the field of digital art.

Eh! qu'aimes-tu donc, extraordinaire étranger?
J'aime les nuages... les nuages qui passent...
là-bas... là-bas... les merveilleux nuages!
(Charles Baudelaire, *L'Étranger*, 1869, p. 4)

Clouds have been depicted, especially in sacred painting, as elements of transition and boundary between heaven and earth, between human and divine dimensions. In Renaissance painting, clouds are often used to amplify the effects of aerial perspective, although their indefinite shape was difficult to adapt to the mechanical grid of the 'science of art'. These laws, as well as those relating to the depiction of sacred subjects, could be broken for symbolic reasons. In many paintings showing religious scenes, clouds play a mystical role by opening a door to a celestial dimension. In this context, they do not need to be depicted in accordance with the laws of optics because they transcend the realm of human perception. It is significant to mention what Hubert Damisch (1928-2017) observes in relation to the famous experiment of perspective tablets carried out by Filippo Brunelleschi (1377-1446), where only architectures were represented in perspective, while the sky space was replaced by a reflective surface: "Perspective only needs to 'know' things that it can reduce to its own order, things that occupy a place and the contour of which can be defined by lines. But the sky does not occupy a place and cannot be measured; and as for clouds, nor can their outlines be fixed or their shapes analysed in terms of surfaces. A cloud belongs to the class of 'bodies without surfaces', as Leonardo da Vinci was to put it, bodies that have no precise form or extremities and whose limits interpenetrate with those of other clouds" (Damisch, 1972, p. 124).

These paintings are accompanied by a strong illusionistic tendency. So, clouds become aerial elements to break through the space of ceilings and domes of churches, ideal atmospheres in which to insert, for example, an assump-

Fig. 1 G. B. Gaulli, *Trionfo del nome di Gesù*, (1661-1679), fresco, plaster statues and wooden panels, Chiesa del Gesù in Rome. Photo by the author.



tion or glory of divine entities. This vocation for illusionism, which will become even more intense in the Baroque period, will find formal solutions combining painting and sculpture: one example, among many others, is the work of art entitled *Trionfo del nome di Gesù* (1661-1679) by Giovanni Battista Gaulli (1639-1709), known as Baciccio, at the Chiesa del Gesù in Rome (Figures 1-2).

This work adorns the lunettes barrel vault covering the main nave. It consists in several elements painted with fresco technique, such as the sky immersed in divine light and framed in the central part, which is accompanied by characters in relief (plaster statues) and clouds, with representations of angels and the damned, painted on panels



Fig. 2 G. B. Gaulli, *Trionfo del nome di Gesù*, (1661-1679), fresco, plaster statues and wooden panels, Chiesa del Gesù in Rome. Rendering of the point cloud by the author.

detaching themselves from the intrados surface. The 'materiality' of the depicted clouds creates an opposite visual effect: the distance of the observer's point of view from the ground (approximately thirty metres from the work) makes impossible to distinguish what is painted and what is modelled. The clouds again, which interrupt the central golden frame in some parts, seem to float in an infinite space; their shadows are congruent with the light source at the centre of the composition.

This Baroque example finds its echo in the tradition of medieval sacred theatrical performances where some stage devices called 'heaven machinery' or 'cloud machinery' used to be employed, according to numerous records, eyewitness descriptions and drawings. Alessandra Bucchieri (Bucchieri, 2014) highlights how, starting from the medieval period, sacred theatres employed platforms, made of wood and iron, camouflaged by clouds of cotton wool, whose function was to raise or lower statues or sacred figures from artificially constructed paradises located above the altars. Lights, songs and music joined artificial clouds

to impress the believer and charge the atmosphere with mysticism.

These few but meaningful examples highlight the symbolic role of clouds in Western art: even when realistically depicted as atmospheric elements, their presence does not seem to belong to human dimension, remaining suspended on the border between metaphysics and physical reality. Certainly, the reasons for this have strong religious motivations, but I believe they are also linked to their ephemeral nature: the cloud changeability and distance from the earth make them abstract bodies crossing space without truly occupying it, floating and intangible like the air that sustains and moves them. I have observed how the intangible nature of clouds has determined their absence from any schematic representations in Renaissance painting perspective. However, clouds are protagonists of aerial perspective, whose three-dimensional effect was normally achieved depending on the painter's trained eye.

Their abstract character takes on equally significant connotations in the forms of landscape representation within Eastern artistic tradition. In this field, axonometric projection was favoured as a form of representation. In Sino-Japanese painting, particularly in those works painted on horizontal or vertical scrolls (in Chinese *chou*, in Japanese *kakemono*), the low-lying clouds have the function of suspending the represented space and narrative time (something analogous could be said for other natural elements like waves or tree branches). The use of axonometry and the non-use of perspective, means that objects further away from the point of view are not reduced in size compared to those in the foreground. The clouds, therefore, connect horizontal parts of the visual narration where the objects still occupy different areas and belong to different scales (Figure 3). It is relevant that in European tradition, clouds are painted as seen from below, so that is, observed from the earth. In contrast, in Eastern painting they are often seen from above, so that is, from a point of view not

Fig. 3 T. Yuan, *Mountain Pavilion of the Immortals*, 1000 a. C., Collection of the National Palace and Central Museum in Beijing.



coinciding with the man's gaze. This type of depiction does not aspire to be an anthropocentric representation, such as the Western Renaissance central projections, but rather it evokes a more objective reality, the one observed from an infinitely distant gaze, the divinity's one. Also in this case, the clouds play a mediating role, acting as elements of nature that participate in both human and supernatural experience. According to Agostino De Rosa, there would be a correlation with the concept of emptiness, "which is then

assumed as a real presence in the pictorial scene, becoming concrete and perceptible in the form of clouds or fog, and which can be interpreted again through a temporal reading of the painting: in fact, during the unrolling and rerolling of the traditional support, it allows successive images to emerge from the void and then re-immerses in it, this way reproducing the progressive phases of pictorial elaboration” (De Rosa, 1998, p. VII). Hubert Damisch (Damisch, 1972, pp. 288-317) argues that clouds, in the conception of Chinese painting, are the recapitulation of the landscape, within the brush strokes that outline them, one finds the outlines of mountains or watercourses. Their depiction was not always done through brush lines; ancient techniques include the *keou-fen* (literally ‘tracing the dust’) or the *chui yun* (literally ‘blowing the clouds’) methods: these techniques seemed suitable enough to define the vagueness of the shape represented by the clouds.

In both Eastern and Western pictorial traditions observed so far, clouds represent elements of space transition, even if conveying different symbolic (or religious) and figurative roles. Beyond the different cultures or eras in which they have been represented, like other atmospheric elements such as fog, rainbows, sunsets, etc., they are able to evoke a strong emotional impact, a sense of dreamy wonder. This further characteristic was used extensively by the surrealist avant-garde in the 20th century. It was in this context that clouds started to be seen not only as protagonists of the weather, but also as unexpected characters floating in the terrestrial sphere. The clouds in René Magritte’s (1898–1967) paintings are allowed to cross domestic spaces and pass through thresholds between conscious and subconscious. So, the clouds in *La Vengeance* (1938), *La Victoire* (1939) and *La corde sensible* (1952) – just to mention a few of his most renowned works – became elements of destabilisation, highlighting the difference between reality and its representation, where every association is permitted. The fantastic dimension evoked by clouds is also employed in

Fig. 4 Berndnaut Smilde, *Nimbus Green Room*, 2013. Image courtesy the artist and Ronchini Gallery. (Photo: R) Muna).



contemporary art and not only in the field of painting – such as the clouds ‘blowed’ by Berndnaut Smilde, part of the series entitled *Nimbus*.

The Dutch artist creates installations (which we could also define performances) which last few seconds, and ‘project’ clouds in indoor spaces with controlled temperature and humidity, thanks to a fog machine and a secret mixture (Figure 4). His clouds are the emblem of what is evanescent and changing; what remains after the cloud has dissolved are photographs and videos shot by the artist. The light calibration and the choice of locations are fundamental: churches, modern buildings, neoclassical villas, abandoned factories, etc. are perfect settings that contribute to produce a state of wonder in the observer.

The wonder lies in the domestication of the cloud, which from an aerial element in the open sky finds a new existence, even if only for a few moments, in spaces inhabited by humans (Cattan & Faret, 2021, p. 1911).

Now it is essential to refer to the concept of clouds in the digital realm, in order to evaluate possible aesthetic links with the analogue clouds mentioned above. The term 'cloud' has become widely used in the field of information technology, without any artistic intent. It is generally used to refer to a collection of large amounts of data, gradually implementable, that are shapeshifters. As Rebecca J. Rosen states: "Much like the billions upon billions of bits of information we store, clouds can have whatever meaning we give them, whatever meaning we see in them" (Rosen, 2011).

Certainly, this concept has nothing to do with the pictorial, romantic or mystical clouds that we have been discussing so far, but some 'digital clouds' can be considered as form of artistic expression. For those who are involved in drawing and surveying, nowadays the word 'cloud', associated to the term 'point', is immediately linked to measurement operations through laser scanners 3D or multi-stereo photogrammetry methodologies. A point cloud is a discrete set of data points in space; it can be considered a 3D model of reality, even if it is not made of digital surfaces. Whoever invented the term 'point cloud' could have thought to associate dots to suspended water drops forming clouds in the sky, according to me.

As it is known, in elementary geometry, the fundamental elements of space are the point, the line and the plane. These concepts are abstract; their definition often delves into philosophy or metaphysics. It suggests a focus on the non-dimensional point, which cannot be represented. An ancient oriental treatise on geometry invites us to imagine it as a sphere whose diameter tends towards zero. Point is also the ancestral generator of the other two elements. This is because the one-dimensional line is made up of infinite aligned points, and the two-dimensional plane is created by



Fig. 5 Georges Seurat, *A Sunday on La Grande Jatte*, Georges Seurat, (1884), Metropolitan Museum of Arts, New York.

infinite straight lines. The synthetic nature of point makes it suitable for representing the complexity of forms and point clouds are good example of this potentiality. The abstract value of the point has been recognized since ancient times, influencing philosophy and science.

Euclid in his *Elements* (300 b.C.) states that “Point is that of which no part exists” (Vita, 1982, p. 101), while in the *Metaphysics*, Aristotle (384-322 b.C.) distinguishes it from the arithmetic One with these words: “The One indivisible according to quantity is called unity if it is indivisible in all ways and has no position, it is called Point if it is indivisible in all ways and occupies a position” (Vita, 1982, p. 105). The concept of ‘minimum and indivisible’ finds different entities in the field of mathematics with the One and the field of geometry with the Point, this last considered as something that cannot be represented because it has no dimensions but can be identified in space through its position.



Fig. 6 A. Bortot, *Natural point cloud*, 2024, Ex Polveriera di Romans d'Isonzo (Gorizia). Rendering by the author.

This fundamental concept supported all those involved in surveying: the ancient land surveyors who, with their groma, used to define land alignments by tracking points, or astronomers who recorded the positions of celestial bodies with the use of astrolabes, and so on².

During the history, the description of the shape complexity through the use of point have supported also artistic operation, first of all the ones of sculptors: an 'analogue' and practical point cloud, was the one obtained by sculptors through a mechanical instrument called 'Crocetta'. The three-dimensional croquis modelled in clay and then transposed in plaster through a cast of the sculpture, was discretized thanks to the insertion of nails: first in significant points - those where the surfaces had greater prominence or concavities - and gradually in intermediate ones. The Crocetta tool, consisting of three articulated arms hinged to each other, allowed the points taken from the sketch to be transferred to the marble using the procedure called 'messa a punti'. The reference points allowed the stone block to be rough-hewn using the mallet and chisels, to finally finish the modelling. This process was used, for example, by Antonio Canova (1757-1822) in the 18th century (Clerin, 1987).

Aristotle affirmed that the point is "invisible", but its position in space can be identified. This is a basic idea that gives meaning to contemporary point clouds. As we know, these latter are characterised by a set of points in space, each one defined by x, y and z coordinates within a Car-



Fig. 7 A. Bortot, *Natural point cloud*, 2024, Ex Polveriera di Romans d'Isonzo (Gorizia). Rendering by the author.

tesian reference system. The position of each point is determined by the emission of multiple laser pulses that intercept physical opaque and non-reflective surfaces (that are generally not read by the scanner and so seems to be invisible)³. As we know, each point is also characterised by 'colour co-ordinates' in the form of a RGB value.

The point clouds' chromatic coordinates reveal another connection with art history, in this case more aesthetic than geometric: towards the end of the 19th century, the painting technique known as Pointillism was developed in France within the Neo-Impressionist movement. Georges Seurat (1859–1891), one of the movement's leading figures, referred to this technique as 'peinture optique' or 'chromoluminarism' (Russell, 2019; Chastel & Minervino, 1972). Seurat's painting theory was based on the optical laws of vision and the perception of complementary colours, which were published by the chemist Michel Eugène Chevreul (1786–1889) in his book *De la loi du contraste simultanée des couleurs* (1839). This theory was already known to Eugène Delacroix and the Impressionists, but it had never been applied with such scientific accuracy. This kind of technique, scientific and artistic at the same time, was based on the

scientific deconstruction of colour applied to the canvas in small dots that blend optically in the observer's eye through a perceptual process known as 'retinal recomposition' (Figure 5) (Previati, 1929). More recently, the contemporary artist Marco Tirelli created his *Untitled* pieces by applying small, coloured brushstrokes to the canvas, which are only visible when the painting is viewed from very close, while the paintings appear greyscale when viewed from a certain distance (Soldaini & Locatelli, 2022).

The colouring of points clouds is achieved by the association between the points recorded with the spherical projection of the laser beam and the pixels of a spherical photo associated to each scan. The overlap is ensured by the coincidence between the instrumental centre of the scanner and that of the camera, so the forms are recorded thanks to geometrical principles, while colours are collected thanks to optical tool. We could also notice that point position is objective instead of their colours that are light dependent: this is similar to how reality is perceived by our sight.

Laser scanners and photogrammetric techniques are usually used to survey buildings or parts of land, providing metric, two- or three-dimensional information. They are used more for practical purposes than artistic ones, even though some publications have highlighted their aesthetic value, creative applications or epistemological framework⁴. If we consider point clouds only as a form of representation of reality, as if laser scanner would be a sort of camera obscura, rendering performed shows images similar to a form of 'digital neo-pointillism'. We can speculate that at first glance, some of the renderings produced are quite reminiscent of watercolours.

This is the case when the digital gaze is placed far into the virtual space, allowing the dots in the cloud to thicken, so that the void between them cannot be perceived (Figure 6). In other cases, the virtual camera zooms in on smaller scanned areas, revealing the subject in the foreground to be composed of tiny dots of laser pulses, like brush touches.

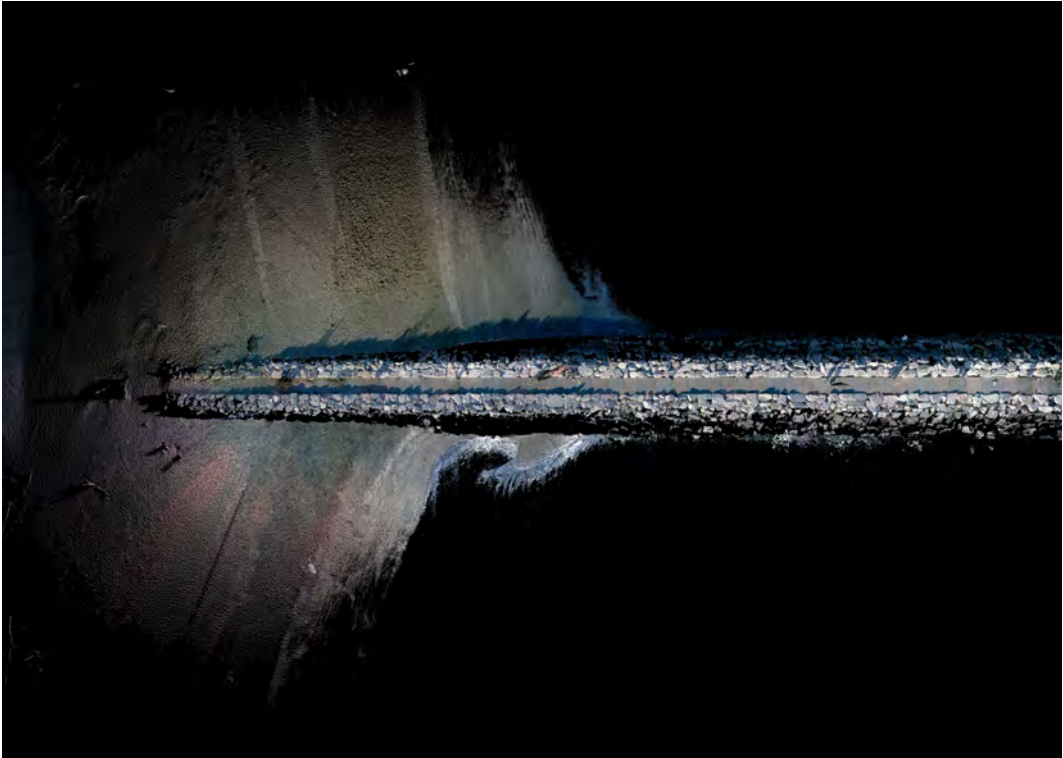


Fig. 8 A. Bortot, *Natural point cloud*, 2024, Venice lido (Venice).
Rendering by the author.

This makes it transparent, showing the cloud behind it as if was through a thin veil. Because of perspective, the cloud appears thicker in the distance.

The laser instrument produces fascinating effects precisely because of its operating limits. The non-instantaneous nature of the scans, each of which can last several minutes, implies a different representation of human and natural creations. Buildings are always in focus with sharp profiles, while vegetation, affected by atmospheric currents, is sometimes blurred and subject to a *moiré* effect that highlights its living nature. (Figure 7). In other words, the moving subject is recorded in different positions as three-dimensional, point-like fragments, much like in a long-exposure photograph. The same thing happens to shades and shadows, which are also in motion since they are influenced by the changing position of the sunlight.

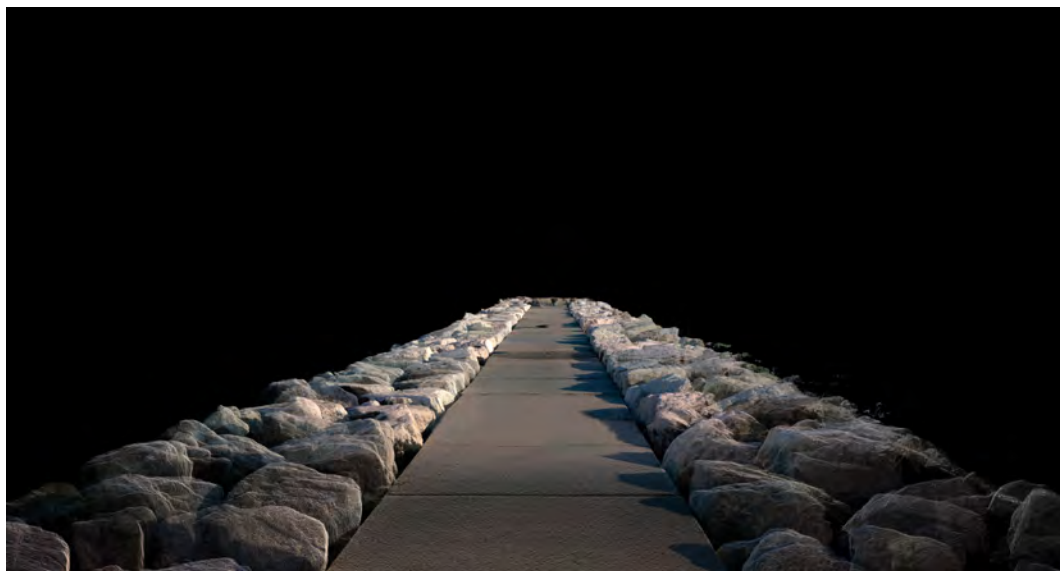


Fig. 9 A. Bortot, Natural point cloud, 2024, Venice lido (Venice). Rendering by the author.

This is a kinematic motion that is certainly slower than that one produced by the wind in the branches, but it is still influential in defining the shadow profile.

Transparent or reflective elements, such as seawater with its infinite variations in wave patterns, are not detected by the laser scanner. A dock appears to be suspended in infinite space (Figures 8-9). In conclusion, the results are liquid images, something suspended like a cloud of dust. Although a cloud of points is geometrically more ‘real’ than a photograph, as it represents an intangible digital clone of a space and its physical elements.

It is certainly difficult to compare contemporary point clouds with the pictorial representations from the first ones we started. However, we can see how surveying instruments produce new forms of digital representation that give images an ephemeral and changeable feel, like particles of water vapour suspended in the sky. Perhaps the appeal of these new digital images lies precisely in this point: an indivisible entity capable of reconciling artistic and scientific aspects and of “measuring by depicting and depicting by measuring” (Monti, 1980).

NOTES

- 1 About the metaphor of cloud in computer science and social media, refer to: Tung-Hui, 2016; Peters, 2016.
- 2 For an examination of the surveying instruments used in antiquity see: Docci, & Maestri, 1984, pp. 17-190.
- 3 The position of each point in space, relative to the instrumental centre (with 0,0,0 as coordinates), is determined by the time between the emission of the laser pulse and its return after intercepting an opaque surface. Other types of laser scanners, instead, calculate the phase difference between the light waves emitted and those received.
- 4 See for example: Chapman, McGregor, W., and R., 2018; Ivsic, Rajcic, McCormack, & Dziekan, 2021; Pearce, 2015; Bortot, 2024.

REFERENCES

- Bortot, A. (2024). Una selva di punti. La polveriera di Romans d'Isonzo. In T. Bisiani, L. Di Dato, N. Di Bella, D. Divkovic, & A. Venudo, (Eds.), *Massterplan 4. Quaderni di progettazione architettonica e urbana. Riscritture tra praterie, borghi rurali e storia per l'ex polveriera di Romans d'Isonzo (177-203)*. Trieste: EUT.
- Bucchieri, A. (2014). *The Spectacle of Clouds, 1439-1650. Italian Art and Theatre*, Burlington, VT: Ashgate.
- Cattan, N., & Faret L. (Eds.). (2021). *Hybrid Mobilities. Transgressive Spatialities*. London, UK: Routledge.
- Chapman, M., & McGregor, W. and R. (Eds.). (2018). *Art of the Point Cloud. A celebration of some of the most beautiful and striking 3D scans from around the world*. Glasgow UK: Wild Harbour Books.
- Chastel, A., & Minervino, F. (1972). *L'opera completa di Seurat*, Milan, IT: Rizzoli.
- Chevreur, M. E. (1839). *De la loi du contraste simultané des couleurs*, Paris, FR: Imprimerie Nationale.
- Clerin, P. (1987). *Manuale di scultura. Tecniche, materiali, realizzazioni*, Milano: Ulisse edizioni.
- Damisch, H. (1984). *Teoria della nuvola. Per una storia della pittura*, Genova, IT: Costa & Nolan.
- De Rosa, A. (1998). *L'infinito svelato allo sguardo. Forme della rappresentazione estremo-orientale*. Torino, IT: CittàStudi Edizioni.
- Docci, M., & Maestri, D. (1984). *Il rilevamento architettonico. Storia, metodi e disegno*, Bari, IT: Laterza, pp. 17-190.
- Ivsic, L., Rajcic M. N., McCormack, J., & Dziekan, V., (2021). The Art of Point Clouds. 3D LiDAR Scanning and Photogrammetry in Science & Art. In *10th International Conference on Digital and Interactive Arts (ARTECH 2021)*, New York, NY: ACM.
- Monti, C. (Eds.). (1980). *Giordano Bruno, Opere Latine, Il triplice minimo e la misura, La monade, il numero e la figura, L'immenso e gli innumerevoli*, Torino, IT: UTET.

- Pearce, T. (2015). Orchestrating the edge: Towards a noisy point cloud on-to-epistemology. *Design Ecologies*, 4(1-2), 142-170.
- Peters, J.D. (2016). *The Marvelous Clouds: Toward a Philosophy of Elemental Media*, Chicago, IL: University of Chicago Press.
- Previati, G. (1929). *I principii scientifici del divisionismo: la tecnica della pittura*, Turin: Bocca.
- Rosen, R. J. (2011), Clouds: The Most Useful Metaphor of All Time?, In *The Atlantic*. Retrieved March 29, from retrieved March 29, 2025 from <https://www.theatlantic.com/technology/archive/2011/09/clouds-the-most-useful-metaphor-of-all-time/245851/>.
- Russell, P. (2019). *Complete Paintings of Georges Seurat*, Milano: Delphi Classics.
- Soldaini, A., Locatelli, V. (2022). *Marco Tirelli*, Milano, IT: Silvana Editoriale.
- Tung-Hui, H. (2016). *A Prehistory of the Cloud*, Cambridge, MA: MIT Press.
- Vita, V. (1982). Il punto nella terminologia matematica greca. *Archive for History of Exact Sciences*, 27(2), 101-114.

Article available at

DOI: 10.60923/issn.2724-2463/21691

How to cite

Bortot, A. (2025). Ephemeral atmospheres. Clouds, points and the representation of natural elements. *img journal*, 12, 162-179.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

INTRODUCING ATLAS: A VISUAL STIMULI DATABASE FOR STUDYING THE AFFECTIVE EXPERIENCE OF ARCHITECTURAL ATMOSPHERES

Elisabetta Canepa¹, Bob Condia², Andrea Jelić³

¹University of Genoa

Department of Architecture and Industrial Design

²Kansas State University

Department of Architecture

³KU Leuven

Department of Architecture and Department of Civil Engineering

e.canepa@unige.it, condia@ksu.edu, andrea.jelic@kuleuven.be

ARCHITECTURAL ATMOSPHERE

AFFECTIVE EXPERIENCE

SPATIAL REPRESENTATION

EXPERIMENTAL STIMULI

AROUSAL AND VALENCE

Atmosphere, as the affective character of a space, shapes our conscious and non-conscious emotional experiences. Growing interest in this phenomenon has led to interdisciplinary approaches that integrate phenomenological first-person evaluations with neuroscientific third-person measures. However, studying the emotional effects of architectural atmospheres in behavioral and (neuro)physiological experiments requires affect-based stimuli specifically designed for spatial contexts-resources that are currently lacking. To address this gap, we developed ATLAS (Database of Visual Atmospheric Stimuli), a collection

of sixty-six spatial patterns derived from thirteen generators of atmosphere (e.g., colors, materials, textures, lights, and proportions), structured to elicit a broad spectrum of arousal and valence states from a controlled baseline corridor. ATLAS aims to become an open-access tool built to support scholars in exploring emotional responses to architectural features. This paper outlines the conceptual framework, design methodology, and future applications of ATLAS, emphasizing architecture's role in emotion research through its expertise in atmospheric design, spatial representation, and graphic processing.

INTRODUCTION

As the philosopher Karsten Harries observes, “the need for building cannot be reduced to the need to achieve physical control of the environment” (1983, p. 16). Indeed, architecture—or rather, the art and science of shaping our surroundings—“produces atmospheres in everything it creates” (1991, p. 36), as the philosopher Gernot Böhme states, emphasizing that buildings are not merely technical or functional constructs but also deeply influence our sensory and emotional experiences. Atmosphere, as a place’s intuitive and overarching affective character, engages us on conscious, preconscious, and especially nonconscious levels, serving as a fundamental architectural dynamic in exploring our emotional complexity.

From a methodological perspective, the interpretation of architectural atmospheres has traditionally been dominated by a phenomenological approach (Canepa, 2022a; Griffero, 2014), which focuses on how affective experiences are consciously felt in the first person. Among the different strategies developed to capture the qualitative aspects of our lived experiences—collectively known as *phenomenographies* (De Matteis et al., 2019)—visual representations such as drawings, collages, photographs, and videos hold significant potential. Their strengths manifest in two ways: they leverage architects’ graphic expertise (Canepa, 2025) and evoke atmospheric effects on their own (Morselli, 2021). Today’s challenge is to bridge the expanding phenomenological insights into atmospheric processes with recent cognitive science advancements on the body, brain, and emotion-related mechanisms by integrating first-person evaluations with third-person measures (Jelić & Canepa, 2026). Whether employing self-reports and/or biofeedback sensors, laboratory studies on emotions often rely on standardized and validated stimuli depicting real-world scenes, such as pictures and videos, which must be carefully calibrated to the specific research question and context.

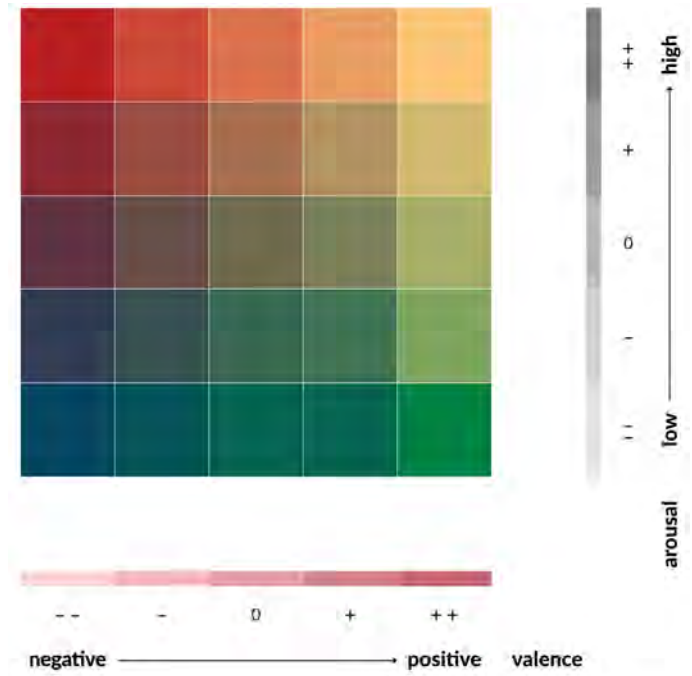


Fig. 1 A graphic reinterpretation of the circumplex model of affect. Source: Canepa, 2023, p. 292. For the original formulation, see Russell, 1980.

In other words, when designing image-based surveys (Canepa et al., 2019) and science-informed protocols (Canepa et al., 2025) to assess the emotional potential of architectural atmospheres, we need affect-driven stimuli expressly tailored to examine spatial settings.

Several theories explain how and why we experience emotions. One of the most widely tested paradigms is the circumplex model (Posner et al., 2005; Russell, 1980), which posits that people process and articulate their emotional states as points within a continuum defined by two fundamental, pan-cultural dimensions: *arousal* and *valence*. Broadly speaking, arousal reflects the intensity of an emotional state—that is, how strong and activating the experience is; valence describes its positivity or negativity, distinguishing between pleasant and unpleasant experiences. The precise relationship between arousal and valence remains an open empirical question (Colombetti & Kuppens, 2025), yet their combination provides a useful framework

for identifying emotions (Figure 1). For example, a state of low arousal and positive valence may correspond to 'calm', whereas high arousal and negative valence may be associated with 'tension'.

A pivotal resource in emotion research is the International Affective Picture System (IAPS, pronounced 'eye-apps'), which is extensively employed to investigate arousal and valence (Bradley & Lang, 2017). Developed by the Center for the Study of Emotion and Attention at the University of Florida in the 1990s (Lang et al., 1997, 2008), the IAPS offers a series of over 1,000 evocative color photographs, validated for their reliable ability to elicit specific emotional responses. Each image has been rated for arousal and valence, making the IAPS a robust and standardized tool for experiments, integrated into various disciplines and reproducible across diverse populations, contexts, and methodologies (Branco et al., 2023). However, the IAPS database has several limitations: (1) it is structured around still images that fail to capture the complexity of multisensory, real-life experiences (Schreuder et al., 2016); (2) its pre-Internet origins impose copyright restrictions that prevent its use in online surveys, which are essential for collecting data from large and heterogeneous samples (Kurdi et al., 2017); (3) the library is not regularly updated and some images may feel outdated due to changes in society and technology; (4) and, crucially for architectural applications, its limited content range lacks spatially specialized stimuli. When present, context serves merely as a backdrop and scenarios are inconsistent in composition, brightness, and detail. In short, the IAPS dataset is not suitable for analyzing visual representations of architectural atmospheres.

When exploring emotional interactions with built environments, urban spaces, or natural landscapes, standardized and validated databases with corresponding normative affective ratings are scarce and methodologies vary. As a result, researchers must prepare stimuli ad hoc for each study, which is time-consuming, raises costs, and compromises the comparability of findings.

Here are three examples of architecture-specific stimulus databases, each defined by its real-world likeness, sensory immersiveness, and freedom of movement. Gregorians et al. (2022) compiled 63 first-person-view videos from YouTube, each lasting from 31 to 40 seconds, capturing affect-laden spaces to examine the relationship between core affect (arousal and valence) and architectural experience. In an experiment by Presti et al. (2022), participants were virtually immersed in 54 abstract interiors, each differing in sidewall distance, ceiling height, window position, and ambient color, to rate their emotional responses along the arousal-valence spectrum during a 12.5-second pre-recorded walkthrough. Lastly, Canepa et al. (2019) designed 20 atmospheric variations of a corridor by modifying its plan layout, section, flooring, wall treatment, and lighting, modelling virtual reality environments that could be freely navigated for up to 60 seconds and evaluated for arousal and valence.

Building on Canepa et al. (2019), we crafted ATLAS, a dATabase of visual Atmospheric Stimuli, conceived as a spatial translation of the IAPS. ATLAS comprises spatial patterns derived from a systematic selection of generators of atmosphere (Canepa, 2022b)—architectural features such as lights, colors, materials, and proportions that contribute to orchestrating the overall atmosphere and shaping the emotions, behaviors, and appraisals of those who experience it. We established multiple key objectives: (1) to provide a set of pre-tested visual stimuli for analyzing emotional dynamics in lab settings, designed to resemble real-world environments; (2) to develop space-focused representations that span the circumplex continuum, including neutrally characterized configurations; (3) to regulate visual variables by maintaining a consistent level of detail, minimizing semantic cues, and reducing any differences that could influence emotional responses in ways unrelated to their affective content; (4) to ensure high-resolution quality and format flexibility by producing images and videos; (5) and to make the ATLAS project open access, supporting

its use in online research and enabling the replication and extension of results across experimental paradigms.

Designing and validating a database of visuospatial stimuli for emotion research calls for an interdisciplinary approach, integrating expertise from diverse fields to guarantee scientific rigor, ecological validity, and efficient applicability. For example, (neuro)cognitive scientists bring knowledge on spatial cognition theories, emotion models, and psychometric tools; statisticians handle reliability and validity testing; and architectural scholars provide insights into architectural morphology, spatial affordances, and the atmospheric experience of spaces, while also producing visual representations—such as drawings, photographs, and videos—and overseeing image processing (e.g., adjusting brightness, contrast, and spatial frequency) to ensure controlled stimulus presentation. This paper underscores the distinctive role of architectural expertise, outlining the primary stages of the stimulus design process and illustrating how architectural practice and teaching can inform empirical research on affective atmospheres.

MATERIALS AND METHODS

PROCEDURE

A two-week workshop with fifth-year students trained in Atmospheric Design and Phenomenography at the Architecture Department of Kansas State University (fall term 2022) explored how a space's affective character—its lived and felt atmosphere—can be manipulated by applying thirteen generators of atmosphere to a shared baseline. Our surroundings are rich in information, with each feature intricately interwoven, making it difficult to isolate individual atmospheric qualities (Seamon, 2025). However, a scientifically controlled protocol requires a reductionist strategy (Canepa et al., 2019, 2025), testing one design factor at a time to identify possible correlations between implemented changes and their resulting effects.



Fig. 2 ATLAS database, brainstorming, 2022. © Resonances project.

The design process for developing our ATLAS database followed six key steps: (1) literature research guided the definition of the baseline—a five-meter corridor connecting two rooms, concealed by a closed door; (2) students built a two-by-five-meter panel, arranging sketches, photographs, magazine clippings, and art-historical references to facilitate brainstorming by mapping spatial transitions and clustering compositional patterns (Figure 2); (3) each student selected a generator of atmosphere and modeled a three-dimensional environment, manipulating lighting conditions, material textures, and geometric parameters; (4) they formulated an emotion-based hypothesis about their chosen generator of atmosphere, explored it through five variations, and evaluated the emerging perceptual effects by having their classmates rate each space—exported as a central-perspective image—in terms of arousal and valence; (5) they collectively discussed the results, refined the images accordingly, and retested the stimuli; (6) after completing sixty-six interior scenarios with different degrees of atmospheric potential, one student edited all images to ensure graphic consistency



Fig. 3 ATLAS database, baseline corridor, 2022, edited by Reid Posinski. © Resonances project.

(same format, framing, perspective, brightness, color space, and resolution) and converted them into 12-second videos, where a first-person camera movement simulated walking through the corridor.

At this stage of refinement, ATLAS stimuli were ready for use in surveys and experiments (Canepa et al., 2024), aimed at generating descriptive statistics with rating information to validate the dataset. However, this step falls beyond the scope of the present paper, which focuses on illustrating the design premises and the architectural discipline's specific contributions to crafting spatially specialized visual representations of affect-evocative stimuli and advancing atmosphere research.

STIMULI: BASELINE

We opted for a corridor as our case study because it is a fundamental architectural element, ubiquitous as a distributive structure and closely tied to the human body proportions (Canevari, 2020; Guida, 2015; Trüby et al., 2014). Corridors in-

herently afford movements and evoke emotions, being often associated in the collective imagination with loneliness, darkness, risk, or endless passageways. For these reasons, research on sensorimotor and affective responses to architecture frequently examines corridors (Canepa et al., 2019; Djebbara et al., 2019; Presti et al., 2022). Our baseline corridor (Figure 3) had fixed dimensions ($2.45 \times 1.20 \times 5.00$ m), guided by the International Building Code (ICC, 2012) and proportional criteria (Proietti, 2015). To provide an emotionally neutral setting with uniform architectural quality adaptable to design practice—without being tailored to a specific sample—the floor was smooth-finished concrete, the walls and ceiling were white-plastered, and lighting emanated from a cove along the left edge of the ceiling. At both ends, we placed two closed wooden doors to spark curiosity and invite movement.

STIMULI: GENERATORS OF ATMOSPHERE

After defining our baseline, we determined thirteen atmospheric generators and developed sixty-six variations (Figure 4), interpreting each generator through five affective dimensions that span the spectrum of arousal-valence combinations (Figure 1): medium arousal and neutral valence; low arousal and negative valence; low arousal and positive valence; high arousal and negative valence; high arousal and positive valence.

A thorough breakdown of the thirteen categories of atmospheric generators is provided below.

Generator 1 modified the textural characteristics of the floor materials (sand; wood; carpet; tactile bumps; metal). *Generator 2* adjusted the walls by applying principles of color harmony theory (blue/blue; blue/yellow; blue/red; blue/green; blue/brown). *Generator 3* altered the rhythm of the lighting system (vertical sequence with low contrast; vertical sequence with high contrast; horizontal sequence with low

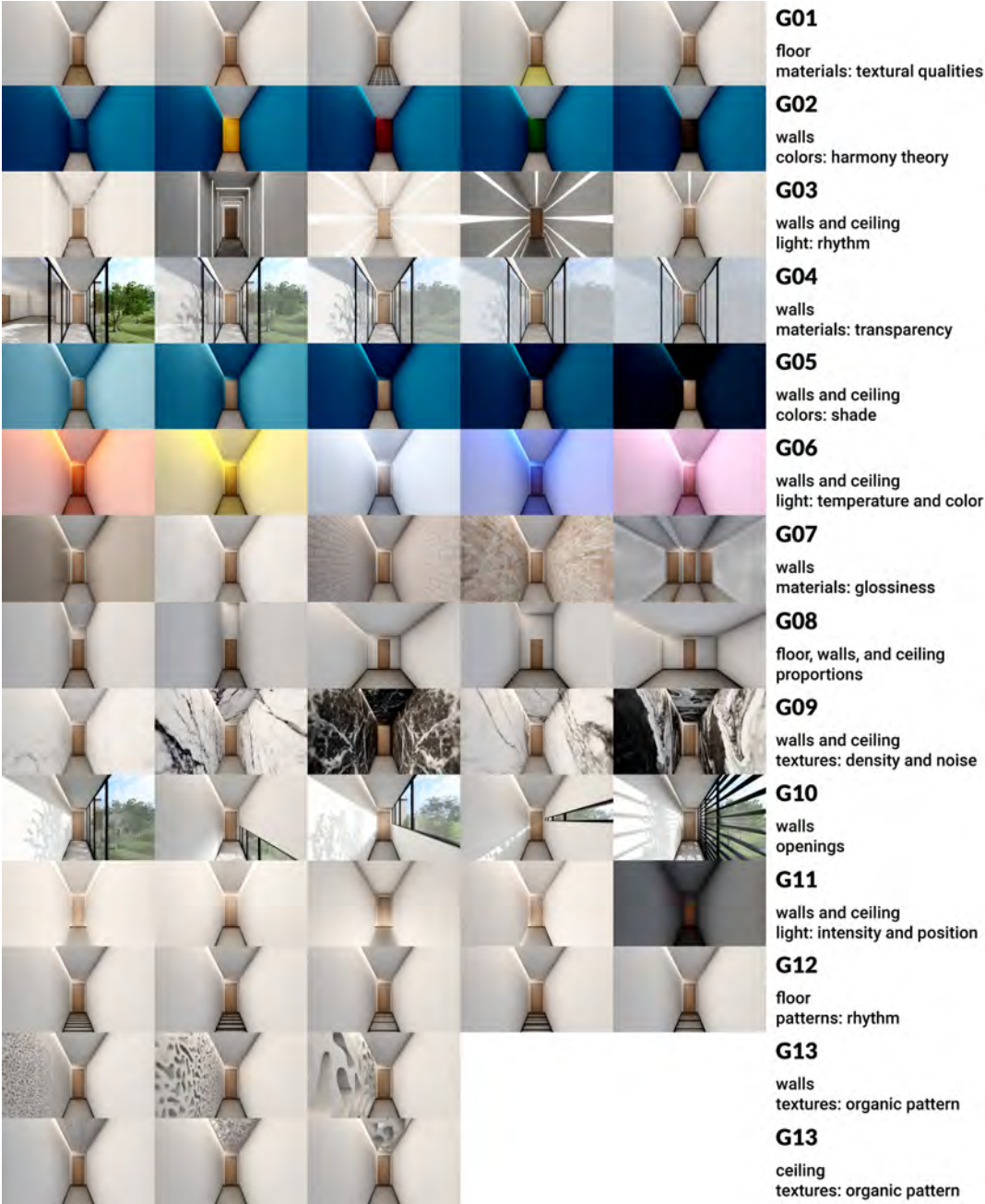


Fig. 4 ATLAS database, generators of atmosphere and their variations, 2022, edited by Reid Posinski. © Resonances project.

contrast; horizontal sequence with high contrast; linear symmetry with low contrast). *Generator 4* changed the transparency level of the glass on the walls (0% opaqueness; 25% opaqueness; 50% opaqueness; 75% opaqueness; 100% opaqueness). *Generator 5* introduced variations in color shades on the ceiling and walls, starting from a baseline blue tone (blue with 10% black; blue with 40% black; baseline blue; blue with 60% black; blue with 90% black). *Generator 6* modified light quality in terms of temperature and color (1,000 K; 2,000 K; 6,000 K; 10,000 K; pink shade). *Generator 7* adjusted the glossiness properties of the walls (polished metal; marble; white tiles; bricks; mirror). *Generator 8* altered the overall proportions of the space (arithmetic mean by Andrea Palladio: $H = (A+B)/2$, $H = 3.00$ m; long area postulated by Leon Battista Alberti: $A/H = 1/4$, $H = 4.80$ m; square proportion: $A:H = 1:1$, $H = 2.45$ m; golden rectangle, vertical: $H = A(1+\sqrt{5})/2$, $H = 4.00$ m; golden rectangle, horizontal: $H = 2.45$ m). *Generator 9* focused on walls and ceilings, exploring the effects of varying texture density and noise (low density and low noise; low density and mid-high noise; high density and high noise; mid-density and mid noise; high density and mid-high noise). *Generator 10* introduced openings on the right wall, offering views to the outside (curtain wall; ribbon window at floor height; ribbon window close to the ceiling; slit window; brise soleil). *Generator 11* modified light intensity, ranging from an extremely bright configuration to a dark setting (highly bright, illuminated by four light sources; bright, with two ceiling-mounted light sources; bright, with two floor-level light sources; bright, with two light sources positioned on the left wall; dark, with minimal lighting). *Generator 12* applied different step patterns to the floor, influencing their rhythm (horizontal variation with a regular rhythm; vertical variation with a regular rhythm; horizontal double-speed variation with a regular rhythm; vertical variation with an irregular rhythm; mixed horizontal and vertical variations with an irregular rhythm). Lastly, *Generator 13* tested organic textures on the walls and ceiling (this generator uniquely featured six iterations: small-scale pattern on the left wall; medium-scale

pattern on the left wall; large-scale pattern on the left wall; small-scale pattern on the ceiling; medium-scale pattern on the ceiling; large-scale pattern on the ceiling).

MEASURES: SELF-RATED RATINGS

To preliminarily evaluate the proposed solutions and refine their atmospheric qualities, the thirteen students engaged in three rounds of discussion, facilitated by the professor (first author). Each student presented five variations in a randomized sequence to their classmates, prompting quick responses to two questions, rated on a 9-point Likert-type scale from 1 ('not at all') to 9 ('extremely'). It was emphasized that there were no right or wrong answers, only subjective opinions and ratings.

1. In this corridor, I feel excited...

This question assesses the arousal dimension, measuring the intensity of the felt emotional experience—that is, how strongly it is.

2. In this corridor, I feel happy...

This question assesses the valence dimension, analyzing the pleasantness of the felt emotional experience—that is, how positive it is.

The peer-to-peer evaluation exercise was crucial in questioning initial assumptions, enhancing design decisions, and calibrating the salience of specific atmospheric features. This collaborative process therefore served as an informal yet meaningful assessment step, linking exploratory design work with systematic testing and informing the construction of the first version of the ATLAS.

RESULTS AND DISCUSSION

We designed sixty-six atmospheric variations of a five-meter corridor connecting two rooms, using a shared base-

line, by altering its floor, walls, ceiling, and doors through modifications in proportions, materials, textures, colors, lights, and views to the outside. All preset objectives were achieved, as the ATLAS stimuli focus on spatial configurations and their atmospheric properties; represent real-world environments; maintain architectural quality adaptable to design practice; align with contemporary contexts; facilitate direct comparison with each other; cover much of the circumplex continuum, including neutral settings in arousal and valence dimensions (such as the baseline element); limit visual complexity, avoid semantic information, and ensure a uniform sense of familiarity; provide images and videos, making the stimuli suitable for diverse research applications; and are open-access, encouraging their adoption as a common standard.

Although our reductionist approach helped manage the complexity of architectural atmospheres, we acknowledge its limitations and aim to refine them in future iterations of the ALAS database. Atmospheric experience is inherently multisensory and multimodal (Pallasmaa, 1994), but we prioritized vision to craft affect-laden stimuli, recognizing the crucial role of visual perception in shaping spatial interactions (Spence, 2020). Compared to still images, engagement was more effectively increased by first-person-trajectory videos, where we integrated sounds (e.g., whooshing doors opening and closing, as well as footsteps varying with different floor materials and textures) to improve multisensory immersion. This progression from static representations to dynamic experiences reflects our methodological contribution: rather than employing visualization merely as a representational tool, we explored it as an experimental approach to test how diverse modes of exposure shape emotional responses to space. A planned objective is to develop virtual reality settings to strengthen ecological validity (Canepa, 2024), as virtual simulations enable an embodied interaction between the perceiver, their surroundings, and peripheral devices. A possible next step would be the systematic comparison of static, dynamic, and immersive media to evaluate

their relative effectiveness in triggering and measuring atmospheric experience.

Corridors, while rich in sensorimotor and perceptual affordances, are characterized by reduced dimensionality and complexity (Presti et al., 2022). As transitional spaces, they may not elicit a strong enough emotional response to support conscious analysis and verbalization of feelings. This challenge parallels the broader difficulty of answering the seemingly simple question, ‘How are you feeling?’, though common in daily life, responses are often inconsistent and elusive to articulate, especially in relation to spatial experiences. This suggests that, despite being informed by psychological literature, the self-reported indicators students used in their preliminary ratings may not be entirely effective, particularly in capturing arousal (the intensity of the emotional experience)—a dimension inherently more ambiguous to perceive than valence (the degree of pleasantness experienced). As a result, the 66-variation taxonomy is not evenly distributed across arousal-valence combinations, with certain configurations being too repetitive, making it difficult to discern meaningful differences in ratings. Based on normative measures obtained from validation testing, we will refine the selection of stimuli to confirm the ATLAS set. The design methodology remains flexible, allowing for the integration of more architecturally sophisticated stimuli over time.

CONCLUSION

As research on the effects of built environments on emotions continues to grow in behavioral and cognitive sciences (Bower et al., 2019), the need for validated and comparable stimuli remains a persistent challenge. Currently, no standardized databases of affect-laden stimuli exist for those who study architecture or, more specifically, architectural atmospheres. Similar to how empirical aesthetics navigates the formal, sociocultural, and historical complexity of aes-

thetic experience when selecting stimuli from an almost limitless pool of artworks (Fekete et al., 2023), architectural studies must address the complexity of atmospheric experience. Atmosphere is co-generated through continuous interactions with our surroundings (Canepa, 2022a, 2022b), where multiple factors—both designable and random—interplay across different levels and timescales.

To advance emotion research in architectural atmospheres, we conducted a pilot study developing a database of space-focused stimuli that vary in emotional potential, assessed along two affective dimensions (arousal and valence): ATLAS—dATabase of visual Atmospheric Stimuli. Our methodological priorities were atmospheric variability, architectural quality, systematic comparability, high resolution, and open accessibility. We designed our ATLAS environments for use in video-based surveys (Canepa et al., 2024) and neuroscience-informed protocols (Canepa et al., 2025). However, this paper focuses on the design process behind stimulus composition rather than the evaluation of self-reported and (neuro)physiological ratings, highlighting the distinct and essential contribution of architectural scholars—experts in spatial analysis and visualization techniques.

ATLAS aims to become an open-access tool designed to support researchers in exploring emotional responses to architectural features by providing reliable, standardized, and reproducible stimuli. This database will serve as a vital resource for experiment-based investigations, driving advancements in research questions and methodologies. We encourage future studies to expand its stimulus spectrum and refine rating data, paving the way for new discoveries in architectural and affective research.

USAGE

The ATLAS database comprises sixty-eight stimuli, including a baseline corridor and a training element de-

signed for technical calibration or to help participants understand the experiment instructions before they engage with the actual stimuli, thereby reducing confusion and response variability. Two open-access versions are freely available for download and use: high-resolution images (Full HD, 1920 × 1080 pixels, 240 dpi, .jpg, sRGB) and 12-second first-person-view videos (Full HD, 1920 × 1080 pixels, .mp4, H.264, 60 fps). Each file is named according to a unique identifier, specifying the generator category and corridor number: for instance, ATLAS_ResonancesProject_Generator01_Corridor01. Please refer to the 'Data Availability' section for DOI entries and links. A document containing descriptions of all stimuli, summarized in Figure 4, is provided as supplementary material.

ACKNOWLEDGMENTS

This paper was developed within the RESONANCES project—Architectural Atmospheres: The Emotional Impact of Ambiances Measured through Conscious, Bodily, and Neural Responses. The RESONANCES project received funding from the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement no. 101025132. The content of this text reflects only the authors' view. The European Research Executive Agency is not responsible for any use that may be made of the information it contains.

'The Language of Atmosphere' workshop was taught by Elisabetta Canepa in the fall term of 2022 as part of the 'Architectural Design Studio VII' course, led by Bob Condia, at the Department of Architecture, College of Architecture, Planning and Design, Kansas State University, Manhattan, KS, United States. Special thanks to the students who contributed to crafting the ATLAS stimuli: Brittany Coudriet, Yvette Fabela, Samantha Hite, Abigail Hutchinson, Gabriela Elizabeth Maggi Velilla, Alex Mendoza, Reid Posinski,

Joshua Robertson, Anna Scarlett, Amanda Shearhart, Sullivan Stavneak, Jesika Tieszen, Daniel Timmons, and Albert Ybanez.

AUTHORSHIP

All authors revised and approved the paper. EC, BC, and AJ conceptualized the research; EC supervised the students' work and was responsible for the design and image/video editing processes; EC wrote the original draft; BC and AJ edited the manuscript and supervised the research.

DATA AVAILABILITY

The RESONANCES project has agreed to participate in the European Commission's Pilot on Open Research Data within the Horizon 2020 Program, aiming to enhance and maximize the reuse of research data generated by EU-funded projects. The ATLAS dataset is openly accessible through the project's Zenodo repository (resonances-project):

DOI: 10.5281/zenodo.8157841 (images), <https://doi.org/10.5281/zenodo.8157841>.

DOI: 10.5281/zenodo.8170370 (videos), <https://doi.org/10.5281/zenodo.8170370>.

REFERENCES

- Böhme, G. (1991). *Über Synästhesien* [On synaesthesiae]. *Daidalos: Architektur, Kunst, Kultur*, (41), 26–37.
- Bower, I. S., Tucker, R., & Enticott, P. G. (2019). Impact of built environment design on emotion measured via neurophysiological correlates and subjective indicators: A systematic review. *Journal of Environmental Psychology*, 66. <https://doi.org/10.1016/j.jenvp.2019.101344>
- Bradley, M. M., & Lang, P. J. (2017). International Affective Picture System. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of personality and individual differences* (pp. 1–4). Springer. https://doi.org/10.1007/978-3-319-28099-8_42-1

- Branco, D., Gonçalves, Ó. F., & Badia, S. B. I. A. (2023). A systematic review of International Affective Picture System (IAPS) around the world. *Sensors*, 23(8). <https://doi.org/10.3390/s23083866>
- Canepa, E. (2022a). *Architecture is atmosphere: Notes on empathy, emotions, body, brain, and space*. Mimesis International.
- Canepa, E. (2022b). The atmospheric equation and the weight of architectural generators. In E. Canepa & B. Condia (Eds.), *Generators of architectural atmosphere* (pp. 18–55). New Prairie Press.
- Canepa, E. (2023). An essential vocabulary of atmospheric architecture: Experiencing, understanding, and narrating Kansas State's Beach Museum of Art. In E. Canepa, B. Condia, & M. Wynne (Eds.), *Atmosphere(s) for architects: Between phenomenology and cognition. A dialogue between Michael Arbib and Tonino Griffero* (pp. 276–349). New Prairie Press.
- Canepa, E. (2024). Empathic imagination: Nurturing architectural creativity in video games and virtual reality simulations. In G. Leandri (Ed.), *Innovation Design Application (IDEA) 2024 edition—Manual vs automated creative process: Conference proceedings* (pp. 109–127). Genoa University Press.
- Canepa, E. (2025). Spazio, corpo e percezione. Il disegno come strumento di rappresentazione e analisi dell'immisurabile in architettura. *GUD (Genoa University Design): A Magazine about Architecture, Design, and City*, Special Issue, 151–166
- Canepa, E., Djebbara, Z., Güler, K., Andrighetto, L., Schiavetti, I., Scelsi, V., Jelić, A., & Condia, B. (2025). Architectural atmospheres, priming effects, and first impressions: A multi-perspective approach integrating self-report assessments and physiological responses. *Architectural Science Review*, 68(5), 379–391. <https://doi.org/10.1080/00038628.2025.2462570>
- Canepa, E., Güler, K., & Condia, B. (2024). The emotional atmospheres ATLAS: A database of architectural experiences surveyed through arousal and valence. In *The Environmental Design Research Association (EDRA) 54th conference—Environment and health, global/local challenges and actions: Conference proceedings* (p. 358). EDRA.
- Canepa, E., Scelsi, V., Fassio, A., Avanzino, L., Lagravinese, G., & Chi-orri, C. (2019). Atmospheres: Feeling architecture by emotions. Preliminary neuroscientific insights on atmospheric perception in architecture [Atmosphères : ressentir l'architecture par les émotions. Premières perspectives neuroscientifiques sur la perception atmosphérique en architecture]. *Ambiances*, (5). <https://doi.org/10.4000/ambiances.2907>
- Canevari, A. (2020). Corridoi. Demiurgici sguardi e frammenti di esistenza. *GUD (Genoa University Design): A Magazine about Architecture, Design, and City*, 2(1), 88–97.
- Colombetti, G., & Kuppens, P. (2025). How should we understand valence, arousal, and their relation? In A. Scarantino (Ed.), *Emotion theory: The Routledge comprehensive guide. Volume I: History, contemporary theories, and key elements* (pp. 599–620). Routledge.
- De Matteis, F., Bille, M., Griffero, T., & Jelić, A. (Eds.). (2019). *Phenom-*

- enographies: Describing urban and architectural atmospheres [Special issue]. *Ambiances*, (5). <https://doi.org/10.4000/ambiances.2522>
- Djebbara, Z., Fich, L. B., Petrini, L., & Gramann, K. (2019). Sensorimotor brain dynamics reflect architectural affordances. *Proceedings of the National Academy of Sciences*, 116(29), 14769–14778. DOI: 10.1073/pnas.1900648116.
- Fekete, A., Pelowski, M., Specker, E., Brieber, D., Rosenberg, R., & Leder, H. (2023). The Vienna Art Picture System (VAPS): A data set of 999 paintings and subjective ratings for art and aesthetics research. *Psychology of Aesthetics, Creativity, and the Arts*, 17(5), 660. <https://doi.org/10.1037/aca0000460>.
- Griffero, T. (2014). *Atmospheres: Aesthetics of emotional spaces* (S. de Sanctis, Trans.). Ashgate.
- Gregorians, L., Velasco, P. F., Zisch, F., & Spiers, H. J. (2022). Architectural experience: Clarifying its central components and their relation to core affect with a set of first-person-view videos. *Journal of Environmental Psychology*, 82, 101841. <https://doi.org/10.1016/j.jenvp.2022.101841>.
- Guida, I. (2015). Corridoi: La linea in Occidente. Quodlibet.
- Harries, K. (1983). Thoughts on a non-arbitrary architecture. *Perspecta: The Yale Architectural Journal*, 20, 9–20.
- ICC (International Code Council). (2012). *International building code*. McGraw-Hill.
- Jelić, A., & Canepa, E. (2026, forthcoming). Exploring the affective dimension of architectural atmospheres through the lens of enactive-embodied cognitive science. In R. Kazig, D. Masson, M. Welton, & I. Wiczorek (Eds.), *The Routledge handbook of ambiances and atmospheres*. Routledge.
- Kurdi, B., Lozano, S., & Banaji, M. R. (2017). Introducing the Open Affective Standardized Image Set (OASIS). *Behavior Research Methods*, 49(2), 457–470. <https://doi.org/10.3758/s13428-016-0715-3>.
- Lang, P. J., Bradley, M. M., & Cuthbert, B. N. (1997). *International Affective Picture System (IAPS): Technical manual and affective ratings*. University of Florida.
- Lang, P. J., Bradley, M. M., & Cuthbert, B. N. (2008). *International Affective Picture System (IAPS): Affective ratings of pictures and instruction manual* (Technical Report A–8). University of Florida.
- Morselli, E. (2021). Still-image atmospheres. In S. Catucci & F. De Matteis (Eds.), *The affective city: Spaces, atmospheres, and practices in changing urban territories* (pp. 296–313). Alleli/research, 88. LetteraVentidue.
- Pallasmaa, J. (1994). An architecture of the seven senses. In S. Holl, J. Pallasmaa, & A. Pérez-Gómez (Eds.), *Questions of perception: Phenomenology of architecture* (pp. 29–37). A+U.
- Posner, J., Russell, J. A., & Peterson, B. S. (2005). The circumplex model of affect: An integrative approach to affective neuroscience, cognitive development, and psychopathology. *Development and Psychopathology*, 17(3), 715–734. <https://doi.org/10.1017/S0954579405050340>.

- Presti, P., Ruzzon, D., Avanzini, P., Caruana, F., Rizzolatti, G., & Vecchiato, G. (2022). Measuring arousal and valence generated by the dynamic experience of architectural forms in virtual environments. *Scientific Reports*, 12(1), 13376. <https://doi.org/10.1038/s41598-022-17689-9>.
- Proietti, T. (2015). The aesthetics of proportion in Hans van der Laan and Leon Battista Alberti. *Aisthesis*, 8(2), 183–199. <https://doi.org/10.13128/Aisthesis-17580>.
- Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, 39(6), 1161–1178. <https://doi.org/10.1037/h0077714>.
- Schreuder, E., van Erp, J., Toet, A., & Kallen, V. L. (2016). *Emotional responses to multisensory environmental stimuli: A conceptual framework and literature review*. SAGE Open, 6(1), 215824401663059. <https://doi.org/10.1177/2158244016630591>.
- Seamon, D. (2025). Architecture and phenomenology. In N. de Warren & T. Toadvine (Eds.), *Encyclopedia of phenomenology*. Cham: Springer. https://doi.org/10.1007/978-3-030-47253-5_355-1.
- Spence, C. (2020). Senses of place: Architectural design for the multisensory mind. *Cognitive Research: Principles and Implications*, 5(1), 46. <https://doi.org/10.1186/s41235-020-00243-4>.
- Trüby, S., Werlemann, H., McLeod, K., Koolhaas, R., AMO, Harvard Graduate School of Design, & Boom, I. (Eds.). (2014). *Elements of architecture: Corridor*. Marsilio.

Article available at

DOI: 10.60923/issn.2724-2463/21437

How to cite

Canepa, E., Condia, B., Jelić, A. (2025). Introducing ATLAS: A Visual Stimuli Database for Studying the Affective Experience of Architectural Atmospheres. *img journal*, 12, 180-201.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

ATMOSPHERES OF SHANGHAI: SCENARIOS OF ASCENT, FADING, AND TRANSITION

Juan Carlos Dall'Asta¹, John Latto², Sandro Rolla³

^{1, 2, 3} Xi'an Jiaotong-Liverpool University, Department of Architecture

juancarlos.dallasta@xjtlu.edu.cn, john.latto@xjtlu.edu.cn, sandro.rolla@xjtlu.edu.cn

ESSAY 177/12

ATMOSPHERE

URBAN LANDSCAPE

PERCEPTION

DOCUMENTATION

SHANGHAI

Shanghai's urban landscape reveals a complex interplay between material transformation and sensory perception. This study explores how the notion of atmosphere—understood as a dynamic configuration of material, social, and emotional elements—can serve as a lens for interpreting contemporary urban experience. Through theoretical references to Zumthor, Böhme, Pallasmaa, and Griffero, the paper situates atmosphere as both a perceptual and cultural phenomenon. The methodology is articulated through five analytical frames—Atmospheres of Ascent, Atmospheres in Fading, Atmospheres in Transition, The City

of Toys, and The Play of Shadows—each addressing a specific condition of Shanghai's evolving urban fabric. Writing, photography, and video are employed as analytical tools to capture ephemeral transitions between public and private, physical and digital, collective and individual realms. The results reveal how urban atmospheres embody both continuity and change, mediating between memory and innovation. Ultimately, the research suggests that atmosphere can act as a bridge between perception and design, offering new perspectives on how to inhabit, document, and reimagine the contemporary city.

INTRODUCTION

The study investigates how the concept of atmosphere can reveal new meanings within Shanghai's rapidly transforming urban landscape. By integrating theoretical and empirical approaches, it explores the emotional and sensory dimensions of urban space as both cultural and perceptual constructs. The research draws on cross-disciplinary references and field documentation to examine how everyday practices, light, and materiality contribute to the formation of distinctive urban atmospheres.

THEORETICAL FRAMEWORK

The contemporary urban landscape can be described as a living organism in accelerated transformation, shaped by overlapping processes that merge material and immaterial dimensions. Unlike previous phases of urban evolution, today's transformations unfold simultaneously across physical and digital environments, altering not only the morphology of cities but also the sensory and emotional ways in which they are experienced. Within this condition, the concept of *atmosphere* emerges as a strategic tool for interpreting how urban and architectural scales interweave through perceptual, cultural, and social transitions (Figure 1).

In the architectural research front, Peter Zumthor's work in his book *Atmospheres* (Zumthor, 2006) proves fundamental. The author, exploring various angles of great interest, argues that the essence or *aura* of space, transformed into place, emerges not only from its physical characteristics but also through the presence of intangible elements that shape each individual's experience. According to Zumthor's meticulous observation, what he defines as 'atmospheres' is the emotional and sensory quality derived from the complex interplay of materials, light, and, most importantly, human interaction within space. He also emphasises the importance



Fig. 1 John Latto, *Life's Treasures* (2024), Shanghai. Objects of daily life reflecting material intimacy and the poetic depth of the domestic realm.
Image source: Authors' own, 2024.

of the visual and, even more so, the tactile value of the architecture itself, considering them as strategic and fundamental components in a globalised world of standardised architectural language, thus contributing to the originality of the work or the construction of its *aura* (Benjamin, 2008).

Zumthor also defines *the sound* of space, dictated by its material composition (Figure 2), as a crucial element in the narrative construction of the 'atmosphere', which significantly impacts the sensation of well-being and comfort of the user, often unjustly underestimated. In his descriptions, likely emerging from a process of 'learning by doing' as in his masterpieces, he details, among other things, the interaction between light and material, creating material intensity, directions of textures, and shadows, thus generating emotional components of the space.

If Zumthor is a clear reference for space at the architectural scale, the understanding of urban space and its emotional

transition between different scales is equally interesting. Françoise Choay, in *Espacements: Figures of Urban Spaces Over Time* examines the evolution of urban space through a historical and philosophical lens (Choay, 2003). The French author studies the transformation processes of urban space through different epochs and how they accumulate numerous layers of meaning, which today can be better defined through the set of atmospheres. Choay draws on Henri Bergson's concept of *durée* – “the continuous progress of the past which gnaws into the future and swells as it advances” (Bergson, 1944, p. 7) – to emphasise how lived time shapes the morphology and psychology of urban spaces. This temporal perception resonates with the layered atmospheres of Shanghai, where historical and contemporary conditions coexist and interpenetrate. This reading opens the way for a broader theoretical reflection on the notion of atmosphere, whose meanings have been developed across different disciplinary traditions.

Following this line of thought, Peter Zumthor (2006) considers atmospheres as emerging from the material and sensory qualities that give architectural spaces their emotional presence. Gernot Böhme (1993) conceives *atmosphere* as a *tuned space* – the perceptual medium through which subjects and objects co-exist, generating affective intensities that are neither purely material nor purely mental. Juhani Pallasmaa (2014) emphasises the embodied and multisensory dimension of architectural perception, arguing that the experience of space is rooted in the reciprocity between body and environment. Tonino Griffero (2014) further expands this notion by framing *atmosphere* as an *aesthetic and ontological field* in which emotions, spatial qualities, and cultural meanings converge.

These overlapping perspectives provide the theoretical ground for this study: atmospheres are understood here as dynamic configurations of material, sensory, and social elements that reveal how Shanghai's urban transformations are both physical and experiential. With awareness of the contemporary academic debate, which often opposes sometimes subjective definitions, perhaps it is worthwhile to incorporate into

this introduction the concept of UNESCO's intangible cultural heritage, thereby further enriching the discussion (Kurin, 2003). She further explores the interaction between collective memory and urban spaces, suggesting that memory acts as a filter through which spaces are perceived and evaluated. This interaction is crucial in forming the unique atmospheres of urban environments, as historical and cultural contexts continuously reshape them. This heritage includes traditions, oral expressions, social practices, rituals, and festivals, all crucial elements in forming the specific cultural atmospheres of a community or a city like Shanghai, as analysed in this study. These aspects not only deepen our understanding of urban atmospheres but also highlight how daily perceptions and interactions contribute to the ongoing redefinition of urban identity (Figure 3).

Through the examination of these theoretical approaches, the article aims to explore how the concept of *atmosphere* can help redefine our relationship with urban spaces, proposing Shanghai as a vibrant example of how urban atmospheres can be understood, experienced, and managed in a dynamic metropolitan context. This leads us to a detailed exploration of Shanghai's urban landscape through five distinct yet interconnected frames, each representing a unique aspect of the city's atmospheric evolution in response to its rapid cultural, technological, and social transformations. The articulation of the five frames follows a progressive logic that moves from the individual to the collective, from the material to the symbolic, and from perception to representation. Each frame isolates a specific atmospheric condition while remaining connected to the others through shared spatial and sensory dynamics. *Atmospheres of Ascent* explores the collective spectacle of light and elevation; *Atmospheres in Fading* focuses on domestic gestures that extend the home into the street; *Atmospheres in Transition – Staging Faces and Masks* investigates the performative construction of identity; *The City of Toys* examines the hybridisation of digital and physical realms; and *The Play of Shadows* concludes with the persistence of traditional practices that mediate comfort and protection.



Fig. 2 John Latto, *Cubist Killing Machine* (2024), Shanghai. Light is a symbolic force of collective ascent within Shanghai's illuminated skyline. Image source: Authors' own, 2024.

The order of these frames therefore reflects an experiential gradient – from public celebration to intimate withdrawal, from visibility to concealment – mirroring the oscillation between exposure and retreat that characterises Shanghai's contemporary atmospheres.

MATERIALS AND METHODS

The Importance of Documentation

Positioned between the theoretical framework and the five analytical frames, this section acts as a methodological bridge. The act of documentation – through writing, photography, and video – becomes the means of capturing the transitions that the frames later interpret. Rather than a neutral record, it is an anticipatory gesture that frames perception, guiding the reader toward the experiential analysis that follows.

Methodological Approach: Visual and Analytical Tools

Each photograph and drawing included in this study functions as an analytical fragment, capturing an atmospheric transition rather than depicting a fixed scene. The images were selected according to their capacity to reveal material, sensory, and social conditions that embody the theoretical principles discussed above. In this sense, the iconographic corpus acts as both record and interpretation: it visualises the ephemeral relations between people, light, surfaces, and movement that constitute Shanghai's everyday urban atmospheres.

RESULTS

Five Frames of an Urban Landscape in Fading, Ascent, and Transition

The following five frames illustrate the results of the analytical process, translating theoretical and sensory reflections into spatial observations within Shanghai's urban context.

Frame One - Atmospheres in Fading

The City as Home

Shanghai has long been a city with fluid and porous boundaries between public and private life. The city's streets, sidewalks, and courtyards are thoroughfares and extensions of the domestic realm. These spaces become settings for daily rituals, from social gatherings to work activities, reinforcing the idea of the city as home. However, with rapid urbanisation and modernisation, these informal and intimate uses of public space are being reshaped, prompting new ways of understanding urban atmospheres.

One of the most distinctive features of Shanghai's urban life is the presence of activities that transcend traditional public-private divides (Figure 3, 4). As Gehl (2011) highlights, public spaces are integral to social sustainability, providing settings for interaction and communal activities. Elderly residents sit on sidewalks or within communal courtyards, engaging in conversations, playing *Mahjong*, or observing passers-by. Small-scale vendors set up temporary stalls, creating micro-economies contributing to the city's vibrancy (Zukin, 1995). Barbers offer haircuts in makeshift outdoor salons, and fortune tellers position themselves at busy intersections, turning the street into a place of informal labour and interaction.

The threshold concept is key to understanding how Shanghai's urban dwellers navigate space. As Bhabha (2004, p. 162) argues, hybridity challenges fixed binaries of cultural authority, revealing an "ambivalent turn" where meanings are constantly renegotiated rather than resolved. This "in-between" condition resonates with Shanghai's urban fabric, where thresholds between public and private, local and global, material and digital, operate as spaces of translation rather than separation.

In Shanghai, this process manifests in the everyday use of thresholds – doorways, courtyards, and sidewalks – as flexible extensions of domestic life. Similar conditions can be observed in other contexts, though with different intensities. For example, as Jacobs (1961) observed in New York's

neighbourhoods, the “sidewalk ballet” reflects a porous relationship between home and street, yet in Shanghai, this permeability is amplified, turning transitional spaces into active sites of social and economic interaction.

The threshold is not simply a transition zone but an active space accommodating social, economic, and domestic functions. Shops and eateries blur the line between inside and outside, with wide-open facades that transform window ledges into seating areas, merging commercial and social spheres (Jacobs, 1961). The parapet of a storefront may double as a bench, while open-air counters invite interactions between customers and passers-by. In narrow alleys, residents bring chairs from their homes, extending their private realm into the street and forming semi-public micro-environments (Alexander et al., 1977).

A particularly vivid example of this phenomenon is found in the adaptation of residential buildings. Windows become hybrid spaces, equipped with added grilles and shelves extending outwards, serving as storage areas and as places for social engagement. In *lilong* neighbourhoods – historical

Fig. 3 Sandro Rolla, *City as a Living Room* (2022), Shanghai. Everyday sociability extends domestic gestures into public thresholds and shared urban interiors. Image source: Authors' own, 2022.





Fig. 4 Juan Carlos Dall'Asta, *Street Hair Saloon, Under the Manifesto* (2017), Shanghai. Street as workspace and meeting place – fluid boundaries between labour, intimacy, and spectacle. Image source: Authors' own, 2017.

residential alleys – the shared courtyards act as collective thresholds, spaces where domestic life spills into the public realm. These thresholds serve as dynamic interfaces, constantly negotiated and reconfigured according to the needs of their users (Lefebvre, 1992).

While modernisation reshapes traditional notions of public and private life, digitalisation introduces new forms of urban intimacy. Social media platforms have become an extension

of public space, enabling interactions that transcend physical boundaries (Mitchell, 1996). In Shanghai, digital spaces often mirror the fluidity of the city's physical environment, creating a hybrid urban experience where the distinction between on-line and offline life is increasingly blurred.

This phenomenon is clearly seen in how residents document and share their lives, from livestreaming street performances to reviewing eateries and engaging in online community forums, enhancing connections and forging a collective identity. The rise of digital platforms allows for innovative reinterpretations of urban spaces, maintaining social vitality amidst physical changes.

Rather than seeing changes in Shanghai's public *atmosphere* as losses, it's vital to recognise the opportunities they present. The city's adaptability in redefining both physical and digital spaces highlights its dynamic and resilient nature. Urban planners and architects are encouraged to create adaptable, flexible urban spaces that preserve the rich spontaneity of public life. By maintaining the fluid boundaries between public and private realms, Shanghai can continue to be a modern, efficient, and culturally vibrant home for all, balancing development with the preservation of its unique atmospheric depth.

Frame Two - Atmospheres of Ascent

Heaven on Earth

The phenomenon of artificial lighting, which we might even describe as invasive due to its scale, has the capacity to transform the city in its nocturnal guise into a place of perpetual festivity, outlining a seemingly endless phenomenon (Figure 5). In Western culture, while not directly comparable, similar occurrences manifest during holiday periods towards the end of the year, varying across different regions in Europe and America. It is intriguing to note that at the root of the phenomenon in Chinese cities, particularly pronounced in Shanghai, there are no religious celebrations involved, making it all the more fascinating to uncover the origins of

Fig. 5 Juan Carlos Dall'Asta, *Cyclopean Visions* (2023), Shanghai. Reflections and screens merge human presence and architecture into a hybrid perceptual field. Image source: Authors' own, 2023.



this phenomenon. The intensity of the decoration processes, which extend beyond technically necessary lighting, ranges from traditional iconic signs of cities in the Far East to the illumination of infrastructures, bridges, plants, trees, parks, and luminous gardens up to iconic buildings and skyscrapers of the urban landscape. This phenomenon contrasts with the impossibility of observing the natural starry sky in an urban context, somehow reconstructing an artificial firmament, almost as if summoning heavenly light on earth. This collective phenomenon, which garners consensus in the local public opinion through deep investigation, therefore appears not only as a phenomenon with aesthetic purposes but also finds its roots in millennia-old practices like the Lantern Festival (Figure 6), which helps us interpret the significance of light in its profound historical and traditional image (Davis, 2001).

Taking a step back, historically, the significance of light in Chinese culture, not very different from other cultures, is seen as a symbol of hope, renewal, and a guide towards various future paths. The traditional *Lantern Festival*, for example, through decorated lanterns that sometimes reach urban proportions, serves as a guide for lost spirits and, at the same time, celebrates the ongoing vitality of souls. This almost

theatrical representation not only responds to the tradition of the Chinese collective imagination but also generates profound joy and collective memory. In contemporary Shanghai, this tradition, usually observed as a punctual event, is reinterpreted through a modern and highly innovative interpretation, continuous throughout the year. The city's skyline, illuminated by a sea of lights, is a direct descendant of these ancestral traditions as well as a response to the city's futuristic ambitions (Lin & Dadi, 2024).

The urban memory associated with these lights is complex. For some, the bright lights symbolise progress and the high-tech future Shanghai aspires to, embodying the city's rapid technological and cultural ascent. For others, they evoke nostalgia for communal celebrations and public gatherings, reminiscent of historical festivities but now experienced through the lens of modernity. This dual narrative is essential for understanding the atmospheric layer that light adds to the urban fabric of Shanghai. It's an *atmosphere* of celebration, almost childlike in its wonder, merging cutting-edge architectural lighting technologies found in a few

Fig. 6 Sandro Rolla, *365 Days a Year Lighting* (2024), Shanghai. Image source: Authors' own, 2024. Year-round decorative illumination extends festive atmospheres into everyday urban nights, 2024.



other cities with a reinterpretation of urban memory centred around these illuminations.

Shanghai's lighting transcends mere illumination, serving as a symbol of hope, serenity, and fortune, continually reshaping the city's atmosphere. This creates a festive and whimsical ambience through advanced lighting technologies and a deep-rooted urban memory of illumination. While its exact impact on hope, tranquillity, or luck remains uncertain, it profoundly affects how people experience and interact with the city's glowing environment.

Frame Three - Atmospheres in Transition

The City of Toys

The complexities of the socio-political, structural and spatial interactions of the metropolis may draw a critical analogy to that of the story of Pinocchio in Land of Toys. It is here that the philosophical resemblance highlights and illustrates our hypothesis. Pinocchio symbolises our individual desire to seek identity and a sense of being in the city.

The Land of Toys, also known as "Paese dei Balocchi" in Carlo Collodi's *The Adventures of Pinocchio* (1882), is a fantastical place where children are lured with the promise of endless fun and no responsibilities. In this land, there are no schools, rules, or adults to enforce discipline – just constant play and amusement. However, it is ultimately a trap. The children who go there are eventually transformed into donkeys through a curse as a consequence of their laziness and indulgence. Pinocchio, tempted by the mischievous Fox and Cat, visits the Land of Toys and suffers the same fate, growing donkey ears and a tail.

This desire of Pinocchio to become a real boy and succumbing to temptation serves as a moral lesson reflecting the challenges experienced within the contemporary City, whereby distinguishing reality from illusion is confused by the constant exposure to the physical and virtual experience and streams of data. This story reminds us of the importance of discernment and critical awareness, not as a call to recover



Fig. 7 Sandro Rolla, *Washroom* (2024), Shanghai. A utilitarian threshold becomes a micro-stage of self-presentation within the city's daily routines. Image source: Authors' own, 2024.

an impossible notion of the “real”, but as an invitation to recognise the hybrid and mediated nature of contemporary urban experience. The fusion of the digital and the physical in Shanghai does not erase authenticity; rather, it reshapes how we perceive and inhabit the city. For designers, this condition raises the question of how to create meaningful and embodied spaces that nurture emotional and sensory engagement, addressing human needs beyond mere aesthetics or function. (Figure 7).

Frame Four - Atmospheres in Transition

The Play of Shadows

Shadow in China holds a profound cultural value beyond its role in traditional shadow theatre, renowned worldwide for its beauty and elegance. It is not merely a transition

between light and darkness during scorching summers but represents a way of life deeply intertwined with social, political, and environmental dynamics. Gernot Böhme (1993) argues that atmospheres emerge from the interaction between ecological qualities and human sensibilities, and the shadow in Shanghai exemplifies this interplay. One of the key elements in shaping this transitional *atmosphere* is the city's subtropical climate, characterised by marked seasonal changes. The sweltering summers and cold, humid winters require search for shaded and sunlit spaces, fundamental aspects of daily life (Figure 8).

The tree-lined streets of the French Concession are a prime example: designed to improve summer livability, they have become an integral part of the city's urban identity. Residents care for the trees and accept their less practical aspects, such as uneven sidewalks and falling leaves in autumn, viewing them as living elements of the urban fabric. This approach reflects an ecological and cultural sensitivity beyond mere functionality, resonating with Tim Ingold's view that "there can be no organism without an environment, and no environment without an organism" (Ingold, 2000, p. 19). This reciprocal relationship dissolves the dualism between subject and world, situating human perception within an ongoing process of dwelling and co-evolution with the surroundings.

However, shadows are not created solely by vegetation but also by the imposing road and rail infrastructures that crisscross the city like an arterial network. In recent years, Shanghai has regenerated these spaces, transforming them into hubs for social gatherings and specialised activities: sports areas, recycling and waste sorting spaces, recreational zones, restaurants, and markets. Shadow thus becomes a key element in urban design and regeneration, illustrating how architecture mediates between functionality and atmosphere. This approach recalls Marc Augé's (2009) concept of liminal space, where transitional places acquire profound cultural and social significance.

The relationship with sunlight reflects social hierarchies tied to skin colour. Traditionally, a fair complexion signifies a higher status, privileging those who avoid outdoor work. This is manifested in daily use of sun protection like sunscreen, umbrellas, and hats, contributing to a distinct urban aesthetic. Yet, this practice can cause vitamin deficiencies from limited sun exposure, illustrating the complex interplay between cultural attitudes and public health.

While shadow becomes a refuge in summer, it is often avoided in winter in favour of seeking sunlight. Yet, there are spaces where shadow takes centre stage in a contemplative experience: urban micro-gardens. Scattered throughout the city, sometimes connected to public restrooms, these small environments offer moments of relaxation and protection from metropolitan chaos, blending natural elements such as water, wood, and vegetation into an intimate and welcoming atmosphere. These spaces evoke Gilles Clément's (2020)

Fig. 8 John Latto, *Light and Shadows* (2024), Shanghai. Ephemeral vegetation and shadows redefining marginal spaces as breathing intervals in the dense city. Image source: Authors' own, 2024.





Fig. 9 Sandro Rolla, *Riverscape Shades* (2024), Shanghai. Linear canopies and riparian planting create thermal comfort and contemplative respite along the waterfront. Image source: Authors' own, 2024.

concept of the third landscape, where fragments of nature become places of resistance and contemplation within the urban context.

In all its forms, Shadow is a key element of Shanghai's urban experience. From its symbolic and social meanings to its role in architecture and public space design, it represents a thread connecting tradition, transformation, comfort, and social stratification. Observing these dynamics offers a complex and fascinating reading of the city's transitional atmospheres, revealing how the interplay of shadows continues to shape how residents live and perceive their urban environment. Tonino Griffero (2014) suggests that atmospheres always result from a negotiation between space, body, and culture, and Shanghai vividly exemplifies this (Figure 9).

Frame Five - Atmospheres in Transition

Masks and Makeup: Negotiating Identity in an Urban Landscape

In Shanghai, a city where rapid modernisation and cultural hybridity shape daily interactions, visual presentation plays a crucial role in navigating social expectations. Masks

and makeup, often seen as tools of self-expression, also serve as precious commodities for managing identity in an increasingly image-conscious society. Drawing on Erving Goffman's (1959) concept of the 'presentation of self', individuals use these visual modifications to align with expectations tied to gender, class, and professional roles. In China's consumer-driven society, makeup is more than an aesthetic choice; it is a performance shaped by global beauty standards and social and economic pressures.

The widespread use of medical masks, initially a public health measure dealing with pollution and later a necessity during the pandemic, has evolved into something more than just a protective layer. Masks have become a social accessory, signalling compliance, preserving anonymity, or even serving as a statement of individuality. This shift reflects deeper cultural undercurrents in China (Figure 10), where Confucian ideals of harmony and propriety continue to shape social decorum. The concept of *mianzi* (face) remains central to social interactions, reinforcing the importance of controlled self-presentation (Ho, 1976).

In a city like Shanghai, where public spaces such as the Bund or Xintiandi are sites of both commerce and self-display, the interplay between masks and makeup highlights the tensions between personal expression and social conformity. The ability to manage one's appearance becomes both a form of adaptation and a means of negotiating status. These evolving aesthetics reveal broader cultural shifts as Shanghai's residents constantly refine their self-image in response to economic demands, shifting beauty ideals, and the performative nature of urban life.

Beyond personal appearance, the city's built environment also plays a role in shaping identity. Bernard Tschumi (1994) argues that spaces are activated through human interactions, and in the same way, the visual self-presentation of individuals is shaped by Shanghai's urban landscape. This aligns with Michel de Certeau's (1984) idea that everyday practices subtly resist or conform to dominant structures,



Fig. 10 Juan Carlos Dall'Asta, *Traditional Kunqu Street Opera* (2017), Shanghai. Cultural memory embodied in open-air performance – continuity between ritual, stage, and everyday life. Image source: Authors' own, 2017.

showing how residents navigate modernity while remaining anchored in tradition.

Ultimately, masks and makeup in Shanghai are more than just cosmetic choices – they are tools for social negotiation in a city where identity is constantly in flux. Whether concealing or revealing, these visual markers reflect the delicate balance between individuality and collective belonging in one of the world's most dynamic urban centres (Figure 11).

Results - Capturing Change

The rapid urban transformation of cities like Shanghai presents a pressing challenge: capturing fleeting atmospheres and shifting scenarios as they evolve. This study is not only about preserving a static image of the present but also about anchoring the fluid narrative of urban change in constant motion. In documenting these ephemeral urban atmospheres, whether ascending, fading, or transforming,



Fig. 11 Sandro Rolla, *Faces* (2023), Shanghai. Negotiating identity in public through cosmetics and accessories – between self-expression and social conformity. Image source: Authors' own, 2023.

this study effectively solidifies urban memory for future generations. Documentation serves as a crucial tool in this context, not only to fix the present about the past and future but also to ensure that future scholars and residents can understand and evaluate the historical and cultural contexts in which their predecessors lived. The objective goes beyond creating a mere archival record. It is about laying down a foundation for both qualitative and quantitative interpretations of urban life. Such studies might involve, for instance, quantifying the amount of artificial night lighting or analysing the extent of social media interactions and the time people invest in virtual platforms. These metrics can provide tangible insights into the atmospheric shifts driven by technological and social changes.

Yet, this study is rooted in a deeper, more subjective interpretation of *atmosphere* as an essential component of urban identity. By compiling narratives through literature reviews,

conducting interviews, and gathering photographic, sketch, and video testimonies, this documentation effort seeks to capture a complex, layered reality. Each layer of the city's atmosphere, whether it is on the rise, in decline, or in flux, tells a story of its own, a story that is vital for understanding the broader narrative of urban transformation.

The exploration of urban atmospheres is about more than mere record-keeping. It is about providing a comprehensive platform that supports future research and policy-making, guiding efforts to design and manage urban spaces that truly reflect the dynamic nature of cities like Shanghai (Figure 12).

DISCUSSION

Fig. 12 Sandro Rolla, *Urban-Domestic Life* (2024), Shanghai. Domestic gestures spill into shared courtyards, documenting the “city-as-home” condition. Image source: Authors' own, 2024.

Practical and Theoretical Implications

The way we experience urban and architectural spaces goes far beyond their physical form: sensory impressions, emotions, and social interactions all contribute to shaping this experience.



These elements create an atmosphere that influences how we feel and behave in a given environment. Understanding these subtle but powerful qualities allows designers to craft spaces that are not just functional but also welcoming, inclusive, and deeply connected to human needs (Figure 13).

Juhani Pallasmaa (2014) emphasised the importance of multisensory engagement, arguing that architecture should be felt, not just seen. Similarly, Gernot Böhme (2017) explores how spaces carry an emotional charge, shaping our moods and perceptions. Their insights challenge traditional urban design approaches that prioritise form and function, advocating instead for a more experiential perspective – one that considers how spaces truly resonate with people.

Key aspects of creating an engaging and human-centred environment include careful material choices, appropriately stimulating spatial arrangements, lighting, acoustics, and opportunities for social interaction (Zumthor, 2006). Natural materials, for instance, can bring warmth and a sense of familiarity, while variations in spatial scale influence whether a place feels intimate or expansive. Thoughtful design elements, such as accessible pathways and sensory cues, can also make public spaces more inclusive and welcoming for diverse communities (Gehl, 2011).

Importantly, urban atmospheres aren't static; they shift with time, activity, and environmental changes. Engaging local communities in the design process and tailoring spaces to their unique character can lead to more meaningful and livable cities. By focusing on the atmosphere rather than just form and structure, urban design can move beyond pure functionality, creating spaces that not only serve a purpose but also enrich daily life in a positive way.

CONCLUSIONS

The urban atmospheres of Shanghai resist any single definition. Like intertwined threads of an ever-evolving tapestry,

they emerge from the interaction of materials and perceptions, rituals and transformations, historical continuities and future projections. The idea of the threshold, which recurs throughout this study, reveals itself as a point of convergence between public and private, tradition and innovation, the physical and the digital. It is in this condition of transition that Shanghai manifests itself: a city that never allows itself to be fixed in a static image but constantly redefines its atmospheric fabric.

If the lights that redraw the city at night seem to overpower natural darkness, generating an artificial firmament that replaces the sky, this is not merely a matter of aesthetics or urban spectacle. This phenomenon, rooted in ancient traditions and ritual practices, reflects a deeper desire for belonging and collective representation – a way of transforming urban space into a shared theatre where self-perception intertwines with the city's narrative. Yet, this luminous construction is not just a sign of progress and technological ambition; it also signifies a dissolution of once-clear boundaries – between day and night, between home and street, between intimacy and public life.

Similarly, the city's material thresholds – window ledges, sidewalks, courtyards – become extensions of the domestic sphere, interfaces between the individual and the urban context. But this expansion of the home into public space now finds its parallel in the digitalisation of experience: whereas physical barriers and social customs once defined the boundary between inside and outside, it has now become fluid, a passage between physical presence and virtual projection. Social media transforms urban identity into a simultaneously individual and collective narrative, where the city's atmospheres stretch into a hybrid space constantly reshaped by digital interactions.

Yet, this very transition is not without tensions. The “City of Toys”, with its irresistible allure of play and consumption, carries the risk of dissolving reality into a simulacrum. Suppose the use of masks and makeup has long been part of a

Fig. 13 John Latto, *Threshold* (2024), Shanghai. Filtered light and partial enclosures mediate between protection, exposure, and urban intimacy. Image source: Authors' own, 2024.



tradition of self-transformation and identity reinvention today. In that case, it assumes new meaning in a society dominated by performance and image.

The play of shadows, long employed as a storytelling and theatrical device, continues to serve as a powerful metaphor for the construction of appearances and the ambiguity between what is visible and what remains concealed.

These observations raise urgent questions about the future of urban atmospheres. What are the consequences of the progressive dematerialisation of public space? How can design respond to these emerging conditions without reducing the city to a surface devoid of sensory depth? If the

threshold between the physical and the digital is increasingly permeable, how can authentic experiences of place and belonging be preserved?

The challenge for urbanists and architects will not only be to adapt space to new social and technological conditions but to keep alive the atmospheric richness that defines a city's identity.

This means thinking of architecture that embraces mutability without losing continuity – designing flexible and welcoming spaces that remain rooted in context. Projects such as the regeneration of spaces beneath Shanghai's elevated roads, where infrastructure becomes social ground, exemplify this approach: environments where diverse experiences can overlap without erasing memory.

In this sense, Shanghai is not just a case study but a laboratory for understanding contemporary urban transformations. The five atmospheric frames explored here do not exhaust the complexity of the city but open glimpses into a future where the boundary between the tangible and the intangible, between the past and the possible, will become increasingly blurred. As in Calvino's *Invisible Cities* (1978), Shanghai continuously rewrites itself over time, defying any attempt to fix it in a single definition. The task of those who study, design, and inhabit it will be to continue reading and interpreting its atmospheres, keeping open the possibility of a new narrative.

In this perspective, atmosphere becomes not only a perceptual condition but also a design tool capable of inspiring more responsive and humane urban environments.

REFERENCES

- Alexander, C., Ishikawa, S., & Silverstein, M. (1977). *A pattern language*. New York, NY: Oxford University Press.
- Augé, M. (2009). *Non-places: An introduction to supermodernity*. London, UK: Verso.
- Benjamin, W. (2008). *The Work of Art in the Age of Mechanical Reproduction*. London, UK: Penguin Books.
- Bergson, H. (1944). *Creative evolution* (A. Mitchell, Trans.). New York, NY: Modern Library. (Original work published 1907).

- Bhabha, H. K. (2004). *The location of culture*. New York, NY: Routledge.
- Böhme, G. (1993). Atmosphere as the fundamental concept of a new aesthetics. *Thesis Eleven*, 36(1), 113–126.
- Böhme, G., & Thibaud, J.-P. (Eds.). (2017). *The aesthetics of atmospheres*. New York, NY: Routledge.
- Calvino, I. (1978). *Invisible cities*. Boston, MA: Houghton Mifflin Harcourt.
- Choay, F. (2003). *Espacements: Figures de l'espace urbain dans le temps*. Paris, FR: Seuil.
- Clément, G. (2020). *Manifeste du tiers paysage*. Rennes, FR: Les Éditions du Commun.
- Collodi, C. (2016). *The adventures of Pinocchio*. Scotts Valley, CA: CreateSpace Independent Publishing Platform (Original work published 1883).
- Davis, E. L. (2001). *Society and the supernatural in song dynasty China*. Honolulu, HI: University of Hawai'i Press.
- De Certeau, M. (1984). *The practice of everyday life*. Berkeley, CA: University of California Press.
- Gehl, J. (2011). *Life between buildings: Using public space*. Washington, DC: Island Press.
- Goffman, E. (1959). *The presentation of self in everyday life*. London, UK: Penguin Classics.
- Griffero, T. (2014). *Atmospheres: Aesthetics of emotional spaces*. New York, NY: Routledge.
- Ho, D. Y. F. (1976). On the concept of face. *American Journal of Sociology*, 81(4), 867–884.
- Ingold, T. (2000). *The perception of the environment: Essays on livelihood, dwelling and skill*. New York, NY: Routledge.
- Jacobs, J. (1961). *The death and life of great American cities*. New York: Random House.
- Kurin, R. (2003). Safeguarding intangible cultural heritage in the 2003 UNESCO Convention: A critical appraisal. *Museum International*, 56(1–2), 66–77.
- Lefebvre, H. (1992). *The production of space*. Oxford, UK: Blackwell.
- Lin, N. P., & Dadi, I. (2024). On-site in the city: Comparative urban aesthetics in Asia at the turn of the 21st century. *ARTMargins*, 13(3), 3–12.
- Mitchell, W. J. (1996). *City of bits: Space, place, and the infobahn*. Cambridge, MA: MIT Press.
- Pallasmaa, J. (2014). *The eyes of the skin: Architecture and the senses* (3rd ed.). Chichester, UK: Wiley.
- Tschumi, B. (1994). *Architecture and disjunction*. Cambridge, MA: MIT Press.
- Zukin, S. (1995). *The cultures of cities*. Oxford, UK: Blackwell.
- Zumthor, P. (2006). *Atmospheres: Architectural environments – surrounding objects*. Basel, CH: Birkhäuser.

ADDITIONAL READINGS

- Boyd, D. (2014). *It's complicated: The social lives of networked teens*. New Haven, CT: Yale University Press

- Kong, L. (2007). Cultural icons and urban development in Asia: Economic imperative, national identity, and global city status. *Political Geography*, 26(4), 383–404.
- Mitchell, W. J. (2004). *Me++: The cyborg self and the networked city*. Cambridge, MA: MIT Press
- Teerds, H. (2024). On the public and the human: Kenneth Frampton's references to the space of appearance. *Architectural Theory Review*, 28(2), 220–239.
- Tonkiss, F. (2013). *Cities by design: The social life of urban form*. Cambridge, MA: Polity Press.

Article available at

DOI: 10.60923/issn.2724-2463/21440

How to cite

Dall'Asta, J. C., Latto, J., Rolla, S. (2025). Atmospheres of Shanghai: Scenarios of Ascent, Fading, and Transition. *img journal*, 12, pp. 204-233.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

WHEN AIR TOUCHES: CICATRIX OF TIME IN THE ARTISTIC PRACTICES OF TERESA MARGOLLES AND MARIA JOSÉ ARJONA

Elena D'Arsiè

Università Iuav di Venezia

Department of Project Cultures

elenadarsie@gmail.com

AIR

ATMOSPHERE

MATERIALITY

ART

MEMORY

PERFORMANCE-STUDIES

From the Latin word 'tempus', comes the term 'temperare', which means to mix. This gives us words related to weather such as 'temperature', but also expressions related to human affections like 'temperament'. By looking at the etymological composition of these words, we will look at the practices of two contemporary artists: Teresa Margolles and Maria José Arjona. Thus, to observe how time, weather, temperature, temperament can be experienced in a single flux and create new areas of intersection between fields otherwise considered far apart.

By bringing in some theories from Performance Studies, Neo-Materialist Theories, and Haptic Studies, we will look at the

space-time generated by artistic practices –with a corporeal and performative background– to observe how matter, even the invisible one, constitutes memory and remembrance.

The visual installation *Aire* (2003) by Teresa Margolles explores the invisibility of transtemporal traces, while the process-oriented work *The White Series* (2008) by Maria José Arjona investigates the visibility of material traces on the scene. These are two antithetical works that share a common interest on memory and cicatrix of time, grasping its atmospheric materiality. It is about feeling materially what circulates in the atmosphere and makes us fall into other temporalities.

INTRODUCTION

The term ‘tempo’, which comes from the Latin word *tempus*, is used in Italian –as in other Latin languages in slight variants, such as in French, Spanish, and Portuguese– for both weather and chronological time. *Tempus* is a word that can be traced back to the Indo-European root *tem-*, which means ‘to cut’ and ‘to separate’. It therefore suggests a scanning of events, like fragments. The verb ‘temperare’, meaning ‘to mix’, also belongs to the group of Latin words with this common root. From this etymological background come many terms from the meteorological field such as ‘temperature’ and ‘temperate’, but also words suggesting states of mind such as ‘temperament’. It is not a coincidence that these words share the same etymological root, as weather is a phenomenon that involves both the passage of time and a mixing of matter through the continuous motions of the air and the flow of our affective interactions.

According to Steve Connor (2010) the time of weather is a time without history, i.e. without progression: a “pure fluctuation”. However, the hypothesis of weather as the result of pure indeterminate fluxes, seems to ignore the variety of rhythms that mark, for instance, the passing of the day and night, the transition from one season to another. Bronisław Szerszynski (2010) claims, indeed, there are patterns in weather that cannot be ignored and, instead, are more to be experienced *kairologically* than chronologically: “it lies, that is, not in the succession of events but in the attunement of attention and response to rhythmic relations” (p. 24).

This is a world that is quite like the one imagined by Gilles Deleuze and Felix Guattari in *Millepiani. Capitalism and Schizophrenia* (1980). They imagine a space ‘smooth’ rather than ‘striated’, composed of events, intensities, and sounds. While a ‘striated’ space is homogeneous and volumetric since it is made up of things with definite shapes, each in its assigned position; a ‘smooth’ space has no defined dispositions, rather it is the result of continuous variations.

The eye, in a 'smooth' space, does not look at things, but wanders among them, finding a way through rather than pointing straight at a fixed target. In other words, a 'smooth' space requires a perceptive involvement with the surroundings that is not optical but haptic. An intensive space that is made in the becoming of continuous rhythmic condensations. Through this approach, Tim Ingold (2012, p. 81) invites us to fill the air with matter itself to rethink a time based on mixing and densities. An intensive rather than extensive time. Hence as words suggest – *tempus* (weather-and-time), temperature, and temperament can be tied into a common flow and create new common grounds between fields otherwise seen as separate.

In this essay, convening *Performance Studies*, *Neo-Materialist Theories*, and *Haptic Studies* we will focus on the practice of two contemporary artists: Teresa Margolles and Maria Josè Arjona. The space-time generated by artistic practices, with a corporeal and performative background, enables us to understand how matter constitutes memory and remembrance. To fully realize that we are dealing not only with voice, words, and writing, but also with water, mud, chemical agents, skin, dust, and paint falling off the wall of a room. Everything that is involved in the making and un-making of the material world that surrounds and shapes us. It is about another idea of matter, more extensive and sentient. It is about feeling what is material in the atmosphere and makes us fall into other temporalities.

Anthropologist Tim Ingold (2012, p.75) argues that the exclusion of material air from the atmosphere in the aesthetic field and its abstraction in meteorology have thus contributed to the persistence we face in a worldview that appears anaerobic. Therefore, to overcome the dichotomous view of the atmosphere that opposes the meteorological to the affective as if they were two complementary opposites, it is necessary to fill the atmosphere with material air. In this sense, it means recognizing that our world is not crystallized in fixed forms, rather a becoming of continuous



Fig. 1 Teresa Margolles, *Aire*, 2003, Galerie Peter Kilchmann. Retrieved February, 22, 2025 from <https://www.peterkilchmann.com/private-views/5301347520b8588939f6a9/14881-teresa-margolles-aire-air-2003/>

mixes. It is therefore to claim the need to push the boundaries of studies towards a transdisciplinary crossroads that allows us to rethink the immateriality of emotions, affects, and aesthetic atmospheres, about our being bodies and our ecological knowledge of air.

The artistic research of Teresa Margolles and Maria José Arjona are quite different from each other. *Aire* (2003) by Teresa Margolles is a visual installation in which the artist works with the invisibility of material traces belonging to anonymous subjectivities and past times. In contrast,

the work *The White Series* (2008) by Maria José Arjona is a durational performance in which the artist works with materials whose traces are highly visible and are transformed and contaminated throughout the whole performance. Through different approaches, both artists work on time and memory, grasping its atmospheric materiality. Aiming to investigate perceptions beyond the visual, we will focus on the tactile dimension of both experiences. We will expand the concept of skin from the human body to the skin of performance-scenes. In this way, we will grasp the cicatrix of time that emerge from the continuous movement of matter, which reaches us in *trans*-temporal forms.

Thinking with the installation *Aire*, allows us to rethink the installation medium as the 'choreography of an ecosystem'. The aesthetic format involves the visitors' bodies to operate also as compositional principles within the dispositive. In an apparent emptiness of a museum room, two air conditioners release vaporized water that was used to cleanse the bodies of victims from violent deaths. The sensitive experience and the intimate skin contact with the cooled air open the possibility of thinking in political terms about relationality, possible alliances, flows, or blocks. Therefore, one can perceive the presence of invisible traces of waste materials that encounter the skin and reveal our being completely exposed. In an ever-changing ecosystem, suspended matter requires us to suspend ourselves too. Thus, suspending the privilege of thinking of ourselves as living and autonomous bodies, to instead abandon ourselves to total exposure and vulnerability. *Aire* is an agglomerate of temporalities; such that illusory amnesic stratifications constantly re-inscribe the space. It is about a constant motion, both on an imaginative and material level in the air cycle emitted by the air conditioners. A motion that is so fast and impalpable that appears in a state of immobility: a still space-time which, quoting the scholar André Lepecki (2016, p.15), becomes a form of resistance against the historical flux.



Fig. 2 Maria José Arjona, *Untitled* from *The White Series*, 2009, long duration performance, *In-Transit*, Haus Der Kulturen Der Welt, Berlin-Germany. Courtesy of the artist.

The White Series is a process-oriented work by Maria José Arjona and consists of three consecutive performances: *Untitled*, *Remember to Remember*, and *Karaoke*. It is a performance that takes place over ten days, whereby the artist reflects on body temporality and the ephemeral nature of memory. Through a series of repeated gestures, such as blowing, writing, and singing, Arjona produces visible traces that imprint themselves on her skin and on the skin of the performance-scene. In the repetition of gestures, including writing with white chalk the phrase “remember to remember”, Arjona explores the act of remembering as a space of impressions that then fade away.

The artistic practices of Teresa Margolles and Maria José Arjona explore temporalities that come back in the form of invisible traces, in the case of *Aire*, and instead of visible

traces in the case of *The White Series*. It is an invitation to experience the cicatrix of time. An agglomeration of temporalities is therefore activated. A density that speaks of a time that is more intensive than extensive, as it is formed in the continuous condensations between materials, contact surfaces, weights, affections, and noises. It is a time that touches.

INVISIBLE TRACES | AIRE BY TERESA MARGOLLES

When entering *Aire* (Air, 2003), one may be impressed by the emptiness of a relatively small museum room that can be accessed by passing through a semi-transparent plastic strip curtain (Figure 1). The curtain ideally divides the hall entrance from the outside, creating a minimum of visual interference and physical restriction. The visual artist Teresa Margolles invites people to enter a space where, on the respective sides, two air conditioners are working, releasing slightly cooled air, whose presence is immediately perceptible in contact with one's skin and breath. Reading the text that introduces the installation at the entrance of the room, we find out that the water used to cool and humidify the air through the two air conditioners was previously used to sanitize the bodies of victims of violent deaths. Through the air conditioners, material traces are dissolved in the air: the presence of death pervades the space without us being aware of it.

Margolles—since her involvement in the artistic collective SEMEFO [1], which was founded in 1990 in Mexico City—mainly focuses on social issues related to violence, femicide, gender discrimination, and drug-related deaths, particularly in the violent context of Ciudad Juarez, which is situated on the border between Mexico and the United States. She aims to work with what remains of bodies. Margolles collects the material wastes from city morgues, or directly from the streets where violence occurs, to transport them to the antiseptic white cube of art galleries and museums.

Margolles' work, having a performative and conceptual background, questions epistemological and perceptual modes in the representation of death and violence. If Gaston Bachelard (1943) understood the vapor cloud as a "reverie without responsibility" (p. 185), Margolles gives back a contextual, political, and affective specificity to the experience of vapor (in *Vaporizaciòn*) and air within its invisibility (in *Aire*).

The installation dispositive involves visitors' bodies to operate as compositional principles as well within what we can define a 'choreography of an ecosystem'. When entering *Aire*, one steps into an immersive installation where one experiences a spatiotemporal specificity from which emerges an undefined assemblage of affects and perceptions. In this way, visitors' bodies inevitably expose themselves to the environment, becoming entangled in it. They inhale transparent air but at the same time opaque – as it carries with it unknown matter.

The idea of an autonomous and individualized body is thus challenged, with the attempt to shift from the idea of self-subsisting entities to the extremely dense field of relationships that contains and modifies them. On this point, Jane Bennett, which is one of the most influential Neo-Materialistic theorists, opens interesting perspectives. In *Influx and Efflux: Writing Up with Walt Whitman* (2020), she focuses on the daily flows through which external influences enter our bodies, infuse and confuse their organization, and then exit, transforming into something new. The dynamic of "influx and efflux" recalls the omnipresent tendency of external elements to enter, muddy the waters and exit to take part in new waves of encounters (vibrant and/or "dead"): Impression-and-Expression, Ingestion-and-Excretion, Immigration-and-Emigration — different names for the in-and-out, the comings and goings, as exteriorities cross (always permeable) borders to become interiorities that soon exude (Bennett, 2020, p. 10).

Precisely the "and", with its role as a conjunction—in the middle—marks the suspended time during which what has

entered produces difference through a transformative and dislocating power.

Destabilizing the boundaries between solid and defined identities, chemical agents, patches of fabric, skin, and dust circulate in the air and come in touch with visitors through their breath. It is about tactile and visceral encounters, then, to think of human subjectivities as already dispersed, dissolved in and with the environment in which they find themselves.

Aside from breathing, the skin—as the largest sensitive organ—becomes a site of contact as well, invoking principles of dependence and porosity. Concerning the condition of inevitable exposure, philosopher Jean-Luc Nancy (1992) introduces the neologism “ex-peau-sition” resulting from the insertion of the word “skin” (in French *peau*) into “exposure”. Skin resonates as the boundary between inside and outside as if it were a seismograph of symptomatic and pulsional traces. It is about the idea of an ontology of ‘trans’, in that, we go beyond the classical ego/other opposition to reconnect with the outside, which is meant as the true conceptual center of a thought of touch. By focusing on the tactile encounter with matter that floats in the atmosphere of *Aire*, we can think about relationships as transcorporeal as Stacy Alaimo suggests (2008, p. 238), highlighting the multiple horizontal crossings, transits, and transformations. In this way, we try to undermine the idea of clear and precise boundaries of human corporeality.

Impalpable corpuscles thus insinuate themselves into the visitor's body through senses beyond sight. This challenges any sense of security in one's ability to maintain distance from potential contamination by these waste materials and at the same time undermines the supremacy of the visual in the gallery space, thus denying the possibility of maintaining a “safe” distance. Air as subtle matter thus becomes a zone of contact with the corpse: what we consider most abject, as Julia Kristeva reminds us in her essay *Powers of Horror: An Essay on Abjection* (1987). Death is very close but unassimilable. It is an inevitable physical proximity that at the same time provokes

a detachment caused by the sense of disgust that ensues. It is inextricably linked to our living bodies and reminds us as individuals of our mortality (Bacal, 2018, p. 3).

Aire asks us, then, to suspend the privilege of thinking about ourselves as living and autonomous bodies, and to abandon ourselves to a total exposure and vulnerability. One takes part in a state of indeterminacy, or rather, suspension. Infinite corpuscles suspended in the air require those who encounter them to suspend themselves as well: to deprive themselves temporarily of the privilege of forgetting their breath and death.

In contrast to soil, air is not a cemetery as it does not stratify, rather it disassembles and reassembles matter. Thus, the endless particles that Margolles leaves to dissipate through the continuous motion of air conditioners are lifted and come to us in transtemporal form. Amnesic traces of other temporalities slip and move toward us creating new tempo-

Fig. 3 Maria José Arjona, *Remember to Remember from The White Series*, 2009, long duration performance, In-Transit, Haus Der Kulturen Der Welt, Berlin-Germany. Courtesy of the artist.



ral densities. A kind of friction is perceptible about something orbiting and circulating in the air. Chemical agents, patches of fabric, skin, and dust –take part in the making and un-making of the material world that surrounds and constitutes us. Illusory amnesic stratifications reinscribe space– that is crude, in its apparent emptiness. As Klaus Biesenbach (2002) reminds us, in *Aire* we visualize the “physical memory of the last washing” (p. 36) of bodies in the morgue.

In *Aire*, therefore, an agglomeration of temporality is activated. A density that is about a time that is more intensive than extensive, as it is made in the continuous condensations between matters, contact surfaces, weights, affects, and noises. It is mostly a continuous flow of micro-movements, imperceptible perturbations that, paradoxically, manifest themselves as a still time.

Everything appears suspended and still. Hence, in this ecosystem, visitors' bodies also operate as compositional principles. The “body [is] emptied of chronological time and fully immersed in its weight” (Tomassini, 2018, p. 39). “The darkness of the gaze” (Tomassini, 2018, p. 39) as Stefano Tomassini describes it, validates an experience that leads us to a shift from the utilitarian logic of seeing to a sensitive system of intensities. Facing the apparent stillness that can be perceived in the room, new economies of attention are activated and the “formal boundaries of presence” (Di Matteo, 2024, p. 160) appear blurred.

Andrè Lepecki, in *Exhausting Dance* (2006), introduces immobility and some of its practices into contemporary choreographic forms, reading them as practices of rupture and undermining the hegemonic economy of mobility upon which the idea of dance is based. Lepecki, taking up the concept of *still act* proposed by anthropologist Nadia Seremetakis, attributes to stillness a force of resistance against historical flux (Lepecki, 2006, p. 15; Seremetakis, 2006, p. 12). He calls for its interruption, a suspension, questioning the economies of time. *Aire* is an indeterminate space-time, calling for stumbling into other temporalities. A contact between bodies that reactivates a past that is not passed.

Fig. 4 Maria José Arjona, *Karaoke* from *The White Series*, 2009, long duration performance, In-Transit, Haus Der Kulturen Der Welt, Berlin-Germany. Courtesy of the artist



VISIBLE TRACES | THE WHITE SERIES
BY MARIA JOSÉ ARJONA

Maria José Arjona (Bogotá, Colombia, 1973) is an artist and performer born during the Colombian Civil War, who explores human fragility through an intense and symbolic visual language. By using an artistic language rich in visual metaphors and gestures, Arjona deals with physical and psychological strength as part of her suffering to transcend notions of pain, tension as well as violence. Along with these ideas, she explores the concept of time as a fluid and material dimension, related to the notion of duration as a process. Many of her works are process-oriented and focus on the flow of time. *The White Series* (2008) consists of three interconnected performances: *Untitled*, *Remember to Remember* and *Karaoke*. This work is interesting in the way the artist explores identities that emerge or dissolve in real-time, allowing visitors to reflect on the temporality of bodies and the fleeting nature of memory.

The White Series took place over ten days, in which the artist took advantage of this extended temporality to produce, in each phase of the work, different bodies having specific sensitive zones. In *Untitled* – Arjona, white-dressed, enters the white space of the gallery holding a cup containing a small wand with a small circle of wire at one of its extremities. Arjona approaches one of the walls and methodically starts blowing soap bubbles very softly. As soon as the bubbles reach the white wall, they burst into red spots (Figure 2). Each new splash that stains the untouched wall contains a story of violence that is made visibly audible. It is precisely in the discrepancy, claims André Lepecki “in this friction between innocent act and violent result that a sonic reverberation inevitably comes across as walls visually scream as a slashed body” (Lepecki, 2012, p. 84). It is like that for each bubble, with its ethereal and delicate quality, there is a suspended scream about to explode. It is interesting to see how through the act of blowing, air

enters and leaves Arjona's body and produces unexpected visual results. Blow, as the most aerial, light, and least palpable bodily expression of touch, at the moment it touches the white wall of the room, becomes heavy by transforming into red patches, a layer of raw matter that refers to the most visceral world. A visible trace remains.

In the second part of *The White Series*—entitled *Remember to Remember*—we find Arjona, dressed in white, with her naked back, scrawling with white chalk on the gallery walls, for several hours a day, the same phrase: “remember to remember” (Figure 3). The wall is tinted with the vivid red stains of the previous action, blown by the artist and now dried. As Arjona writes “remember to remember” with white chalk, she turns the red of the wall into a faded pink; still visually, the phrase tattooed on Arjona's back is repeated and reflects its reiteration on the wall. A repetition that enhances the resonant power of the refrain and soon begins to take the form of an order. In this way, the traces that mark Arjona's skin, such as the red patches and the tattoo on the back of her head, expand into the spatiotemporal body of the scene. As Andrè Lepecki states, we can open the concept of skin to broader meanings, considering the same time in which the artistic practice takes place as a “vertiginous membrane of time, always on the edge of the moment, incorporating and expelling virtuals and actuals, and thus permanently re-aligning pasts and futures through its many actions, desires, inventions, expressions, gestures (whether intended or not)” (Lepecki, 2012, p. 79). In this way, he goes on:

Cicatrix of one another, body and time suture the nervure of the present in the dissonance all friction produces. By creating a body-time, an artist assembles, defines, and stitches together surfaces of sensation, provisional sensorial organs identifying as well as producing zones of aesthetic and political intensification (Lepecki, 2012, p. 79).

The scene then becomes a privileged place where a set of forces, impulses, and affections emerge.

What gives Arjona's works a strong political dimension is the way in which Arjona, by producing in front of the audience a cicatrix of time, reveals an accurate "archaeology of violence" (Lepecki, 2012, p. 82). In this archaeology, a systematic mixing of visibility, corporeality and sonority becomes essential. It is as if Arjona's rhythms, profoundly informed by her specific way of focusing while performing, the careful choices of materials, and especially colors, invoke a specific zone of temporality.

"Remember to remember" becomes an imperative for an ethical posture dealing with memory, but also a call to an urgent call to reorganize our political and affective bodies. "Remember to remember" becomes a refrain that resonates in multiple dimensions: grammatically, it is a phrase structured like a mirror, doubling infinitely. Words that, in their repetition on the wall, become increasingly imprinted.

Through the resonant refrain that activates the matter of memory, we reach the last piece that composes *The White Series*: after several days of Arjona's silent work, this last piece is titled *Karaoke* and consists of repeatedly singing a song, again and again, for hours, until Arjona's voice naturally falters (Figure 4).

Arjona's work, in the different stages, is based on the repetition of certain gestures: first the blowing of bubbles on the wall, then the writing of "remember to remember" and finally the repeated song. The repetition leads to imprinting the action as if it were a cast. At the same time, the act of repetition is never the same; it has a transformative capacity. It is somehow a process of fading, as the same blow, the same chalk, the same voice suggest to us. Remembering is a cyclic process, of returns, remembering also means forgetting. Remembering is only part of the process that also involves forgetting.

In *The White Series*, Arjona constructs a calibrated dramaturgy of time in which, through simple gestures and by tracing her feeling-movements on the wall of the room and her body through visible signs, she explores the act of

remembering. It is an experience that becomes circular, which allows scars of time to emerge and imprint themselves on the experience of the present bodies. It is meticulous work through which Arjona segments time into endlessly repeated gestures of which traces are left. Visitors are involved in grasping the fragmentation in a temporal continuity. A fragmentation in which we—as bodies ourselves—take part. Having lost unity, we have no other choice than to embrace fragmentation.

CONCLUSION

By looking at the artistic practices of Teresa Margolles and Maria José Arjona, we have tried to contaminate the notion of atmosphere and rethink it beyond the distinct disciplinary categories of aesthetics and meteorology. As the words ‘tempo’, temperature, temperament suggest, they can be linked into a single flux and create new meeting zones between spheres otherwise considered far apart. The analysis of Margolles’ *Aire* and Arjona’s *The White Series*—two works that have different approaches but that are both time-based—allowed us to investigate perceptions that go beyond the visible, to dwell deeper on the tactile dimension of experience, which usually remains under the surface.

It is an invitation to perceive the friction about something that lives out in the world, and that circulates and remains in the air. Both works, in an antithetical way, acknowledge how much material constitutes what we call memory and remembrance. *Aire* is an installation that works on the invisibility of waste materials from the washing of violently dead bodies that now circulate in the air. *The White Series*, on the other hand, is a durational performance, composed of several parts, in which the artist works with matter and with the visibility of traces that are imprinted on artist’s body and the wall of the room. Traces that imprint them-

selves and then dissolve on each other over time.

In the analysis, we called upon the skin, as a sensitive organ that operates as a seismograph of sensations. We started from the focus on human skin to go beyond corpomaterial boundaries and look at the skin of the artistic space-time: a sensitive, porous membrane in which affective energies circulate and stimulate, those who pass through the artistic work a state of perceptive alertness.

The potential of artistic space, with the expansion of time, sensibilities, and space itself is thus to perceive the invisible acting on the visible and vice versa, cultivating presence to the things around us. We do not need to look only inside—toward a sense of self—to feel ourselves present, but at the same time we need to look outward, toward what we perceive from space and things that are also present.

There is a compression of temporalities —left to sediment— that are lifted into the air, embodied by bodies, blending between echoes, resonances, rhythms, and diffractions. Recognizing how much of the material constitutes what we call memory and remembrance is an invitation to re-think an idea of time that exceeds linearity and progression. It is a constant motion, what Nietzsche (1885) referred to as “ruminating”. Despite recursiveness, and iteration, moments of clarity can exist. One can talk about time-and-weather, not because one has nothing else to do or say, but in a way to say and feel it.

When air touches, to touch means also “to move, to upset, to affect” (Nancy, 2021, p. 10).

NOTES

¹ SEMEFO stands for ‘Servicios Médicos Forensicos’ (Forensic Medical Services), which comes from the name of the civil institution responsible for the collection of corpses and their transfer to the morgue.

REFERENCES

- Alaimo, S. (2008). Trans-Corporeal Feminisms and the Ethical Space of Nature. In S. Alaimo & S. Hekman (Eds.), *Material Feminisms*. Indiana University Press.
- Bacal, E. (2018). Pervasive Death: Teresa Margolles and the Space of the Corpse. *Human Remains and Violence: An Interdisciplinary Journal*, 4(1), <https://doi.org/10.7227/HRV.4.1.3>
- Bachelard, G. (1988). *Air and dreams: An essay on the imagination of movement* (E. R. Farrell & C. F. Farrell, Trans.). Dallas Institute Publications. (Original work published 1943).
- Bennett, J. (2020) *Influx and efflux: Writing Up with Walt Whitman*. Duke University Press Books.
- Biesenbach, K. (2002). Mexico City: An exhibition about the exchange rates of bodies and values. In K. Biesenbach, A. Heiss, & A. Huberman (Eds.), *Mexico City: An exhibition about the exchange rates of bodies and values* (pp. 8–15). P.S.1 Contemporary Art Center.
- Connor, S. (2010). *The Matter of Air: Science and The Art of the Ethereal*. Reaktion.
- Deleuze, G., & Guattari, F. (2017). *Mille piani. Capitalismo e schizofrenia* (P. Vignola, a cura di; G. Passerone, Trad.). Orthotes. (Original work published 1980)
- Di Matteo, P. (2024). *A bocca chiusa. Effetti di ventriloquio e scena contemporanea*. Roma: Luca Sossella editore.
- Ingold, T. (2012). The Atmosphere. *Chiasmi International*, 14, 75-87. <https://doi.org/10.5840/chiasmi20121410>
- Kristeva, J. (2024). *Powers of Horror: An Essay on Abjection*. Columbia University Press, 2024. (Original work published 1980).
- Lepecki, A. (2006). *Exhausting Dance, Performance and the Politics of Movement*. Routledge.
- Lepecki, A. (2012). Resonance, as in Skin [or: Phonodermatography], A. Stahmer (Ed). *Parole # 2: Phonetic Skin, Phonetische Haut*. Errant Bodies Press/Salon Verlag.
- Nancy, J.L. (1995). *Corpus*. A. Moscati (Ed.). Cronopio, (Original work published 1992).
- Nietzsche F. (2008). *Thus Spoke Zarathustra: A Book for Everyone and Nobody*, G. Parkes (Ed.). OUP. (Original work published 1885).
- Seremetakis, N. (2006). *The Senses Still: Perception and Memory as Material Culture in Modernity*. University of Chicago Press.
- Szerszynski, B. (2010). Reading and Writing the Weather: Climate Technics and the Moment of Responsibility. *Theory, Culture & Society* 27(2-3).
- Tomassini, S. (2018). *Tempo fermo. Danza e performance alla prova dell'impossibile*. Scalpendi Editore.

Article available at

DOI: 10.60923/issn.2724-2463/21469

How to cite

D'Arsiè, E. (2025). When Air Touches: Cicatrix of Time in the Artistic Practices of Teresa Margolles and Maria José Arjona. *img journal*, 12, 232-251.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

**A REALM POTENTIALLY
READY TO BE
TOUCHED.** ABOUT
MACHINISM OF
PROXIMITIES AND ITS
NON-DEFINING *AB*
AETERNO CIRCULATING
TRANSPARENCY

Francesca Flora¹, Achille Filipponi²

¹ Writer, Artist, Performer

² Publisher, Artist, Writer

francescaflora.int@gmail.com

achille.filipponi@gmail.com

INTERRELATION

INTANGIBILITY

PROXIMITY

IMPLANT

IMMATERIALITY

This paper presents an experimental reflection on the immaterial field generated by proximity, interaction, and shared affective tension.

Rather than developing a conventional academic argument, the text performs its own object of inquiry: the unstable space that emerges between subjects when an interrelation takes place. Through the recurring figure of the loom, the essay describes this space as an intangible yet operative realm, made of tensions, threads, rhythms, and non-defining forces that cannot be

fully grasped while they are active. The proposed “machinism of proximities” is therefore understood as a temporary and self-consuming structure: it arises from material encounters, operates through affective and subjective forces, and disappears when one attempts to define or experience it cognitively. By combining poetic language, speculative reasoning, and self-referential form, the article questions the possibility of describing immaterial relations without reducing their atmospheric and affective complexity.

#00_WARNING:

TO UNDERLINE, TO IMITATE, TO PERFORM

The following text is an experiment. This is not to mean 'experimental', but instead to underline its psycho-technical emotive and effervescent stimula originated from a set of shared sensations bubbled up in a non-constructed or premeditated conversation between two people –us, Francesca Flora and Achille Filipponi– who have urged to combine such in a piece –this– aiming to represent a mutual strain of thoughts held together by an invisible and in-material, yet tangible, sense of belonging. The style of the main body is deliberately seeking to imitate academic writing in both form and language as the authors attempt to delve through the intrinsic field of the in-matter, intended as a non-territory, and not interfere with its own potential container, therefore the usage of a prefabricated linguistic anatomy is engaged with only as a directional means to an end. Poeticity is deployed as a system of narration that bases itself upon the authors, and in any way references back to academia in order to purposefully attempt to eliminate the hierarchy present within the hyper-consequential academic chronicling of thoughts and concepts. The text is structured in six paragraphs inclusive of an introduction and a conclusion. Its citations can be found in the form of foot-noted aphorisms auto-fabricated by the authors through debate, as no academic reference is used, nor other formal types of excerpt have been included: all comes from deliberate allusions and assumptions of the authors as we believe the text itself to be both source and outcome of its own, like the water of a fountain, recycled but constantly new, to serve its own purpose of existence and independence, while attempting to state a form of evanescence and intermediality, as if it were an inherent counterpart to the topic it represents. The resources are in fact purposefully hidden and camouflaged within the text, as this is intended to be 'experiment' of itself through the development of its own discussion and

Fig. 1 Achille Filippini, Francesca Flora, *Untitled*, 2025, Overlapped photographic files of the empty body of unsent emails taken by the two counterparts, 13,5cmx10cm. Courtesy of the authors.

reasoning, therefore its skeleton lies within the body of the work it attempts to belong to, as they cannot be separated from each other and represented within other works. Thus the text enters its own fluid dimension, where the lines of its own origin, discourse and consequentiality blur together through the making of the work. Within the binary source - outcome, in-material - material, is stated the metaphor such work aims to undertake by representing itself through both content and form. Therefore with the following work, we endeavor to perform a kind of in-materiality that may be present both within the reasoning of the text and its own form. The text moves in-wards performing the over-submerged complex it will confront itself with, therefore it attempts to become 'area' of its own creation, while equally being its own descriptive result. We warn that the following



sequentiality may lead to nowhere, and potentially solely back to its own hint, through not only the dematerialization of process and sources, but also the authors' authoriality.e design.

#01_INPUT:

ON A MORE INSUBSTANTIAL CREVICE

The analysis of the ever varied types of interrelations and interactions within societies in relation to the arguable presence of hierarchical structures those may be embedded with, seems to have been at the forefront of plenty of anthro-sociological studies, which may have diversely drawn attention towards the reasoning of certain behaviours in relation to class, gender, race and other more niche but yet fundamental pivots of intersections of identities¹. Through such critiques, it may have been emphasised how certain gestural narratives have designated and often perpetuated structural apparatuses from which they originate from². This biunivocal exchange has drawn attention to physical³ –and therefore evidently binarian– facets that reflect biases able to recount and resume societal constructions profoundly rooted within persons of all kinds.

The following text aims to drift focus from the logicity behind such antithetical reasonings⁴, in order to emphasise a kind of irrational and in-categorizable subjectivity present within the physical space of interrelations, by attempting to individuate a resonating hint within an ephemeral and unsystematic yet ordered in-material narrative. The work develops by taking into consideration the prior established presence of imposed normativities within gestural narrations, although it will not focus on them⁵. This is not to underestimate the fundamental discourse they withhold, but to zoom in on a more insubstantial crevice curbing the potential coexistence between a functional emotivity and an irrational functionality, by questioning the presence of a

sheer area of belonging, a loom, an implant, a tenet, where such in-material relation, and therefore its own place taken, may occur thanks to the tensions of the sentimental forces inhabiting it⁶.

#02_OUTPUT:

TRUSTING THE PACE OF THE INVISIBLE CREED

The geographical territories that spring through moments of human interrelations⁷, shared by two individuals (or more, or groups of), give form to an intangible unique sacral ridge representing the line between the material and the in-material, as it connects the characters involved together with their own sensorial multiplicities, both individual and exclusive, though collective and synergic, spiritual and in-corporal, yet ordered and societal. Such territory is a space composed of molecules like most spaces⁸. It is the area of matter between at least two parts that interact, not necessarily intentionally. It is an over-submerged untouchable complex existing intangibly upon reality. It activates itself by catching the attention of the two parts, who develop interest in the new realm created. Presenting itself when the interaction begins, the area hisses quietly but presently turning into a temporary tenet of rhythms to be pursued in order to proceed with the moment. And by trusting the pace of the invisible creed, the parts interrelate⁹.

The area can be imagined as a transparent but ever sewed net of energies and synergies able to pull one back and forth from others, like the threads of a loom¹⁰. Without threads, without a loom¹¹. All too tight or too loose to exist into a perfect pattern, or instead absolutely perfectly stretched and rightly tightened, potentially ready to be touched, to be worn. And in fact its in-imaginable in-materiality lies within the innumerable possibilities of tension, length, thickness and knots that then make the tenet, made of instinctive, intuitive, biased, sub-objective motifs that intertwine

through logical rhythms, overtly presenting themselves as bodies that linger through movement.

#03_THE LAYER: A FICTITIOUS AMBITION

The loom, the implant, the area, the matter, the tenet, the realm, may have tended to be categorised as a pre-constructed material mechanism performing in accordance to the cultural norms of the characters involved¹². Although, its potential unambiguous and intuitive definition, designed upon societal biased basements, lacks in the consideration of the presence of a thin extra sentimental affective layer –or a thread– belonging to the yet hard-to-categorise individual sphere, imagined as outside of the constricting weight of psychiatric and psychotherapeutic lenses, and equally away from the sensible functionality related to the coordinates of existence.

Such affective layer may exist to disturb its own implant of belonging irrationally and unpredictably¹³, guiding it to access its own core sentimental force –angled, individual, emotional– something that microscopically mutates, from zone to zone, able to complex the conceived spectrum of human experiences and their potential outcomes, while equally unleashing their very own fictitious ambition.

It must be noted that such affective thread also acts dynamically as not only it provides unprecedented, though functional, action between the parts involved in the reality, but it is also able to instigate manifestations within its own loom. Such are intended as forms of microscopic emotive dynamism¹⁴ able to de-structure the pre-set scaffoldings of their own implant, while equally allowing their own directional auto-construction underlying the continuous and necessary cross-fed contradictory, yet ever logical, binarian mechanisms of sentimental - fixated, irrational - organized, individual - collective.

#04_CONTINUOUS: SUFFERING, TRANSLATING, DISORDERING

Inside of the loom, such affective layers may take place in a tension that is itself imagined as irrational and non-functional, detached from biases and semantic constrictions. Arguably such tension may be the loom's subjective conviction, or motor, which self-nourishes it of its own creed, in order to mobilitate it to operate arbitrarily¹⁵. This may be the vigour of the nonsensical identity of the thread itself, which allows it to behave irrationally but yet within a sphere that exists and can be known, though not experienced. And by doing so, tensions create, all threads are tightened and the loom can function.

Thus, the loom's tendency to 'tend to' or to 'be tense' may originate from in-material and ephemeral internal manifestations, which have material outcomes through their own physical translation within reality, when being sensed by bodies¹⁶. In the loom all takes part coherently within its own container, ever built, ever firm, and it is in fact through such accordance that it may be presumed that its own sentimental threads do suffer from logical affirmations and cohesions of a sphere—reality—that do affect the implant itself. Although, it is within such consequential offspring that a fortuitous form of pre-built irrationality takes place logically¹⁷, subverting its very own implant of belonging by being both known and unknown, predictable and disturbing, functional and sentimental, for the utile sake of the interrelation, though equally for its own visceral disordering¹⁸.

#05_PLACEMENT: COMPREHENSION AS SABOTAGE

Attempting to grasp the space hosting the presumable in-material in-presence of an extra-affective level existing within its own interrelational implant, able to activate itself

dramatically and irrationally, though logically, elevating the interaction to a more instinctive, yet intangible, ground of shared experiences, while equally transforming itself to a more intimate and individual nook within the experience itself, may be the spontaneous consequential act in order to try and experience it, delving through its possible semantic value, in relation to its own logical and chronological positioning within reality¹⁹. In other more practical words, feeling the urgency to physically be inside of the implant in order to closer experience its own affective layers, as something different for everyone but present for all, and therefore potentially categorizable, seems a logical act in order to be able to descend from its sequential order²⁰.

However, the pivotal fundament of the loom is its in-existence. The territory of the loom presents itself through interrelation²¹, although it cannot be experienced as it does not have the capability to exist. It is the entity that makes the interrelation experienceable by becoming a new, though separate, tenet of each interrelation, which may not exist without it as it formulates through the interrelation itself. The closest possible to the loom may be to flutter around it and its invisible puzzle of multiplicities. Although, in order to do so, it shall be considered that, as the loom may not exist, nothing may exist inside of it. Such in-tangible complex territory has neither a generation nor an origin²². It is a fictitious area made of momentum whose rules cannot be defined, and the attempt of doing so may suffocate its fictitious evolution.

The experience of the interrelation must remain within its own physical output²³, while its own area of in-matters –the loom– and its sentimental forces –the threads– may not at all be taken in consideration by who enacts them but must be trusted in their own evolving in-existence. The interaction must remain tangible on the outside –in the material– and not within its own tenet of creeds. ‘It’ may be physically felt²⁴, though not cognitively known. The loom’s in-existence within its own self-development and evolution may therefore be

abstract, in-touchable, in-present, while the human attempt to its realistic placement within experience will result in its very ultimate sabotage²⁵.

#06_END:

A NON-ENDING TWIN CONVICTION

The presence of this over-submerged untouchable complex existing upon reality, which according to the preceding discourse has been identified as a loom, or an implant, held in its own in-visible, in-tangible shape by the emotive-subjective forces inhabiting it, which present themselves as contradictory balances in accordance to their own sentimentality, though equally as result of the normative structures they may be embedded with, can be arguably compared to the core form, structure and purpose of this text. In fact, the directorial-consequential-descriptive mechanism such follows, enhancing its own contradiction by mirroring the suppositions of the in-material, without attempting to approach its own experience, not only performs the fundament that the implant enacts, but it also reflects its core in-tangibility²⁶. As the loom claims its own in-experiencability, while allowing familiar descriptiveness, the text appropriates and implements such pivotal characteristics by becoming its own sole grasp to itself²⁷, hence by not being experienceable, only imaginable. Therefore, It may be concluded that the destiny of the loom in relation to reality, is the one of being condemned²⁸, as a form of constricting binarian –yet spiralling– consequentiality resides within the ridge that aligns the material with its respective in-material. As a vortex that spirals from within, the implant exhausts itself in conjunction with the interrelation it derives from, while following its own detached but parallel arc of in-existence: it springs within the in-material, it joints on the ridge together with its own respective material realm, it finally dissolves within it. It exists in the in-material,

though it is strictly dependent on its own material realm as it is contemporaneous with it²⁹. Therefore, it may never be experienced, as when acknowledged, such has already terminated to operate³⁰. The sole knowledge applicable to it may occur retrospectively to its own operation, though only through its description, by producing a 'twin' able to recount and resemble it, though unable to be lived. Hence the interrelation with its own emotive territory—the material and the in-material— mutually feed each other like the water of a fountain, as every in-material derives from its own material ground, and consequently —after its own exhaustion— each in-material is able to affect the following material, through the material itself that has sensed it, therefore it nourishes the following material, able to then give room to the succeeding in-material, and so on³¹. Like such relation, the text becomes metaphor of the binary present within the machinic relation between the material and the in-material, as well as of the one present within its own conviction of in-experienceable consequentiality, as the text is both source and outcome of itself, both descriptive of its own primordial for of experience that cannot be lived experience. The text functions as the mimic form of its own psycho-emotive implant. It becomes the twin of the in-material, by being its surface knowledge of access, while its intrinsic significance³² remains within an in-tangible, in-experienceable over-submerged untouchable complex that exists through its non-existence, and while being unknown and in-experienceable —yet ever so present— it hisses quietly but presently, echoing itself within a gesture that, bound by its nature, will eternally carry the inevitability of its own destruction³³.

NOTES

- 1 Immateriality of someone's unreadability for someone else.
- 2 Immateriality of the long curve perceived as a straight line.
- 3 Immateriality of the surge and then of the resurgence.
- 4 Immateriality of the present towards the weight of that is shattered.

- 5 Immateriality of things that might not even arise.
- 6 Immateriality of being inhabited.
- 7 Immateriality of the unknown and providential stimulus
- 8 Immateriality of the 'somewhere'.
- 9 Immateriality of the preventive and protective act that did not take place before everything that did.
- 10 Immateriality of the gulf revealed by a reunion.
- 11 Immateriality of the signified in relation to the signifier.
- 12 Immateriality of the dark heart of the subject.
- 13 Immateriality of the preventive and protective act that did not take place before everything that did.
- 14 Immateriality of the accompanying panic.
- 15 Immateriality of the arbitrary.
- 16 Immateriality of what is interesting as it is interchangeable.
- 17 Immateriality of the sense of discovery given by the fragmented now to recompose.
- 18 Immateriality of all that was.
- 19 Immateriality of the missing embodied as a hole.
- 20 Immateriality of what you thought you would do.
- 21 Immateriality of all that guides.
- 22 Immateriality of hidden and cultivated intent.
- 23 Immateriality of deciphering each other by virtue of an intimacy.
- 24 Immateriality of a yet unknown pain.
- 25 Immateriality of the heave-ho between memory and ephemerality.
- 26 Immateriality of the absent celebration in absence of the celebrated.
- 27 Immateriality of the question as incubation.
- 28 Immateriality of the final judgement.
- 29 Immateriality of the dramatic value of the rite.
- 30 Immateriality of the existent after a memory collapses.
- 31 Immateriality of all that guides.
- 32 Immateriality of vibrating language.
- 33 Immateriality of the ravine always feared and never felt.

Article available at

DOI: 10.60923/issn.2724-2463/21451

How to cite

Flora, F., Filippini, A. (2025). A realm potentially ready to be touched About machinism of proximities and its non-defining *ab aeterno* circulating transparency. *img journal*, 12, 252-263.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

THE PROJECT AND REPRESENTATION OF EMOTIONS IN INHABITED SPACE

Vincenza Garofalo¹, Maria Milano²

¹Università degli Studi di Palermo
Dipartimento di Architettura

²ESAD — Escola Superior de Artes e Design, Matosinhos

vincenza.garofalo@unipa.it

mariamilano@esad.pt

ESSAY 180/12

ATMOSPHERES
EMOTIONS
REPRESENTATION
COLLAGE
SPACE

This paper analyses the role of atmospheric representation in architecture, focusing in particular on the use of collage as an expressive tool to evoke the emotional and immaterial dimension of environments. Beginning with a theoretical reflection on architectural atmospheres and their perceptual construction, the paper explores how various architects and designers have utilised collage to represent spaces and experiences. Through historical and contemporary case studies, this study highlights how collage can transcend the limitations of photorealistic rendering, enabling greater expressive

and imaginative freedom. Furthermore, the paper presents two educational experiences conducted at ESAD in Matosinhos and the University of Palermo, where collage was employed as a tool to foster students' critical awareness of the atmospheric quality of designed spaces. The outcomes demonstrate that the visual representation of architectural atmospheres not only enriches the creative process but also translates the emotional experience of inhabiting into visual images. Collage is thus identified as a pivotal instrument in the design and communication of contemporary architecture.

INTRODUCTION

The elements of an environment, of an architectural space, exert an influence on human beings because they profoundly affect their sensory and emotional perception. “And what mediates objective factors of the environment with ambient feelings of a human being is what we call atmosphere. The atmosphere of a certain environment is responsible for the way we feel about ourselves in that environment. Atmosphere is what relates objective factors and constellations of the environment with my bodily feeling in that environment” (Böhme, 2017, p. 1). Thus, the atmosphere of an architectural space can be defined as the set of immaterial qualities that determine the multisensory experience of an environment. In this sense, atmosphere emerges from the dynamic interplay between human presence and the physical space, encompassing elements such as light, sounds, odours, temperature, colours, and materials.

“Architecture and design have always produced atmospheres, but the thinking about architecture mainly concentrated on buildings and their visual representation” (Böhme, 2017, p. 5). However, when the methods of Representational Science are employed to provide an objective and accurate representation of architectural design, architects and designers often resort to collage and photocomposition to evoke the atmospheric qualities of a space. These expressive techniques are tasked with conveying the complexity of spatial perceptions and the sensations a place can evoke.

This paper proposes an exploration of collage as a means of representing atmosphere in architecture, with the aim of consolidating it both as a practice capable of expressing a particular emotional and intangible dimension of architecture and, simultaneously, as a tool for critical design. Compared with other media, collage offers multiple layers of interpretation and evokes, in a more immediate way, the emotions elicited by a space for those who inhabit, traverse,

or move through it. It thus provides numerous avenues for further research, given its considerable didactic and scientific potential. The research methodology adopted begins with the critical observation of selected modern and contemporary experiments in architectural representation, supported by a range of bibliographic sources on the subject. These enable the contextualisation of issues related to architectural design and the representation of atmosphere. The study culminates in two teaching experiences carried out at ESAD – Escola Superior de Artes e Design in Matosinhos –Portugal– and at the Department of Architecture of the University of Palermo – Italy–, aimed at fostering in students a heightened awareness of the space they design and represent, and at confirming several of the hypotheses that emerged during the course of this research.

ATMOSPHERES IN THE CONSTRUCTION OF MEANING

In 1944, Mario Praz, a great traveller, art lover, and scholar of English literature and linguistics, wrote an essay, entitled *La Filosofia dell'arredamento*. At the time, this essay held minimal relevance in Italy; however, it swiftly evolved into an indispensable reference for scholars worldwide specialising in interior design culture. More than an essay, it is a reflection on interiors and the sense of interiority of the home. Praz was the first to question *Stimmung*, the “sense of intimacy, of the interior” (Praz, 1993, p. 55), which is not only expressed through the objects one surrounds oneself with, but is the result of a care that only a sensitive soul, open to the world, can truly perceive.

How is this sense of intimacy, which Praz discusses, designed and expressed? What atmosphere best conveys the sense of intimacy?

In his *Filosofia della Casa* Emanuele Coccia (Coccia, 2021) introduces the concept of domestic intimacy, no longer in stark contrast to the city – the cradle of philosophy, the in

which to free the soul, to let it fly. Both the city and the home are understood as part of a whole, as flux, where one cannot exist without the other. The city is the place of social contracts, of mutable relationships between the individual and the collective, but it cannot exist without the home. Sooner or later we always and inexorably return home, because this is the space that allows us to mediate our relationship with the city. According to Coccia, inhabiting a space is not merely a physical presence or occupation of a specific area, but rather an intricate weaving of relationships with the world around us (Coccia, 2021).

In the periods preceding the pandemic, the tensions and contrasts between public and private, domestic and urban spaces had progressively diminished, due to a more fluid and hybrid mode of living that integrated spaces for work and domestic atmospheres, leisure and productive and working activities. The proliferation of coworking and cohousing spaces demonstrated a new inclination towards the hybridisation of spaces, where public and private dimensions coexisted rather than being in opposition.

Today, the project of inhabiting has acquired new significance while maintaining an ambiguous relationship between public and private dimensions. The home is increasingly configured as a refuge, an absolute space of intimacy, yet simultaneously hyper-connected, opening up to the world. Simultaneously, spaces for leisure or work are designed to express a domestic atmosphere that enhances the experience of comfort, directly reflecting a private dimension of inhabiting materialised through atmosphere.

Peter Zumthor asserts that his design process never begins with a predetermined concept dictated by the characteristics of the site or the parameters of the programme. Instead, he originates from the pursuit of establishing an ambience. Designing the atmosphere of spaces is revealed as one of the most crucial aspects of an architect's or interior designer's practice. Atmosphere creates an emotional tension, for better or worse; it induces behaviours and proposes spatial

experiences. Coccia reminds us that “one can die of too much home” (Coccia, 2021). The pandemic period, with its frequent instances of violence due to excessive intimacy, exposed the ambivalence of the home as both a refuge and a space of imprisonment and abuse. A housing project that addresses these issues can help to ensure the appropriate balance between public and private dimensions. In this process, the design of the atmosphere assumes paramount importance.

The architect's role, therefore, is to utilise their sensitive skills in order to unite the various objects, qualities and properties of matter, thereby producing meaning. It is essential to ensure that space does not merely represent the concrete reality of things and materials, but rather produces emotions in human beings. For Zumthor, atmosphere speaks to our emotional perception. In his renowned book *Atmospheres* (Zumthor, 2007), he delineates nine spatial conditions that, individually or collectively, can create a certain atmosphere.

The Body of Architecture. An image that clearly illustrates the concept of the ‘body of architecture’ is Antonello da Messina's painting *San Girolamo nel suo Studio* (1475). The saint is portrayed there, intent on his writings, within a small space, a micro-architecture enclosed within a much larger environment that evokes the scale and monumentality of a cathedral. The disproportion between these two spaces contrasts with the small wooden cabin that houses the saint: a comfortable, domestic, and measured space. The factors that contribute to this sense of intimacy and comfort include the material of the structure, wood, the specific quality of light reflected upon it, its scale, which ensures a close relationship with the human body, and various everyday objects that hint at a domestic dimension of inhabitation, such as a hat, a cloth, cases, a pen holder, and many books. Size, scale, the relationship between load-bearing and supported structure, the relationship between solids and voids. All this, in relation to human proportions, represents the turning point of the humanistic culture of the Renaissance.

The Consonance of Materials. This concept refers to the ability to harmonise different materials so that they ‘vibrate’ in unison, much like the notes in a musical score, which may be numerous, varied, and even dissonant individually, yet together produce a harmonious melody. Reflecting on the work of Carlo Scarpa or Giò Ponti, one can appreciate the knowledge and skill required to combine a multitude of materials to achieve a coherent, unified, and harmonious composition. Often, for fear of making mistakes, designers opt for the simpler path of monochromatic and mono-material solutions, legitimised by modernist legacies that have led to formalist tendencies, which today risk being devoid of meaning. Carlo Scarpa, in the Querini Stampalia Bridge in Venice, masterfully integrates different materials - wood, brass, and iron - demonstrating his nuanced approach to materiality.

Scarpa embraced the concept of “intolerance an empathetic attitude towards imperfections, but also literally, as a margin for implementation. In his work, tolerance becomes an expressive pursuit. The wood of the handrail in the Ponte Querini Stampalia does not bend, it curves slightly, it looks like a prosthesis that works like a knee and at the same time softens and beautifies the object. The same happens with the uprights, which are independent of the attachments and are fixed at the end by simple screws”¹.

The Sound of Space. Zumthor sees every space as a great musical instrument: it collects, amplifies and transmits sound. In a highly evocative yet exemplary vision, the architect articulates this concept with the following words “I imagine removing noise from a building; at that point, there is nothing left. Nothing that creates contact between surfaces. At that point, silence can be perceived as a new element to make architecture, a new component that characterises a building. The image generated by this silence is beautiful”² (Zumthor, 2007, p. 29). Imagine the sound of the church of Sant’Andrea in Mantua, deserted, enveloped in fog creeping through its unusually open doors on a November evening. Imagine the

sound of your footsteps, amplified by the echo of the empty space. Similarly, Tadao Ando's Church of the Light invites contemplation and silence. Here, the resonance chamber is formed by the interplay of light and shadow, in a carefully balanced relationship capable of creating an atmosphere that naturally calls for quiet introspection.

The Temperature of Space. The ability to assess the various material qualities based on their respective perceptual temperature is another significant aspect on which Peter Zumthor focuses. He explains both the objective and subjective characteristics of this perception, which is not merely physical, related to touch, but above all psycho-perceptual, capable of evoking sensations of happiness, comfort, or their opposites. This theme is particularly relevant to the use of materials, colours, and light. It is well understood that wood is a 'warm' material, not only in its physical properties but also in its symbolic dimension, as it evokes everyday life and the comfort of the domestic environment. It recalls the myth of the primitive hut, the archetype of architecture³, a generator of ancestral memories, and a paradigm of shelter.

Objects that Surround Me. The objects that surround us contribute to shaping history and identity within spaces. This is crucial in creating an atmosphere that resonates with our emotional sphere, activating memories and feelings. The role of architecture is to ensure the presence of spaces for spontaneous individual appropriation, places to be filled with memories and personal affections.

Consider the house of Ray and Charles Eames in Los Angeles, built in 1949, Lina Bo Bardi's Casa de Vidro nestled in the forest, or Sergio Fernandez's house in Caminha, built in 1973 in northern Portugal. They are real containers of meaning, as well as of memory and everyday life.

Between Calm and Seduction. Architecture is the art of space. However, when life unfolds within a space, one inevitably engages with time as well; to the three-dimensional parameters of concrete space, a fourth dimension is added, that of movement, the measure of time.

Space can guide us unambiguously towards specific directions and functions, or it can 'seduce' us, inviting us to explore different paths and offering a broad capacity for choice. In a dwelling or a space designed for public activities, the interplay of multiple routes can embody the art of seduction, just as the alternation between spaces of contraction and expansion can ensure a balance between contrasting impulses.

Tension between Interior and Exterior. We inhabit the interior because there is always an exterior in which to seek refuge. The exterior provides a certain defence against excessive intimacy. It is worth remembering that it is often within the domestic sphere that the most atrocious acts of violence occur. Conversely, even though we spend much of our day in the exterior, we always feel the need to return home. The exterior allows us to expand, while the interior enables us to gather ourselves. This dynamic is central to the experience of dwelling in the world, ensuring that we feel we are part of it.

Degrees of intimacy. Dimensions, materials, and light modulate the degrees of accessibility within a space and, consequently, its levels of intimacy. The relationship between public and private has always been one of the fundamental parameters defining and characterising architecture. While it seems evident that the atmosphere of a space is influenced by its degree of privacy, the underlying rules governing this relationship remain complex and elusive. An intimate space encourages individual and spontaneous appropriation, fostering a process of identification between its inhabitant and the space itself. As a result, it is more likely to generate a domestic and familiar atmosphere. Conversely, an out-of-scale environment can hinder this process of 'domestication', making the space feel impersonal, tense, or cold. Herman Hertzberger (Hertzberger, 1996) acknowledges the significance of the relationship between public and private, demonstrating that these concepts are not in opposition but rather relative. A space is public only in

relation to another that is more private. There are different nuances in the relationships between public and private that generate different degrees of intimacy. The more intimate a space is, the more its inhabitant feels comfortable, at ease, appropriating it spontaneously and naturally.

Light on Things. Light is what makes things visible, Le Corbusier once stated. And Peter Zumthor reiterates this, showing the importance of light in building the right atmosphere. Light is not only that which filters through a window; it is also that which is reflected by materials and surfaces. In Junichirō Tanizaki's *In Praise of Shadows*, written in 1933 (Tanizaki, 2000), light is an entity that only makes sense in relation to shadow. Indeed, shadow is just as significant as light in the composition of atmosphere.

The rooms of traditional Japanese houses are filled with a muffled atmosphere, thanks to the use of wood and rice paper instead of glass for doors and windows. It is the darkness that makes these dwellings intimate. The objects within them serve to maximise the limited light available, which is why traditional Japanese artefacts are often finished with glazed and lacquered surfaces. Mastering the balance between light and shadow – rather than adhering to the Modernist legacy of excessive brightness, characterised by vast expanses of glass, transparency, and a seamless connection between interior and exterior – is essential in the creation of atmosphere.

THE REPRESENTATION OF ATMOSPHERIC QUALITY

Every interaction with architecture engages multiple senses, through which spatial, material, and dimensional characteristics are perceived. In this way, “an architectural work is not experienced as a collection of isolated visual pictures, but in its fully embodied material and spiritual presence. A work of architecture incorporates and infuses both physical and mental structures. The visual frontality of the architectural drawing is lost in the real experience of architecture” (Pallasmaa, 2005, p.

44). Moreover, methods and techniques of representation often neglect the sensory and immaterial dimension of architecture. To express its atmospheric qualities, it is necessary to resort to expressive techniques that allow for the representation of the subjective perception of spaces. Collage, with its combination and layering of images, fragments, colours, and textures, proves to be an effective tool for representing the complexity of spatial perceptions and the sensations linked to the experience of a place and its atmospheric quality.

While photorealistic rendering tends to limit imaginative capacity, collage presents itself as an expressive alternative that broadens the possibilities for visual exploration, encouraging new modes of imagination (Galofaro, 2019). From its appearance in the Modern Movement to the conceptual experiments of radical architecture and contemporary approaches, collage has established itself as a tool to support the design process through evocative representations of three-dimensional space.

Among the most famous examples, Mies van der Rohe's collages suggest the spatiality and transparency of his architecture through understated compositions, often monochromatic or featuring only a few notes of colour derived from the identification of materials, in a combination of photographs, cut-outs, and drawings (Beitin et al., 2017). The interiors represented are large spaces characterised by a few elements – pillars, dividing walls, artworks – and transparent surfaces that relate the interior to the landscape, as seen in the interior perspective of the *Ron Bacardi y Compania, S.A., Administration Building, Santiago, Cuba* project, 1957 (Figure 1). The space is sometimes defined by perspective grids, as in the interior perspective of the *Museum for a Small City* Project, 1941 – 1943 (Figure 2). “In the original collages one can discover that Mies van der Rohe used to draw into his students' works, for example a tree or a chair or something else that mostly served to give the design a more precise atmosphere” (Hammers, 2017, p. 90). In the architectural scene of the 1960s and 1970s, collectives such as Archigram in London and Superstudio

Fig. 1 Ludwig Mies van der Rohe, *Ron Bacardi y Compania, S.A., Administration Building project, Santiago, Cuba (Preliminary version: interior perspective)*, 1957. <https://www.moma.org/collection/works/781>

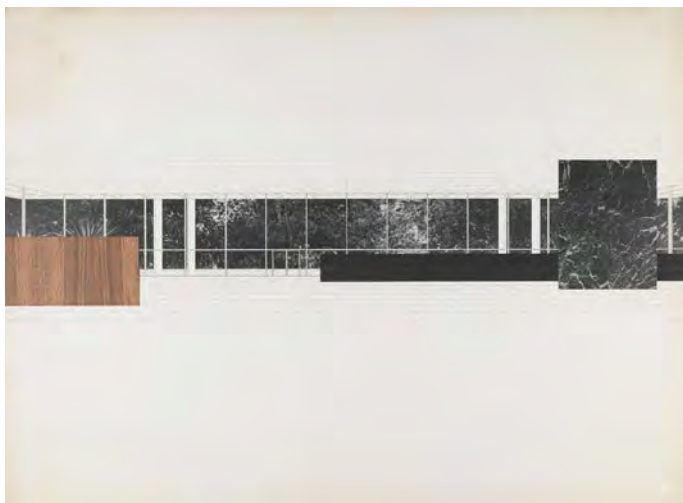
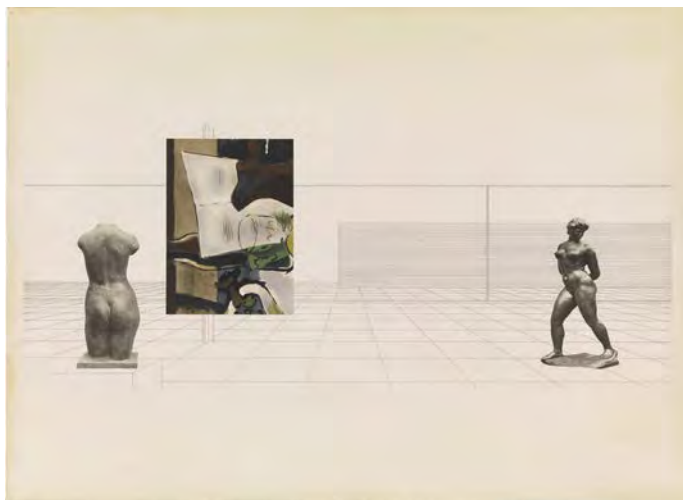


Fig. 2 Ludwig Mies van der Rohe, *Museum for a Small City project (Interior perspective)*, 1941-43. <https://www.moma.org/collection/works/756>



in Florence brought the collage technique to a visionary and provocative dimension, using it not only as a means of representation, but also as a tool for social criticism and design reflection. Through this expressive mode, they developed visions of futuristic cities and utopian or dystopian scenarios, exploring new possibilities for architecture and urbanism beyond traditional conventions. Significant examples such as *Walking City* (1964) and *Instant City* (1968) demonstrate Archigram's use of collage to blend technological

Fig. 3 Superstudio, Gian Piero Frassinelli, Alessandro Magris, Roberto Magris, Cristiano Toraldo di Francia, Adolfo Natalini, *The Continuous Monument: On the Rocky Coast, project (Perspective)*, 1969. <https://www.moma.org/collection/works/936>



elements, science fiction imagery, and references to mass culture in order to represent a dynamic city that evolves with its inhabitants. In the project *Il Monumento Continuo* (1969), Superstudio imagines a single modular architectural structure that extends indefinitely, overlapping both natural landscapes and existing urban settlements, critically investigating the consequences of extreme standardisation in the built environment (Figure 3).

The evolution of digital technologies has led to a significant transformation in the practice of collage. Increasingly, contemporary architects use digital collage as an expressive means of synthesis to represent the immaterial qualities of architectural space, combining digitally generated visual elements with photographs, textures, and three-dimensional models (Santibañez, 2017). In these cases, the collage is not merely a graphic translation of the design idea, but an integral part of the design process itself, an active tool in the creation of atmospheres through the careful combination

of heterogeneous elements. In contrast to the increasingly pronounced hyperrealism of digital renderings, the collage retains the ability to stimulate the viewer's imagination in representing a design intention. For the Belgian Office KGDVS, "the process of collage, with images, lines, and colours layered in Photoshop, avoids the realism of rendering, adding conceptual density and depth to the perspective view and making the digital drawing resemble those created with conventional techniques in the 1960s and 1970s, but with a sense of proportion, a sophisticated innocence in the imagery, a fantastic realism, and a perspective view deliberately altered in a painterly manner"⁴ (Gargiani, 2019, p. 121).

Mexican architect Tatiana Bilbao relies on collage to communicate the materiality and scale of her designs, avoiding digital renderings as they are seen as a limitation to the creative process. For the Portuguese Fala Atelier, collage is a tool for imagining space that evolves alongside the architectural idea. The project is accompanied by a series of digital images in which the framing, viewpoint, structural elements, and flooring remain fixed. The final result of the creative process corresponds to the last version of the collage, to which the photographic image of the completed architecture can therefore be superimposed. The similarity between the digital image and the realised architecture is very high, proving that even collage can convey the qualities of the design.

A TEACHING EXPERIENCE AT ESAD IN MATOSINHOS

To explore how to design and convey the appropriate atmosphere of a space, students of the Master's in Interior Design at ESAD –Portugal– in the 2024-2025 academic year were tasked with designing and representing the atmosphere of either a hotel room or a hotel lobby, situated in three distinct locations around the world, New Orleans, Tokyo, and a desert setting, following the guidelines outlined below:

Fig. 4 Ana Branquinho, *Coven Hotel a New Orleans*, digital collage. Sun Room, daytime and nighttime setting.



- The place, its culture, and its materiality had to be an integral part of the project and contribute to the construction of a unique experience for a specific, detailed audience. The design process starts from these premises and develops through the construction of a series of *moodboards* capable of progressively leading to a certain experience, depending on the place and its specificities and on the target audience;
- In a second moment, students are asked to create a story board capable of graphically communicating the experience proposed to the customer, from the moment

Fig. 5 Ana Branquinho, *Coven Hotel a New Orleans*, digital collage. Sun Room, bathroom.

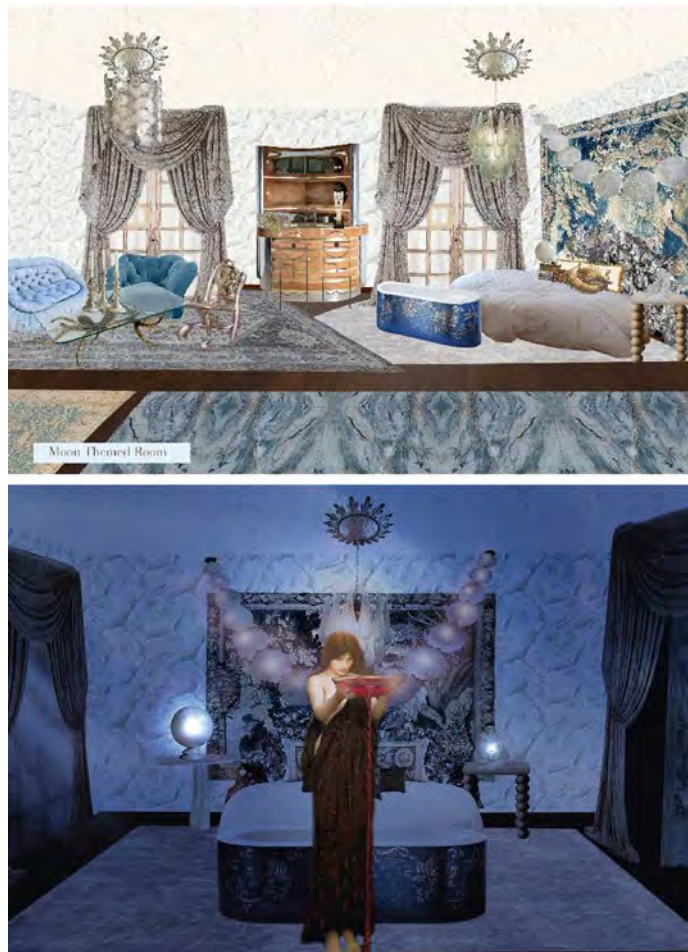


enter the lobby, check in or arrive in their rooms. The student is thus able to understand that today's hospitality project is consumed, more and more, by an immersive experience that involves the guest, stimulating their senses, imagination and exceeding their expectations;

- The design of the atmosphere becomes the next step. The atmosphere anticipates and evokes the promise of a certain experience and is a decisive moment in the design. Students are then asked for a moodboard that synthesises the experience and atmosphere of the space;
- The design of the proposed space, its dimensioning, the articulation of spaces and functions begin, but from very different premises than those usually referred to by the architect: no longer site and programme, but the desire to achieve a specific atmosphere;
- The last step required of students is, therefore, to represent the atmosphere of the space and the experience of the designed space.

Naturally, it is relatively straightforward to describe atmospheres when analysing concrete, already realised spaces. We can perceive their scents, sounds, and overall ambience through our psycho-perceptual faculties. However, when designing a space, how can we anticipate and represent an atmosphere that will only materialise in the future?

Fig. 6 Ana Branquinho, *Coven Hotel a New Orleans*, digital collage. Moon Room, daytime and nighttime setting.



The technical drawing, the sketch, the physical model or the digital 3D, are important tools for investigating and verifying the project, but the tool that seems most appropriate for representing atmospheres, capable of introducing different levels of reading, is the collage. It does not presuppose a realistic representation of the project and the proposed atmosphere, but evokes memories, environments, suggests moods, digging into the folds of emotions as no other design tool is able to do. Moreover, it is the only medium capable of integrating diverse disciplines and techniques, such as technical drawing, photography, sketching, and illustration.

Fig. 7 Ana Branquinho, *Coven Hotel a New Orleans*, digital collage. Moon Room, bathroom.



Beyond offering a space for imagination, collage opens up multiple avenues for expression and design, becoming an essential tool in the designer's creative process. Rich in potential, it possesses a unique ability to evoke atmosphere. Collage is an invitation to density, meaning, dream, memory, simultaneity, and multidimensionality.

According to the provided guidelines, students developed a project for each of the proposed locations.

For the *Coven Hotel* project, designed for New Orleans, student Ana Branquinho envisioned a clientele seeking an

Fig. 8 Gloria Sousa, *Native Healing Hotel & SPA nel Mojave Desert*, digital collage. Yoga Room.



experience centred on mysticism, the occult, mystery, magic, and a certain hedonism. The hotel becomes a kind of 'portal' introducing guests to an alternate world, with an atmosphere constructed around mystical themes of the sun, moon, and celestial bodies, imagined both during the day and at night. At night, in particular, the mystery and magic evoked by the space, its finishes, and the objects inhabiting the interiors intensify the overall atmosphere (Figures 4-7).

With the *Native Healing Hotel & SPA* project, student Gloria Sousa explores the indigenous culture of the Mojave Desert, United States, offering visitors a sensory experience shaped by

Fig. 9 Gloria Sousa, *Native Healing Hotel & SPA nel Mojave Desert*, digital collage. Bathroom and SPA, daytime and nighttime setting.

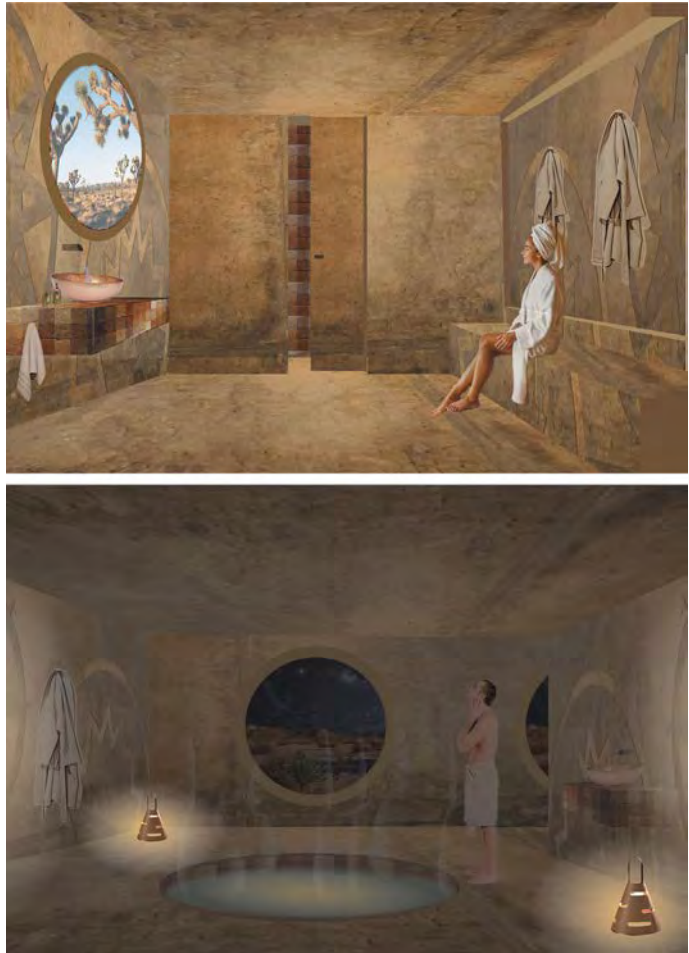


Fig. 10 Giada Guerrero, *Sento Hotel a Tokyo*, evocative collage of a potential atmosphere – initial phase.



the colours and materials of the desert landscape. The space, a reinforced concrete structure incorporating locally sourced sand rich in iron, presents a raw, tactile atmosphere designed to encourage reflection and relaxation (Figures 8 and 9).

For the *Sento Hotel* project, student Giada Guerrero drew inspiration from Tokyo's long-standing public bath culture, proposing a spacious *Ofuro* bathing area within the hotel lobby. The atmospheric quality of the space is achieved through the selection of essential materials: concrete, wood, and handcrafted green tiles. Warm water and steam, together with the minimalist furnishings, contribute to creating a rarefied, muffled and silent atmosphere, becoming an integral part of the project (Figures 10-15).

Fig. 11 Giada Guerrero, *Sento Hotel a Tokyo*, left: story telling – the promise of an experience; right: sketch of the driving project idea – distribution and conceptual space design.

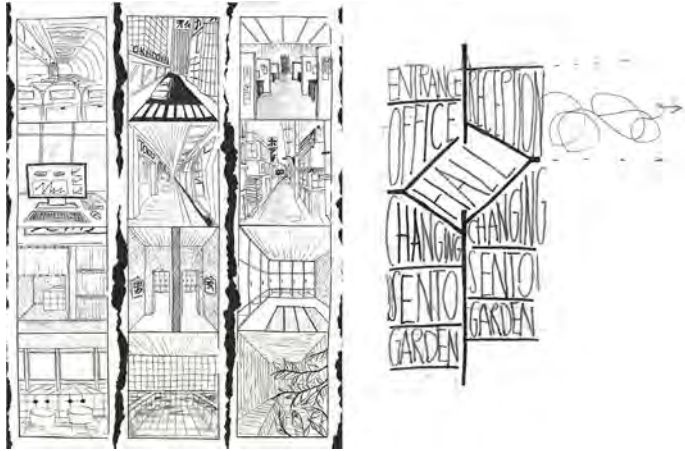
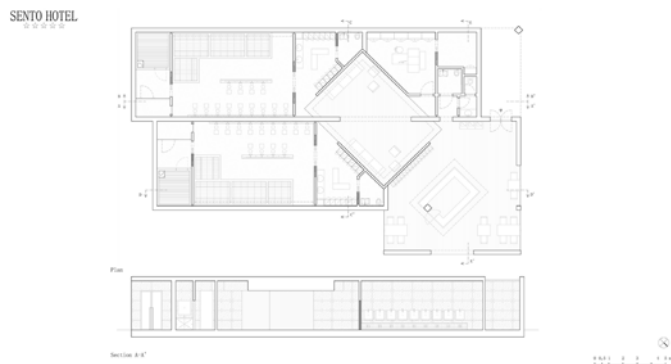


Fig. 12 Giada Guerrero, *Sento Hotel a Tokyo*, plan and section of the project.



A TEACHING EXPERIENCE AT UNIVERSITY OF PALERMO

In December 2024, students from the Department of Architecture at the University of Palermo, enrolled in the Multimedia Drawing and Representation course –Industrial Design programme–, participated in the workshop *The Representation of Design: Atmospheres, Environments, Spaces*. The educational path was inspired by the nine spatial conditions theorised by Peter Zumthor in his text *Atmospheres*, offering a reflection on architecture's ability to evoke sensations and emotions through graphic representation. Students were asked to explore the concept of atmosphere by representing an imaginary space capable of conveying an emotion, sensation, feeling, or vice, choosing from fear,

Fig. 13 Giada Guerrero, *Sento Hotel a Tokyo*, digital collage. Lobby view.



Fig. 14 Giada Guerrero, *Sento Hotel a Tokyo*, digital collage. Lobby view.



Fig. 15 Giada Guerrero, *Sento Hotel a Tokyo*, digital collage. Bathroom area view.



love, joy, anxiety, anger, solitude, lightness, suspension, lust, or disorientation. The expressive tool for the development of these concepts was collage, either analogue or digital, leaving students the freedom to define the visual language most suited to their interpretation.

After investigating the role of collage in developing critical spatial awareness, the work was divided into two main phases: a first phase of analysis, in which students identified the atmospheric characteristics of their space, and a second phase of visual translation, in which they created analogue collages using various materials –paper, photographs, magazine cut-outs, drawings– or digital collages, combining raster images and vector elements, to evoke the sensory experience of their designed space. The combination of heterogeneous visual fragments allowed for the construction of scenarios capable of provoking specific moods, transforming graphic representation into an expressive device capable of translating the atmosphere of an imagined environment into a visual and sensory experience. The collection of collages produced by the students reveals a repertoire of recurring visual and perceptual modalities through which atmosphere is represented as an immaterial and emotional quality of space. A first tendency concerns the use of perceptual ambiguity and spatial instability as tools for evoking complex states of mind. Some collages depict impossible figures and elements that destabilise the perception of place and of the body's position within the represented space. In *Disorientamento* by Alessandra Picone, for example, an ambiguous space articulated by different elements is represented. The presence of flights that recall the spatial paradoxes of Escher's staircases –in which the intrados becomes the extrados and vice versa–, reflective surfaces that duplicate elements, and an impossible prism that simultaneously combines contradictory viewpoints, generates a sense of disorientation and disruption in perceptual coherence, made explicit by the presence of a labyrinth depicted in a painting (Figure 16). This pursuit of ambiguity and geometric instability recurs in other collages in

which the fragmentation of space or the denial of perspectival coherence are adopted by the students to evoke atmospheres of uncertainty and precariousness. A second tendency concerns the evocative use of colour and materiality as devices that generate atmosphere. If, on the one hand, the use of warm or saturated colours suggests an intensely emotional atmosphere, on the other, the choice of cold or neutral colours, sometimes limited to black and white, emphasises sensations of detachment and solitude in rarefied spaces.

In *Lussuria* by Sara Polisano, a theatrical space with a sensual atmosphere is represented (Figure 17). The use of gold, red,

Fig. 16 Alessandra Picone, *Disorientamento*, 2024, digital collage.



Fig. 17 Sara Polisano, *Lussuria*, 2024, paper collage.



black, and green produces a rich and enveloping sensorial register, in which the scenographic elements converge to construct a perceptually overloaded, almost immersive space. All elements share a consonant colour scheme and contribute to defining an atmosphere that stimulates the senses. By contrast, *Solitudine* by Giulia Pipi adopts a palette of black-and-white cut-outs which, together with the compositional fragmentation, generates a distance, drawing attention to the cold and abstract quality of the space and to the condition of isolation of the three human figures in the scene (Figure 18).

Angoscia by Manuela Belli, Alessia Giambanco, and Giusi Lentini likewise employs chromatic selection as

Fig. 18 Giulia Pipi, *Solitudine*, 2024, paper collage.



an atmospheric device: the cold surfaces, the choice of furnishings, and the absence of human figures all contribute to defining an unsettling space. The sensations of coldness and discomfort are amplified by the dense, mist-filled forest visible through the large windows (Figure 19).

From a compositional standpoint, some collages employ the juxtaposition of heterogeneous elements to articulate different layers of the image and its meaning. Space is represented through the combination of architectural fragments, human figures, furnishings, and landscape elements which, though drawn from distinct contexts, are arranged according to evocative rather than narrative logics.

In *Sospensione* by Nina Grasso and Sara Lo Pinto, the association of disproportionate Corinthian columns, empty seats, marble walls, and a material sky filled with dense clouds from which a female figure hangs creates an environment that could not physically exist, yet remains coherent in its atmospheric intent. Here, the composition of elements serves as a device for representing psychological states rather than realistic spaces (Figure 20).

In the cases examined, the observer is invited to reconstruct mentally the spatial and sensory conditions represented through partial and deliberately manipulated

Fig. 19 Manuela Belli, Alessia Giambanco, Giusi Lentini, *Angoscia*, 2024, digital collage.



visual clues. The process of assembling fragments becomes a tool capable of subverting the constraints of mimesis in favour of an 'affective' representation of space. This suggests that collage, beyond its representational function, may be adopted as a didactic research method to explore and communicate perceptual dimensions that are difficult to attain through more codified media.

CONCLUSIONS

In the examples analysed, collage emerges as a true expressive language, capable of exploring the sensory and immaterial dimension of architectural space. Furthermore, the educational experiences discussed have highlighted the potential of collage as a tool for constructing an atmospheric image of architecture, allowing students to translate spatial sensations and emotional dimensions that would otherwise be difficult to represent into visual form.

The integration of advanced software and rapidly evolving generative algorithms is expanding the possibilities for the production, manipulation, and combination of images, opening new scenarios for architectural representation. It is plausible to imagine that, in the near future, digital collage could establish itself as a dynamic and interactive tool, capable



Fig. 20 Nina Grasso, Sara Lo Pinto, *Sospensione*, 2024, digital collage.

of simulating in real-time the variations in the perception of a place. In this context, the new aesthetic emerging from Artificial Intelligence and from innovative technologies for immersive spatial representation –when placed in dialogue with the highly layered and fundamentally analogue technique of collage– may open new avenues for research and development in the fields of architectural design and representation.

NOTES

- 1 Giancarlo Carnevale, during a lecture in the Architectural Composition Course held at the Faculty Architecture in Palermo in 1993.
- 2 The quote, originally in Italian, was translated into English by the authors.
- 3 According to the abbot Marc-Antoine Laugier in his famous *L'Essai sur l'Architecture* of 1753, the hut more than the cave or the tent –of Egyptian or Chinese memory– is the typology that has most influenced the evolution of architecture and the art of building. For Laugier, quality architecture must be legitimized by both nature and reason (Laugier, 1753).
- 4 The quote, originally in Italian, was translated into English by the authors.

CREDITS

The paper is the joint work of the authors. For the sole purpose of paragraph attribution, it is noted that Vincenza Garofalo wrote *The representation of atmospheric quality* and *A teaching experience at University of Palermo*; Maria Milano wrote *Atmospheres in the construction of meaning* and *A teaching experience at ESAD in Matosinhos*.

REFERENCES

- Beitin, A.F., Eiermann, W., & Franzen, B. (2017). *Mies van der Rohe: Montage, Collage*. Koenig Books.
- Böhme, G. (2017). *The Aesthetics of Atmospheres*. Routledge.
- Coccia, E. (2021). *Filosofia della Casa. Lo Spazio Domestico e la Felicità*. Einaudi.
- Galofaro, L. (2019). Il montaggio come forma di progetto. *Piano B. Arti E Culture Visive*, 4(2), 18-31. 10.6092/issn.2531-9876/1085.

- Gargiani, R. (2019). I primi collage digitali di OFFICE -Kersten Geers, David Van Severen: intenzioni narrative dei visionari eclettici del XXI secolo. *Piano B. Arti E Culture Visive*, 4(2), 119-143. 10.6092/issn.2531-9876/10638
- Hammers, B. (2017). Mies van der Rohe. The MoMA Collages. *Docomomo*, 56(1), 88-90.
- Hertzberger, H. (1996). *Lezioni di Architettura* (M. G. Cusmano, Trad.). Laterza.
- Laugier, M.-A. (2024). *Saggio sull'architettura* (V. Ugo, a cura di). Aesthetica
- Pallasmaa, J. (2005). *The Eyes of the Skin. Architecture and the Senses*. John Wiley & Sons.
- Praz, M. (1944). *La Filosofia dell'Arredamento*. Documento Libraio Editore.
- Santibañez, D., (2017, April 4). 12 Offices that Use Collage to Create Architectural Atmospheres. *ArchDaily*. <https://www.archdaily.com/784648/12-ways-of-representing-multi-layered-architectural-atmospheres>.
- Tanizaki, J. (2000). *Libro d'ombra* (A. Ricca Suga, Trad.). Bompiani.
- Zumthor, P. (2007). *Atmosfere. Ambienti architettonici. Le cose che ci circondano* (A. Ricca Suga, Trad.). Mondadori/Electa.

Article available at

DOI: 10.60923/issn.2724-2463/21528

How to cite

Garofalo, V. & Milano, M. (2025). The project and representation of emotions in inhabited space. *img journal*, 12, 264-293.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

THE FOG IS COMING: SEMIOTIC ATMOSPHERES AND MENTAL DECAY IN INTERNET AESTHETICS

Moreno Elia Hebling

Indipendent Researcher

morenohebling@gmail.com

ESSAY 181/12

MEMES

LIMINAL SPACES

BRAIN-ROT

FOG

DISSOCIATION

What if the contemporary atmosphere in which we find ourselves is not only metaphorical but also physical? The ever-changing nature of the internet's visual lexicon, its participatory creation dynamics, and its vertiginous velocity make memes a perfect field for studying cultural phenomena while they are still forming. This paper, through a methodology that applies the fast-paced and everchanging nature of social media, will analyze various case studies in which atmosphere plays

a central role. Focus-ing on Liminal Spaces, Core-core, and Brain Rot—analyzed through the theoretical frameworks of Walter Benjamin, and Valentina Tanni—the text will explore the various stages of a process in which memes transform into meta-memes, becoming self-reflective to the point of representing the effects of internet overuse on our psyche. In particular, the “fog is coming” meme will be used as a key to interpreting an atmosphere that is both semiotic and cultural.

LIMINAL SPACES AS ATMOSPHERIC CONCEPT

Since the period just before the social transformations triggered by COVID-19, the internet's fascination with liminality has become increasingly prominent. This theoretical, conceptual, and aesthetic interest formed during an almost decade-long tradition of internet visual language but finally emerged when the internet became the official refuge where people sought sociality in a world that had suddenly turned against social engagement.

This fascination with empty spaces —perceived as zones of transit stripped of human features— might be tied to preceding aesthetics (particularly Vaporwave's nostalgia for lost futures), while also representing, in some ways, the post-apocalyptic mood of the social distancing era. Yet what the Liminal Spaces aesthetic truly touches are deeper inner feelings, something that has to do with how one experiences a chronically online existence. Since liminality is not a space *per se* but a space *in between*, these visual exercises built by online communities are more than a mere aesthetic. What Liminal Spaces —and other visuals we'll explore later— seek to convey is closer to a sensation or a vibe. In other words, what we can define as an *atmosphere*.

Much has already been said about the Liminal Spaces aesthetic, both by academic figures (i.e., Valentina Tanni in *Exit Reality*) and by amateur YouTube or TikTok video essayists —enough to consider it a “dead vibe” (Alexandre, 2023), depowered by its own memification. But we might do a quick recap.

After the first Backrooms post (dated May 2019), many similar images began to appear across the internet. These images mostly depicted empty supermarkets at night, captured with low-quality cameras; deserted children's playgrounds; vacant offices; and other such spaces that evoked an eerie feeling of estrangement. Years earlier, Mark Fisher famously described the eerie as “a failure of absence or failure of presence,” stating that eeriness arises from the impres-

sion that “there’s something where there should be nothing, or there is nothing where there should be something” (Fisher, 2016). What is fascinating about these images is this otherworldly emptiness that transcends the physical and becomes metaphysical. The eeriness comes from not knowing why these spaces are empty, or where everyone went. At the same time, the very act of someone taking a picture of such a place feels off, since the images lack any spatial or temporal coordinates. It looks like a place where nobody should be —almost non-existent, beyond reality as we understand it— in this sense, a liminal space between realities. It is no wonder that many YouTube compilations of Liminal Space pictures are titled along the lines of “places you’ve seen in your dreams” or even “in your nightmares.”

From a semiotic point of view, the quality of these images contributes more to their uncanniness than the nostalgic effect of being taken back in time. Images depicting this “failed presence” already exist in art (for example, in the works of Candida Höfer, Kilmaru, or even some of Eugène Atget’s 1930s Paris photographs), and even in pictures taken during the pandemic showing Times Square, Piccadilly Circus, and other usually hyper-crowded places strangely empty. Yet the feeling they convey is different —less incidental, more deliberate. It feels as if the photo were taken by someone who accidentally found themselves there, as if they had no-clipped out of reality and happened to have a camera with them by chance—as if they had smuggled a camera into their dream¹.

In this way, the low quality of Liminal Space imagery can be seen as a stylistic counterpart to low-quality UFO photos (Figure 1): a visual hint of the happenstance involved in capturing them. Keeping in mind that low-quality images are easier to fake, their grain, blur, and amateurish composition paradoxically lend them credibility—as if their lack of polish testified to their authenticity. They belong to what Hito Steyerl called the “lumpenproletariat of images” in *In Defence of the Poor Image* (2009), where she argues that low quality itself can convey a higher sense of realness than hyperreal perfection.

Fig. 1 Image found on Pinterest,
reposted by SnixMix.



In a sense, Liminal Space images are closer to documentation than to art and that may be because the originals often are just that. As YouTuber Jaden Salads and others discovered through reverse-image research, many of these pictures are actually Flickr uploads of houses for sale, empty spaces awaiting renovation, or closed malls that, under certain lighting, appear surreal (2023). These images are supposedly candid, real, unfiltered. The world we see is eerie not because post-production makes it so—it is eerie simply because it is so: empty, dark, elsewhere.

But where exactly is this elsewhere, if not outside the reality we experience physically? Another definition for this aesthetic is “images with an elegiac aura.” In this context, we can recall Walter Benjamin’s (2003) definition of Aura as something that an object assumes the further it is from us —“a unique manifestation of a distance, however near it may be”— but also as an energy that brings everything into communion, dissolving the boundaries between the inside and the outside (Schiavoni, 2001).

While in the Liminal Spaces aesthetic this concept may refer to ambience, in more recent memes the term Aura has come to denote personality traits and social reputa-

tion. People may “lose aura points” through inadequacy or lack of *savoir faire*, but can also practice a kind of “aura farming” to gain them—like life points in a videogame.

Even if the connection with Benjamin’s concept seems speculative, what is most interesting is how the loss of Aura through reproducibility opens the possibility of finding a new kind of Aura—one not grounded in artistic uniqueness but in material authenticity. In this sense, Aura refers to a perceived realness or distance between us and the subject. To lack Aura points is to lack charisma, and vice versa: to have it is to be untouchable, unreachable, unique.

It is my opinion that, in the memetic field, this dynamic mirrors the dissolution of Aura caused by reproducibility as Benjamin theorized it. Here, Aura is reformed not in the unreachability of the artwork —lost through the multiplicative nature of memes— but in a new form of spatio-temporal unreachability, at once physical, temporal, and conceptual. Liminal aesthetics play with nostalgia for lost futures as much as with the metaphysical horror of finding oneself trapped in a place between realities.

The mix of familiarity and uncanniness likely produces the eeriness described by Fisher (Figure 2). Even when we recognize what we are seeing, we have no physical access to it. Their in-betweenness² generates a metaphysical distance (Cresendex, 2023), while their presence in our collective memory creates a psychological clash between nostal-

Fig. 2 Picture posted on Flickr on April 10, 2007 by bhagat76.



gia and the inability to grasp its source. The Aura of these places may result from their inaccessibility, their removal from tangible reality. In the case of the Liminal Spaces aesthetic, this distance is both physical and temporal, almost infra-dimensional. Thus, it is not merely about how these places appear, but about what their appearance communicates—the vibes they convey, the atmosphere they create: one that rises from beneath reality, from elsewhere.

CURSED

Beyond the COVID restrictions, other influences contributed to the prominence of this aesthetic. Interest in liminal spaces—already present around 2018, as noted on *knowyourmeme.com*—gained widespread attention soon after the idea of The Backrooms emerged: an image first posted on May 12, 2019, accompanied by a short creepypasta inspired by it. Within just a few years, the image became a meme, losing its auratic potential to the point of becoming an overused piece of internet folklore. Yet what remains compelling is the long-lasting impact this aesthetic had on horror-oriented irony.

To be fair, as YouTuber Farrell McGuire demonstrated in 2024, the original picture (taken in 2002) appears to have been posted around 2011 with a different caption—meaning that the first Backrooms post itself was a memification of a pre-existing image that nonetheless altered its course and nature.

The Backrooms belong, in a sense, to the tradition of Cursed Images (Figure 3)—but they take it a step further, intertwining their aesthetic with the reality of the time in which the concept was conceived. The emptiness of those “six hundred million square” feet of space eerily resembled the emptiness of cities during the pandemic. People had disappeared; no one was there, even though they were supposed to be. It was as if the psychosphere had been pre-

Fig. 3 Picture reposted on Imgur on 2019 by Novastrike13.



paring for the upcoming event, exploring through images what that “failure of presence,” soon to become a collective experience, might look and feel like. I say feel because, in the case of the Backrooms—as with Liminal Spaces—the atmosphere surrounding the images seems even more important than the images themselves, whose quality, as discussed earlier with UFO photographs, tends to be low.

The sense of nostalgia produced by these visual details, combined with the loneliness they evoke, is what keeps this genre alive (Figure 4). It functions less as an art form than as a visual concept, less as an artwork than as a fragment of a genre—especially since most internet creators are not

Fig.4 Gabrielle Traversat, *artwork* found on her Tumblr page. This image differs from the other for it's an artistic rendition of Liminal Spaces aesthetics, and not a mere found image.



concerned with participating in the “official” or “physical” art world, at least not in the classical sense of producing original, limited-edition pieces. The Backrooms represent an existential and psychological exploration of liminality, of in-betweenness and suspension—as if being trapped between a world that is changing and one that has yet to be fully formed.

But the Backrooms are more than just a visual representation. They also mark a pivotal point in internet humor and aesthetics, just as COVID was a turning point in society.

Internet folklore shares much with urban legends and horror tales, both of which spread memetically and uncontrollably. Furthermore, as Valentina Tanni has noted, liminal spaces—and the Backrooms in particular—are the natural extension of creepypasta culture, culminating in a trope that combines “esoterism, horror, quantum theory, philosophy, and gaming” (Tanni, 2023) into a single imaginary hellscape. Yet both phenomena can be traced back to the so-called cursed imagesmilieu—a kind of picture that “shouldn’t exist”—about which Tanni writes:

In the cursed phenomenon, many of the trends we have analyzed so far converge: the collapse of context, which favors the consumption of content from unknown sources [...]; the absurd as a vehicle for activating the imagination and escaping reality; the contagious—almost sticky—nature of the photographic image; [...] sharing as a new natural behavior; [...] the possibility that technologies conceal a paranormal layer, haunting our lives by possessing us (Tanni, 2020, p. 234).

What these pictures share is not merely a stylistic similarity—which alone would simply place them in the lo-fi category—but a kind of inexplicability that makes them feel as though they all belong to the same surreal, disquieting ambience. In many of these images, it is difficult to pinpoint precisely what is “wrong.” Viewers often share the sense that such images should not exist—that they could not possibly have been taken. And yet, they do.

What I find most intriguing is how these images collectively convey a similar atmosphere—a vibe, or mood—that makes them feel part of the same universe. And that universe, paradoxically, is our own, if we choose to believe in inexplicable phenomena, X-Files-like happenings, or SCP Foundation-esque⁴ organizations. In other words, these images seem to emerge from a shared narrative world, as if they were fragments of a storyline or stills from a Lynchian series—a genre that David Foster Wallace once described as “a particular kind of irony where the very macabre and the very mundane combine in such a way as to reveal the former’s perpetual containment within the latter” (Wallace, 1997, p. 136), a definition that will prove useful in a later chapter of this essay.

Returning to the inexplicability of Liminal Spaces, all the unanswered questions we posed earlier contribute to the atmosphere surrounding these images, which quickly became part of internet folklore. More than that, the theories and speculations around Liminal Spaces paved the way for other memes that delve into Lovecraftian horror

and madness. The impossibility of placing them within a stable frame of meaning connects them to the realm of cosmic horror—though always with the ironic undertone typical of internet culture.

Some may appear as dark jokes, and in a sense, they are. We do not experience straightforward horror when encountering these images—or at least, our response is not so simple. The unease they evoke is accompanied by a laugh—a thin, rasping laugh of insanity (Figure 5).

What we have explored so far attempts to define the conceptual atmosphere from which these aesthetics emerge. But what happens when this same atmosphere becomes physical? When irony itself begins to inhabit the very ambience in which we find ourselves?

Fig.5 Image found on Google. In case, eeriness is caused by the clash of irony and menace, leaving us with the uncanny feeling of unpredictability.



THE FOG IS COMING

There's a lot that goes on in the "the fog is coming" meme—more than what reaches the surface of its creepy irony. The meme originated from a catchphrase derived from a Twitter post by @Senn_Spud on November 22, 2021:

So funny when athletes sign these long contracts. Oh, you're gonna be playing for the Yankees in 2031? Buddy, the fog is gonna consume us in 2027. The fog is coming. The fog is coming. The fog is coming.

This post, in itself, can be read as yet another proof of the everlasting presence of Surrealism in internet humor—but, as in Surrealism, there is more than simple joking around. We must go beneath the surface of this joke and try to read it as an actual menace, like the premise of a horror story. The atmosphere, when that post was published, was already changing. The fog is coming, and it's going to consume us.

The fact that this coming has a date in the near future makes it look even more like a prophecy—or even a self-fulfilling prophecy, a *hyperstition*, which is, as a meme jokingly puts it, "a manifestation for Landians."

This type of meme seems to foreshadow what was yet to come—culturally, psychologically, and semiotically—which is what we now refer to as Brain Rot.

As an aesthetic, Brain Rot is quite interesting, and not only for the various interpretations offered for it. Its very name is self-descriptive in many ways. As a cultural concept, its psychological effects are precisely the rotting of the brain. But let's step back for a moment.

Can the Fog referred to in this horror memetic trope be somehow closer to the dust inhabited by *xenodemons* and *xenoparticles* explored by Reza Negarestani in *Cyclonopedia*? The enemy brought by fog doesn't have to be human, nor even material. It can be an agent of the Outside, as Nick Land's Accelerationism intended it—a force that comes from another place, willing to consume us to the point

that “nothing human makes it out from the near future” (Land, 2012).

We can then assume that this other place, this Outside, is not an outer world but something outside of us—outside the body. In this case, besides all the philosophical implications of an Outsideness coming from another plane, plateau, or dimension, we can consider it as coming from inside the screen—which is, like mechanical thinking as conceived by Land, something that emerges from inside of something that is already outside of us.

Substantiating the premise of the internet itself as a Liminal Space, Tanni states that by going online we find ourselves in an elsewhere that is nowhere (Tanni, 2023).

A hallucinatory nowhere which is, in many ways, alien [ξένος], and thus possibly inhabited by those xenodemons [ξενόδαιμονι] living inside the fog—at least narratively and speculatively speaking.

Being the screen a sort of portal, a threshold [*soglia*] (Tanni, 2023), both represented and felt as such, it's safe to assume that not only can we cross it to go in, but it can also be crossed from inside out. Although I agree that physically we're still outside the screen, the act of entering the internet resembles astral projection or a psychedelic trip.

In the same way that visions can affect and penetrate us in a non-physical way, so too do internet entities reach us visually. In the case of the fog, we can read this atmospheric phenomenon as a semiotic mist rather than a purely physical one.

The symbolism of fog may vary, but it is nonetheless concealing; it hides what's inside it (Figure 6). More than this, fog has a long tradition in horror literature—not only as a menace itself (as in Stephen King's *The Fog*), but also as an atmospheric element, a barrier that separates remote villages from the outer world (as in Lovecraft's *The Dunwich Horror*).

After the arrival of this semiotic fog and the consumption it caused, our minds began to corrode—to the point

Fig.6 MatsuKatsuXD, found on Reddit r/ComedyNecrophilia. "The symbolism of the fog may vary, but it is nonetheless concealing; it hides what's inside of it."



of brain damage and biochemical dysfunction. Our humor became so fractured that we not only enjoy our dissociation—we also find it funny. It became a form of hyper-dissociation, tied to a synthesized sociality that leads to a state of highness, an addiction to synthesized dopamine sold to us through scrolling and instant gratification.

The damaging effects of this kind of content (or rather, of our dopamine addiction endorsed by content) have grown so severe as to become an aesthetic in their own right—still forming, yet recognizable enough to bear a name like an art movement. And this name is Brain Rot—a self-defining tautology, a truism, and an adjective all de-

scribing the same phenomenon: a visualized dissociation, a self-alienation that “has reached such a degree that [we] can experience [our] own destruction as an aesthetic pleasure” (Benjamin, 2011, p.23).

We may now ask ourselves whether we are still inside this foggy atmosphere that continues to consume us—or if the fog has finally lifted, and the atmosphere is changing again.

CORE-CORE AND BRAIN ROT

It’s hard to define precisely what Brain Rot is, beyond the effects it causes—and even defining it as an aesthetic might be excessive, since it is more of a current, a general feeling toward consumption and creation. Sometimes it’s surreal, sometimes absurd, sometimes straightforward idiocy. As with the fog, Brain Rot is a cultural atmosphere from which these visual creations emerge: both an effect of social media overuse and a natural formation of images within the cultural milieu.

To better understand Brain Rot as an aesthetic rather than a simple effect, we might take a step back and consider Core-core. In the “Core” chapter of Tanni’s *Exit Reality*, she examines the phenomenon, developing the theory conceptualized by Angelcism01, who defines Core-core as “the aesthetic of extinction.” In some ways, we might consider it a form of meme-poetry—or even better, as “the endpoint where all internet aesthetics triumph, converge, and collapse” (Tanni, 2023, p. 185).

Core-core is a subgenre of memetic imagery that takes the form of a seemingly casual remix of different, unrelated internet content. On a visual level, it looks as though someone recorded their screen during a daily scrolling session. These videos, as Tanni observed, are made specifically to make us feel something—anything human—that our senses, numbed by our chronically online behavior, can no longer perceive.

But she also states, elaborating on Angelcism01's theorization, that this genre can be seen as the aestheticization of the incoming catastrophe (Tanni, 2023)—as if it were a recollection of memories on the verge of dying, which we can nonetheless enjoy, at least in Benjamin's sense of alienation quoted near the end of the last chapter.

The planet is collapsing, the social structure is dismantled, wars are ongoing and ever-present—knocking on our doors and waiting— but our alienation prevents us from consciously fearing our death, our extinction. Yet this presumed tragedy is not presented as a call to react or change direction, but rather as a way of living what remains, with full attention to the present moment: a nostalgia for something that has yet to vanish right before our eyes while we are distracted (Figure 7).

Maybe we've lost so much touch with our bodies that we tend to perceive the end of the world as something that would not impact us physically, only mentally—and our minds are already too decayed for us to be afraid of that possibility. We don't feel it as a threat. In fact, we don't feel anything anymore. We're just hanging on to our dopamine addiction, much like a heroin addict desperately seeking a quick fix. But what do we mean when we define it as an aesthetic of extinction?

Fig.7 Image found on domusweb. it article *What is corecore, TikTok's latest aesthetic obsession?*



As we can read in an interview with Angelcismo1 by Rivista Studio (2025), Core-core elaborates extinction as something that “acts like a thread that can remove humanity from the field of play,” in the same way that we can consider ourselves removed from the equation regarding internet content consumption—a condition Lily Alexandre (2023) summarizes in her video essay “*Everything is Sludge: Art in the Post-Human Era*”:

When I watch content sludge, it is like I don’t exist. If I’m thinking or feeling anything, I couldn’t tell you what it is. The amount of sensory noise coming my way crowds out any deeper awareness. [...] It’s a one-way experience that barely feels like an experience at all. My heart beats up, my pupils dilate, but who cares. The room might as well be empty.

This total indifference toward the actual understanding of what is presented helps clarify how, in some ways, Brain Rot appears to be a form of meta-content—one that represents the very effect it causes, rather than presenting a cohesive narrative, a style, or an aesthetic for the sake of communication. As usual, visual creations act as a description of a cultural condition.

The fog that once was coming has come, and it has consumed not only our brains but also our taste, our representations, and our already crumbling sense of linearity (Figure 8).

In conclusion, if Brain Rot is the temporal-cultural atmosphere of these times, fog is its semiotic referent. This shouldn’t come as a surprise. Considering the foggy atmosphere of Gothic novels like *Frankenstein*, it’s no coincidence that a similar fascination with such atmospheres reappears in a genre of content that, following Nick Land’s thought, can be accurately described as *cybergothic*—a definition that also clarifies the internet’s attraction to eeriness, creepiness, horror, urban legends, and cursed artifacts that aren’t supposed to exist.

If Core-core is the aesthetic of collapse, Brain Rot is the one of lobotomized brains scrolling through life. Xenopar-

tibles from the Outside have traveled through the fog, entered our bodies through our pores and cavities, and begun consuming us like brain-eating bacteria.

Or maybe it's all semiotics.

Either way, Lovecraftian entities and horrors swarm through the internet—whether factual or merely fascinating narratives. But one thing is clear: the fog has come, the brain is rotting, and the rot itself, brought by atmospheric bio-cultural conditions, consumes too.

Yet this knowledge is something we seem able to shrug away. Brain Rot is post-irony infused with post-horror.

CONCLUSIONS

What remains of us after this consumption? Or, to rephrase the question: who—or what—is the active part in this interaction between humans and visual technology?

Following Alexandre's thought on the matter, we might say that the creature lurking inside the fog is nothing more than an allegory of the intelligent machine: an algorithm that feeds on human tastes without considering actual humanity, a post-biological intelligence that will eventually surpass ours.

We are all hypnotized like moths drawn to light, like mosquitoes flying toward a bug zapper. Considering ourselves as insects is not merely rhetorical. Another concept that emerges in the memetic field is something we might call the hive mind—a neural network of collaborations and shared semiotic efforts, creating and communicating in a participative way. So then, what if this fog is not only coming from some cosmic-horror speculative theory or some sort of Outside, but also, as we have stated, from within the machine? What if the distinction between inside and outside itself fails to represent the situation?

Through this lens, we can interpret the fog as the smoke that beekeepers spray into hives to calm the bees, distract

Fig.8 Instagram post by @the_political_compas, July 12, 2025



them, and extract the product of their labor—in our case, data— but perhaps there’s much more. The beekeepers steal from us psychological profiles from which to learn behaviors and attitudes, sharpening their manipulative techniques, while the machinic megamind builds itself through our help, in a fascinating posthumanist, Accelerationist manner.

At the same time, this fog may be the one referred to by Franco Moretti when he writes—regarding the atmospheric influence of Victorian times on modernism—that it “spreads [and] penetrates the modernist movement” (Noys, n.d.), transforming its trajectory from the beginning while remaining an invisible yet effective virtuality, or a virus.

Amid all the horror-infused humor, the presence of the fog becomes not only the proof but also the bearer of the Gothic aesthetic of decadence and darkness—later intertwined with schizophrenic capitalist tendencies that :

gave rise to that peculiar cybergothic attitude that slams hyperheated critique into the ultramodern 'vision thing,' telecommercialized retinas laser-fed on the multimedia fallout from imploded futurity, videopacking brains with repetitive psycho-killer experiments in non-consensual wetware alteration: crazed AIs, replicants, terminators, cyberviruses, grey-goo nano-horrors... apocalypse market overdrive (Land, 2012, p.186).

Melting minds swarm through the machines and infect culture unknowingly, as the Outside drives them like zombies. In some ways, the text above can be read as a form of philosophical theory-fiction *Brain Rot*—at least in the sense of a formal aestheticization of biological decadence caused by technological overstimulation.

Following the Accelerationist ethos, the essay quoted above—like much of Land's work—attempts to amplify the same deregulation and deterritorialization that capitalism uses as a weapon. Yet it does so by pushing toward a destabilization that implies the final dissolution of the Human in favor of the Other—the same xenoentities that dwell in the Outside and, perhaps, within the Fog.

Virality is recognized not only as a fact, but also as a potential counter-weapon—one that could nonetheless easily escape humanity's control. Ultimately, *Brain Rot* demonstrates how aesthetic, cognitive, and technological processes converge in the digital milieu, producing both enjoyment and dissociative harm. The persistence of the fog exemplifies the semiotic, cultural, and cognitive entanglements defining contemporary internet experience, emphasizing the inseparability of human and technological agency in the formation of online atmospheres.

Either way we look at it, it's undeniable how dazed our brains have become. Is the fog going to last forever? Probably not—actually, we can't tell. But surely, something is hiding inside it, and maybe the only thing we can do is let go of both our fear of the unknown and our blind trust in technology—trying to understand what it is, and whether

we should accept its existence to cooperate... or rot definitively with a postmodern shrug of cynical indifference (Figure 9). But this in itself is a limitation, a passivity that might bring us nowhere.

What we should try to figure out, then, is a way to navigate through this fog without getting lost, regardless of our direction. Since there is more at stake than just our visual culture, semiotics and iconology should be seen as merely the tip of the iceberg—a starting point to rethink our relationship with social technology, whether our stance is optimistic, pessimistic, or neutral.

Fig.9 Image found on
knowyourmeme.com.



NOTES

- 1** In the Collins dictionary, no-clip means to “glitch through solid environments, such as walls, in video game so as to reach for another destination”. This term is used in Liminal Spaces and Backrooms lore to describe the passage from this reality to another.
- 2** According to liminalspace.org, “Liminal is from the Latin word ‘limen’, which means threshold. A liminal space is the time between ‘what was’ and ‘next.’ It is a place of transition, a time of waiting and not knowing the future. Liminal is from the Latin word ‘limen’, which means threshold. A liminal space is the time between ‘what was’ and ‘next.’ It is a place of transition, a time of waiting and not knowing the future.”
- 3** The original Backroom picture was accompanied by a text explaining that “If you’re not careful and you noclip out of reality in the wrong areas, you’ll end up in the Backrooms, where it’s nothing but the stink of old moist carpet, the madness of mono-yellow, the endless background noise of fluorescent lights at maximum hum-buzz, and approximately six hundred million square miles of randomly segmented empty rooms to be trapped in. God save you if you hear something wandering around nearby, because it sure as hell has heard you”.
- 4** The SCP Foundation is a fictional organization that originates from collaborative writing and online storytelling. It is primarily presented in the form of a wiki called the SCP Wiki, where creators contribute stories, documents, and reports about various anomalous entities, objects, phenomena, and events. The SCP Foundation is a secret, global organization tasked with identifying, containing, and protecting humanity from anomalous objects, creatures, and phenomena (referred to as “SCPs”). The goal is to prevent the knowledge of these entities from spreading to the general public, thereby protecting humanity from the potentially dangerous or chaotic effects of these anomalies.

REFERENCES

- Alexandre, L. (2023, February 25). *Millions of Dead Vibes: How Aesthetic Hurt Art*. [video] YouTube. <https://www.youtube.com/watch?v=CMjxxzq88Ro>
- Backrooms Wiki. (n.d.). Backrooms Wiki. *Fan-dom*. https://backrooms.fandom.com/it/wiki/Backrooms_Wiki
- Benjamin, W. (2011). *L'opera d'arte ai tempi della sua riproducibilità tecnica. Piccola storia della fotografia*. Torino, IT: Einaudi.
- Cresendex. (2023, June 17). *The Art of The In-Between: An Analysis of Liminal Spaces*. [video] Youtube. <https://www.youtube.com/watch?v=olsXUqKTWgl>
- Fisher, M. (2017). *The weird and the eerie*. Alresford, UK: Zero Books.
- Know Your Meme. (n.d.). Liminal spaces: Images with elegiac auras & dreamcore. *Know Your Meme*. <https://knowyourmeme.com/memes/cultures/liminal-spaces-images-with-elegiac-auras-dreamcore>
- Know Your Meme. (n.d.). The fog is coming. *Know Your Meme*. <https://knowyourmeme.com/photos/2324402-the-fog-is-coming>
- Land, N. (2011). Meltdown. In R. Mackay & R. Brassier (Eds.), *Fanged Noumena: Collected Writings 1987–2007* (pp. 441-459). Falmouth, Urbanomic (Original work published 1994).
- McGuire, F. (2024, May 30). *How the Location of the Backrooms Photo Was Finally Discovered*. [video] Youtube. <https://www.youtube.com/watch?v=1EKlIM3ShI> Youtube.
- Moretti, F. (n.d.). Benjamin Noys, Fog, Mud and Dust. *Victorian studies for the 21st century*. <http://v21collective.org/benjamin-noys-fog-mud-and-dust/>
- Salads, J. (2023, April 24). Finding the Locations of Popular Liminal Spaces (ft. kylie and Adrian Ghastly) [video] YouTube. <https://www.youtube.com/watch?v=6cj-ssOB6To>
- Schiavoni, G. (2001). *Walter Benjamin. Il figlio della felicità: Un percorso biografico e concettuale*. Torino, IT: Einaudi.
- Steyerl, H. (2009). In defense of the poor image. *E-flux*. <https://www.e-flux.com/journal/10/61362/in-defense-of-the-poor-image/>
- Tanni, V. (2020). *Memestetica: Il settembre eterno dell'arte*. Roma, IT: Nero.
- Tanni, V. (2023). *Exit reality: backrooms, weirdcore e altri passaggi oltre la soglia*. Roma, IT: Nero.
- Wallace, D. F. (1997). *A supposedly fun thing I'll never do again*. New York (USA): Hacetate Book Group.

Article available at

DOI: 10.60923/issn.2724-2463/21432

How to cite

Hebling, M.E. (2025). The Fog is Coming: Semiotic Atmospheres and Mental Decay in Internet Aesthetics. *img journal*, 12, 294-317.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

CAPTURING AND CREATING ATMOSPHERES: A SENSORY DESIGN APPROACH FOR EDUCATION, ENTERTAINMENT, AND PARTICIPATION

Silvana Kuhtz

University of Basilicata

Department of European and Mediterranean Cultures, Environment, and Cultural Heritage

silvana.kuhtz@unibas.it

ESSAY 182/12

ATMOSPHERES
SENSORY DESIGN
PARTICIPATORY PRACTICES
IMMERSIVE WALKS
DESIGN/AESTHETICS EDUCATION

Atmospheres, intangible yet perceptible dimensions of spaces, profoundly influence human experience. This article explores how atmospheres can be consciously captured through sensory approaches and translated into tangible experiences using methodologies that combine sensory games, poetic narratives, performances, walks. This approach impacts educational and participatory practices. Case studies: lectures, co-design workshops, and sensory concerts demonstrate how sensory practices foster

deeper connections between individuals and their environments, transforming spaces into emotionally resonant places, i.e., atmospheres. Contributions from diverse disciplines, such as architecture, philosophy, communication, and the performing arts, provide a multidimensional understanding of atmospheres and the associated feelings. The findings highlight the potential of these approaches to inform inclusive practices, offering innovative tools for pedagogy and design of participation.

Like archaeologists, children are drawn to what cannot be seen but is there, and, like an ultrasound that exists in the inaudible, they seek that pregnant silence because they can sense a presence in all things. (Guidi, 2024, p. 28)

INTRODUCTION

What is an atmosphere? Peter Zumthor (2006) suggests that it is an immediate emotional feeling, a quality perceived almost instantly upon entering a space. Tonino Griffero (2013), after Schmitz (2006), describes atmospheres as *quasi-things* that permeate spaces, influencing emotions and behaviours. This article investigates how designers, educators, and communities can capture and interpret these elusive qualities, moving beyond the visual to embrace multisensory dimensions through what the author defines *sensory design practices*. Atmospheres are also dynamic entities, shifting when light, sound, materials, and human activity vary. A marketplace exudes a vibrant atmosphere at midday or an abandoned one when it is empty; an empty cathedral evokes solemnity and reverence. Sensory experiences are deeply embedded in cultural and personal narratives, making the study of atmospheres both universal and context-specific. Atmosphere is the invisible force that lingers in memory, shaping the essence of a place through sound, light, and materials (Kuhtz, 2024). Swiss artist Philippe Rahm uses places as organisms, altering and sometimes optimizing their environmental characteristics. His experiments are a form of *body-arch*, where body and architecture form a single, continuous, and perpetually transforming organism. In *Built Atmospheres*, Rahm operates on the principle that humans experience reality from within, and produces atmospheres. Rahm's subject does not observe space externally, but internally (Barbara, 2015). We all experience these intangible yet perceptible qualities we call atmospheres. Can we consciously capture and create them?

METHODS – SENSORY DESIGN – EMBODIMENT

Sensory design emphasizes the integration of all senses in experiencing and interpreting spaces. Juhani Pallasmaa (1994) advocates for an architecture of the senses, where touch, sound, and smell are as crucial as sight. Sensory design integrates sensory, emotional, relational, playful, participatory, and social dimensions to achieve a nuanced understanding of the world, the society, and the human being from multiple perspectives. A key effect of sensory design games is the encounter with other participants, fostering playful and joyful interaction. Bateson (1979) argued that play is a mechanism through which individuals explore the universe, an essential learning process; learning to play is a working method. Sensory perception is a universal human experience, often automatic and unconscious. The senses are fundamental to how individuals perceive the world, a process that continues throughout life. As sentient beings with material bodies, we are thoughts, emotions, experience, fatigue, and senses. Meaning resides as much in rational value as in associated feelings. Experiences, emotions, and moods constantly influence our actions and thoughts, acting as implicit guides. Body equals senses, senses equals perceptions, perceptions vary depending on posture and movement.

Maurice Merleau-Ponty (1965) states that our bodies do not exist in space but inhabit space, perceiving it with all senses through intentional movement, living it, and internalizing it within mental space. Sensory design employs sensory games, poetic writing, and walking, as primary means of coaching the body to perceive, capture, describe, and re-create atmosphere.

Sensory games

To be creative means to become fully human. (Ferrucci, 2018, p. 115)

Sensory games deepen the experience of embodiment in space, focusing on perceiving atmosphere and defining its fundamental ingredients.

The key to effective sensory games is to create a playful and engaging atmosphere while encouraging focused attention on specific sensory inputs. These exercises can be adapted to different contexts and age groups, offering a versatile tool for exploring and understanding atmospheres. The combination of planned activities and spontaneous reactions to the environment makes each experience unique and valuable. These games encourage participants to actively engage with their senses, moving beyond passive observation to active exploration and interpretation.

Here are some examples of sensory games the author used in various contexts, including workshops, educational settings, and community engagement activities – as described in paragraph *Applications*:

- Blind Walks/Urban Treks: participants are blindfolded and guided through a space, relying on their other senses to navigate and experience the environment. This elicits awareness of sounds, smells, textures, changes in light, temperature and air currents, and spatial dimensions. Variations include:
 - Sound Mapping: focusing on identifying and mapping - the different sounds encountered during the walk;
 - Texture Walks: paying attention to the surfaces touched along the route – e.g., walls, pavement, plants;
 - Scent Walks: noticing and describing the various smells present in the environment;
- Sensory Hunts: participants are given a list of sensory experiences within a specific area – e.g., find something rough, find something that smells like nature, find a sound that repeats, find beauty – and draw what you touch while blindfolded. Next step is to write metaphors on the experience. This encourages active exploration, focused and lateral attention to sensory details; sharpens tactile, olfactory, and auditory perception;
- Soundscapes Composition: participants record sounds and then create a soundscape. This develops listening skills and encourages creative interpretation of sound;

- Sensory Drawing/Writing: participants are asked to draw or write about a space based on their sensory experiences, without looking at the paper or relying primarily on visual memory. This encourages them to translate non-visual sensations into other forms of expression;
- Space Mapping: participants trace the outline of the space they cannot see. This helps to connect physical sensations with spatial perception;
- Guided Imagery/Visualization: participants are guided through a visualization exercise that focuses on specific sensory details of a place. This can be used to evoke memories, create a sense of presence in a distant location, or imagine potential future environments.

This approach facilitates the recreation of atmospheres. The so-called sensory concerts are immersive experiences designed for audiences that end up being immersed in an atmosphere – intentionally designed by the author – that evokes surprise, emotion, magic and attention. During these events, participants explore space through sound, scent, and touch, developing a richer understanding of the place, therefore perceiving an atmosphere.

Creating atmospheres can also be an educational method to elicit deep experience. The author uses this method in lectures of basic design, aesthetics, and communication. “Students, blindfolded, are guided through sensory exercises to heighten their awareness of soundscapes, tactile surfaces, and olfactory cues. This fosters a deeper understanding of space as a multisensory phenomenon” (Kuhtz, 2024, p. 54). Playful, explicit, and distinct sensory stimulation broadens codified experience; for designers, architects, landscapers, sensory and sensual experience is –or should be– part of the education process.

Poetic narratives

Narratives and poetry serve as tools for creating and capturing the intangible qualities of atmospheres. Gaston Bachelard’s (1957) concept of *happy spaces* highlights how

poetic imagination can reveal a place's emotional resonance. Various projects have used participatory storytelling to map collective memories and atmospheres. "Poetry intertwines with design, enabling participants to envision and articulate the sensory dimensions of spaces" (Kuhltz, 2023, p. 112).

In participatory workshops, participants describe spaces using metaphors and haikus, connecting sensory experiences to vivid imagery and writing. For example, a participant might describe a narrow alley as 'a whispering tunnel of stone' evoking both its physical and emotional qualities. These narratives are compiled into a collective atlas, creating a layered, multifaceted representation of atmospheres and of a territory.

Pen, pencil and paper are mandatory. Writing is embodied; it is the most sensitive element of the word, a bodily practice of a body moving across the page, through the hand. The life of thought moves onto the page when it is expressed; writing becomes embodied, an extension of the body, a sign, a design.

Poetry is not a break from everyday life, a flight of fancy, but a way to reconnect humans with the essence of dwelling and living, and with a way to recreate an atmosphere with words and voice. The principles for encountering poetry are the same as those for encountering an atmosphere. Poetry resides in the lives of places and people. It encompasses breath, precision, physicality, and also beauty, mystery, magic, hidden in the invisible.

The poet chooses precise yet evocative words to create a spellbinding formula; the poet requires emptiness to create. Like a house, a vase, an armchair, a garment, the word must be inhabited from within.

Immersive-scapes – the walks

Confronting the world, man is never simply an eye, an ear, a hand, a mouth, or a nose, but rather a gazing, a listening, a touching, a tasting, a smelling; in short, an active engagement (Le Breton, 2006, p. 5).

Since the late 1960s, R. Murray Schafer, a musician, composer, and professor of Communication at Simon Fraser University in Burnaby, BC, Canada, studied the fundamental importance of hearing and the influence of the sonic environment on humans. He developed the term *soundscape* as “the sonic environment as perceived by and understood by the individual, or a society” (Schafer, 1977, p. 274), a concept initially introduced to assess the negative effects of noise (Schafer, 1967). The soundscape is, therefore, the sonic environment – the omnipresent collection of sounds and noises with which we coexist everywhere. Soundscapes, as defined by Schafer (1977), encapsulate the auditory identity of environments. Schafer was concerned about children’s diminished listening skills and advocated for integrating listening practices into national elementary school curricula. He developed *ear cleaning exercises*, including soundwalks – walking meditations of sound awareness (Schafer, 1967). The soundscape approach emphasizes the user experience of a place’s acoustic atmosphere. “A soundscape is a collection of sounds, almost like a painting is a collection of visual attractions” Schafer stated in a video for the 2009 Governor General’s Performing Arts Award. “When you listen carefully, the soundscape becomes an enchantment; when you carefully use all your senses, your life becomes richer”.

Karen Van Lengen (2014) defines the soundscape as an intersection between a space’s container and its inhabitants, an intersection that is never static. Therefore, an urban atmosphere is constructed by the people who use a place, their mutual interactions, their relationship with the space, and their senses and moods. An urban atmosphere engages all the senses. Walks are immersive-scapes. As described later, the author uses walks as sensory and sentimental explorations where participants are blindfolded and focus on auditory, tactile, and other non-visual elements of their environment. These walks are used in both university classes and co-design practices. Then participants share their impressions, revealing how senses shape their emotional

and spatial understanding, and how a visually unappealing panorama can become beautiful when experienced through non visual experiences. Shifting the focus of attention to different senses expands the experience of a place.

“Walking without seeing allows participants to know the city through immersion and contact –ears, touch, smells– spaces become embodied and acquire depth” (Kuhtz, 2023, p. 110).

As Jeremy Naydler (2009) underlines ours is a visual society, but this is not a recent phenomenon. For the ancient Greeks, sight was the noblest sense, equating the verb to see with to know. Greek texts describe Athena of the bright eyes’ and her wide-eyed owl’. Philosophers from Plato to Saint Augustine used visual metaphors. Even common scientific terms reflect a preference for vision: *theoreo* –I observe– is the Greek root of *theory*. McLuhan emphasized how printing changed human behavior and perceptual patterns as the written word became the dominant exploratory method, while the spoken word and hearing declined. Some ethnographers suggest that Western peoples have less developed hearing. Some Amazonian populations hear the song of fish; in the Kamayurá language, *anup* –to listen– evokes a deeper understanding than *tsak* – to see; relying solely on sight is considered antisocial. Continuous training in subtle listening allows this community to thrive in a challenging environment by attending to subtle signals. Perhaps we once possessed similar capacities for listening ecology; we have since ceased tuning in to listening and to non-visual cues (Bakker, 2023).

APPLICATIONS

I love all human beings who dive deep. (Melville, 1960, p. 78)

Over the past twenty years at the University of Basilicata, and of Firenze, Polytechnic of Bari, and in co-design and participatory workshops, the author has developed experiences using poetry, theatre practice, and the senses. By

paying attention to the small details that poetry portrays and becoming aware of sensory capacities, individuals awaken to the beauty of everyday life, to the atmosphere.

Social design strategies and public initiatives centred on sensory atmospheres offer a powerful framework for exploring and interpreting the complexities of a place. By engaging with the sensory dimensions of spaces –such as soundscapes, textures, and scents– these approaches reveal diverse and multifaceted perspectives that might otherwise remain unnoticed. Participatory processes uncover the layered narratives embedded in a location, reflecting the collective memories, cultural identities, and emotional connections of its inhabitants. This multidimensional understanding enriches the perception of a place and fosters a deeper sense of belonging and inclusivity within the community.

Education

Engaging the senses stimulates creativity and enhances spatial understanding. Lectures incorporating sensory walks and poetic writing help students develop a more comprehensive and sensitive grip on reality. The body becomes a tool for sensing space, experiencing that for example different positions or movements can completely alter the perception of a place (Kuhtz, 2022).

Fostering sensory awareness should be an integral part of any curriculum, as it is fundamental to human experience. The author has developed experiences for design, architecture, landscape and engineering degrees, as sensory awareness significantly influences aesthetic judgment of spaces, products, and decisions. By crafting experiences that effectively engage multiple senses harmoniously and intentionally, we can enhance individuals' quality of life while creating immersive, biophilic, and memorable designs (Algargoosh et al., 2022; Li & Kang, 2019; Cain et al., 2013). Therefore, integrating a thorough understanding of sensory atmospheres is essential, providing students with hands-on experiential exercises and practices that emphasize the

Fig. 1 Students engaged in sensory games outdoors, UniBas Campus, Mt. (photographs by S. Kuhtz©)



Fig. 2 Students engaged in sensory games in the classroom, Design campus UniFi (photograph by S. Kuhtz©)



multisensory nature of places and their beauty. This research has resulted in an in-depth process involving students – Architecture and Landscape degrees, UniBas Matera, Italy; Politecnico of Bari; Design degree, UniFi– in a learning path that combines technical and perceptive aspects in courses of Aesthetics, Basic Design, and Communication. Attending a lesson is one experience; engaging with sensory games is another. Blindfolded students are asked to draw without looking at the paper or walk on campus or in the city. Similarly,

a site visit is one experience; a site visit with a blindfolded companion is another. Inhibiting one sense alone changes the experience, multiplying the fun and discovery. Proposing open-air sensory games in an urban setting provides new knowledge for the activities of future professionals (Figure 1 and 2). The exercises often begin by isolating one sense, such as focusing solely on auditory inputs. Students are encouraged to describe and write about the nuances of what they hear – the distant hum of traffic, the rustling of leaves, or the echo of footsteps. By deepening these perceptions, students begin to map the auditory identity of a space, an essential component of its atmosphere. Subsequently, other non-visual senses are engaged, as described in paragraph *Sensory games*. The training comprises different phases, including at least three sensory sessions and various revisions to complete a project work, that implies a more than visual output – i.e. a soundscape, poetry writing, photography. At the end of the course, participants complete questionnaires about their experiences. For most students, this is their first sensory-based experience.

Community

Participatory design is another field where capturing atmospheres can be transformative. Engaging communities in creating emotional maps or designing sound installations can foster a sense of belonging and strengthen the bond between individuals and places. In marginalized areas, deep listening and immersive experiences are more effective than simply addressing common complaints. Moving away from a top-down approach toward a collaborative and participatory model that prioritizes understanding the lived experiences of marginalized communities recognizes that true and lasting change requires genuine engagement and a deep understanding of complex realities. Capturing the atmosphere of a periphery using the methods described in the section *Methods – Sensory Design – Embodiment* requires empathy, patience, and a willingness to move beyond preconceived notions. Immersive experiences, such as

Fig. 3 Community and writing atmospheres, Venice (photograph by S. Kuhtz©)



Fig. 4 Community and listening atmospheres (photograph by A. Semplici©)



participatory observation, community events, or other forms of direct engagement, further deepen this understanding by providing first-hand insights into daily realities. *Inhabit Poetically the City* sensory workshops explore how different groups perceive and interact with urban spaces, aiming to capture and transform their atmospheres. Participants follow a provided map and itinerary, venturing off the beaten path to engage in deep listening. The workshops combine structured exercises –sensory games, blind walking, listening while

writing, and shared reflections on beauty— with the flexibility to incorporate experiences encountered during the walks. In a periphery of Matera –Italy– active citizen participation enabled the reinterpretation and enhancement of the city's cultural heritage with residents of a social housing estate as part of a participatory urban greening project. In this neighbourhood, sensory workshops integrated soundscapes and poetic reflections to reimagine urban spaces. Participants engaged in blindfolded exercises, exploring the tactile and auditory qualities of parks and streets: “The sensory workshops transformed perceptions, fostering connections between residents and their environment” (Kuhtz & Tizi, 2023, p. 280). Personal narratives and collective memories shape a city's atmosphere. For example, one participant described a neglected square as ‘a silent witness to forgotten celebrations’ highlighting both its current state and its latent potential for revitalization. Workshops included poetic exercises where participants described spaces through metaphors and sensory impressions, enriching their understanding of the local environment. One participant compared the sound of wind through trees to ‘a symphony of whispers’ transforming a mundane experience into a poetic reflection (Figure 3 and 4).

A series of such sensory workshops were conducted in 2021 and 2022 in Conversano –BA, Italy– and from 2022 to 2024 in Matera – and in Comano Terme, TN, Siena, Florence, Rome, Venice, Bari, Taranto, among other locations. Sometimes, participants encounter musicians and live musical performances previously organized in well-known yet previously overlooked corners of a periphery, transforming these spaces into gems of wonder and splendor. “Through soundwalks and deep listening, residents rediscovered the beauty and identity of their neighborhoods, transforming perceptions of neglected areas” (Kuhtz, 2024, p. 60).

Sensory concerts

The setting resembles a typical concert with music and voice, featuring musicians, singers, and actors. The novelty

is the approach Poesia in Azione group, has been using for the past twenty years: the audience is blindfolded for most of the performance. This serves several purposes: to focus listeners on the audible, creating conditions for concentrated listening; to induce relaxation and curiosity, fostering openness to novelty; to create a protective, magical atmosphere, allowing listeners to explore surprise and beauty; and to foster the rediscovery of a place's inherent atmosphere. The concert also invites participants –any age group– to listen with all senses. Performing arts synthesize complex ideas and communicate them to non-specialist audiences in an engaging way by creating an atmosphere. Sometimes, the concert addresses specific issues: climate change, the future, sustainability, energy shortages.

This sensory experience emphasises non-visual perception through carefully crafted stimuli and a focus on small details. By minimizing sight, the sensory concert encourages participants to see with their other senses and experience the world anew. The combination of spoken word, music, and other sensory elements evokes emotions and creates a transformative experience, focusing attention on small details. The magic lies in enhancing senses often neglected in daily life. This genuine reversal allows one to see with the ears, hands, and nose: a kind of apparent blindness in which one sees and feels with one's imagination (Figure 5).

Words extracted from the written page, with the distillation of the voice in dialogue with music and senses, can arouse emotions and sensations, sometimes creating new experiences for participants who allow themselves to be carried away with simplicity. All these elements create an atmosphere. Sensory concerts are sometimes integrated into lectures or used as a performative tool for participation.

Poetry for Architecture – Poetically We Inhabit, Editorial Collection

The developed creative experiences of exploration and relationship between citizens and the city, using poetry, walking, performance, and the senses (Kühtz & Parentini



Fig. 5 Sensory concert, Trento Museo Storico (photograph by S. Kuhtz©)

2023; Kühtz 2022), have also inspired the creation of an editorial collection of booklets. They aim at recreating atmospheres via poetry and photographs and different sensory choices—QR codes with auditory tracks, or the choice of different types of paper for the printed version. The goal is to intertwine the architect's language with other languages to propose a multidisciplinary, multi-sensory reflection that captures the most intimate, sensitive, and human aspects of inhabiting an atmosphere and reproducing it.

The poet and the designer, imagine things that do not yet exist. Poetry is the metaphorical construction in words of what is not yet, the power of a possible act, an internal vision, immersive participation, evokes atmospheres.

Architecture and design speak through drawings, using the codes of lines, and surfaces, renderings and photography; the purpose is to foster feelings and well-being of future inhabitants, to cultivate and create the right atmosphere.

What would happen if, in addition to standard design drawings and texts, the architect also included texts written for the project by a poet?

Poetry, with its evocative, metaphorical language,

could enrich project communication, moving beyond mere technical description to offer more emotional and personal interpretations. Drawings and floor plans show how the building will be; poetry could communicate *what* it will feel like to inhabit it, what emotions it evokes, and what atmosphere it exudes. Poetic language, despite its richness and complexity, can be more accessible to a non-technical audience than architectural language. Including poetic texts could encourage greater community understanding and participation in the design process. This idea has culminated in the editorial collection *Poetically We Inhabit*, an experience that since 2020 blends languages, including photography. The poetic text takes both written and oral forms, available in the series via QR codes. These codes facilitate access to oral content, suggesting the possibility of experiencing poetry through listening, perhaps in conjunction with a site visit. This emphasizes the performative and sensory dimension of this editorial series. The first volume of the series that features the city of Genzano di Lucania, in the South of Italy, and is concentrated on Palace Fiore, served as a guide during a site visit to the palace with a group of citizens, becoming the subject of a design action and immersive participation. The second volume tells the story of the life and recovery of the medieval complex that became the Tower Art Museum, a contemporary art museum in Matera, Italy.

This approach integrates various forms of expression –architecture, poetry, photography, performance, etc.– to enrich the understanding and experience of a place and its atmosphere. Photography with poetry becomes an active tool for interpretation and the creation of new narratives.

CONCLUSIONS

This research demonstrates the potential of a multisensory and interdisciplinary approach to atmospheres. By integrating sensory design, poetic narratives, and participatory practices,

we can move beyond visually-centric paradigms and create environments that resonate emotionally, culturally, and socially. The exploration of atmospheres –those intangible yet perceptible dimensions of space– becomes a powerful tool for fostering deeper connections between individuals and their surroundings. The methodologies presented offer practical ways to capture and also to re-create atmospheres. Sensory games elicit awareness of non-visual cues, while poetic narratives provide evocative language for articulating sensory experiences and collective memories. Immersive walks, particularly those conducted without sight, allow participants to rediscover familiar spaces through new sensory lenses, revealing hidden layers of meaning and transforming perceptions of even neglected or marginalized areas. Sensory concerts further amplify this effect by creating carefully crafted multisensory and artistic experiences that evoke powerful emotions and create a shared experience.

These approaches have significant implications.

In education, sensory training equips students with a more comprehensive and sensitive understanding of space, influencing their aesthetic judgments and design decisions. For instance, blindfolded walks and sound-based exercises encourage students to perceive space in novel ways, fostering creativity and empathy; they experience and become aware of an atmosphere.

The periphery is not simply a marginal space; it holds the potential to become a powerful sensory experience. The sounds of daily life, the emotions of its inhabitants, the stories passed down through generations, and the diverse voices contribute to the unique character of an atmosphere. The shared experience of inhabiting or interacting with this space further amplifies its distinctive atmosphere. Participatory approaches benefit significantly from these considerations. Involving communities in mapping and interpreting the sensory dimensions of their environments fosters a sense of ownership and belonging. This approach is particularly effective in revitalizing neglected or marginalized spaces, also

through performances, such as sensory concerts.

The editorial collection, *Poetically We Inhabit*, born in 2020, exemplifies this integrated approach by intertwining architectural and poetic languages, offering both written and oral forms of poetic expression accessible also through QR codes. This encourages a deeper engagement with the sensory and performative dimensions of a specific place, its atmosphere. The combination of architectural drawings with poetic texts and photographs provides a human-centered understanding of design, communicating not only how a building will be, but also what it will feel like to inhabit it.

The research highlights several key findings:

- Sensory engagement enhances learning and creativity: University lectures incorporating sensory training equip students with the tools to design spaces that are not only functional but also emotionally engaging. Blindfolded walks, sound-based exercises, and other sensory explorations encourage novel ways of perceiving space, and its atmosphere; fostering creativity, empathy, and a more nuanced understanding of the multisensory nature of places. This has proven effective in teaching different subjects: Aesthetics for future architects, Communication and Basic Design for future designers and landscapers;
- Participation and atmospheres: involving communities in mapping and interpreting the sensory dimensions of their environments fosters a sense of ownership, belonging, and inclusivity, particularly in marginalized areas. Deep listening, immersive experiences, and co-creation of sensory maps and narratives reveal hidden layers of meaning within urban environments, strengthening the social fabric of communities and contributing to the revitalization of neglected spaces;
- Poetry and narratives: integrating poetic texts and storytelling into the design process enhances communication, moving beyond technical descriptions to evoke emotional and personal interpretations. This approach fosters a deeper connection between inhabitants

and their spaces, promoting a sense of place and belonging, captures an atmosphere;

- The periphery as a space of potential: the periphery, often perceived as marginal, emerges as a rich sensory landscape filled with sounds, emotions, stories, and voices. Shared experiences within these spaces amplify their distinctive atmospheres, transforming them into places of wonder and discovery.

REFERENCES

- Algargoosh, A., Soleimani, B., O'Modhrain, S. & Navvab, M. (2022). The impact of the acoustic environment on human emotion and experience: A case study of worship spaces. *Build Acoustics* 2022:1351010X211068850. <https://doi.org/10.1177/1351010X211068850>
- Bachelard, G. (1957). *La poetica dello spazio*. Dedalo.
- Bakker, K. (2023). *I suoni segreti della natura*. Feltrinelli.
- Barbara, A. (2015). Philippe Rahm. Atmosfere Costruite <https://www.doppiozero.com/materiali/architettura/philippe-rahm-atmosfere-costruite>
- Bateson, G. (1979). *Mind and Nature. A necessary unit*. E. P. Dutton.
- Cain, R., Jennings, P. & Poxon, J. (2013). The development and application of the emotional dimensions of a soundscape. *Appl Acoust* 74:232–9. <https://doi.org/10.1016/J.APACOUST.2011.11.006>
- Ferrucci, P. (2018) *La bellezza e l'anima*. Oscar Mondadori.
- Griffero, T. (2013). *Quasi-cose. La realtà dei sentimenti*. Bruno Mondadori.
- Guidi, C. (2024). *Il potere analogico della bellezza, Il potere analfabetico della fantasia, Il potere anacronistico dell'anima*. Sete ed.
- Kühtz, S. & Parentini, S. (2020). *Poeticamente Abitiamo, La poesia per il progetto*. Editorial Collection, PiA ed: 2020 Palazzo Fiore, Genzano. PiAedizioni ISBN 9791280918093
- Kühtz, S. (2022). Sensoriality, Arts, Poetry, and Sustainability. In: Leal Filho, W., Azul, A.M., Doni, F., Salvia, A.L. (eds) *Handbook of Sustainability Science in the Future*. Springer, Cham. https://doi.org/10.1007/978-3-030-68074-9_65-1.
- Kuhtz, S. (2023). Quale bellezza? L'avventura dell'invisibile, *Aiems, Riflessioni sistemiche* n. 28, ISSN 2281-3373, pp. 101-114.
- Kühtz, S. & Parentini, S. (2023). Poetica, in A. Pastorello (ed). *Selvario. Guida alle parole della selva*, pp. 483-489. Mimesis, Milano 2023. ISBN: 9791222304939, DOI10.7413/1234-1234021 available at <https://mimesisbooks.com/index.php/mim/catalog/book/67>
- Kuhtz, S. & Tizi, L. (2023). Abitare poeticamente il Sud. Retoriche e possibilità. *Tracce Urbane - Rivista Transdisciplinare di Studi Urbani*, Semestrale, ISSN 2532-6562 Vol. 9, n. 13, pp. 266-296, doi. [org/10.13133/2532-6562/18441](https://doi.org/10.13133/2532-6562/18441).

- Kuhtz, S. (2024). Beyond sight: sensory atmospheres and design, *diid disegno industriale industrial design* n. 83, vol XXII, pp. 52-65, ISBN Online979-12-5477-563-9, DOI10.30682/diid8324, ISSN Online2785-2245, ISSN1594-8528.
- Le Breton, B. (2003). *Il mondo a piedi. Elogio della marcia*. Feltrinelli.
- Li, Z. & Kang, J. (2019). Sensitivity analysis of changes in human physiological indicators observed in soundscapes. *Landsc Urban Plan* 190:103593. <https://doi.org/10.1016/j.LANDURBPLAN.2019.103593>
- Melville, H. (1960), *The Letters of Herman Melville*. Gilman
- Merleau-Ponty, M. (1965). *Fenomenologia della percezione*, trad. di A. Bonomi. Il Saggiatore.
- Naydler, J. (2009). The Restitution of the Ear, in *The Future of the Ancient World: Essays on the History of Consciousness*, Rochester, VT: Inner Traditions, pp. 9–10.
- Pallasmaa, J. (1994). An architecture of the seven senses. In S. Holl, J. Pallasmaa, & A. Perez-Gomez (Eds.), *Architecture and urbanism: Questions of perception: Phenomenology and architecture* (Special issue), July, pp. 27–37.
- Schafer, R. M. (1967). *Ear Cleaning*. BMI Canada.
- Schafer, R. M. (1977). *The Tuning of the World*. Alfred Knopf.
- Schmitz, H. (2006). I sentimenti come atmosfere, trad. it. T. Griffero, in T.Griffero-A. Somaini (a cura di), *Atmosfere*, numero monografico della “Rivista di estetica”, XLVI (3/2006), pp. 25-43.
- Van Lengen, K. (2013). <http://soundscape.iath.virginia.edu/>
- Van Lengen, K. (2014). *Fascinating noise*. Urban omnibus, interview with - Jan. 15th
- Zumthor, P. (2006). *Atmospheres – Architectural Environments – Surrounding Objects*. Birkhäuser.

Article available at

DOI: 10.60923/issn.2724-2463/21220

How to cite

Kuhtz, S. (2025). Capturing and creating atmospheres: a sensory design approach for education, entertainment, and participation. *img journal*, 12, 318-339.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

OSMOSPHERIC IMAGES. REVERIES, SMELLS, AND MEMORIES IN GASTON BACHELARD

Elena Mancioppi

University of Gastronomic Sciences of Pollenzo

e.mancioppi@unisg.it

BACHELARD

SMELL

IMAGES

ATMOSPHERES

MEMORY

In this paper I explore the connections between reveries and atmospheres by considering three images related to smell and memories that are interspersed in Gaston Bachelard's works. I define them osmospheric images, indicating the causes and the effects of a peculiar disposition of daydreaming in tune with the irradiances that provide spaces and reminiscences with their flavor. My idea is that osmospheric images are the peculiar offsprings of rev-

eries when imagination and memory are intertwined. Firstly, the odor of water mint will help unravel reveries and atmospheres. Secondly, through the smell of raisins, the osmospheric perceptual disposition, as well as the workings of imagination and memory, will be scrutinized. Finally, the fragrance of warm bread will allow to address memory and happiness, the bonheur of images that Bachelard achieves by daydreaming about his childhood and native home.

...les images odorales, les plus subtiles,
les plus intraduisibles de
toutes les images.
Jean de Gourmont

INTRODUCTION

Western philosophy has explored images and imagination since its origins. From Aristotle to Kant, up to the contemporary theories of philosophy of mind and cognitive sciences, the variety of interpretations reflects their puzzling and pervasive nature (cf. Kind, 2016). But among the many possible approaches, these subjects can be woven through the idea of atmosphere, which is precisely one of the hallmarks of the French philosopher Gaston Bachelard.

Bachelard's thought is extremely multifaceted, which makes it quite difficult to encapsulate in a few lines (cf. Smith, 2016; Del Longo, 2021). Portrayed as a polarized and "dual" philosopher (Roy, 1977), Bachelard was primarily interested in science, epistemology, and rationality before devoting himself, via psychoanalysis and poetry, to what he deemed to be the diametrically opposite dimensions of human experience, namely daydreaming, images, and imagination. The trajectory traced by the shift in his theoretical focus corresponded to the adoption of different attitudes and styles of argumentation that appear increasingly unbound from academic rigor and therefore elusive to systematization, an intriguing and challenging aspect of this key figure in 20th-century European culture². His oeuvre can be roughly divided into four main periods that cover a first epistemological phase (1927-1938), an aesthetic phase (1938-1948), a second epistemological phase (1949-1953), and lastly his poetics (1957-1961). Given the purpose of this article, I will base my considerations on some of Bachelard's aesthetic

works, which address the dynamics of imagination in the face of the cosmogonic elements (fire, water, air, earth) understood as its hormones, and on some of his poetics, where the idea of reverie takes on depth and breadth through an autobiographical, undisciplined, and creative stance.

Deliberating Bachelard's point of view already equates to a considerable narrowing of the subject matter we are dealing with. Indeed, according to Bachelard, images and words coalesce. To put it less succinctly, poetic, literary images and words form an imaginative-verbal whole where the image is the nucleus and the word its membrane. The interval between words and images forms the spheric interstice where the imaginative act of the poet, and then of the reader, infiltrates and unfolds. This coincides with the movement proper to imagination and the reverie. The imagery is the atmosphere of images.

The term 'atmosphere' and the ideas this notion implies - first of all, 'spatialized feelings' - run pervasively through Bachelard's latest works, especially in *La poétique de l'espace*, which has been addressed by many scholars in this regard (cf. Alison 2019, 2020). In his vocabulary, however, 'atmosphere' clusters diverse semantic and figurative nuances. It seems to indicate, on the one hand, the affective qua poetic quality of words and images; on the other hand, the dimension where the very reverie uncurls. Quite consistently, atmosphere opposes rational meaning, which is "of little importance when it is a question of giving memories their dream (*rêve*) atmosphere" (Bachelard, 1969, p. 140). This implies a resistance to an analytical and reductionist attitude to comprehend words and images conceptually, while encouraging – or even *compelling* – a first-hand engagement with their realm. As Bachelard (2002) maintains, in the explosion of language "images multiply; words are no longer simple signifiers. They no longer merely complete thoughts; they are the future of imagery. Poetry opens up the meanings of words, suffusing them in an atmosphere of imagery" (p. 5).

Given its inherently vague and sentimental character, the idea of atmosphere appears particularly reluctant to overly sharp demarcations. At the same time, for some decades atmosphere has been seized upon by philosophers as a promising tool not only to rethink traditional ontology, but also to explore space and time as lived dimensions that are charged by ‘something-more’ which cannot be reduced to measurable elements grasped by reason alone. Similarly, the acknowledgment of a pole *other* than scientific objectivity led Bachelard, by means of literature, to be preoccupied with imagination and its unintelligible rules and, eventually, to lay the foundations of “a poetics of poetic reverie” (Bachelard, 1969, p. 16). Despite the struggle to conceptualize them, both atmospheres and reveries are felt unambiguously in their operativity and force on the experiential plane. Rather than a flaw, this aspect concurs in testifying to their aesthetic significance.

In this respect, most of the aesthetic accounts on atmospheres insist on the cross-modal nature of perception: atmospheres would cut across the distinction between the senses and, even more, they would precede sensory perception. Comparably, reveries anticipate the perception of reality. Whereas atmospheres can be conceived as “qualitative-sentimental *prius*” (Griffero, 2014, p. 5) constituting the ways one is affected by and attuned to extra-sensory spatial values that intersect the physical, moral, and emotional level, reveries reveal themselves as the auroral states of consciousness. In other terms, they would be “the *primal dimension*” (Sertoli, 1972, p. 119) in which the being and the appearing of consciousness and the world lap each other. We will resume the idea of ‘primitiveness’ later.

Within the philosophical horizon concerned with atmospheres, we can further distinguish between a trend that stresses their eminently synaesthetic character, and one that privileges one sense above the others. In the latter case, smell undoubtedly holds a privileged position, especially when dealing with memory. The tight relationship,

or even *concurrency*, between atmospheres, smells, and recollections is indeed the key element used to substantiate the thesis that olfaction is *the* atmospheric sense⁴. Likewise, Bachelardian reveries do not hierarchize the senses. Nonetheless, explicit eminence is accorded to aromas when tackling the link between memory and imagination. This culminates in *La poétique de la rêverie*, where recollections are extensively addressed to, and form the season of childhood. Bachelard's observations engender and are innervated by a tangle of questions I will try to account for: Is the memory that stores scents, or is it rather the sense⁵ of smell that daydreams fragrances when entering the realm of remembrance? Are smells witnesses to the past, or do they po(i)etically create images that open up to the future?

In this paper, I will overlook the assumptions underlying the debate over whether smell is the most atmospheric sense. Arranging the senses into a further, albeit reversed, hierarchy is, I believe, neither desirable nor useful; besides, I think the most promising philosophical potential of atmospheres lies in laying emphasis on the cross-modal dimension of perceiving rather than on its percepts. Hence, I like to turn the tables on the issue: experiencing atmospheres results in a perceiving that is tinged with affective qualities that, afterwards, may prove more comparable to one sense than another. Senses are here affective facets of a unitary feeling, while becoming, in their turn, figurative images of the manifold ways to be tuned to sentimental qualities crisscrossing the environment. Consistently, I am not interested in establishing whether Bachelard is an 'olfactive type.'⁷ Instead, I will focus on some images related to odors that are daydreamed by Bachelard himself⁸. I will call them *osmospheric images*. From the ancient Greek words ὀσμῇ (*osmē*), 'smell, odor, exhalation,' and σφαῖρα (*sphaira*), 'sphere, globe,' by *osmospheres* I mean the atmospheric irradiances, *ecstasies*, which provide spaces and memories with their *flavor*.

Firstly, the odor of water mint will help us outline reverie and atmosphere. Secondly, through the smell of raisins,

the features of osmospheric perceptual disposition and the workings of imagination will be perused. Finally, the fragrance of warm bread will lead to discuss memory and happiness, the *bonheur* of images that Bachelard achieves by revering to his childhood and native home.

These are the results of a deliberate choice aimed, on the one hand, at sketching the significance of smells as it evolved in Bachelard's conception of reverie and imagination; on the other hand, at supporting and concretizing my thesis: osmospheric images are the peculiar offsprings of reveries when imagination and memory are intertwined. Although the present paper suffers from necessary exclusions which, if included, would allow for a more complete and nuanced analysis, an exhaustive Bachelardian meta-poetics of smells exceeds the scope of this contribution. This preliminary inquiry endeavors to open up new lines of research to which philosophy and aesthetics have paid little attention thus far.

THE ODOR OF WATER MINT

In the opening pages of *L'eau et les rêves*, Bachelard offers the reader a vivid osmospheric image which is concurrently an illustration of the reverie. A special kind of melancholy radiating from the dormant waters is distilled in the odor of water mint. This smell, Bachelard (1983) recounts, "calls forth in me a sort of ontological correspondence which makes me believe that life is simply an aroma, that it emanates from a being as an odor emanates from a substance, that a plant growing in a stream must express the soul of water" (p. 7). This evocation seems to answer the author's purpose to point out that only in proximity of water and its flowers he realizes to have "best understood that reverie is an ever-emanating universe, a fragrant breath that issues from things through the dreamer" (ibid.).

Even if *L'eau et les rêves* is, after all, one of his least osmospheric essays⁹, the aforementioned passage is crucial, since

it stands as an explicit breakpoint from the objective pose assumed in his previous psychoanalysis of fire (Bachelard, 1964). Indeed, Bachelard is obliged to shift gears because of his failure to approach the images of water by means of a rationalistic and detached attitude. As he admits: "I still live water images; I live them synthetically in their original complexity, often according them my unreasoning adherence" (Bachelard, 1983, p. 7). This unprecedented awareness marks a decisive turning point in his stance, disclosing to him a different direction. Since the reality of the image is the combination of subjective and objective elements, one cannot disregard the former to grasp the latter. Bachelard makes it unequivocally clear: "if I intend to study the life of water images, I must allow the river and springs of my home a dominant role" (ibid.). Namely, the streams running through the French region of Champagne-Ardenne, where he spent his childhood.

Here, the odor of water mint not only exemplifies the embrace of subjective instances¹⁰, but also epitomizes the idea that images are the result of the convergence of matter and affectivity¹¹. All this concurs in the Bachelardian use of odors to depict the unfolding of the very reverie. In *L'eau et les rêves*, Bachelard delineates the pivotal distinction between formal and material imagination. A formal image is a datum of reality, hence a dead image because its definite form causes the movement of imagination to die. In the images of matter, instead, imagination unravels by penetrating into the fibers of matter that provide it with an affective tone. This is translated into an oriented and orienting axis along which imagination develops. Images are then modes of *oneiric* experience of matter. The adjective, however, risks being misleading. *Rêverie* (daydream) differs from *rêve* (dream) because of its evanescence and peculiar dynamics¹². Whereas dream is ruled by silence and the unconscious, reverie is an incessant murmuring that flourishes at the juncture where consciousness and the world begin to diverge but are still entangled. Bachelard (1969) coins the evocative phrase "penumbral ontology" (p. 111) to

indicate this interstitial crevice, the blossoming of a difference from which the self and the world, consciousness and cosmos emerge in the *same mode of being*. The image is then an act of *consciousness* or, better, *self-consciousness*. Reverie, atmospheres, and smells find here a first point of convergence, if we agree that odors are properties of the surroundings that allow us “to sense through our disposition (*Befinden*) where we are” (Böhme, 2017a, p. 125). The odor of water mint cannot be separated from the soul of water and its relationship with the daydreamer’s being, who is affected by its sentimental quality. The ontological issue is therefore the first knot to be untied. The reverie reveals itself as the half-light zone where the emergence of being, still blurred, occurs and is announced. As Bachelard (1994) puts it, this ontological disclosure entails that, at “the level of the poetic image, the duality of subject and object is iridescent, shimmering, unceasingly active in its inversions” (p. xix). Specifically, the subjective and objective poles seem to be the results of a relationship that stands as a necessary precondition to their subsequent differentiation. Bachelard’s self exists with the odor of water mint that expresses the soul of water. In other terms, the odor of water mint conjures a self-manifestation which corresponds to specific lexical choices¹³ conveying the dynamics of expansion. The ‘ontological correspondence’ itself finds its linguistic counterpart in the olfactory field, where signs and meanings cannot be differentiated (Böhme, 2019, p. 263). Moreover, smell blurs the lines between the self and its surroundings in a radical way¹⁴. By appropriating and readjusting the myth of Condillac’s statue – “I am, first of all, the odor of mint, the odor of mint water” (Bachelard, 1983, p. 7) – Bachelard ‘osmospherizes’ his very world and primitive consciousness. If the reverie is the interpenetration of subject and object, where the human consciousness constitutes the world in its primal state of emergence from nature, the odor of water mint is the vestige of the ontological awakening of being, which “awakens in the awareness of an extraordinary impression” (Bachelard, 1983, p. 7).

Aligning with Gernot Böhme's relational theory of atmospheres as the 'in-between' subjects and the environment, the reverie is the point where the latter – that gives off its qualities – and the state of the perceiver – who has attuned accordingly – merge, concurrently e-merging. In other words, we are faced with an affective, material ecology dense with *ecstasies*, as Böhme would say: namely, the ways things step out of themselves becoming present in the surrounding space and, hence, generating an ambience, an atmosphere¹⁵. It is no surprise that Böhme insists on the atmospheric nature of odors¹⁶, since they would innately exemplify *ecstasies* as the material emanations through which things pervade a space and (the mood in which we) are present in it. Implicitly drawing from Eugène Minkowski (1999)¹⁷, who argues that *se répandre* (to expand, to spread) is the movement of the 'olfactive,' and that smell "is the atmosphere endowed with its fundamental quality" (p. 115), Bachelard depicts the reverie as the daydreaming of the material world through the imaginative activity of the daydreamer. In essence, the reverie is penetrated by the materiality of nature, while being an expansion of it¹⁸. On this plane – the liminal layer between sleep and wakefulness – the world is not littered with solidified objects, but teems with rarefied processes and metamorphic mingling; it is a volatile pre-dimensional space. Images arise from the confused relationship with a fluid world that possesses lines of force, suggestions, and provocations caused by the elemental substances it is composed of. Affective *affordances*, in the Gibsonian terminology¹⁹. The osmospheric image – the odor of water mint – serves as a prelude to a philosophy of poetry that, as Bachelard (1994) clarifies elsewhere, "must appear and re-appear through a significant verse, [...] in the very ecstasy of the newness of the image" (p. xv). Bachelard sinks into the primal age of his *osmobiography*²⁰ through the odor of water mint. The experience of smell as "the event of profane mystics" (Böhme, 2019, p. 264) finds in this Bachelardian osmospheric image its fullest fulfillment.

As already mentioned, the motif of the *primordial* relationship with the world through smells and atmospheres can be inflected in various ways, from their inaugural role in the human ontogenesis, to their link to prejudice and the so-called 'first impressions.' When Bachelard (1969) states that odors are the "first evidence of our fusion with the world" (p. 136), or that perfumes are "memories of the native atmosphere" (p. 156), he is forerunning the pioneering thoughts that, less than a decade later, the German psychiatrist Hubertus Tellenbach (1968) would develop in the first study entirely devoted to smells as atmospheres. Tellenbach stresses the significance of smell for the newborns because, in the first stages of life, odors coincide with the sentimental/atmospheric irradiations of their mothers, the nucleus of their original relation to the world. Somehow, remembrance is immanent to osmospheres.

Again, the odor of (water) mint offers itself as a spark and a bridge to tackle the relationships between imagination and memory, writer and reader. Like a cherished reminiscence that resurfaces the abyss of memory²¹, this osmospheric image recurs in a different guise in *La poétique de la rêverie*. While describing its synaesthetic and thermal complexity, Bachelard sheds light on the effort to imagine the odor of mint, a site-specific encounter belonging to another time. The ecology of memory is intricate, and one "must dream a great deal to find the exact climate of childhood which balances the fire of the mint and the odor of the stream" (Bachelard, 1969, pp. 138-139). In the face of this osmospheric synthesis, the reader cannot but feel that the writer is breathing their past. Memory and reverie are here "in total symbiosis" (p. 139).

THE SMELL OF RAISINS

In *La poétique de l'espace*, the smell of raisins hovers as an osmospheric image that condenses the peculiarity of the

'osmopheric' and the workings of imagination and memory. In Bachelard's oeuvre, the relationship between smell and memory already occurs in *Lautréamont*, where the passivity of odors hinders the activity of reality and animal force. But when in the service of poetry, smell and memory are inextricably intertwined: "When the aroma is a memory, the memory will be an aroma" (Bachelard, 1986, p. 62). In *L'air et les songes*, this correlation emerges antithetically. Whereas for most material imaginations odors are "the most strongly *substantivited* qualities of air" (Bachelard, 1988a, p. 136), a pure aerial imagination seeks an odorless air as an emancipated openness to the future, without any tie nor reminiscence. Nietzsche is the exemplary case of the aerial spirit, embodying such an ambition. A Nietzschean cannot enjoy odors²² since smells are in themselves aesthetic bonds, mnemonic filaments. Such an 'anosmic impulse' is counterbalanced by terrestrial poets like Baudelaire or Shelley, who, quite the opposite, daydream with scents as they "bind memories to desires, an enormous past to an immense and unformulated future" (p. 137)²³.

Actually, Bachelard's comprehension of memory shifted markedly. One pole is typified by the books on the elements, where a positivistic stance towards it prevails: memory is opposed to imagination since it would consist of an archive of associations from the past. The other pole is instantiated by *La poétique de la rêverie*, where memory is understood as the re-activation of past imaginative acts that infiltrate the present ones. As counterintuitive as it may seem, it follows that the very memory is based on and sustained by imagination. This twisted logic reflects the reverie's antilogic. To some extent, every imaginative act is the *original* act of imagination, in an intertwined relationship that Bachelard (1969) summarizes thus: "memory dreams, and reverie remembers" (p. 20)²⁴. If reason is historical, imagination is unhistorical; the latter is space rather than time or, better said, it is time in its lived, weathered spatiality – season, atmosphere²⁵. *La poétique de l'espace* is the watershed between

the two above-mentioned poles, where the first gives way to the second.

“All we communicate to others is an *orientation* towards what is secret” (Bachelard, 1994, p. 13). This statement introduces the idea that over-picturesqueness conceals the values of shelter: neither the most detailed spatial descriptions, nor the most precise planimetric representations, do justice to the home of the past. But the sense of smell seems to draw a daydreamy topography (or better, *topophilia*) of its own²⁶. The passage reads:

I alone, in my memories of another century, can open the deep cupboard that still retains for me alone that unique odor, the odor of raisins drying on a wicker tray. The odor of raisins! It is an odor that is beyond description, one that it takes a lot of imagination to smell. But I’ve already said too much. If I said more, the reader, back in his own room, would not open that unique wardrobe, with its unique smell, which is the signature of intimacy. Paradoxically, in order to suggest the values of intimacy, we have to induce in the reader a state of suspended reading. For it is not until his eyes have left the page that recollections of my room can become a threshold of oneirism for him (pp. 13-14).

If too structured and precise, images obstruct the reader’s imagination, which becomes entangled in a crystallization that cannot be reworked and reactivated. This reactivation consists in retracing backward the path of the poet’s imagination²⁷. Hence, the poetic image needs to maintain in the reader the poet’s reverie. The odor preserves the atmosphere of one’s own childhood room only if unburdened by specifications. It is an authoritative (but not authoritarian) atmosphere that does not prevent the reader from readjusting the poet’s fragrance. Like a perfumer or a cook, the daydreamer rebalances the aromatic notes suggested by the poet to savor the osmospheic image of an individual (but not private) past. The pathic feature of the reverie does not imply that the daydreamer is inactive. Bachelard (1969) makes this point clear arguing that the

“phenomenology of the image requires that we participate actively in the creating imagination” (p. 4). In this sense, day-dreamers are craftspeople manufacturing subtle scents, but they don’t start from scratch. Osmospheric images are recipes executed by the reverie²⁸, each time anew, with varying ingredients and proportions. The principle underlying imagination is one of metamorphosis, a dynamic force that, after shaping and crystallizing its forms, instantly destroys them by creating new ones all over again²⁹.

Through the odor of raisins, smell becomes the emblem of a perceptual and imaginative disposition I call osmospheric, that diametrically opposes the optical one. I borrow the idea of ‘optical paradigm’ from Nicola Perullo (2025), who allegorizes sight to indicate the dominant, distal, and dualistic model of perceiving underlying the separation of subjects and objects, in contrast with a relational perceptual disposition identified as haptic³⁰. To delineate the osmospheric, the optical constitutes an ideal perceptual benchmark. Bachelard himself suggests the divergence between these two postures through the case of memory and smell.

“Visual images are so clear,” Bachelard (1969) asserts, as “they form pictures which summarize life so naturally that they are privileged with easy evocation in our childhood memories” (p. 136). Visual images serve here as negative terms of comparison. Indeed, those whose aim is to “penetrate into the zone of indeterminate childhood, into the childhood without proper names and without a history either, would no doubt be helped by the return of the great vague memories like the memories of odors from the past” (ibid.). Clarity and vagueness characterize two opposite perceptual dispositions that are consonant with sight’s sharpness and smell’s nebulosity. The first gives rise to a vivid mental image on a flat and crystalline surface; the second, to an involute, opaque, indefinite, and voluminous medium to dive into – an *orientation* towards a secret.

Optical and osmospheric are convergent attitudes in a further way: only when the gaze is not focused can the

osmospheric image emerge. The smell of raisins asks explicitly for a *suspended reading*. Indeed, the “memories of odors from the past are recovered by closing our eyes” (ibid.). Eyes are the main instruments of the objectification of reality: the Bachelardian argument against realism is also one against sight and vision³¹. Realism is the rationalization of vision riding on the surface of things. Whereas science obeys the norms of reason following the reality function, imagination is guided by the unreality one³². In particular, the image makes matter oneiric while materializing the oneiric.

The relationship between smell and images is thorny due to the common tendency to model the latter on visual precepts. Tellenbach’s (1981, p. 223) denial of the existence of odor images seems to be based on this assumption, since smells do not stand out against an amorphous background and have neither limits nor sides. In turn, they would not produce images of memory or imagination. Here, the very shapelessness of smells elucidates their atmospheric primacy. But this definition of image does not match Bachelard’s at all. “We could almost say that smell ‘colors’ the atmosphere,” Minkowski (1999, p. 115) concedes, but on condition that we acknowledge that the way colors spread over the surfaces of things is totally different: the smell permeating the atmosphere does not demarcate anything. In other words, smells adhere to and condense the very atmosphere they evoke; this is why “even the slightest odor can create an entire environment in the world of the imagination” (Bachelard, 1994, p. 174).

For Bachelard, however, images refer to nothing per se; rather, in them something is fulfilled. The psyche’s hunger for images is a search for *sur-reality*, which is a creative need that fosters human flourishing. In the case of Bachelard *rêveur*, the imaginative hunger becomes quite literal. His pursuit of happiness in reactivating the natural reverie that has settled on the page gets materialized, verbatim and synecdochally, by the osmospheric image of food. More specifically, by the warm, fragrant, domestic bread.

THE FRAGRANCE OF WARM BREAD

Food-related images are interspersed throughout Bachelard's *corpus*. For instance, in *La psychanalyse du feu*, Bachelard (1964, p. 15) recollects a childhood memory linked to the waffle (*gaufre*) put in the iron mold and directly cooked in the fire. The experience of eating it, still warm, corresponded to the ingestion³³ of the igneous matter (its odor, its color, and its texture), thus domesticated³⁴. Fire becomes benevolent by enabling humans to enjoy purely voluptuary foods like desserts: it does not merely cook, but “gives a material form to [humans'] festivities” (ibid.)³⁵. In *La terre et les rêveries de la volonté*, his most ‘gastronomic’ book, Bachelard (2002) confesses to being a serial accumulator of poetic images of bread – “bread still warm from the oven, crisp and richly aromatic” (p. 65). The imaginative pleasure conveyed by the fragrant dough is fully developed in *La poétique de la rêverie*, where the final part of “Reveries toward Childhood” is almost entirely devoted to smell, and bread plays a pivotal role. “Suddenly,” Bachelard (1969) reveals, “I am taken by the urge to collect all the warm bread to be found in poetry. How they would help me give to memory the great odors of the celebration begun again, of a life which one would take up again, swearing gratitude for the original joys” (p. 141).

The resurfacing of involuntary memories prompted by scents is called Proust phenomenon³⁶, in a tribute to the French novelist who masterfully used smells as triggers of recollections. A case in point is the celebrated episode of the madeleine dipped in lime blossom tea, whose flavor causes Marcel's dormant and childhood memories to emerge, springing an entire *happy ambience* into being³⁷. The fact that taste and especially smell “bear unflinchingly, in the tiny and almost impalpable drop of their essence, the vast structure of recollection”³⁹ (Proust, 1998, p. 65) is a *literary topos* from which Bachelard (1969) draws fully-to-day-dream. For instance:

When I read this line by Edmond Vandercammen: “My childhood goes back to that wheaten bread,” an odor of warm bread invaded a house of my youth. The custard (*flan*) and round loaf returned to my table. Festive occasions are associated with this domestic bread. The world was in joy for the celebration of the warm bread. Two cocks on a single spit were cooking before the scarlet hearth (p. 141).

A range of Bachelardian images revolves around the hearth as the dimension of conviviality, intimacy, and coziness³⁹. Similarly, the osmospheric image of the fragrance of warm bread has three recurring elements: festivity, sense of home, and happiness. Whereas food makes human celebrations concrete and subjected to chronologically punctuated occasions, its aroma makes festivities atmospheric, as they pervade the whole season of the cosmic childhood. In all likelihood, Bachelard’s reverie would have easily tuned in with this osmospheric image by Elsa Morante (1979): “The tepid air, especially in the sun, smelled of bread” (p. 417), where the welcoming quality of the atmosphere is expressed by the flavor that incarnates a homely pleasure, together with the soul of the wheat, whose gold spreads in the summer wind. Here, the hearth expands so much that it coincides with the sun, and the whole world becomes a nest—an “aura of family atmosphere” (Tellenbach, 1981, p. 229) that loses all its personalistic connotations to become a shared, primary human condition. In this sense, osmospheric images can be interpreted as the manifestation of the *way one feels* in the relational, ecological pattern of the imagery one dwells in.

Whereas “Proust needed the dough of the madeleine to remember” (Bachelard, 1969, p. 137), Bachelard’s imagination calls for words in which the odor recollected by the poets is absorbed. *Pain*, ‘bread’ in French, although it is not the only one, certainly counts among his *beloved images* in which reverie and memory bloom in unison⁴⁰. As flowers exude their fragrance, so do words⁴¹. Bachelard stresses not only the need to savor images, but also the pneumatic reality of the poetic verse: poetry

is a dynamic and verbal pattern for breathing happily⁴². If Walter Benjamin (1968, p. 214) was true in drawing a parallel between Proust's attention to smell and asthma he suffered from (whence, his syntax would essentially mimic his terror of asphyxiating), odors would in themselves represent the causes and the effects of the happiness of deep, tranquil breaths. As Bachelard argues, the daydreamer's being obeys the dynamics of diffusion in a twofold direction: it diffuses its well-being into the world, and it is the result of a diffusion. Hence, it escapes "the punctualization of the *hic* and of the *nunc*" (Bachelard, 1969, p. 167), and creates the time as an output of the activity of the reverie as a pneumatic reality⁴³.

But as Proust suggests, it is not the memory that stores smells; rather, it is smell – "the sense of weight of someone who casts his nets into the sea of the *temps perdu*" (Benjamin, 1968, p. 214) – that tenaciously preserve memories. If the very feeling remembers its feeling and feels its remembering, osmospheric images are the reminiscences of the reverie itself. This seems to explain why, when "memory breathes, all odors are good" (Bachelard, 1969, p. 136). In light of this, Bachelard's idea that the house of one's birth cannot have a moldy, stale smell, takes on a deep osmospheric meaning, bringing together the atmospheric values of duration, happiness, and intimate spaces⁴⁴. That is, *food* for the daydreamer's soul. Indeed, in "days of happiness, the world is edible. And when the great odors which were preparing feasts return to me in memory, it seems to me, Baudelarian that I was, that 'I eat memories'" (p. 141). Smell and taste, air and food, are rooted in the primordial stages of life when moods and nourishment acquire an interchangeable atmospheric value.

FINAL REMARKS

Let's close the circle by returning to the epigraph to these pages. Within a spasmodic sequence of literary quotes on smell and childhood memories that actually justifies the

accusation of pointillisme levelled against him⁴⁵, as a self-explanatory aside Bachelard resumes few lines by Jean de Courmont, who observes that odorous images are “the subtlest, the most untranslatable of all images” (p. 139). Imaging osmospheres means daydreaming in a time that has been regained. Indeed, in the reverie Bachelard accomplished his search of lost time.

The odor of water mint paved the way for the reverie to come to light. The smell of raisins provided the imaginative tools necessary to daydreaming. The fragrance of warm bread, Bachelard's osmospheric image of convoluted time, expresses its passage as a coiling over: the older Bachelard gets (at the time of the book's publication, he is almost eighty years old), the more his memory and imagination rejuvenate and dig into time. The happiness in this image is the rest “found again by the consciousness that has returned to its ‘country’, to ‘its home’” (Sertoli, 1972, p. 370). This flavor takes to the surface the essence of the past, its atmosphere. It is a domestic, enveloping shelter, which represents the very essence of the reverie and of human happiness, like a mother's belly⁴⁶ or the protective smell of the nest. An osmospheric topophilia would likely reveal that consciousness is primitively homed and happy when imagination and memory smell the fragrance of baking.

NOTES

¹ Elena Mancipopi, University of Gastronomic Sciences (Pollenzo, Italy), e.mancipopi@unisg.it

² Whereas some scholars (with whom I tend to agree) see his intellectual and personal journey as marked by a fundamental continuity, others think that it betrays fitful ruptures.

³ Henceforth, the translations from non-English sources are by the author.

⁴ The presumed atmospheric primacy of odors and orosensory perceptions is to be attributed to various reasons. For an overview: Griffero, 2022; Mancipopi, 2023, pp. 17-55.

⁵ See Wunenburger, 2016. One excerpt from Bachelard (2011, p. 60) helps bring clarity on this point: “We show we are imagining when

we refine on sensation, when we break through crude sensation (colors or scents) and extol nuances and bouquets. We seek the other within the same."

6 Losing ourselves in nostalgic reveries while lingering over some odors is in fact very common.

7 As Albert Camus (1963, p. 179) would phrase it. Had one to establish a sensory ranking, perhaps Bachelard would be more of an 'auditive type,' given the centrality of the verbal, linguistic, phonetic, acoustic aspect of imagination and reveries, their 'speech' and 'murmuring.' On speech as the pneumatic and aesthetic force of literature: Berleant, 2016, especially chapters XII and XIII.

8 This approach, I think, is in tune with Bachelard's spirit. He incrementally abandoned any thematic schematism, by elaborating a poetics of the images that are attuned to his own reveries. For a now-classic analysis: Mansuy, 1967.

9 This comes as no surprise, as his style often involves the same assumptions and purposes stated and set at the beginning of a book being revised or exceeded in the course of its writing

10 The personal and idiosyncratic character of olfaction traditionally relegated it among the inferior senses. The list of philosophers is long; Plato, Aristotle, Kant, and Hegel are just the most influential ones. For an overview: Korsmeyer, 1999, pp. 11-37; Shiner, 2020, pp. 19-34.

11 As already pinpointed by Plato in the *Timaeus* (66d), smells always occur in the intermediate stage of elemental processes. For land animals' olfaction, a medium (air), particles (earth), heat (fire), and moisture (water) are required. This may also explain why, for Bachelard, odors do not dominate a single matter but they are 'cross-elemental.' Certainly, the prominent link with the aerial dimension underlies many correlations with the atmosphere, as the latter "might be something which is primarily somehow inhaled and smelled" (Diaconu, 2006, p. 136). The material and affective nature of olfactory stimuli is the basis of their reappraisal – the so-called affective turn and (new) materialisms are the theoretical perspectives where this trend can be framed.

12 By considering the French language, Bachelard (1969, p. 29) provides the grammatical gender system with affective qualities. On smells, atmospheres, and gender: Mancioppi, 2022.

13 Bachelard selects diverse olfactory terms to 'distill' and make possible the reverie itself, because "the verbal activity of the image is essential to its ontological function" (Smith, 2016, p. 96).

14 This trait makes the social aesthetic implications of olfaction particularly relevant, as a growing cultural interest ascertains. In fact, odor "truly violates our privacy" (Bachelard, 1964, p. 103).

15 This is one of the major gaps where the divergence between Böhme's and Schmitz's views creeps into. According to Schmitz (2019), atmospheres are free floating 'quasi-things.' Whether atmospheres are anchored in something specific is a matter of dispute; instead, that reveries are always anchored in words (and in matters) is for Bachelard an established truth.

- 16 "In the generation of atmospheres, smells as factors have an extraordinary position" (Böhme, 2019, p. 262). See also Böhme, 2017b, p. 51.
- 17 Explicitly, Bachelard takes up Minkowski's concept of *retentissement* (reverberation), the dynamics of *l'auditif*.
- 18 See Barontini, 2020, p. 65.
- 19 On atmospheres and affordances: Griffero, 2020.
- 20 The term was coined by Mădălina Diaconu (2021, p. 62) to indicate the immigrants' memories associated to the smell of home creatively manufactured by the artist Brian Goeltzenleuchter in his project Scents of Exile. See also: Goeltzenleuchter, Mancipopi, 2024.
- 21 "The poetic image is a sudden salience on the surface of the psyche" (Bachelard, 1994, p. xv).
- 22 As Chantal Jaquet (2010) speculates, Bachelard is wrong in that Nietzsche's pneumatic model is based on aromatic nuances almost undetectable to normal nostrils.
- 23 Bachelard argues that the reveries of certain writers gravitate towards images of one (or more) of the four elements.
- 24 The distinction between imagination and memory is particularly difficult in "the realm of childhood memories, the realm of beloved images harbored in memory since childhood" (Bachelard, 1969, p. 20), because these memories dwell and are entrenched in the image, giving rise to complex reveries.
- 25 For Bachelard (1969), "pure memory has no date. It has a season" (p. 116), and a personal season is very often contained in a singular odor.
- 26 In childhood, odor itself is "an immense detail" (Bachelard, 1969, p. 141).
- 27 On atmospheres in literature: Gumbrecht, 2012.
- 28 As Dal Pozzolo (2020) puts it, the reverie "is a certain affective and passive dimension, like a withdrawal of subjectivity to make way for the emergence of images" (p. 76).
- 29 This sentence by Michel Serres (2008) elicits interesting correspondences and dissonances: "Smell seems to be the sense of singularity. Forms reappear, invariant or recurrent, harmonies are transformed, stable across variations, specificity is countersigned by aroma" (p. 169).
- 30 The haptic refers to a dynamic contact, not localized but diffused; it is a "perceiving-with processes (engaged participation from within) that differs from perceiving about object (disinterested observation from without)" (Perullo, 2025, p. 22).
- 31 For Bachelard (1988b), even visual arts ignite the reverie in the observer because they are verbally translated into poetic words.
- 32 According to Bachelard, science and imagination are two poles with a mutually exclusive relationship. Each constitutes a cosmos with its own antithetical and complementary rules and values.
- 33 The images of ingestion are pivotal in the "Jonah complex," the assimilation of other living beings (Bachelard, 2011, pp. 94-132).
- 34 The deodorizing value of fire verifies its purifying power. The question of odor and (sexual) suppression recalls Freud's (1962) thesis:

olfactory inhibition would be the “actual yardstick of civilization” (p. 40). In fact, Bachelard's essay on fire, where libido images play a central role, owes a debt to the father of psychoanalysis.

35 In the images of fire, gastronomy and smells converge. Representing the control over putrefaction, cooked food and fermented drinks are “the principle of the banquet, that is to say the principle of primitive society” (Bachelard, 1964, p. 103) – the primal osmosphere of home. It is also for this reason that a “psychology of primitiveness must devote a good deal of attention to the olfactory psychism” (ibid.).

36 The literature is very vast, from sociology to psychology (Chu, Downes, 2000). For a phenomenological analysis: Kluck, 2019.

37 On the contrary, Marcel Proust (1998, p. 63) points out that the visual image of the small sponge cake, with its peculiar shell-like shape, reminded him of nothing.

38 As a variation on the theme, Fernando Pessoa (2003) notes: “With what subtle plausibility – taste combined with smell – I recreate the dead stage settings and reinvest them with the colours of a past” (p. 332). In Bachelard's (1969) terms, a “whole vanished universe is preserved by an odor” (p. 139).

39 Alison, 2019, pp. 149-150; Dal Pozzolo, 2020, pp. 78-79.

40 As stated, a “damp hood and all our October childhoods, all our schoolboy courages are reborn in our memory. The odor has remained in the word” (Bachelard, 1969, p. 137).

41 In *La terre et les rêveries du repos*, that mostly emits mephitic and miasmatic osmospheric images, Bachelard (2011) considers the word *mofette*, employed by the 18th-century chemistry for the evil-smelling exhalations from mines, arguing that it manifests an imagination describing the process of decomposition, pestilence, and death. “Mofettes are learned grimaces. This psychological realism of spoken language somehow gives heaviness to the bad air we breathe” (p. 51).

42 Bachelard would question the alleged preverbal character of the atmosphere as advocated, among others, by Tellenbach (1981), while he would probably agree on his definition of the atmosphere as a medium of “prereflective elemental contact” (p. 229).

43 Although poetic words are articulated horizontally by following one after the other, the time of poetry folds in on itself: in imagination, time is a vertical spiral, layered superposition and simultaneity. Bachelardian images are vertical axes that provide the horizontality of reality with a new dimension.

44 Bachelardian irenicism has been criticized from many quarters (e.g. Griffero, 2014, p. 42). For hostile places in Bachelard: Vydra, 2014.

45 A fragmented way of proceeding which is exacerbated by the plentiful quotations of decontextualized verses by mostly marginal authors and minor poets.

46 House and belly “bear the same distinctive stamp of a return to the mother” (Bachelard, 2011, p. 4). At the same time, the house becomes fully maternal when one can “smell her odor penetrating maternally to [one's] very heart” (Bachelard, 1994, p. 45).

REFERENCES

- Alison, A. (2019). *Epistémologie et esthétique de l'espace chez Gaston Bachelard*. Milan: Éditions Mimésis.
- Alison, A. (2020). *Atmospheres and Environments: Prolegomena to Inhabiting Sensitive*, *Aesthetica* Preprint, (115), 97–121.
- Bachelard, G. (1964). *The Psychoanalysis of Fire* [1938]. Translated by A.C.M. Ross. London: Routledge & Kegan Paul.
- Bachelard, G. (1969). *The Poetics of Reverie: Childhood, Language, and the Cosmos* [1960]. Translated by D. Russel. Boston: Beacon Press.
- Bachelard, G. (1983). *Water and Dreams: An Essay on the Imagination of Matter* [1942]. Translated by E.R. Farrell. Dallas: The Pegasus Foundation.
- Bachelard, G. (1986). *Lautréamont* [1939]. Translated by R.S. Dupree. Dallas: The Pegasus Foundation.
- Bachelard, G. (1988a). *Air and Dreams: An Essay on the Imagination of Movement* [1943]. Translated by E.R. Farrell, C.F. Farrell. Dallas: The Dallas Institute Publications.
- Bachelard, G. (1988b). *The Right to Dream* [1970]. Translated by J.A. Underwood. Dallas: The Pegasus Foundation.
- Bachelard, G. (1994). *The Poetics of Space* [1957]. Translated by M. Jolas. Boston: Beacon Press.
- Bachelard, G. (2002). *Earth and Reveries of Will: An Essay on the Imagination of Matter* [1947]. Translated by K. Haltman. Dallas: The Dallas Institute Publications.
- Bachelard, G. (2011). *Earth and Reveries of Repose: An Essay on Images of Interiority* [1948]. Translated by M.C. Jones. Dallas: The Dallas Institute Publications.
- Barontini, R. (2020). *Portrait du philosophe en écrivain. Une lecture éco-poétique de l'œuvre de Gaston Bachelard*, *Bachelard Studies – Études Bachelardiennes – Studi Bachelardiani*, 1, 59–73.
- Benjamin, W. (1968). *The Image of Proust* [1929]. In Id. *Illuminations: Essays and Reflections* (pp. 201–215). Translated by H. Zohn, Edited and with an Introduction by H. Arendt. New York: Schocken Books.
- Berleant, A. (2016). *Re-Thinking Aesthetics: Rogue Essays on Aesthetics and the Arts* [2005]. London & New York: Routledge.
- Böhme, G. (2017a). *The Aesthetic of Atmospheres*. Edited by J.-P. Thibaud. London & New York: Routledge.
- Böhme, G. (2017b). *Atmospheric Architectures: The Aesthetics of Felt Spaces* [2013]. Edited and Translated by A.-C. Engels-Schwarzpaul. London & New York: Bloomsbury.
- Böhme, G. (2019). *Smell and Atmosphere*. In T. Griffero & M. Tedeschini (Eds.), *Atmosphere and Aesthetics: A Plural Perspective* (pp. 259–264). London: Palgrave Macmillan.

- Camus, A. (1963). *Notebooks: 1935-1942*. Translated by P. Thody. New York: Alfred A. Knopf.
- Chu, S., Downes, J.J. (2000). *Odour-Evoked Autobiographical Memories: Psychological Investigations of Proustian Phenomena*, *Chemical Senses*, 25(1), 111-116.
- Dal Pozzolo, M. (2020). *Corpo organico, corpo animale, Le rêverie bachelardiane della corporeità*, *Bachelard Studies – Études Bachelardiennes – Studi Bachelardiani*, 1, 75-90.
- Del Longo, N. (2021). *Gaston Bachelard e le vie dello spirito*. Milan-Udine: Mimesis.
- Diaconu, M. (2006). *Patina – Atmosphere – Aroma: Towards an Aesthetics of Fine Differences*, *Analecta Husserliana*, 92, 131-148.
- Diaconu, M. (2021). *Der kontingente All-Faktor/The Contingent "All Factor"*. In *Smell it! Geruch in der Kunst/Scent in the Arts* (pp. 49-64). Köln: Wienand.
- Freud, S. (1962). *Civilization and its Discontents* [1930]. Translated by J. Strachey. New York: W.W. Norton.
- Griffero, T. (2014). *Atmospheres: Aesthetics of Emotional Spaces* [2010]. Translated by Sarah de Sanctis. Farnham: Ashgate.
- Griffero, T. (2020). *Places, Affordances, Atmospheres: A Pathic Aesthetics*. London & New York: Routledge.
- Griffero, T. (2022). *Sniffing Atmospheres: Observations on Olfactory Being-In-The-World*. In N. Di Stefano & M.T. Russo (Eds.), *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences* (pp. 75-90). Cham: Springer.
- Goeltzenleuchter, B., Mancioppi, E. (2024). *Atmospheres, Art, and Aesthetics: A Conversation*, *Espes: The Slovak Journal of Aesthetics*, 13(1), 2024, 31-47.
- Gumbrecht, H.U. (2012). *Atmosphere, Mood, Stimmung: On a Hidden Potential of Literature* [2011]. Translated by E. Butler. Stanford: Stanford University Press.
- Jaquet, C. (2010). *Philosophie de l'odorat*. Paris: PUF.
- Kind, A. (Ed.). (2016). *The Routledge Handbook of Philosophy of Imagination*. London & New York: Routledge.
- Kluck, S. (2019). *Atmospheres and Memory: A Phenomenological Approach*. In T. Griffero & M. Tedeschini (Eds.), *Atmosphere and Aesthetics: A Plural Perspective* (pp. 191-208). London: Palgrave Macmillan.
- Korsmeyer, C. (1999). *Making Sense of Taste: Food and Philosophy*. Ithaca: Cornell University Press.
- Mancioppi, E. (2022). *Osmospheric Dwelling: Smell, Food, Gender and Atmospheres*, *Espes: The Slovak Journal of Aesthetics*, 11(2), 38-53.
- Mancioppi, E. (2023). *Osmospheres: Smell, Atmosphere, Food*. Milan: Mimesis International.
- Mansuy, M. (1967). *Gaston Bachelard et les éléments*. Paris: José Corti.

- Minkowski, E. (1999). *Vers une cosmologie. Fragments philosophiques* [1936]. Paris: Éditions Payot & Rivages.
- Morante, E. (1979). *History: A Novel* [1974]. Translated by W. Weaver. New York: Avon.
- Perullo, N. (2025). *Aesthetics without Subjects and Objects: Relational Thinking for Global Challenges*. London: Bloomsbury.
- Pessoa, F. (2003). *The Book of Disquiet* [1998]. Edited and Translated by R. Zenith. London & New York: Penguin.
- Proust, M. (1998). *Swann's Way, In Search of Lost Time*, vol. I. Translated by C.K.S. Moncrieff & T. Kilmartin, Revised by D.J. Enright. New York: The Modern Library.
- Roy, J.-P. (1977). *Bachelard, ou le concept contre l'image*. Montréal: Presses de l'Université de Montréal.
- Schmitz, H. (2019). *New Phenomenology: A Brief Introduction* [2014]. Translated by R.O. Müllan, with the support of M. Bastert. Milan: Mimesis International.
- Sertoli, G. (1972). *Le immagini e la realtà. Saggio su Gaston Bachelard*. Firenze: La Nuova Italia.
- Shiner, L. (2020). *Art Scents: Exploring the Aesthetics of Smell and the Olfactory Arts*. Oxford: Oxford University Press.
- Smith, R.C. (2016). *Gaston Bachelard: Philosopher of Science and Imagination* [1982]. New York: Suny Press.
- Tellenbach, H. (1968). *Geschmack und Atmosphäre. Medien menschlichen Elementarkontaktes*. Salzburg: Otto Müller.
- Tellenbach, H. (1981). *Tasting and Smelling – Taste and Atmosphere – Atmosphere and Trust*, *Journal of Phenomenological Psychology*, 12(2), 221-230.
- Vydra, A. (2014). *Intimate and Hostile Places: A Bachelardian Contribution to the Architecture of Lived Space*, *Studia Phaenomenologica*, 14, 53-72.
- Wunenburger, J.-J. (2016). *L'imagination géopoïétique. Espaces, images, sens*. Milan: Éditions Mimésis.

Article available at

DOI: 10.60923/issn.2724-2463/21540

How to cite

Mancioppi, E. (2025). Osmospheric images, *img journal*, 12, 340-365



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

MATERIALLY IMAGINING EARTH'S ATMOSPHERES: REMEMBERING/ FUTURING THE AIR IN BREATHABLE ARTWORKS

Clara Muller

Independent Researcher

clara.muller@free.fr

ESSAY 184/12

AIR

BREATHABLE ART

OLFACTORY ART

EMBODIED EXPERIENCE

ATMOSPHERIC HUMANITIES

The air is hard to perceive as a material reality because we are so entangled in it. To remedy this “forgetting of air” (Irigaray, 1999) some artists from the early 1970s onward have moved beyond visual representation to create a new *æsthesia* of air, working with inhalable gases, odorous molecules and other volatile substances to bring the atmosphere back into people’s sphere of experience. Many of their works critically engage with the alarming changes

of our aerobic environment in the context of the Capitalocene by mediating material encounters with past tropospheric conditions and potential atmospheric becomings –both material and temporal. This article examines a selection of contemporary breathable ‘airworks’ that provide a sensory experience and an embodied understanding of evolving human-and-other-than-human-made ‘airscales’ across deep time and human time.

What is climate change if not a consequence of failing to respect or even to notice the elemental medium in which we're immersed? Is not global warming, or global weirding, a simple consequence of taking the air for granted? (Abram, 2018, p. 263)

INTRODUCTION

In *The Breath of Life*, North-American naturalist John Burroughs beautifully defines the nature of the life of *aerobic animals*:

“Our most constant and vital relation to the world without is a chemical one. We can go without food for some days, but we can exist without breathing only a few moments. Through these spongy lungs of ours we lay hold upon the outward world in the most intimate and constant way. Through them we are rooted to the air. [...] The act of breathing well illustrates our mysterious relations to Nature –the cunning way in which she plays the principal part in our lives without our knowledge” (Burroughs, 1915, pp. 50-53).

In these last three words Burroughs encapsulates both the essence of what anthropologist Philippe Descola (2013) has coined ‘naturalist ontology’ –coincident with the Western dualistic tradition separating Humankind from Nature– and the tendency of modern westerners to be oblivious to the constant and mutually-constitutive exchanges between their bodies and the more-than-human world on a shared “breathing planet” (Abram, 2010, p. 221).

Although it penetrates us from the minute we are born, the air we breathe in-and-out –up to 30,000 times a day– tends to barely brush against our conscious attention, precisely because we are so entangled in it. As Luce Irigaray puts it: “Always there, [air] allows itself to be forgotten” (Irigaray, 1999, p. 8). Often considered an immaterial abstraction, a near emptiness formerly known as “ether” (Olwig, 2011), the air is, however, an utterly material reality, albeit manifold, diffuse, elusive and fluctuating¹. But it is a ‘materiality’ that we usually fail to acknowledge as such until it

becomes so agitated or so pervaded with noxious pollutants that we start to feel ‘the stuff’ touching or entering our bodies, and disrupting our milieu.

While it took hundreds of millions of years for the Earth’s atmosphere to become enriched with just enough oxygen to allow the life of atmospheric creatures, it took barely three centuries for a small part of humanity to make it nearly unbreathable. Subject to radical changes resulting from human activities, the air has now become a major medical, socio-political and techno-scientific concern. Yet, despite the growing literature on the biogeochemistry, relationality, affectivity, and performativity of air(s), this multiplicitous, contentious ‘hyper-object’ (Morton, 2013) largely continues to escape our awareness—at least in the Global North where our experience of anthropogenic subversions of the atmosphere remains limited. As literary theorist Eva Horn writes: “The abstraction of the air is the price for the immense and vital body of knowledge that modern science has gathered on the atmosphere” (Horn, 2022, para. 13) In our Western societies, knowledge (more or less abstract) has indeed largely superseded experience in environmental matters (Lieutaghi, 1983, p. 7; Abram, 1997, p. 259; Knebusch, 2008, p. 243; Pierron, 2023, p. 21).

It is in part to remedy this ‘abstractness’ of air, that, since the 1960s, some artists have endeavored to create a new *aesthesia* of air—in the original Greek sense, ‘to perceive’—pushing it to the forefront of our perception and consciousness by using it, not as a mere subject, but as a medium. Quite well-known are the works of Hans Haacke, Robert Morris, Marinus Boezem, Judy Chicago, Michael Asher, Robert Barry, Art & Language, Preston McClanahan, John Van Saun, and several others, who used air for its haptic, sonic, meteorologic or dynamic qualities. Such airworks, involving wind, drafts, vapor, smoke, gases, bubbles as well as aerodynamic or inflatable structures, are indeed relatively well-documented (Burnham, 1967; Sharp, 1968; Lippard, 1973; Herwig and Thallemer, 2005; Bakke, 2006; Connor, 2017; Brace, 2017; Moon, 2019). Yet another kind of airworks have received much less attention

within the context of the “atmospheric turn” (Tani, 2020, p. 79) in the arts: the ones using air for its *breathable* quality, engaging the body through one of its most vital functions.

In that regard, Gordon Matta-Clark's *Fresh Air cart* (1972) can be considered a seminal piece, one of the firsts—if not the first—intentionally breathable artwork directly dealing with atmospheric concerns². This pioneer piece reflects the unprecedented importance given to ecological considerations in the Western public sphere in a time regarded as a turning point for political ecology. In 1970, the *Clean Air Act*, originally initiated in 1963 in the United-States, was greatly amended by Congress, establishing new, stricter standards and more ambitious air pollution reduction goals. But according to Fabien Locher and Grégory Quenet, “the birth of environmental history is generally placed in August 1972, with a special issue of the *Pacific Historical Review* and a famous article by Roderick Nash” (Locher & Quenet, 2009, p. 8) entitled *Environment and Americans: The Problem of Priorities*. Two months before, the United Nations Conference on the Human Environment, held in Stockholm in June, asserted as its first principle the fundamental right to “adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being” (United Nations, 1972, p. 4), which includes the right to breathe ‘clean’ air. When it was first presented in September 1972, *Fresh Air Cart* was, therefore, undeniably echoing the political recognition of the anthropogenic disruptions of the biosphere and of the risks and (slow) violence (Nixon, 2011) that come with it.

A participatory performance, the work consisted of a small mobile vehicle equipped with two seats, an umbrella and oxygen tanks set up on a sidewalk of Manhattan's Financial District. Matta-Clark—sometimes accompanied by actress Ginger J. Walker and artist Ed Baynard—invited passersby to breathe in “pure” air (79% nitrogen, 21% oxygen) for a 90-second interlude³. Although in a slightly whimsical way, *Fresh Air Cart* signaled that air “of a quality that permits a life of dignity and well-being” (United Nations, 1972, p. 4)

had already rarefied. As Ed Baynard recounted in the *New York Post* at the time, “nobody could believe it was just a nice thing, that it wasn’t a rip-off. What they didn’t seem to realize is that we’ve all been ripped off already. We’ve just been offering souvenirs of what used to be” (Hodenfield, 1972, p. 10). The work thus presented ‘clean’ air as something to ‘remember’, no longer to be experienced in natural breathing conditions, and maybe soon to be commodified –the doubts expressed by people about the absence of a fee to pay sadly illustrating this very real possibility⁴. Situating the performance around Wall Street was also hardly coincidental, hinting at the indirect yet systemic underlying causes of air pollution: neoliberal “limitless capitalist accumulation, overproduction and ongoing colonial relations” (Calvillo, 2023, p. 27). Barely a month later, on October 1st, the Club of Rome’s report, *The Limits to Growth*, was officially published (but the results had already been presented in 1971), suggesting the impossibility to sustain exponential economic growth within planetary limits...

Following Matta-Clark, numerous artists have worked with gases and invisible airborne materials to critically engage, through the act of breathing itself, with the “new respiratory condition” (Macé, 2022, p. 12) of the Capitalocene⁵.

In an effort to make “the air conditions explicit” (Sloterdijk, 2009, p. 84), several contemporary artists have devised sensory experiences that confront audiences with the current toxic realities of the air in various parts of the globe⁶. Their works, grounded in the premise that we cannot resist what we cannot perceive, provide a sensory knowledge of atmospheric risk through material and affective encounters with scents mimicking the olfactory signatures of various forms of volatile pollutants (Muller, 2021). Although everything that smells isn’t necessarily toxic, and everything that is toxic doesn’t necessarily smell, using “odorivectors” (Holley, 1999, p. 54) remains an efficient way to bring the (troubled) materiality of air to the fore. As Gaston Bachelard wrote: “for material imaginations, what are the most strongly substantial

qualities of air? Odors. [...] air is above all the vehicle of odors” (Bachelard, 2016, p. 176).

Other artists –such as Emily Parsons-Lord, Edwige Armand, Allie Wist, and Anna May Kirk– have expanded their scope to include past and future atmospheres, reconstructing ancient tropospheric conditions (*remembering* the air⁷) and anticipating potential atmospheric becomings (*futuring* the air⁸) in order to reflect on the present-day air crisis. In this article, I will discuss how their works articulate narratives of evolving human-and-other-than-human-made *airscales* across deep time and human time, and offer an embodied understanding of atmospheres via materials meant to be inhaled⁹.

ATMOSPHERIC TIMELINES

While scientists use knowledge of the Earth’s atmospheric history as well as past records to anticipate the future –as articulated in the 2016 National Academies of Sciences, Engineering, and Medicine report, *The Future of Atmospheric Chemistry Research: Remembering Yesterday, Understanding Today, Anticipating Tomorrow* (2016) – some artists have extended this framework into the arts.

Since 2014, Australian artist Emily Parsons-Lord –based on the land of the Wurundjeri Woi Wurrung peoples of the Kulin Nation– has been practicing the art of atmospheric recomposition drawing from research in paleoclimatology and atmospheric chemistry. Her first performances, *Different Kinds of Air, a Plant’s Diary* (2014) and *The Airarium* (2015), both featured a counter top above which suspended plastic bags contained several chemically distinct ‘airs’, with various proportions of oxygen, nitrogen, carbon dioxide and other gases. Visitors were invited to sample each one through a stainless-steel straw while engaging in discussions about the biogeochemistry of the Earth. Adopting a form of embodied rhetoric in which language and experience function together,

Parsons-Lords insists that “in both works, the linguistic and the material are co-constitutive elements required to communicate their meaning” (Parsons-Lords, 2021, p. 48). These discursive and experiential breathing experiments allowed participants to compare the sensory qualities of each air – like ‘taste’ and heaviness – but also their various physiological effects – shortness of breath, dizziness, surges of energy, acceleration of the heart rate – which made tangible our dependence on the materialities of air.

Parsons-Lord’s early performances also underscored the perpetual state of flux of the atmosphere, forged and re-forged *ad infinitum* under the influences of a multiplicity of organisms, infrastructures, agencies, and feedback loops. By enabling audiences to travel across geological ‘air-times’, she highlighted a crucial reality: the air has not always been as it is today, which means it will not remain the same in the future either. To emphasize this, several of Parsons-Lord’s airworks, including *The Airrarium*, included what the artist called *future air*, containing high levels of sulfur hexafluoride, a synthetic greenhouse gas whose global warming potential is 22,800 times higher than carbon dioxide. In *The Confounding Leaving* (2016), a minimal installation in a seemingly empty white gallery, visitors could press a button to release and inhale this composition, offering “a visceral connection with the future of air” (Parsons-Lord, 2016, para. 1). Though invisible and odorless, sulfur hexafluoride lowers the voice when inhaled, making its presence undeniably perceptible. The installation additionally confronted visitors with a dilemma: was the desire to experience this *future air* worth letting it leak into the atmosphere considering its noxious impact for generations to come?

The artist further investigated the collision of ‘air-times’ in *The Great Dying*. For this immersive installation, she reproduced the atmosphere of the largest extinction event in Earth’s history, which occurred approximately 252 million years ago, between the Permian and Triassic periods. During this event, about 90% of marine and terrestrial species

disappeared in the wake of rapid climate change and atmospheric hypoxia –a drastic decrease in oxygen levels– combined with the highest carbon dioxide concentrations in the history of the Earth (Benton, 2003). Examining the composition of this ancient air holds particular relevance today as “the causes of that mass extinction bear some striking similarities to what’s happening today” (Berardelli & Niemczyk, 2021, para. 3). In fact, human-induced environmental changes are occurring at an even faster pace. In 2015, the levels of carbon dioxide in the atmosphere had reached their highest point in 3 million years, while the current rate of species extinction is unprecedented in 65 million years (Fressoz, 2016, p. 45). This air from the past –incapable of sustaining aerobic life– might then very well be that of our future... As a way of letting us experience this dire prospect, Parsons-Lord built a small temporary white cube beneath an elevated highway during the Bristol Biennial in 2016. As air replicating the characteristics of the Permian-Triassic atmosphere gradually filled the sealed room, a device continuously measured oxygen levels warning participants of the growing danger. When O₂ levels dropped below 18%, an alarm sounded and the space was evacuated and reset. Visitors who entered the installation and experienced the discomfort of dyspnea, were confronted with the stark reality that, while the doors of the white cube could open to provide an escape, there is no such exit on a planetary scale.

While Parsons-Lord worked exclusively with gases to create experiential timelines of atmospheric changes, other artists have engaged with a broader range of sensory modalities to evoke different air-times. One such example is the art-science project *Atmosphère primale*, led by French artist Edwige Armand in collaboration with members of the non-profit organization Passerelle Arts Sciences Technologies¹⁰. Initiated in 2019 and exhibited in its final form at the Musée du Saut du Tarn (France) in 2024, this project immersed audiences in the atmospheric conditions of seven geological epochs –from the planet’s formation 4.5 billion years ago to a speculative

(yet plausible) future based on the latest Intergovernmental Panel on Climate Change (IPCC) report.

Guided by the question, ‘how can we breathe the Earth’s unbreathable atmospheres’, the creative team decided to engage with ‘atmospheric qualities’ beyond mere (un)breathability, drawing on a multisensory approach. Each epoch was assigned a color—green for the Devonian era, red for the hot Triassic period, blue for the Holocene, etc.—and was paired with a soundscape and a scent. However, rather than attempting to replicate the atmospheric ‘smellscapes’ (Gade, 1984; Porteous, 1985) of these epochs—many of which would not even have allowed breathing, let alone smelling—the team instead used a combination of odorants, mist, and temperature modulations to emulate the sensory qualities of these atmospheres: extreme heat, humidity, dryness, cold, etc. The Snowball Earth period (-720 to -635 million years ago), for instance, was represented by a blend of eucalyptus, ginger, peppermint, silver fir and lemon. Beyond pure olfaction, several molecules in the formula provoked a sharp, cooling sensation through the activation of the trigeminal nerve¹¹.

Although the sense of smell alone can “mediate the atmospheric matter in which the human body is immersed” (Baudequin & Cassin, 2024, p. 51), it did not function autonomously in *Atmosphère primale* but instead intersected with other sensory modalities to create a layered, trans-modal experience of Earth’s atmospheres that extended beyond mere representation. In the immersive installation *Espace sensible*, the culmination of the project, four atmospheres were ‘staged’ sequentially, each filling the space—a simple white cube with a sandy floor—with corresponding scents, sounds, lighting, and other environmental conditions¹². In the *Snowball Earth* segment, a white mist enveloped the room while a glacial soundscape played in the background, reinforcing the physiological perception of cold induced by the scent. For the ‘post-Anthropocene’ epoch, a foreboding purple haze and unsettling smoky scent—with a distinctively artificial note of melted caramel—suggested an upcoming atmosphere thick

with industrial emissions, bordering on the unbreathable, on a planet where the continuous rise in CO₂ emissions have led to global warming above the tipping point of 2°C.

Albeit in different ways, both Parsons-Lord's and Armand *et al.*'s projects translate geochemical data and scientific projections into experience. Drawing away from mere representationalism, their approaches explicate atmospheric re-configurations 'from the inside', by engaging the breath, the chemical senses and other bodily perceptions besides vision, fully embracing the non-representability of atmospheres. Through intimate and felt encounters with air's evolving materialities, their works provide audiences with a sense of both embodied and embedded temporalities, addressing the challenges of 'planetary' thinking (Garcia-Gonzalez *et al.*, 2024). As Armand suggests, such projects are about "re-learning to live in durations, not fragments of successive moments" (Armand *et al.*, in press)—and taking responsibility for the short and long-term consequences of human activities on the atmosphere.

THE LIFE (AND DEATH) OF PLANTS

By explicating the tangible effects of the shifting balance between oxygen and other gases in the atmosphere over (non-linear) time, the works previously discussed highlight the fragility of the material (gaseous) conditions that sustain aerobic life—human in particular. Other artists have created artworks that more directly engage with past, present, and future air as shared and co-constructed with other-than-human beings, through "re-sensitising our bodies to the multispecies smellscape that support all life on Earth" (Davies, 2023, p. 120).

The fluctuations of Earth's atmosphere are indeed intrinsically linked to both geological and biological activity. As postulated by the (debated) Gaia hypothesis in the 1970s, the organic and the inorganic are deeply integrated, functioning

together as a complex, self-regulating system that maintains the conditions for life on the planet¹³. The extreme thermodynamic disequilibrium of Earth's atmosphere, in particular, results from the activities of living organisms, which both produce and depend on the air, using it as a resource as well as a repository for waste (Lenton, 2003). Therefore, we all inhale the byproducts of other living creatures, first and foremost, plants, the original architects of atmospheric oxygenation. As Emanuele Coccia writes in *The Life of Plants*, the leaf is “the climatic laboratory par excellence, the oven that produces oxygen and frees it into space, the element that renders possible the life, the presence, and the mixture of an infinite variety of subjects, bodies, histories, and worldly beings” (Coccia, 2019, p. 33).

However, plants themselves are now affected by anthropogenically driven environmental changes, particularly rising temperatures and increased CO₂ levels. In a warming climate, abiotic stress alters plant metabolism and their emissions of biogenic volatile organic compounds (BVOCs). In 2023, American artist-scholar Allie E.S. Wist explored the relationship between human-driven climate change and biogenic emissions in her installation *Drought Atmosphere*, drawing on research that proves heat stress significantly increases plants' emissions (Laothawornkitkul *et al.*, 2009; Zhao *et al.*, 2017; Rinnan *et al.*, 2020) which, in turn, impacts air quality and climate. A 2022 study revealed that the chiral forms of certain plant monoterpenes –such as alpha-pinene, beta-pinene, and limonene, which are all fragrant to the human nose– are increasingly released by trees during droughts, seemingly as an adaptive mechanism to seed clouds and induce rainfall (Byron *et al.*, 2022). Inspired by this discovery, Wist blended perfume-grade versions of these compounds to be sprayed inside a green plexiglass box suspended from the ceiling. By placing their heads inside this *aromatorium*, visitors could get a whiff of what might soon be the dominating smellscape of forested areas if global temperatures continue to rise: no longer shaped by healthy vegetal life but by plants' distress on a warming planet¹⁴.

Although minimal in form, Wist's work underscores a critical yet often overlooked reality: both the gaseous composition and the sensuous qualities of the air are inextricably tied to the lives of Earth's human and non-human inhabitants. What we might perceive as a simple smell can, in fact, reflect alarming environmental shifts and indicate the increasingly precarious living conditions of other air-bound creatures. As habitats deteriorate and organisms struggle to adapt or disappear, their chemical contributions to the atmosphere shift, or vanish altogether.

This phenomenon –the link between biodepletion and the reformation of atmospheric perceptible qualities– was already observed in 19th-century North-America by Henry David Thoreau, who lamented in *A Week on the Concord and Merrimac Rivers* that “the gales do not at present waft to the voyager the natural and original fragrance of the land, such as the early navigators described [because of] the loss of many odoriferous native plants, sweet-scented grasses and medicinal herbs, which formerly sweetened the atmosphere, and rendered it salubrious” (Thoreau, 1849, p. 374). Such alterations or simplifications of bioregional smellscape are now being studied by conservation scientists as they can negatively impact ecosystems, considering that plants, bacteria, insects, and other animals rely heavily on chemical cues for survival (Renou *et al.*, 2021). Faced with such manifold implications, we are beginning to understand how much we still don't know about the cascading and feedback effects of current atmospheric reconfigurations.

Based in Sydney –on the lands of the Gadigal people of the Eora Nation– multi-disciplinary artist Anna May Kirk similarly reflected on shifting aircapes in relation with vegetal life in *Letting Leak* (2019), an installation presented at the Casula Powerhouse Arts Centre. Before its conversion into an exhibition space, the venue was a functional coal-burning powerhouse. Kirk thus engaged with the building's industrial history to craft a narrative around climate change. “Here, she writes, the deep past evaporated into the present, filled with the potential to climatically alter the future” (Kirk, 2019, para. 1).

Australia's black coal formed approximately 299 million years ago during the Permian Period, originating largely from plant matter that accumulated during The Great Dying. Today, in the midst of the sixth mass extinction event, the combustion of this ancient vegetation turned into rock is a major contributor to climate change, with coal burning accounting for 40% of global greenhouse gases emissions (Ritchie *et al.*, 2020). *Letting Leak* telescoped these planetary and temporal scales, intertwining deep time and human time in a single, minimal-looking installation: water vapor leaking from an air grid on a red platform in the middle of the exhibition space. This barely visible mist, subtly recalling the steam produced by active coal-plants and the fumes of fossil fuel combustion, was scented to evoke three distinct periods.

For the Permian period, the artist selected notes of fern, moss, wet earth and pine –aromas unearthing the lush swampy forests covering the continent at the time (Finch & Finch, 2022). Dominating these ancient landscapes were *Glossopteris* trees, an extinct group whose softwood resembled *Araucariaceae* conifers but were distantly related to seed ferns –explaining the artist's choice to incorporate both fern and pine notes. The present was encapsulated by the familiar scents of local flora, including eucalyptus, wattle, wild fennel, tea tree, native violet, gymnea lily, and indigofera. For the future, Kirk assembled a darker aromatic palette –smoke, dry grass, weeds, and blackberry¹⁵– conjuring an Australian landscape devastated by wildfires and heatwaves, where only the most resilient species endure¹⁶. By using botanical smellscape to evoke and hybridize different air-times, “by dissolving past and future into the sensorial present” (Abram, 1997, p. 206), Kirk underscored the fundamental reciprocity between atmosphere and plant populations while insisting on their vulnerability to abnormally rapid climate changes. To continue burning coal and other fossil fuels isn't just polluting the atmosphere, it is to burn and condemn the very organisms that shape the air as we know it. Rather than employing pollution scents to instill a sense of the air's toxicity in

our own bodies, as seen in other olfactory artworks (Muller, 2021), Kirk's approach shed light on the consequences of our actions on other-than-human beings –beings upon whom our own survival ultimately depends.

Positioning the act of breathing within both a situated and planetary ecology, Wist and Kirk remind us that we never breathe alone, affirming our embedment in the 'conspiring'⁷⁷ biotic community: we only breathe 'with' and 'amongst'. Through their use of odorous materials extracted from or inspired by plants, their works also illuminate the complex interactions and enmeshments between anthropogenic and biogenic emissions of various natures: the atmosphere is not merely a collection of gases but a shared and dynamic medium, a space of multispecific chemical communications, exchanges and reciprocal influences, that materially and sensorially records –as well as enforces– life's entanglements and evolutions.

CONCLUSION

As the emergence of breathable art in the 1970s coincided with the rise of ecological awareness in political and public discourse, the multiplication of such artworks in the last decade reflects the now absolutely critical need to rethink our being-in-the-world as a "being-in-the-air", or, more precisely, as a collective and multispecific "being-in-the-breathable" (Sloterdijk, 2009, p. 48). Whether they use gases or odorous molecules, these works that are primarily meant to be inhaled are fostering a renewed, embodied understanding of air, "that embraces vulnerability, interconnectedness, and materiality" (DiCaglio, 2022, p. 59). Finally, as they engage though the breath with the reconstructed or fictionalized materialities and qualities of atmospheres –past, present and future– the artworks discussed in this article also function as "interscalar vehicles" (Hecht, 2018, p. 113), opening up our imagination, connecting disparate

temporalities and scales, and allowing us to move through deep time and human time simultaneously in an air that is an abstraction no longer.

ACKNOWLEDGEMENTS

This article was written after an oral communication titled *Breathe in! Imagining our Atmospheric Futures*, given at the 56th International AICA Congress, *Becoming Machine, Resisting the Artificial. Art in the Present Tense*, Bucharest, Romania, November 4-9, 2024.

FUNDING

The author received no financial support for the research, authorship, and/or publication of this article.

NOTES

1 The air that makes up the protective atmosphere of the Earth is constituted of a combination of gases (nitrogen, carbon dioxide, oxygen, argon, as well as other noble and greenhouse gases) carrying water vapor, biogenic and anthropogenic VOCs, particulates, and large quantities of micro-organisms sometimes referred to as the *aerobiome*. Given the complex and unfixed material composition of air over space and time, scholar Nerea Calvillo (2023) suggests to use the plural “airs” (p. 24) to orient attention to the variations of this multiscalar, ever-evolving mixture.

2 This work is sometimes jointly attributed to Gordon Matta-Clark and Chilean artist Juan Downey. According to other sources however, the work seems to have been the initiative of Matta-Clark alone, under the pseudonym of George Smudge. When asked about this, Liza Béar, who was close with both artists at the time and *used the Fresh Air Cart* herself, stated that she had never heard that Downey was involved in the project and had never seen him near the work (Personal communication with Liza Béar over the phone and by email, May 2020). In fact, it seems that Downey did not initiate the project but produced the video documentation.

3 One can wonder what “clean,” “fresh,” or “pure” air entails. Gordon Matta-Clark seems to have simply reduced breathable air to its most important

basic gaseous constituents, N₂ and O₂, eliminating the 1% of other gases and all the non-gaseous components which can be found in the troposphere, the layer of Earth's atmosphere closest to the ground. If such a material *simplification* can be considered as "fresh air" is open for debate. In *Oxygen Bar* (2005), artist Laurie Palmer referenced Matta-Clark's performance but used *Panicum virgatum* to produce the oxygen being breathed in by passerby in the streets of Pittsburgh (Palmer, 2005).

4 In his notes for *Le Grand Verre*, made between 1912 and 1915, Marcel Duchamp had already imagined "establishing a society in which individuals would have to pay for the air they breathe (air meter); imprisonment and rarefied air in the event of non-payment, simple asphyxiation if necessary (cutting off the air)" (Duchamp, 1975, p. 47). Which also brings to mind Raemann's on-going project *Eviar*, transforming plastic water bottles of famous brands into oxygen bottles with breathing masks and capturing pictures of people wearing them. We can also cite the project *Air Slaves* (2017) by members of the new media lab Kitchen Budapest and Baltan Laboratories in Eindhoven, in which "the privatization or personal ownership of air, [was] questioned by inviting visitors to buy or sell clean air produced by the filtration of air through their own lungs." (Landau & Toland, 2022, p. 5) Unfortunately, as Greta Gaard (2022) explains, male *airpreneurs* have actually been monetizing and selling "clean air" for decades, "operating within a neo-liberal economic framework that supports air commodification" (p. 308).

5 Some might prefer to use other terms, such as Anthropocene, Chthulucene (Haraway, 2015), Plantationocene (Gilbert & Epel, 2015), Humilocene (Abram, 2020), Planthropocene (Myers, 2017), etc. My choice to favor the term Capitalocene — which posits that not all human groups are equally responsible for environmental degradations and destabilizations — stems from both personal convictions and the analysis of numerous breathable artworks which often closely associate atmospheric qualities with the socio-economical extractivist logics and systemic domination of neoliberal capitalism.

6 See the works of Peter de Cupere, Simon Lewandowski, Sissel Tolaas, Michael Pinsky, Amy Yao, Susie Kelly, Allie Wist, Lingling Zhang, the Center for Genomic Gastronomy...

7 In this article, *remembering* can be heard both in the sense of conjuring the on-going *forgetting of air* in our modern societies, and in the sense of *reconstructing past airs* in the discussed artworks.

8 "Futuring means thinking systematically about the future, drawing on scientific data, analysing trends, imagining scenarios (both plausible and unlikely) and thinking creatively. [...] Futuring is not predicting futures. It's a way of mixing informed projections with imaginative critical design to invite us to think differently about our current predicaments" (Cooper, 2020, para. 6 & 10).

9 Although this article doesn't allow enough space to discuss their works, other artists such as Cat Jones, agustine zegers or Katie Paterson have also engaged in atmospheric futuring, articulating fictional scenarios through inhalable materials.

10 For the creation of *Atmosphère primale*, Edwige Armand collaborated with composer Thierry Besche, olfactory designers Anne-Charlotte Baudequin and Émilie Bonnard, perfumer Pierre Bénard, assistant perfumer Stel-

la Obam, audionaturalist and sound-recorder Fernand Deroussen, graphic designer Sylvie Chambonnet, as well as Manfred Armand for lighting creation and Hadrien Albouy for the technical production. Scientists and researchers Yves Duthen, Frédéric Garcia, Yves Godderis, Catherine Jeandel, and Elise Nardin were also involved.

11 The trigeminal nerve is the fifth cranial nerve (CNV) which innervates the facial mucosa and the skin. It conveys sensory information arising from contact of a stimulus (physical, thermal, or chemical). It enables tactile, proprioceptive and nociceptive sensations, but also detects and conveys chemosensory signals generated from some ingested or inhaled substances, such as menthol or capsaicin.

12 The initial display of *Atmosphère primale* consisted of transparent smelling glass jars. Their bases broadcasted sound recordings filtered according to the various characteristics of sound propagation within each atmosphere. A video was also presented, showing the gaseous composition of each epoch being released from gas cylinders into the present atmosphere. Such a gesture is highly reminiscent of Robert Barry's *Inert Gas Series / Helium, Neon, Argon, Krypton, Xenon / From a Measured Volume to Indefinite Expansion* (1969), a performance during which the artist released rare gases into the air. Barry, however, was more interested in the invisibility, intangibility and infinite movement of gases than in the idea of acting upon the breath and breathing conditions of aerobic organisms.

13 The symbiotic relationship between organic life and the regulation of the climate and chemical composition of the air—meaning that life normally creates and regulates the conditions for its own existence—was formulated by James Lovelock (1972) and Lynn Margulis as the Gaia Hypothesis. It has been equally embraced and debated ever since by the scientific community.

14 Wist's *Drought Atmosphere* is the counterpart for *Extinct Aromatorium*, which relies on the smell of the Gros Michel banana which has almost disappeared because farmers largely favored the Cavendish banana after the 1950s epiphytosis of *Fusarium oxysporum*, a fungus that decimated Gros Michel banana plantations. Once more, futuring airspaces goes hand in hand with a form of remembering which entails “bringing back ‘ghosts’ of past ecological states” (Wist, 2022).

15 Introduced in Australia around 1840, blackberry plants were originally used to control soil erosion. However, due to their dense thickets and resilience, they quickly dominated native plants and are now considered an invasive weed of national significance.

16 By confronting geographically situated smellscape from the present and the future, *Letting Leak* also relied on both eco-anxiety and solastalgia. Whereas eco-anxiety refers to the fear of an uncertain future under climate change, solastalgia was coined by Australian philosopher Glenn Albrecht (2005) to describe the distress of witnessing familiar environments altered beyond recognition—a form of homesickness felt while still at home when the familiar is changing in negative ways. By explicitly drawing from Australian land to craft the scents of her work, Kirk even appeals to a form of “regional solastalgia”, “produced under the impact of gas fracking, mining, and agribusiness, as they bring unwelcome damage and pollution on a huge scale to ecocultural and bioregional landscapes.” (Albrecht, 2012)

17 Many thinkers have recently pondered upon the idea of *breathing-with* as literal “conspiracy” (Berardi, 2018; Choy, 2020; Macé, 2022) or “inter-breathing”: “the atmosphere of this Earth is an elixir born of the inter-breathing of our organism with all these other earthly organisms” (Abram, 2020, p. 18).

REFERENCES

- Abram, D. (1997). *The spell of the sensuous: Perception and language in a more-than-human world*. New York, NY: Vintage Books.
- Abram, D. (2010). In the depths of a breathing planet: Gaia and the transformation of experience. In I. Crist & B. Rinker (Eds.), *Gaia in turmoil: Climate change, biodepletion, and Earth ethics in an age of crisis* (pp. 221–242). Cambridge, MA: MIT Press.
- Abram, D. (2018). The commonwealth of breath. In L. Škof & P. Berndtson (Eds.), *Atmospheres of breathing* (pp. 263–276). New York, NY: State University of New York Press.
- Abram, D. (2020). Interbreathing ecocultural identity in the Humilocene. In T. Milstein & J. Castro-Sotomayor (Eds.), *Routledge handbook of ecocultural identity* (pp. 5–25). New York, NY: Routledge.
- Air Art. (1968). (W. Sharp, Ed.). *Air Art* (Exhibition catalog: Philadelphia & four other cities, March 13, 1968–March 18, 1969). New York, NY: Kineticism Press.
- Albrecht, G. (2005). ‘Solastalgia’: A new concept in health and identity. *PAN: Philosophy Activism Nature*, 3, 44–59.
- Albrecht, G. (2012, August 7). The age of solastalgia. *The Conversation*. Retrieved November 4, 2024, from <https://theconversation.com/the-age-of-solastalgia-8337>
- Armand, E., Baudequin, A. C., & Bonnard, E. (in press). Projet Atmosphères primales ou Respirer l’irrespirable atmosphère de la Terre depuis sa formation. In P. Beaucé (Ed.), *Respire: Esthétique de la respiration et culture de la qualité de l’air*. Paris, France: Les Presses du réel.
- Bachelard, G. (2016). *L’air et les songes: Essai sur l’imagination du mouvement*. Paris, France: Le Livre de Poche. (Original work published 1943).
- Bakke, M. (Ed.). (2006). *Going aerial: Air, art, architecture*. Maastricht, Netherlands: Jan van Eyck Academie.
- Baudequin, A.-C., & Cassin, S. (2024). Les Flâneries sensibles: Une expérience habitante de l’olfaction. In A.-C. Baudequin, S. Cassin, E. Maillet, K. Rondou, M. Termite, & K. Shpiner (Eds.), *Poétique du parfum: Théorie des odeurs dans les arts et la littérature* (pp. 11–84). Paris, France: Éditions Marie Delarbre.
- Benton, M. J. (2003). *When life nearly died: The greatest mass extinction of all time*. London, UK: Thames & Hudson.
- Berardelli, J., & Niemczyk, K. (2021, March 4). The Great Dying: Earth’s largest-ever mass extinction is a warning for humanity. *CBS News*. Retrieved July 9, 2021, from <https://www.cbsnews.com/news/great-dying-permian-triassic-extinction-event-warning-humanity/>

- Berardi, F. (2018). *Breathing: Chaos and poetry*. South Pasadena, CA: Semiotext(e).
- Brace, G. (Ed.). (2017). *Air: Visualising the invisible in British art, 1768-2017*. Bristol, UK: Sansom and Company.
- Burnham, J., & Haacke, H. (1967). *Wind and water sculpture*. Evanston, IL: Northwestern University Press.
- Burroughs, J. (1915). *The breath of life*. Boston, MA: Houghton Mifflin Company. Retrieved January 10, 2024, from <https://www.gutenberg.org/files/18335/18335-h/18335-h.htm>
- Byron, J., Kreuzwieser, J., Purser, G., van Haren, J., Nemiah Ladd, S., Meredith, L. K., Werner, C., Williams, J. (2022). Chiral monoterpenes reveal forest emission mechanisms and drought responses. *Nature*, 609, 307–312.
- Calvillo, N. (2023). *Aeropolis: Queering air in toxic polluted worlds*. New York, NY: Columbia University Press.
- Choy, T. (2020). A commentary: Breathing together now. *Engaging Science, Technology, and Society*, 6, 586–590.
- Coccia, E. (2019). *The life of plants: A metaphysics of mixture*. Cambridge, UK: Polity Press.
- Connor, S. (2017, June 13). *Next to nothing: The arts of air* [Lecture transcript]. Lecture presented at Art Basel. Retrieved July 20, 2021, from <http://stevenconnor.com/airart/airart.pdf>
- Cooper, C. M. (2020, January 31). 'Futuring' can help us survive the climate crisis. *The Conversation*. Retrieved February 10, 2025, from <https://theconversation.com/futuring-can-help-us-survive-the-climate-crisis-and-guess-what-youre-a-futurist-too-130538>
- Davies, L. S. (2023). *Precarious smellscape: Deepening our olfactory understanding of slow violence; sustaining more-than-human futures* (Master's thesis). Queensland University of Technology, Brisbane, Australia.
- Descola, P. (2013). *Beyond nature and culture* (J. Lloyd, Trans.). Chicago, IL: The University of Chicago Press. (Original work published 2005).
- DiCaglio, S. (2022). Towards an olfactory rhetoric: Scent, affect, material, embodiment. In A. A. Knoblauch & M. E. Moeller (Eds.), *Bodies of knowledge: Embodied rhetorics in theory and practice* (pp. 57–73). University Press of Colorado. Retrieved November 4, 2024, from <http://www.jstor.org/stable/j.ctv2nv8coc.8>
- Duchamp, M. (1975). *Duchamp du signe: Écrits*. Paris, France: Flammarion.
- Finch, M., & Finch, E. (2022, February 20). How Australia's geology gave us an abundance of coal - and a wealth of greentech minerals to switch to. *The Conversation*. Retrieved February 6, 2025, from <https://theconversation.com/how-australias-geology-gave-us-an-abundance-of-coal-and-a-wealth-of-greentech-minerals-to-switch-to-173988>
- Fressoz, J. B. (2016). L'anthropocène et l'esthétique du sublime. In H. Guenin (Ed.), *Sublime, les tremblements du monde* (p. 45). Metz, France: Centre Pompidou-Metz.
- Gaard, G. (2022). (Un)storied air, breath and embodiment. *ISLE: Interdisciplinary Studies in Literature and Environment*, 29(2), 295–322.
- Gade, D. (1984). Redolence and land use on Nosy Be, Madagascar. *Journal of Cultural Geography*, 4(2), 29–40.

- Garcia-Gonzalez, F., Ripple, W. J., & Malo, A. F. (2024). Scientists' warning to humanity for long-term planetary thinking on biodiversity and humankind preservation: A cosmic perspective. *BioScience*, 74(2), 82–85.
- Gilbert, S. F., & Epel, D. (2015). *Ecological developmental biology: The environmental regulation of development, health, and evolution* (2nd ed.). Sunderland, MA: Sinauer Associates, Inc. Publishers.
- Haraway, D. (2015). Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making kin. *Environmental Humanities*, 6, 159–165.
- Herwig, O., & Thallemer, A. (2005). *Air: Unity of art and science*. Stuttgart, Germany: Arnoldsche Art Publishers.
- Hecht, G. (2018). Interscalar vehicles for an African Anthropocene: On waste, temporality, and violence. *Cultural Anthropology*, 33(1), 109–141.
- Hodenfield, J. (1972, September 9). Street gets a breath of fresh air. *The New York Post*.
- Holley, A. (1999). *Eloge de l'odorat*. Paris, France: Odile Jacob.
- Horn, E. (2022, April 22). The case of air. *Anthropocene Curriculum*. Retrieved February 6, 2025, from <https://www.anthropocene-curriculum.org/contribution/the-case-of-air>
- Irigaray, L. (1999). *The forgetting of air in Martin Heidegger* (M. B. Mader, Trans.). Austin, TX: University of Texas Press. (Original work published 1983).
- Kirk, A. M. (2019). Letting leak. *Anna May Kirk*. Retrieved November 1, 2024, from <https://annamaykirk.com/Letting-Leak>
- Knebusch, J. (2008). Art and climate (change) perception: Outline of a phenomenology of climate. In S. Kagan & V. Kirchberg (Eds.), *Sustainability: A new frontier for the arts and cultures* (pp. 242–261). Frankfurt, Germany: Verlag für Akademische Schriften.
- Landau, F., & Toland, A. (2022). Towards a sensory politics of the Anthropocene: Exploring activist-artistic approaches to politicizing air pollution. *Environment and Planning C: Politics and Space*, 40(3), 629–647.
- Laothawornkitkul, J., Taylor, J. E., Paul, N. D., & Hewitt, C. N. (2009). Biogenic volatile organic compounds in the Earth system. *New Phytologist*, 183, 27–51.
- Lenton, T. (2003). Gaia hypothesis. In J. R. Holton (Ed.), *Encyclopedia of atmospheric sciences* (pp. 815–820). San Diego, CA: Academic Press.
- Lieutaghi, P. (1983). L'ethnobotanique au péril du gazon. *Terrain*, 1, 4–10.
- Lippard, L. (1973). *Six years: The dematerialization of the art object from 1966 to 1972; a cross-reference book of information on some esthetic boundaries*. New York, NY: Praeger.
- Locher, F., & Quenet, G. (2009). L'histoire environnementale: Origines, enjeux et perspectives d'un nouveau chantier. *Revue d'histoire moderne & contemporaine*, 56(4), 7–38.
- Lovelock, J. (1972). Gaia as seen through the atmosphere. *Atmospheric Environment*, 6, 579–580.
- Macé, M. (2022). Respirer, conspirer. *Carnets du Paysage*, 41, 11–21.
- Moon, K. (2019). From air to architecture: Michael Asher's early air works. In C. Berger (Ed.), *Conceptualism and materiality* (pp. 57–88). Leiden, The Netherlands: Brill.

- Morton, T. (2013). *Hyperobjects: Philosophy and ecology after the end of the world*. Minneapolis, MN: University of Minnesota Press.
- Muller, C. (2021). Eco-olfactory art: Experiencing the stories of the air we breathe. In G.-A. Lynn & D. R. Parr (Eds.), *Olfactory art and the political in an age of resistance* (pp. 65–75). New York, NY: Routledge.
- Myers, N. (2017). From the Anthropocene to the Planthropocene: Designing gardens for plant/people involution. *History and Anthropology*, 28(3), 297–301.
- National Academies of Sciences, Engineering, and Medicine. (2016). *The future of atmospheric chemistry research: Remembering yesterday, understanding today, anticipating tomorrow*. Washington, DC: The National Academies Press.
- Nixon, R. (2011). *Slow violence and the environmentalism of the poor*. Cambridge, MA: Harvard University Press.
- Olwig, K. R. (2011). All that is landscape is melted into air: The 'aerography' of ethereal space. *Environment and Planning D: Society and Space*, 29(3), 519–532.
- Palmer, L. (2005). Hays Woods / Oxygen Bar-Laurie Palmer. In J. Auses, G. Kester, & J. Strayer (Eds.), *Ground works: Environmental collaboration in contemporary art* (pp. 148–153). Pittsburgh, PA: Carnegie Mellon University Press.
- Parsons-Lord, E. (2016). The confounding leaving. *Emily Parsons-Lord*. Retrieved August 20, 2021, from <https://www.emilyparsons-lord.com/#/the-confounding-leaving/>
- Parsons-Lord, E. (2021). *Air works: Air as material in contemporary installation and performance art in a time of climate emergency* (Doctoral dissertation). University of New South Wales, Sydney, Australia.
- Pierron, J.-P. (2023). *Pour une insurrection des sens: Danser, chanter, jouer, pour prendre soin du monde*. Arles, France: Actes Sud.
- Porteous, J. D. (1985). Smellscape. *Progress in Human Geography*, 9(3), 356–378.
- Rinnan, R., Iversen, L. L., Tang, J., Vedel-Petersen, I., Schollert, M., & Schurgers, G. (2020). Separating direct and indirect effects of rising temperatures on biogenic volatile emissions in the Arctic. *Proceedings of the National Academy of Sciences*, 117(51), 32476–32483.
- Ritchie, H., Rosado, P., & Roser, M. (2020). CO₂ emissions by fuel. *Our World in Data*. Retrieved February 4, 2025, from <https://ourworldindata.org/emissions-by-fuel>
- Renou, M., Sordello, R., & Reyjol, Y. (2021). La biologie de la conservation doit-elle prendre en compte les paysages odorants?. *Sciences Eaux & Territoires*, (74, hors-série), 1–6.
- Sloterdijk, P. (2009). *Terror from the air* (A. Patton & S. Corcoran, Trans.). Los Angeles, CA: Semiotext(e). (Original work published 2002).
- Tani, E. Y. (2022). Darkening atmospheres. *Venti*, 1(1). Retrieved March 5, 2024, from <https://www.venti-journal.com/ellen-tani>
- Thoreau, H. D. (1849). *A week on the Concord and Merrimac Rivers*. Retrieved March 5, 2024, from <https://www.gutenberg.org/cache/epub/4232/pg4232-images.html>

- United Nations. (1972). *Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972 (A/CONF.48/14/Rev.1.)*. New York, NY: United Nations.
- Wist, A. E. S. (2022, August 9). Sensory knowledge for changing landscapes. APRIA. Retrieved September 20, 2024, from <https://apria.artez.nl/sensory-knowledge-for-changing-landscapes>
- Zhao, D. F., Buchholz, A., Tillmann, R., Kleist, E., Wu, C., Rubach, F., Kiendler-Scharr, A., Rudich, Y., Wildt, J., & Mentel, Th. (2017). Environmental conditions regulate the impact of plants on cloud formation. *Nature Communications*, 8, Article 14067.

ADDITIONAL READINGS

- Alaimo, S. (2010). *Bodily natures: Science, environment, and the material self*. Bloomington, IN: Indiana University Press.
- Albano, C. (2022). *Out of breath: Vulnerability of air in contemporary art*. Minneapolis, MN: University of Minnesota Press.
- Böhme, G. (2021). Odeurs et atmosphères (V. Fraigneau, Trans.). In V. Fraigneau & X. Bonnaud (Eds.), *Nouveaux territoires de l'expérience olfactive* (pp. 211–218). Collion, Switzerland: Infolio éditions.
- Bruno, G. (2022). In the air: Atmospheric thinking. *Venti*, 2(2). Retrieved March 5, 2024, from <https://www.venti-journal.com/giuliana-bruno>
- Haraway, D. (2016). *Staying with the trouble*. Durham, NC: Duke University Press.
- Husberg, H. (2021). *Troubled atmosphere-On noticing air* (Doctoral dissertation). Akademie der bildenden Künste Wien, Vienna, Austria.
- Ingold, T. (2012). The atmosphere. *Chiasmi International*, 14, 75–87.
- Konrad, T. (Ed.). (2023). *Imagining air: Cultural axiology and the politics of invisibility*. Exeter, UK: University of Exeter Press.
- Stoknes, P. E. (2015). *What we think about when we try not to think about global warming: Toward a new psychology of climate action*. White River Junction, VT: Chelsea Green Publishing.

Article available at

DOI: 10.60923/issn.2724-2463/21529

How to cite

Muller C. (2025). Materially Imagining Earth's Atmospheres: Remembering/Futuring the Air in Breathable Artworks. *img journal*, 12, 366-389.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

ENVIRONMENTAL THERAPY THROUGH ART PRACTICES: MEMORY, AGENCY, AND THE CARE OF WOUNDED PLACES

Nuvola Ravera

Albertina Academy of Turin

New Media and Critical-Curatorial Practices of Contemporary Creation program

nuvola.ravera@gmail.com

ENVIRONMENTAL THERAPY

ARTISTIC PRACTICES

SITUATED AND SPECULATIVE CARE

WOUNDED PLACES

AFFECTIVE ECOLOGIES

This paper explores the concept of *Environmental therapy* through a dialogue between philosophical perspectives, artistic practices, and speculative approaches to care. Expanding beyond the human subject, *Environmental therapy* considers the environment itself as an active participant in processes of transformation, bearing memory, trauma, and agency. Drawing from new materialist theories, hauntology, and affect studies (Barad, Ingold, Bennett, Haraway, Gordon), the research examines how artistic interventions engage with wounded landscapes, abandoned sites, and repressed histories, addressing their psychic residues and perceptual imprints. Through a selection of contemporary art case studies, including the *Don't Follow the*

Wind exhibition in Fukushima's exclusion zone, olfactory and atmospheric projects (Tolaas, Assaël), and choreographic explorations by La Tierce or El Conde de Torreñiel, the paper investigates artistic methodologies that activate latent memories and generate reciprocal processes of care between humans and environments. Finally, the paper critically examines the ethical challenges of such approaches, questioning the risks of romanticization, anthropomorphism, and extractive aesthetics. By framing environmental therapy as a hybrid and relational practice, this study suggests that artistic and performative interventions might foster new ways of sensing, remembering, and co-inhabiting fragile ecologies.

INTRODUCTION

This essay departs from the observation that certain artistic practices—particularly those engaging with wounded places, atmospheric traces, and latent memories—can give form to new modes of care. What if therapy were not a clinical act, but a speculative and performative gesture extended toward the environment itself? The notion of *environmental therapy* explored here emerges from this question. Rather than proposing a healing protocol, it suggests a relational posture of attentiveness, where artists become interlocutors in ecosystems marked by trauma, repression, or abandonment.

Drawing from philosophical perspectives and contemporary artistic practices, the environment is approached not as a passive backdrop or resource, but as a complex subject-endowed with memory, agency, and perceptual intensity. In this sense, *environmental therapy* can be situated within a lineage of thought on care and self-transformation, from ancient philosophical exercises to Foucault's *Care of the self*, through James Hillman's *Anima Mundi*, and into new materialist and feminist theories of affect, performativity, and multispecies entanglement (Barad, Ingold, Bennett, Haraway, Gordon). These frameworks offer a hybrid ground to understand how art—beyond representation—might activate subtle processes of reciprocal sensing, atmospheric listening, and co-presence with damaged environments.

This work examines artistic projects engaging with psychic residues, perceptual imprints, and environmental traumas. Many contemporary artists and collectives conduct long-term research in relation to *wounded places* (Till, 2008)—locations affected by severe pollution, urban stress, historical trauma, repressive institutions, abandonment, and decay. These sites are not just physical locations but carriers of memory, shaping collective transformation. Through selected case studies—including the *Don't Follow the Wind* exhibition inside Fukushima's exclusion zone, the creation

of atmospheric environments that make the invisible perceptible (S. Tolaas, M. Assaël), the possibility of generating demiurgic works, performances in dialectic with specific spaces (collective La Tierce, collective El Conde de Torrefiel), and collaborative projects that engage institutions as suffering subjects (D. Garcia, D. Mangano)—this research will explore how artistic devices can activate latent memories, give form to invisible forces, and potentially foster a reciprocal process of care between humans and their environments.

Finally, the essay will briefly address the ethical challenges and the risk of romanticization. If we speak of places as subjects, of landscapes, cities, and wounded areas, we must continually ask: *who cares for whom, and to what end?* Furthermore, there is the risk of projecting human needs onto nature (or vice versa) in a way that oversimplifies or idealizes complex socio-ecological issues. The conclusion reflects on the ethics of care and the caution needed to ensure environmental therapy remains a responsible practice, avoiding naïve idealism.

In sum, the aim is to articulate a rigorous yet imaginative interpretation of *environmental therapy*, where philosophical insight and artistic practices intertwine—an analysis enlivened by poetic reflection, engaging both material and atmospheric dimensions of ecosystemic experience.

The term environmental therapy is used here critically—not as a clinical or psychological protocol, but to suggest a speculative and performative posture of reciprocal care. Rooted in etymological and philosophical traditions of care, this concept challenges biomedical models that often disregard ecosystems, more-than-human agencies, and multi-species interdependence.

The seed for the hypothesis of *environmental therapy* through artistic and performative practices was planted within a personal art-research project developed in Venice in 2017, titled “Big Babol”. Here, the concept of the psyche of places was explored—common to various cultures under different names. Venice and its lagoon were considered in this project as a living organism.

Fig. 1 Nuvola Ravera, *Big Babol*.
2017- 2023.
Edible gelatin sculptures
made from Venetian lagoon
water. The installation
explores the psyche of place
through olfactory, sculptural,
and performative elements. It
enacts a speculative dialogue
with the wounded lagoon,
embodying environmental
therapy as relational sensing.
Rebaudengo, Fondazione
Sandretto Torino.



The project developed both in the studio and in direct engagement with the lagoon's territory, thanks to a collaboration with Gestalt psychotherapist L.C. This exchange pushed the boundaries of the traditional therapeutic setting, moving outside the studio to conduct *en plein air sessions*, treating landscapes and ecosystems as active subjects-hypothetical patients with suppressed figures to be unearthed (Figure 1).

Through 'three-way dialogues' –between the city, the therapist, and the artist– the work took shape as a multi-elemental narrative that extracted fragments of discourse,

atmospheres, and anatomies from the city. This process involved deep listening to intercept flows, air currents, tidal breaths, and overheard conversations, alongside material sampling: collecting water to transform into edible sculptures, creating casts of the city's anatomical parts, and making negative rubbings of surfaces using charcoal derived from the briccole (Venetian wooden poles). From this initial project—based on a presumed dialogue with a non-human patient, inherently unverifiable and fallible—emerged an interest in questioning the environment as part of a reciprocal care process¹. By contaminating soft and hard sciences through the lens of artistic devices, this research seeks to establish a relational inquiry with invisible fragments of the world as interlocutors, considering their historical and environmental wounds.

This combined approach ensures that artistic gestures are not merely described, but interpreted through a dialogical framework. The case studies were selected for their ability to activate gestures of care toward specific places. Here, the term *environmental therapy* is not used in a clinical or technical sense, but as a speculative and performative construct—emerging at the intersection of ecology, care, and artistic agency. Rather than proposing an actual therapeutic protocol, it serves as a conceptual device to imagine reciprocal processes of transformation. While the findings are not statistically generalizable, these examples show how art can catalyze transformative relationships between human and non-human subjects.

This methodological framework, while not without limitations—among them those of autoethnography: the artist-researcher is both observer and directly involved, which can generate perceptual and interpretative biases, as well as the impossibility of quantitatively measuring any actual ‘healing’—offers a lens to explore the transformative role of artistic practice and its ethical-political dimension. In the following sections, we will explore specific artistic case studies and their role in activating environmental memory

and care, followed by a critical discussion on ethical challenges and the implications of this approach.

PHILOSOPHICAL GROUNDING: CARE OF THE SELF, WORLD, AND MORE-THAN-HUMAN

Although this essay primarily engages with fragments of Western philosophical traditions, it is important to acknowledge Eastern and Indigenous perspectives on human-non-human care. For instance, Taoist and Buddhist teachings from the 4th century BCE emphasize living in harmony with the world² and many Indigenous cultures –from the Amazon to the Ande– perceive nature as a living, ensouled entity (Berkes, 2008). Despite emerging in different cultural contexts, these insights converge with certain ancient Western impulses: the idea that care of the self is not conceived in isolation but extends to an attentive engagement with the surrounding world.

Michel Foucault's *Le souci de soi* (1984) reintroduced care of the self as a transformative practice, not merely an individual attitude but a 'technology of the self' shaping subjectivity. For classical thinkers –from Socrates to the Stoics– self-care was a lifelong training of the soul, shaping one's way of inhabiting the world and relating to others. This care had both an individual and collective dimension, extending to one's way of inhabiting the world and relating to others. In this sense, self-care was inseparable from care for the community and the surrounding environment, as personal transformation always implied an interaction with the social and political context—a way to resist mechanisms of subjugation and create new ways of living based on awareness and ethical autonomy.

Similarly, philosopher Pierre Hadot, in *Philosophy as a Way of Life* (1995), described philosophy as a *therapy of the passions*, and the *spiritual exercises* of Hellenistic and Roman philosophical schools as ways of life aimed at healing and guiding the soul. If caring for oneself involves attention, discipline, and

Fig. 2 Chim↑Pom, Kenji Kubota, Eva & Franco Mattes, Jason Waite, *Don't Follow the Wind*, 2015-ongoing. View of the Fukushima exclusion zone, inaccessible site of the long-term exhibition. The landscape, contaminated by radiation, becomes both condition and co-author of the work.



compassion, could caring for the environment be understood in a similar way? Environmental therapy may rest on an ethos of care that merges self and world—an ‘ecological care of the self’ in which tending to the world becomes an integral part of tending to ourselves.

Hillman builds upon these ideas by extending psychoanalysis beyond its clinical framework and transforming it into a metaphorical and speculative tool for reawakening buried philosophical narratives, forgotten myths, and lost divinities. Hillman's *Anima Mundi* resacralizes the world, resisting modernity's disenchantment. His critique stems from the premise that contemporary society suffers not only from a loss of soul within individuals but from a *loss of soul in the*

Fig. 3 Eva and Franco Mattes, Fukushima Texture Pack, 2015. Installation view from Don't Follow the Wind. The work reflects on digital materiality and invisible contamination, engaging environmental trauma through latency and absence. Courtesy of the artists.



world itself. In *The Thought of the Heart and the Soul of the World* (1992), he asserts that ignoring the aesthetic and emotional presence of the environment constitutes a pathology of modern life. Our daily indifference—failing to notice a poorly repainted building, the birdsong at dusk, or the neglected architecture of a neighborhood—reflects a *sensory anesthesia* and a neglect of the *Anima Mundi*, which was once central to premodern cosmologies.

For Hillman, the world is a psychic organism endowed with memory, desire, and suffering, capable of communicating through its material manifestations, from landscapes to urban structures. He suggests that therapy must extend beyond the psychotherapist's studio: healing processes should involve the "*care of the soul in the world*", awakening our active presence in places and recognizing that the world itself has a psyche.

If the world has a soul, then it may also have a voice and agency. Feminist and posthumanist theorists have expanded on this idea of more-than-human agency through multispecies and materialist perspectives. Donna Haraway, with her evocative and biologically rooted language, invites us to rethink care as a tentacular, multispecies responsibility, where humans, corals, pigeons, and lichens co-exist in fragile yet

generative entanglements. In *Staying with the Trouble: Making Kin in the Chthulucene*, she urges us to “stay with the trouble” rather than seek escapist salvation, embracing an art of *living on a damaged planet*. For Haraway, art is not a tool to fix nature, but a practice of worlding—of weaving new alliances and co-creating modes of survival between human and non-human partners. She proposes a speculative and relational approach where artistic and scientific practices intertwine, generating possible forms of collective regeneration and response to environmental devastation.

Similarly, new materialist thinkers such as Karen Barad and Jane Bennett emphasize that matter and environments are not inert substrates but active participants. Barad's agential realism (Barad, 2007) introduces the concept of intra-action, meaning that entities (people, objects, environments) co-constitute one another through their relationships—the world is constantly performing in interaction with us. Bennett (Bennett, 2010) likewise speaks of the vitality of matter, highlighting how even seemingly inanimate elements—such as metal or plastic—carry a certain agency, capable of influencing human bodies and decisions. In this perspective, the environment is performative: it acts, affects, and even remembers through its material configurations.

The notion of environmental memory resonates with Avery Gordon's concept of *haunting*. In *Ghostly Matters* (1997), Gordon describes haunting as an “*animated state in which a repressed or unresolved social violence makes itself known*”—often attaching to places where past traumas persist as an uncanny presence. Haunting suggests that environments can “*remember*” through their atmospheres and structures. Importantly, Gordon does not see *haunting* as an isolated, purely negative experience. Instead, it is a productive force that signals the breakdown of repression and the potential for transformative political action. When the ghost of an injustice appears—be it through the silence in a marginalized urban space or the palpable absence in a record of historical events—it compels both individuals and communities to engage in a process of

Fig. 4 Don't Follow the Wind,
Maintenance trip with flag
designed by Naohiro Ukawa,
Fukushima exclusion zone,
Japan, 2015.

The flag marks the
contaminated site and
sustains a dialogue of presence
and absence, making the
environment itself the
exhibition's gatekeeper.
Courtesy of the artists.



collective remembrance and, ultimately, redress. In this way, the ghost becomes a mediator, urging us to re-examine established power structures and to envision alternative futures that incorporate the voices of those who have been systematically silenced. Gordon's work enriches our understanding of therapy, showing that encountering the ghostly means not curing a static wound but about initiating an ongoing dialogue—a call to continually 'do something' in the face of persistent historical and material violence. This theoretical insight establishes the central premise of *environmental therapy*: that care of the self and care of the environment are not separate pursuits, but two interwoven facets of a holistic practice of healing and critical transformation³ (Guattari, 2000).

SENSING THE AGENCY, WOUNDS AND MEMORY

To consider the environment as an active subject means recognizing that landscapes and places are not static backdrops but dynamic entities, endowed with histories, capacities, and even their own wounds. Environmental therapy demands that places be treated not as mere settings for human action, but as protagonists—or at least as partners.

This implies acknowledging both environmental memory—the idea that environments ‘remember’ through physical imprints and the persistence of past events—and environmental trauma, meaning that sites can be ‘wounded’ by destructive events and carry that trauma into the future.

One way to understand environmental memory is by examining the sensory and material traces that remain. A striking example is olfaction: our sense of smell is neurologically linked to memory and emotion more directly than sight or hearing. The artist and scent researcher Sissel Tolaas has observed that *“smells are constantly used, consciously or unconsciously, as a means of communication between plants, animals, and humans. It is more strongly connected to memory than any other sense and is the most effective trigger of recollections and emotions”* (Tolaas, 2023). In her research, Tolaas collects volatile molecules from urban environments—ranging from the scent of an archaeological site to traces of pollution, the aromas of domestic kitchens, or human bodily odors—then reconstructs them in immersive installations. Scents act as invisible mnemonic archives of places⁴ (Figures 5-7), unlocking memories and atmospheres that often escape visual perception. In Tolaas’s work, the environment asserts its presence through scent; the city ‘speaks’ through its olfactory landscape, transmitting histories of industrial activity, cultural practices, or even collective anxieties. These olfactory projects demonstrate the agency of the environment in a visceral way: a single gust of wind can transport someone to a moment decades past or alert them to imminent danger. The environment communicates and influences us at a subconscious level, inducing memory and emotional response much like a skilled therapist might uncover a repressed recollection.

Beyond sensory traces, environments retain memory in tangible forms: ruins, residues, and scars. A damaged river, for instance, ‘remembers’ the culverting, diversions, and industrial spills that have poisoned its waters. An old building preserves the trace of past damage—blackened walls from a long-extinguished fire or bullet holes left by a conflict. Art-



Fig. 5 A thick layer of smog lies over the city of Puebla. A thick layer of smog over the city of Puebla to evokes the invisibility of environmental stressors and atmospheric toxicity—central themes in olfactory Sissel Tolaas art practices. Courtesy Jose Castanares / AFP/Getty Images.

ists and theorists often act as interpreters of these signs. Feminist geographer Karen E. Till, in her article *Artistic and Activist Memory-Work: Approaching Place-Based Practice* (2008), speaks of ‘wounded places’—sites marked by violence or loss—and argues that artistic and activist practices in these places can help communities recognize and transform how that memory is experienced.

Engaging with a *wounded landscape*—a site of detention, a former war zone, a neighborhood forcibly evicted, or an area struck by ecological disaster—requires attentiveness to what the environment itself expresses in its present state. Does an unsettling silence exist where activity and sounds once reigned? Do certain areas resist regrowth, as if the soil itself were mourning? While ecosystems do not experience pain in a human sense, they undergo disruptions, and they may collapse or recover. A forest might ‘grieve’ deforestation, as its biodiversity and network of relations suffer severe damage. When people later walk through that deforested area,

they often describe it as devastated, empty, or sad—human terms that project an emotional understanding onto an environmental reality. This tendency to emotionally characterize damaged environments highlights both the power and the risk of anthropomorphism. On the one hand, imagining an environment's perspective—a river that weeps, or a mountain that remembers—can be a useful exercise in empathy. It encourages us to extend ethical consideration and approach that place with humility and care. As mentioned earlier, many Indigenous cultures around the world have long treated landscapes as living and sentient entities, deserving of rituals of respect and healing when harmed.

On the other hand, projecting human emotions onto the non-human carries the risk of oversimplification. Pursuing this hypothesis of *environmental therapy* requires caution: perhaps it is less about claiming that the forest literally feels sadness and more about translating its signals, emanations and emissions to recognize an analogy between *wounding and healing*. A wounded environment may not experience pain as the human psyche codes, but it manifests dysfunction or imbalance that requires attention. In turn, the human communities connected to that environment experience suffering (grief, displacement, anger), so the trauma is, in a sense, shared across the boundary between human and non-human.

Another key aspect of considering the environment as a subject is agency – the ability to act and influence outcomes. Timothy Morton's concept of *hyperobjects* (2013) is particularly relevant in understanding wounded environments. Large-scale phenomena such as climate change or nuclear radiation are beyond human perception yet shape our material and emotional landscapes in ways that demand new forms of care and artistic intervention. The new materialist theories we previously mentioned, such as J. Bennett, draw inspiration among others, from Spinoza, who argued that “*all things are animate, though to varying degrees*”. These perspectives emphasize that agency is distributed; what we label as “inanimate” can still initiate events. Take

Fig. 6 Sissel Tolaas, *Talking nose* 2001. Still from the video, in which participants interpret olfactory samples from urban environments. Tolaas explores the mnemonic and affective dimension of smell. All images courtesy of the artist.



technological disasters, for example: the agency of uranium atoms splitting and releasing radiation was central to the Fukushima nuclear disaster in 2011. In the aftermath, the exclusion zone was shaped by the agency of radioactive isotopes, which rendered the land uninhabitable. The Fukushima environment itself became an active agent, 'deciding' (through radiation levels) that humans could not return for decades.

Among the selected case studies, *Don't Follow the Wind* stands out as a long-term exhibition inhabiting a contaminated site (Fukushima's exclusion zone), yet conceived as a performative space shaped by the environment itself. This exhibition, curated by the Tokyo-based collective ChimPom, Kenji Kubota, Eva and Franco Mattes, and Jason Waite, is installed within the Fukushima exclusion zone. Though officially 'open' since 2015, the exhibition remains inaccessible until radiation subsides.

In a sense, the curators have organized an exhibition where the environment itself is the 'guardian': for now, the works exist in an empty land, slowly deteriorating in toxic silence, seen only by a handful of workers engaged in cleanup operations or through video documentation. We might say that the persistent radiation co-creates the artistic statement—a powerful reflection on authorship, human



Fig. 7 Sissel Tolaas, *AirREborn BelowAbove*, 1994-2022
Interactive installation using wind sensors and olfactory emissions to create a responsive atmosphere. AirREborn suggests an immersive form of environmental communication. Image: ICA Philadelphia. Photo by Constance Mensh.

absence, and time. The project makes the invisibility of radioactivity and the forced absence of human life its central theme, making the environment an active participant in defining the conditions of reception.

Projects like *Don't Follow the Wind* blur the distinction between the environment as a passive stage and human artists as sole creators. The exclusion zone itself becomes a 'collaborator' in the exhibition. Such practices reinforce a key principle of environmental therapy: allowing the agency of a place to speak and guide the process. Instead of imposing a solution, the human practitioner (artist, therapist, community member) listens and works in resonance with the environment's dynamics.

The project does not seek to 'fix' the disaster—something only time and large-scale remediation efforts could achieve— but rather to mark it, render it visible, and keep the catastrophe present in the collective imagination. In

this conception, the work begins by standing in the site of crisis and listening to it, trusting that expressive acts (as secular rituals) may transcend language and communicate more deeply. These dynamics are visually (Figures 2-4), where the absence of human spectators, the contaminated site, and the decay of matter underscore the work's temporal and spatial inaccessibility.

Considering the environment as an active subject requires interpreting memory as something inscribed into landscapes, understanding trauma as a fracture within the living fabric of ecosystems and communities, and recognizing that agency is distributed across networks of life and matter. Environmental therapy, in this sense, does not merely seek to restore places to a previous state, but to acknowledge their wounds, listen to their signals, and engage in a process of mutual recognition and care.

MAPPING THE UNSEEN: ARTISTIC PRACTICES FOR WOUNDED SITES AND INSTITUTIONS

If certain places carry a powerful historical and ecological legacy –psychic residues of what has happened, perceptual imprints that shape how they are perceived and felt– how can artistic practices address these aspects? And can we also consider cultural institutions themselves as places that bear a traumatic legacy? In recent decades, many artists –often in collaboration with other disciplines– have actively sought methods to unearth hidden narratives, acknowledge or even ‘cleanse’ toxic energies, and ritualize potential processes of healing or *remembrance*.

K. E.Till has theorized this kind of engagement as place-based memory-work–actions that reveal and confront a site's layers of memory, frequently in collaboration with those who remember it or have been affected by its history (Till 2008). Together with artists, researchers, and scholars, Karen E. Till founded the international, interdisciplinary collective *Map-*



Fig. 8 Micol Assaël, *ILIOKATAKI NIOMUMASTILOPSARODIMAK OPIOTITA* 2014.

Interactive installation exposing electromagnetic instability and environmental discomfort. The work activates healing through disquiet by revealing latent tensions in built space.

ping *Spectral Traces*⁵ (Mapping Spectral Traces, n.d.). Time and again, this group explores the soil as both dwelling and threshold, creating a living archive of collective memories in which the traces of traumatic events, injustices, and forced removals inscribed in both institutional spaces and historical sites persist, even when they are not immediately visible. *Mapping Spectral Traces* has operated in various countries and contexts shaped by conflict and urban transformation, such as the divided neighborhoods of Belfast, post-apartheid townships in Johannesburg, and former border sites in Berlin. In these locations, artists and local communities have collaborated to make submerged memories tangible through performances, site-specific installations, and alternative cartographies, subverting the rigidity of Cartesian maps to restore the emotional and historical complexity of space—turning each location into a palimpsest of hidden stories.



Another form of alternative cartography might be that of S. Tolaas (Stavanger-Norway 1959), who creates *smellscales*. In the project *Talkin Nose* (2001), for instance, she reproduced the smell of Mexico City's smog in an olfactory map placed on the exhibition space walls using a scratch-and-sniff technique. She also presented a video showing participants' noses as they sniffed, and their mouths silently translating the invisible city. The projection was accompanied by an audio track, out of sync, with descriptions of scents such as sweet and old", 'rusty', 'pleasant, aromatic, light', 'fragrant, flowers and vanilla'. An exhibition atmosphere of this kind forces visitors to confront a reality that is often ignored, turning a passive sensory imprint (like the headache induced by polluted air) into a conscious experience. The point is not to distinguish between 'good' or 'bad' smells, but to reactivate an authentic, atmospheric, and emotional relationship with the environment—overcoming the perceptual anesthesia that frequently characterizes urban life.

A different yet complementary angle emerges in Micol Assaël's (Roma 1979) installations⁶ (Figure 8), where visitors find themselves confronting hostile microclimates, electromagnetic fields, and claustrophobic architectures. Rather than soothing the environment, M. Assaël's approach in projects such as *ILIOKATAKINIOMUMASTILOPSARODIMA-*

Fig. 9 La Tierce, *D'après nature*, 2018. Somatic performance transforming the stage into a sensitive landscape. Minimal movement and perceptual attention invite embodied attunement to micro-signals of place.



Fig. 10 La Tierce, 2025. Site-specific workshop exploring new ecologies of attention through body-space interaction. Inspired by Bruno Latour's concept of geopathy, the work engages affective landscapes as therapeutic terrains.

KOPIOTITA' (2014) (Curated by Andrea Lissoni in Hangar Bicocca, Milan) unsettles the public, revealing how underlying energies can distort our sense of security. If therapy sometimes demands confronting discomfort or 'unconscious material', Assaël's charged spaces become stimuli for the realization that the built environment is neither neutral nor passive. By exposing these latent and disturbing tensions, Assaël's work paradoxically opens up the possibility of 'healing through disquiet', highlighting how dependent we are on environmental forces we seldom question.

Following this idea of tuning into the intangible signals of places, other artists also engage wounded or "latent" environments as co-participants in a therapeutic dynamic. A similarly sensitive yet powerful strategy appears in the work of the French collective *La Tierce*⁸ (Bordeaux, 2013), whose choreographic research explores the relationship between body and object, perception and landscape. La Tierce's workshops foster micro-sensitivities: faint chemi-



Fig. 11 El Conde de Torrefiel, *La Plaza*, 2018.

Performance blending everyday gestures with choreographed presence. The urban square becomes a co-performer in revealing the affective climate of the city.

cal odors drifting by, silence in transitional urban spaces, or fleeting resonances of air currents. Through works such as their triptych on the body-object relationship and *D'après nature* (2018) –a piece that reconfigures the stage as a sensitive landscape to be traversed– La Tierce develops a practice of attunement that extends beyond traditional performance. Their work invites participants to engage in a state of heightened attention, moving through spaces not as passive spectators but as co-inhabitants of shifting environments. This embodied sensitivity is captured in figures 9-10, where performance and attention unfold as ecological attunement (Figures 9-10).

This exploration extends to their cycle of workshops on new practices of attention, which is freely inspired by Bruno Latour's concept of *geopathy*—an approach that rethinks the entanglement of bodies and environments in a state of mutual influence and affect. By investigating how movement, objects, and spatial configurations shape perception,



Fig. 12 El Conde de Torrefiel, *La Plaza*, 2018.

Another scene from *La Plaza*. The public space emerges as an active subject of emotional sedimentation, activated through repetition and collective presence.

La Tierce cultivates an embodied sensitivity that resonates with therapeutic approaches to place, memory, and ecological awareness. Their work suggests that to heal or care for a space is not to impose order upon it, but to learn how to move within its latent forces and vulnerabilities.

Lastly, El Conde de Torrefiel (Barcelona, 2010) offers a performative declination of environmental therapy in *La Plaza* (2018), transforming an ordinary urban square into an ephemeral stage for latent urban tensions. Passersby and volunteer performers become entwined in carefully choreographed scenes that highlight anxieties and emotional undercurrents of daily life. The environment—an apparently common square—reveals itself to be anything but neutral: it becomes an actor whose hidden narratives of conflict or complicity shape the performance. By activating this intangible dimension, *La Plaza* shows how a site can ‘participate’ in unveiling the psychic burdens of social spaces, prompting reflection and possibly new community bonds (Figures 11-12).

From the crises of the square embodied in El Conde de Torrefiel's work, we turn to caring for institutions and their dysfunctional, problematic postures through the artistic bodies of the following practitioners. Dora García (Valladolid 1965), with her project *The Inadequate* (2011) created for the Spanish Pavilion at the Venice Biennale, transformed the entire pavilion into a living archive and performative space, bearing witness to issues of marginality and exclusion. The artist drew on the legacy of anti-psychiatry and radical mental-health reformers such as Franco Basaglia, whose work in 1960s-70s Italy led to the closure of asylums and proposed a new vision of community care. *The Inadequate* shifted therapeutic processes onto a public scale, turning the exhibition pavilion into a space of listening and restitution for excluded subjectivities—replacing the idea of an exhibition with that of an occupation, and making the pavilion a stage for open conversations, monologues, and daily workshops enlivened by marginalized or critical voices.

This approach enabled psychiatric patients, political dissidents, and outsiders to enter an institutional space typically reserved for official hegemonic culture. García thus staged a genuine therapeutic encounter with the institution itself: the artistic space became a safe zone for exploring experiences often stigmatized by society. The pavilion was not an asylum, yet it became a metaphor for one, allowing the 'ghosts' of psychiatric history to manifest in the context of contemporary art. García's work demonstrates how artistic practice can address the psychic residues of the institution: the trauma of exclusion and silence pervading psychiatric history was, at least temporarily, brought to light and made audible.

CONCLUSION

ETHICAL CONSIDERATIONS IN ENVIRONMENTAL THERAPY THROUGH ART

This study suggests that artistic practices can play a crucial role in fostering new modes of environmental care,

provided they remain critically aware of their ethical responsibilities. The notion of *environmental therapy*, particularly when adopted by artists, should be understood not as a healing protocol, but as a speculative and relational practice that engages wounded sites through presence, attention, and ethical partiality. As such, it raises significant ethical questions: Who has the right to intervene in a place's trauma? How can artistic projects avoid exploiting or aestheticizing suffering? And how can we speak of 'healing' landscapes without falling into a romanticism that overlooks material conditions? When external artists use sites of trauma as mere aesthetic backdrops without engaging the local communities, they risk reinforcing extractive dynamics rather than fostering genuine care (Tronto, 2013).

The issue of care and consent is central. In traditional therapy, the patient consents to treatment. In the case of places and communities, consent is more complex. As feminist care theories suggest (Kittay, 2010; Tronto, 2013), attention, responsibility, and reciprocity are fundamental to an ethical approach. Artists should collaborate respectfully with residents, witnesses, and local authorities. The most meaningful initiatives involve local voices from the outset, aiming to bring tangible benefits rather than merely producing an artwork. For instance, in *Don't Follow the Wind*, some Fukushima evacuees were consulted, and an unusable farm was offered by its owner, who wished to let his land speak on behalf of the displaced. Similarly, Dora García has worked closely with psychiatric survivors. This approach embodies an ethics of care based on attentiveness, accountability, and reciprocity (Tronto, 2013), framing artistic creation as a relationship rather than a unilateral imposition, as outlined in feminist philosophy.

Conversely, when an artist arrives from 'outside', uses an emotionally charged location as a backdrop, and then leaves without ongoing engagement, the act risks becoming extractive or even re-traumatizing for local populations. Therefore, a key principle of ethical environmental therapy is that it

must be conducted *with* and *for* the community, not merely on the community.

Furthermore, idealizing nature and healing can slip into eco-romanticism, sidestepping uncomfortable realities: representing nature as benevolent, pure, or easily recoverable ignores its harsh aspects. Speaking *of* and *for* an environment in terms of 'wounds' and 'healing' may imply an assurance of recovery that, in some cases, is unrealistic. Certain damages—such as species extinctions or radioactive contamination—are irreversible on a human timescale. Defining a polluted river as a wounded being can inspire empathy, but if the political causes and responsible entities behind the pollution are not addressed, the result risks being an empty elegy. To counter this, many artists incorporate real data and testimonies.

Another issue in certain artistic discourses is the mystification of Indigenous or premodern environmental care practices without genuine understanding—an appropriation that superficially romanticizes spiritual concepts such as 'Mother Earth' or 'sacred land'. R. Braidotti and D. Haraway advocate for a posthumanism that respects diverse epistemologies without reducing spirituality to a reassuring stereotype. While Indigenous ecological knowledge holds profound insights, it must be engaged with respectfully and specifically, rather than being exploited as an abstracted, symbolic reference. An ethical practice would involve direct collaboration with Indigenous communities when referencing their lands or traditions—or at the very least, properly acknowledging their philosophies. It is also crucial to distinguish between metaphor and materiality. Declaring that 'the forest suffers' is a powerful image, but it does not imply conscious will. *Environmental therapy* is not a total remedy; it is most effective when accompanied by environmental justice, activism, and long-term policies. Arts can spark dialogue and mobilize emotions, but it does not replace decontamination efforts even could guide political pressure. The goal should be to cultivate a sustained culture of care.

Artistic interventions should avoid eco-romanticism and instead foster dialogue across diverse life forms and perspectives. In this sense, Anna Tsing, in *The Mushroom at the End of the World* (2015), demonstrates how natural landscapes are entangled with complex histories and power structures. Art practices, then, can reveal these entanglements of power and vulnerability without reducing them to comforting narratives.

Ultimately, this approach demands ongoing responsibility: a single artistic initiative is insufficient if it is not accompanied by a long-term commitment. Only through sustained engagement can we transform artistic interventions into long-term acts of care, ensuring that the wounds of places are neither ignored nor aestheticized, but meaningfully addressed.

NOTES

1 The notion of *environmental therapy* was initially formulated in the author's thesis *Fake it until you make it—Retoriche dell'arte e della Cura*, as a critical response to the ideological overlap between clinical and exhibitionary spaces conceived as regimes of total visibility. There, environmental therapy marked a speculative departure from institutional structures, imagining care as a performative alliance among human and non-human actors within complex ecosystems. The present paper extends that conceptual trajectory into the field of place-based art practices and ecological memory.

2 Lao-Tzu's *Tao Te Ching*; Dhammapada.

3 As Félix Guattari outlines in *The Three Ecologies* (1989), therapy can be rethought as an ecosophic process that transcends clinical boundaries and connects environmental, social, and mental ecologies. This perspective informs the speculative and relational use of "environmental therapy" proposed in this paper.

4 See Figures 5-7 for examples of Tolaas' installations translating urban smellscape into sensorial archives.

5 <http://www.mappingspectraltraces.org/>

6 See Figure 8 for visual documentation of Assaël's interactive installations.

7 Curated by Andrea Lissoni in Hangar Bicocca, Milan.

8 The collective includes Sonia Garcia, Séverine Lefèvre, and Charles Pietri.

REFERENCES

- Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press.
- Braidotti, R. (2013). *The Posthuman*. Polity Press.
- Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Duke University Press.
- Berkes, F. (2008). *Sacred Ecology*. New York: Routledge [1st ed. 1999].
- Foucault, M. (1984). *Le souci de soi [The Care of the Self]*. Gallimard.
- Gordon, A. (1997). *Ghostly Matters: Haunting and the Sociological Imagination*. University of Minnesota Press.
- Guattari, F. (2000). *The Three Ecologies* (I. Pindar & P. Sutton, Trans.). London & New Brunswick: The Athlone Press. (Original work published 1989).
- Hadot, P. (1995). *Philosophy as a Way of Life: Spiritual Exercises from Socrates to Foucault*. Blackwell Publishing.
- Haraway, D. (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press.
- Hillman, J. (1992). *The Thought of the Heart and the Soul of the World*. Inner City Books.
- Ingold, T. (2011). *Being Alive: Essays on Movement, Knowledge and Description*. Routledge.
- Kittay, E. F. (2010). *La cura dell'amore: Donne, uguaglianza, dipendenza*. Milano, Italia: Vita e Pensiero.
- Mangano, D., Van Rooy, M., & Lekkerkerk, N. J. (2017). *Homestead of dilution*. Onomatopée.
- Mortari, L. (2015). *Filosofia della cura*. Milano: Raffaello Cortina Editore.
- Mortari, L. (2019). *Aver cura di sé*. Varese, Italia: Raffaello Cortina Editore.
- Ravera, N. (2022). *Fake it until you make it – Rhetorics of Art and Care*. Research thesis, Università Iuav di Venezia, supervisor: Paolo Garbolino.
- Till, K. E. (2012). Wounded Cities: Memory-Work and a Place-Based Ethics of Care. *Political Geography*, 31, 3-14. <https://doi.org/10.1016/j.polgeo.2011.10.008>
- Till, K. E. (2008). Artistic and activist memory-work: Approaching place-based practice. *Memory Studies*, 1(1), 99–113 <https://doi.org/10.1177/1750698007083893>.
- Till, K. E. (Ed.). (2010). *Mapping Spectral Traces*. Virginia Tech College of Architecture and Urban Studies.
- Tronto, J. (2013). *Caring Democracy: Markets, Equality, and Justice*. New York University Press.
- Tsing, A. (2015). *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton University Press.

ADDITIONAL READINGS

- Associazione di Psicologia dell'arte APS. (2016). PSICO ART n.6. Bologna, Italia.
- Bishop, C. (2004). *Antagonism and relational aesthetics*. CUNY Graduate Center, New York, NY.

- Feminist Health Care Research Group. (2019). *Practices of radical health care - Materials of the health movement of the seventies and eighties*. Inga Zimprich & Julia Bonn (Eds.). Berlino, Germania: Self-published.
- Garutti, F. (Ed.). (2019). *Our happy life: Architecture and well-being in the age of emotional capitalism*. Berlino, Germania: Sternberg Press.
- Lingiardi, V. (2017). *Mindscapes: Psiche nel paesaggio*. Milano, Italia: Raffaello Cortina Editore.
- Morton, T. (2016). *Dark Ecology: For a Logic of Future Coexistence*. Columbia University Press.
- Morton, T. (2013). *Hyperobjects: Philosophy and Ecology after the End of the World*. University of Minnesota Press.
- Sossai, M. R. (2017). *Vivere insieme: L'arte come azione educativa*. Palermo, Italia: Torri del Vento.
- Topos n.106. *Healing Landscape*. (2019). Monaco, Germania: Georg GmbH & Co. KG.

Article available at

DOI: 10.60923/issn.2724-2463/21463

as article

Ravera, N. (2025). Environmental therapy through art practices: Memory, agency, and the care of wounded places. *img journal*, 12, 390-417.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

ATMOSPHERES. A CONTRIBUTION OF DESIGN TO UNDERSTAND HOW THEY APPEAR

Michael Renner

Basel Academy of Art and Design FHNW
Institute Digital Communication Environments
michael.renner@fhnw.ch

ATMOSPHERE

PRACTICE-LED RESEARCH

IMAGE RESEARCH

VISUAL COMMUNICATION DESIGN

ICONIC TURN

This paper investigates how images can evoke and represent atmospheres, moving beyond traditional aesthetic concerns with beauty in art to consider perception, experience, and environmental interaction in a world which is mostly designed. Drawing on contemporary philosophy, particularly the work of Böhme and Seel, it frames atmospheres as phenomena arising between a beholder and their environment, experienced individually and shared intersubjectively. Through a practice-led image research

methodology, the study analyses series of experimental image variations – ranging from photorealistic 3D renderings of a scene to highly abstracted compositions – to examine how visual elements such as composition, color, light, perspective, and materiality contribute to atmospheric effects. The findings highlight the capacity of aesthetic practice to make implicit sensory knowledge explicit, offering a deeper understanding of how images shape emotional and perceptual experiences.

INTRODUCTION

The discourse on atmospheres marks a significant shift within the philosophy of aesthetics. Contributions from authors such as Hermann Schmitz and Gernot Böhme represent an evolution from the historical focus on beauty in art and nature towards a broader philosophy of perception (Böhme, [1995] 2022; Hauskeller, 2015; Schmitz, 2014; Seel, 2000). Martin Seel suggests that aesthetic appearance can occur in any perceptible object (Seel, 2000, p. 46). He distinguishes aesthetic experience as a sensory phenomenon that transcends descriptive language (Seel, 2000, p. 47). Drawing on Paul Valéry, Seel describes aesthetic appearance as an indeterminacy that enables the beholder to explore a field of possible interpretations, thus allowing the perception of individuality, variety, and freedom – unlike more determinate experiences (Seel, 2000, pp. 30-31; Valéry, 2021, p. 181). Gernot Böhme's contribution to the discourse on atmospheres extends the understanding of aesthetic practice beyond art to a variety of design fields. He argues that the density of industrialised societies and environmental degradation disrupt our physical equilibrium with our surroundings. Experiencing dense urban agglomerations, contaminated water, rising temperatures, and extreme weather conditions hinders harmonious environmental interaction. With little of the natural environment remaining, homeostasis must now be achieved through designed environments (Böhme, [1995] 2022, p. 14). Whereas nature was once the ideal for art, the artificial has now become the model for nature (Seel, 1996, p. 11). Consequently, architects, stage designers, product designers, and communication designers bear the responsibility of creating seemingly natural conditions that support balanced environmental exchange (Böhme, [1995] 2022, p. 16). From this perspective, Böhme introduces the concept of *atmosphere*. An atmosphere is the immediate emotional response to the holistic experience of an environment, object, or message. Böhme defines atmospheres not as objects but

as phenomena that arise between the beholder and their environment –whether consisting of architecture, designed objects, communication artefacts, or works of art. In a natural landscape, for instance, emotional responses such as comfort or discomfort are shaped by factors like temperature, light, vegetation, and materiality. Before consciously analysing these factors, we perceive an atmosphere that may feel inviting, repellent, soothing, or hostile. Similarly, atmospheres influence experience in any designed environment, including interactions with objects or visual messages in communication design.

THE QUASI-OBJECTIVITY OF ATMOSPHERES

With an understanding of aesthetic experience as an atmosphere that occurs between an object or environment and the beholder, applied aesthetic practice is elevated from its traditionally secondary role in comparison with art. Böhme describes a practical phenomenology present in architecture, scenography, product design, and visual communication design (Böhme, 2017, p. 33)¹. These fields involve the creation and continual evaluation of atmospheres. Using stage design as an example, Böhme describes how a set designer must consider the impact of their creation on a specific theatre piece and the cultural context of the audience (Böhme, 2017, p. 30). Understanding the material constellations that evoke specific atmospheres –composition, form, colour, light, and materiality– is a shared objective in architecture, design, and art, forming a key aspect of professional expertise in these fields. Yet there appears to be limited reflection on this topic within the aforementioned aesthetic practices. Is this due to the indeterminacy and volatility of atmospheres, leading to the assumption that they cannot be intersubjectively described or objectified? Böhme describes the perception of an atmosphere as both an individual sensation and a shared experience. Each

theatre-goer perceives the stage set in a unique way, yet it is still possible to describe and discuss the quality of this sensation with others within a shared cultural context. Consequently, Böhme (2017, p. 30) labels atmospheres as “quasi-objective”. If we acknowledge the need to expand our understanding of aesthetic experience (while avoiding the term *knowledge*) for aesthetic practices, and the importance of education and awareness within the context of mass communication, then aesthetic practices themselves –and their implicit knowledge– can serve as a methodology for understanding atmospheric effects. In other words, the implicit knowledge involved in creating atmospheres is transformed into explicit insight into how atmospheres, influenced by material constellations, appear in their diverse qualities. Practice-led image research is a methodology that we have developed within the context of the Swiss National Centre of Competence in Iconic Research, initiated in 2005 and funded by the Swiss National Science Foundation (SNSF) (Renner, 2010; Renner, 2011; Renner et al., 2017-18; see also Bolt, 2004; Ingold, 2013). We can define the methodology of practice-led image research as the creation of images in order to contribute to the understanding of how they generate meaning. Through this methodology, we do not create images to communicate a message, but rather to describe the effect of images and their material constellations through comparative analysis. With this general methodology of practice-led image research, we can also focus on the question of how images can evoke and represent an atmosphere. As visual communication designers, we can alter composition, perspective, colour, and the representation of materiality in images. This approach involves phases of creating systematic variations, followed by phases of reflection and analysis of the variations developed through a comparative approach (Renner, 2011). In this sequence of iterative processes –involving experimentation with materials and analytical reflection– the outcome is the verbalisation of how an atmosphere is evoked through the image in view of the

image under consideration. Verbalising the evaluation of the atmosphere represented in an image enables other beholders to agree with or contest the interpretation². This fosters a multiplicity of perspectives and the *art of interpretation* described within the context of hermeneutics (Gadamer, 1968, p. 32)³. In the following part of the paper, we will examine to what extent the described methodology allows us to contribute to the understanding of how images and their material constellations evoke a specific atmosphere. We will narrow the topic to the representation of outdoor environments and discuss three examples to ask the question: *What happens when we represent a landscape in a particular manner within an image?*

EVALUATING ATMOSPHERES THROUGH IMAGE MAKING WITH 3D RENDERING SOFTWARE

Anna Dippert selected several architectural sites in the city of Basel and reconstructed them using the open-source 3D software *Blender* (Dippert, 2023). Although the software enables immersive navigation through these spaces via VR headsets, this interpretation focuses on still images generated with the software. Our inquiry centres on how these images create atmospheres rather than exploring how VR headsets influence the perception of space and atmosphere. It is therefore not our goal to evaluate how technology replicates real experience. Instead, we focus on how the still images evoke and vary the atmosphere of the chosen location from one visual iteration to another. To constrain the parameters and enhance comparability within the field of variations, we focus on a single site: the public pool Eglisee in Basel (Figure 01 - 03). One viewpoint and perspective were selected. By systematically altering visual parameters such as the representation of lighting, materiality, and colour, a wide range of visual variations was produced (Figure 03). These variations enable us to interpret the atmosphere of a specific image by comparing it with other instances within this spectrum of possibilities.



Figure 1 Anna Dippert, *We got liminal spaces at home*, 2023, 3D-Rendering.

The image shown in Figure 01 appears, compared with the other four images (Figures 02 a-d), to represent a lighting situation familiar in Central Europe. From the lighting, we infer that the time of day depicted is either dawn or dusk. The concrete plane in the foreground is illuminated by a lamp outside the image frame, reflecting a warm tone. The pool is also touched by this light, which casts a glow over the foreground. As we move from the remote edge of the pool towards the background, the adjacent lawn, trees, and buildings become obscured. The details of the background objects are hidden, their dark tones blending together. The furthest objects—the trees—form black silhouettes that contrast with the much lighter, bluish sky. The sky is cloudless and gradually lightens towards the horizon. Within the darkness of the background, a two-storey building is visible. Its ground- and first-floor windows are illuminated. Although some light sources can be seen within the rooms, the interiors remain empty. A cone of light falls on the right-hand side of the building's façade, facing the viewer. The source of this



Figure 2 Anna Dippert, *We got liminal spaces at home*, 2023, 3D-Rendering. (Fig. 02a: top left, Fig. 02b: top right, Fig. 02c: bottom left, Fig. 02d: bottom right).

light is unclear: lamps above the pool are visible, but not lit. The entire scene lacks visible people, yet the water in the pool appears to be in motion, as though someone had just been swimming. The water reflects the light from the building's windows as vertical stripes on its choppy surface. The remote section of the pool is cordoned off by a rope held afloat by small buoys. Although the entire image is rendered in a photorealistic manner, closer inspection reveals a graphic reduction in the surface textures. This method of creating realistic imagery was widely used in graphic design and art during the first half of the twentieth century. Often referred to as magic realism, this visual language uses texture, shading, and light to produce representations that appear more real than photographs. This effect is achieved by selectively emphasising particular qualities of the depicted objects, thus conveying their spatial and material characteristics⁴. One prominent texture, that of lichen, is placed on the concrete frame surrounding the pool. The lichen's texture reveals natural growth in a graphically reduced

form. This differs from a photographic representation in that it translates, rather than reproduces, what could have been captured photographically. This mode of realistic representation has also been described as *synesthetic imagery*, where visual perception evokes sensations of touch, sound, smell, or taste (Richter, 2016; Cavallaro, 2013). We can *feel* the rough concrete surface with its lichen, *hear* the sound of the moving water, *smell* the chlorine, and *hear* the birds chirping at dawn or dusk. The only elements interrupting this multi-sensory, and therefore holistic, perception of atmosphere are the metal handrails leading into the pool. These are rendered in low resolution; the reduction of the curved top into straight segments reveals the digital nature of the image and disrupts the realism sustained by the rest of the composition. Having described the verifiable characteristics of the image—elements that can be confirmed or contested by the reader through observation—we can now turn to a more general evaluation. The realistic scene depicts a public pool before or after opening hours. The absence of people renders the

Figure 3 Anna Dippert, *We got liminal spaces at home*, 2023, overview of the 3D-Renderings.



scene uncanny. Its contradictions complicate immediate interpretation: while no one is visible, the choppy water and the illuminated rooms suggest human presence, yet the rooms appear empty and the building abandoned. The dramatic lighting –emphasising the foreground while obscuring the middle ground– intensifies the contradictory and eerie atmosphere. It evokes a sense of abandonment and can be interpreted as *liminal* in the popular sense of the term. As Anna Dippert notes in her written Master's thesis, referencing studies in cultural anthropology (van Gennep [1909], 2005), the scene also addresses liminality as a transitional space between the known and the unknown – a shift from the illuminated foreground to the obscured background. It symbolises a transition from the familiar purpose of a public pool to an unexpected, enigmatic setting. We may therefore conclude that the atmosphere evoked by Figure 01 is characterised by the indeterminacy of transition – from the familiar (the visible) to the unexpected (the obscured) (Dippert, 2023, p. 8). Turning to the other images selected for comparative evaluation, Figure 02a presents the pool in full daylight, even though the lamps above the pool remain lit. The sun must be low on the horizon, as the raised pool border casts long shadows. The pink colouring of the building, the pinkish tone of the pool's raised edge, and the concrete plane in the foreground create a friendlier, more inviting atmosphere than in Figure 01. We might imagine this pool situated in a more southern region. There are no shadowed areas due to insufficient light; the trees are not silhouetted, and their foliage and branches are clearly visible. Yet, several aspects seem incongruous. The water level in the pool is low, the waves are large, and the water appears yellowish and murky. The building's windows are almost black, revealing nothing of the interior, and appear like closed shutters. Although the absence of people adds to the scene's mystery, this image conveys neither the drama nor the eeriness of Figure 01.

Figure 02b is dominated by a monochrome palette of orange and ochre tones, in contrast with the more naturalistic

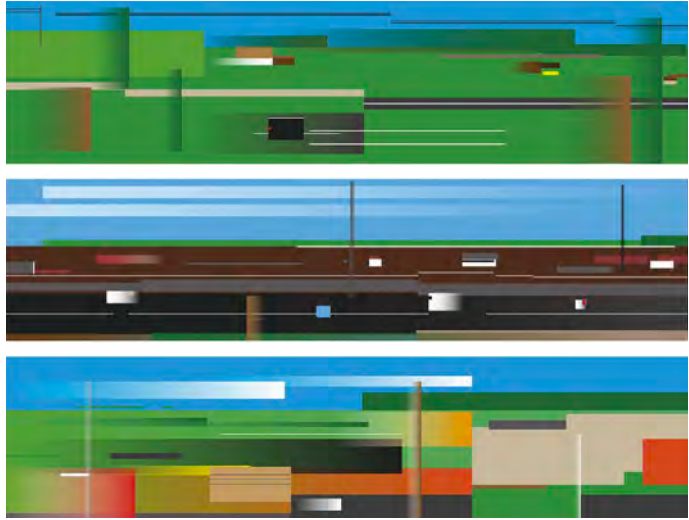
colour schemes of the other images. The monochromatic quality unifies the visual elements and suggests atmospheric colouring caused by air conditions – perhaps a sandstorm or nearby wildfire filling the air with dust or ash. The trees are depicted more schematically here; the two prominent trees to the left of the building allow a glimpse of the distant landscape, which glows intensely orange, evoking fire or explosion. The right half of the image recalls the strange lighting of a solar eclipse, yet the left side offers another explanation: suspended particles in the air diffuse the sunlight. The interpretation of fire, explosion, or sandstorm implies human absence due to adverse conditions. This internal narrative evokes a documentary atmosphere in which even the ochre-coloured pool water appears plausible. Figure 02c directly recalls the first image (Figure 01) but is significantly darker. The foreground is obscured, and the pool itself is invisible. The focus lies on the building's illuminated windows and two strings of glowing lights, which shimmer through a light mist yet cast little illumination on the pool or foreground. The only indication of the pool is the reflection of the windows in the water's surface – which, without prior knowledge, might be mistaken for the façade of a taller building. This image produces an even more mysterious and uncanny atmosphere, recalling the visual language of horror films⁵. Figure 02d omits the building's interior illumination but introduces a slightly lighter depiction of the pool and foreground. We can discern the pool's edge, the metal handrails, the two strings of illuminated lamps, and the silhouette line separating the background from the sky. Mist rising from the pool's surface adds another layer to the already obscured scene, highlighted by reflections of the overhead lamps. The atmosphere is less inviting than in Figure 02a, less documentary than in Figure 02b, and less frightening than in Figure 02c. The atmosphere in Figure 02d can again be interpreted as *liminal*, insofar as the transitional aspect is made visible through the water turning into mist – rising from the present into the indeterminate future beyond the image frame.

ABSTRACTION AND ATMOSPHERE

Looking back at the project *We got liminal spaces at home* by Anna Dippert, all the images follow the schema of central perspective established during the Renaissance in Central Europe. Software which is designed to represent three-dimensional space is based on this understanding. A radically different approach, however, can explore the representation of space as a temporal experience – as a visual accumulation of different views – as has been established in the context of various Asian cultures. The following visualisation by Shiping Sheng, representing the atmospheres of a train journey from Basel to Zürich, does not conform to the widespread schema of central perspective. It contributes to our understanding of how the representation of a landscape can create an atmosphere even through a more abstract approach⁶.

The image elements in all three variations (Figures 04 a-c) do not represent the landscape viewed from the train window in a realistic way. The compositions make it possible to distinguish the sky from the landscape through colour. Buildings, streets, fields, clouds, and other elements we expect in a landscape are only hinted at. In Fig. 04a, we can see grassland in summer in the Swiss countryside. A few farmhouses are scattered across the scene, and some unpaved roads appear next to the train tracks between large grassy fields. It feels warm; we can smell hay (suggested by the lighter green rectangle in the upper left) and hear the bells of cows in the distance. In Figure 04b, we are travelling along a motorway outside a city. A variety of vehicles move in separate lanes. We can hear the noise of fast traffic and sense the quality of the air through the depiction of mist in the sky. In Figure 04c, we are leaving the countryside and entering an agglomeration. Green fields gradually transition into a built environment. Bright orange roof tiles reflect the warm sunlight, while warm grey and ochre planes can be read as the walls of buildings. It is not a frightening cityscape, but

Figure 4a, b, c (from top to bottom). Shiping Sheng, *Panorama Landscape Basel to Zürich*, 2024. Digital Print.

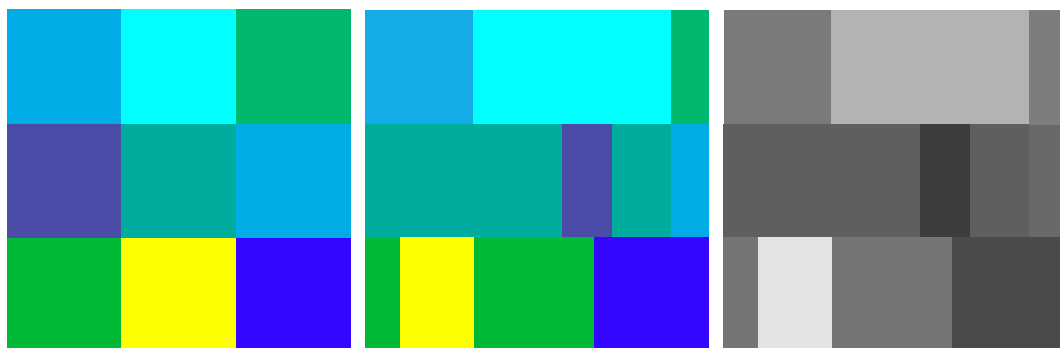


rather a calm and peaceful village surrounded by green fields. The light no longer feels like summer sunshine, but rather appears broken and diffused, as in early autumn. Although the three variations represent a landscape over a period of time on a train journey and abstract specific details into graphic forms, the colours in the compositions are instrumental in expressing atmosphere. The houses and other elements of the landscape are highly abstracted, yet in combination with colour we can imagine and physically recall the experience of an atmosphere that we have encountered through the images. Even though the above interpretation of the images was written by the author, who knows Switzerland well, the abstracted forms do not refer to a specific landscape but instead provide a starting point that allows any beholder to project their own experiences of being in an environment. The intuitive interpretation of seasonal atmospheres—their specific light and colour qualities—relates to an experience more widely shared than, for example, the view of an empty public pool in a very specific situation. With this non-specific approach, the project *Panorama Landscape Basel to Zürich* by Shiping Sheng differs from the very specific atmospheres presented in the project *We got liminal spaces at home* by Anna Dippert.

To take an additional step towards abstraction, we can refer to three colour compositions by Weiran Liang. These were created as an introductory exercise for the class *Aesthetic Practice*. The students were asked to design (1) a harmonious colour composition expressing a positive atmosphere using nine equal squares; (2) to alter the horizontal proportions of the squares to make the composition more intriguing; and (3) to translate the second composition into a greyscale version representing the tonal values of the colours (Figures 05 a-c).

Already the first composition (Figure 05a) conveys an atmosphere that can be associated with a landscape. A blue sky above green meadows, some water, and even a field of yellow flowers can easily be imagined. When the horizontal divisions are emphasised in the second composition (Figure 05b), the sense of foreground, middle ground, and background becomes even more clearly suggested. This second composition allows for a spatial interpretation of the rectangles. The light blue rectangle at the top of the composition is crucial for understanding the image as a landscape (light blue is read as bright sky). Likewise, the pure yellow and blue at the bottom help us interpret the four rectangles below as the foreground. However, this interpretation as a landscape becomes far less plausible when we look at the third greyscale composition (Figure 05c). It appears instead as a representation of a flat façade with a rather sombre atmosphere, in contrast to the bright and energetic mood of the first composition (Figure 05a).

Figure 5a, b, c (from left to right). Weiran Liang, *Introductory Exercise for Aesthetic Practice*, 2025, Digital Print.



CONCLUSION: TOWARDS AN ATLAS OF IMAGES

If we leave behind the dense description and interpretation of the selected images, we may ask: what is the outcome of the project that we can summarise and share intersubjectively? We have discussed only a minimal selection of three areas of possible contingencies within images that have a mimetic relationship to the environment. Even with this small number of images and the constraints of each approach, we were able to describe formal aspects that trigger specific atmospheres – understood as an immediate emotional reaction. The realistic representations (Figures 01-03) can evoke a specific atmosphere through the friction between the image and what the beholder has previously experienced. The contrast between what is shown and what is obscured serves to evoke an atmosphere of the uncanny. The hyper-realistic 3D renderings are the most transparent images we have discussed. They purport to be faithful representations of the location and are rather seductive in this respect. Even though they make it easy to perceive a specific atmosphere, they lack the declaration of authorship and the author's interpretation of the scene. The visual interpretation is not made explicit. Therefore, we can criticise a lack of integrity and authenticity (Pallasmaa, 2022, p. 24). The further the abstraction progresses, the more clearly the image declares the authorship of the designer. The images become a canvas onto which the beholder's experiences can be projected. Although the images of the second series (Figure 04) do not follow the convention of central perspective, we can perceive an atmosphere interpreted as a summary of views collected over time in a panorama. The abstraction of the images does not allow us to recognise details, but colours and rectangular shapes are sufficient to trigger the experience of a landscape and its atmosphere. With the third series of images (Figure 05), it can be demonstrated how colour and emphasis on the horizontal line are widely shared visual experiences that are easily triggered

even through highly abstracted compositions. The discussed examples can be understood as a contribution to an atlas of images in general, and more specifically to an atlas that addresses the atmospheric effects of images. Atlases are instrumental in establishing a disciplinary discourse⁷. Through an atlas, the knowledge of a discipline can be exchanged and shared broadly.

The methodology of practice-led image research differs from other disciplines within the context of Image Science (*Bildwissenschaft*) in that the analysis of images is not limited to existing ones or restricted to images in the context of art. Image series can be generated to evaluate a specific image category in focus. We can describe the purpose of an image atlas on atmospheres in the following words: “The atlases drill the eye of the beginner and refresh the eye of the old hand.” (Daston & Galison, 2010, p. 22)

For the beginner, and for anyone exposed to images in today’s society, it is crucial to understand how images create atmospheres. In the constant streams of visual stimuli to which we are exposed, a broad understanding of their effects is essential to enable individuals to form their own opinions. If we turn to the “old hand” –the architect, scenographer, product designer, visual communication designer, or illustrator– an atlas allows them to gain an overview of what has been done and which effects can be described with regard to the form of the image or object. It is a tool that teaches designers and supports them to continue to create atmospheres which have not yet been described, but which are intriguing, surprising, authentic, and make our designed environments liveable. It goes without saying that the work on this atlas has only just begun.

ACKNOWLEDGEMENTS

I would like to thank Anna Dippert, Shiping Sheng, and Weiran Liang for their inspiring work during their master’s

studies at the Institute for Digital Communication Environments at the Basel Academy of Art and Design. I would also like to thank Lena Frei for her contributions to co-teaching the class *Image Lab* on the aforementioned master's course.

All images are held in the archive of the Institute for Digital Communication Institute at the Basel Academy of Art and Design.

NOTES

- 1 "One might speak of a practical, or better: a poetic phenomenology, because we are dealing here with the art of bringing something to appearance." Böhme, 2017, p. 33.
- 2 The experimental creation of aesthetic artifacts is a common ground for both artistic and design research. However, the use of the artifacts differs: in artistic research, the aesthetic object and the atmosphere it generates are seen as the research outcome (Henke, 2019; Elkins, 2014). In design research, however, the goal is to articulate the atmosphere associated with the object to achieve intersubjective understanding in view of the object.
- 3 "Hermeneutics primarily means an artful practice. This is indicated by the term itself, which has to be complemented by 'techne'. The art it is all about, is the art of announcement, of interpretation, of explanation and of exegesis and finally and of course includes the art of understanding on which it is based and which is required wherever the meaning of something does not appear open or unambiguous." (Gadamer 1968, p. 32, translation by the author.)
- 4 See the imagery used in poster design e.g. Stöcklin Niklaus, Sonnenschutz Bi-Oro, 1941, 120 x 90.5 cm, Lithography. <https://www.recherche-plakatsammlungbasel.ch/objects/52767/sonnenschutz-bi-oro?ctx=8bo766575d20b963c6596840f08759b6d1f8acc9&idx=157> (Last visited: 23.02.2025)
- 5 See also: Gaston Bachelard's description of the fear of the cellar: Bachelard, [1958] 1994, p.19.
- 6 Shiping Sheng is a Master Student at the Institute for Digital Communication Environments at the Basel Academy of Art and Design. The project Panoramic Landscape Basel – Zurich was developed in the class Image Lab taught by Lena Frei and the author.
- 7 See also Aby Warburg's Mnemosyne Atlas ([1929] 2025)

REFERENCES

- Bachelard, G. ([1958] 1994). *The Poetics of Space*. Translation by Maria Jolas. Boston: Beacon Press.
- Bolt, B. (2004). *Art beyond representation: the performative power of the image*. London: IB Tauris, 2004.
- Böhme, G. ([1995] 2022). *Atmosphäre; Essays zur neuen Ästhetik*. Berlin: Suhrkamp Verlag.
- Böhme, G. ([1995] 2017). *The Aesthetics of Atmospheres*. Translation by Jean-Paul Thibaud. New York, Routledge.
- Cavallaro, D. (2013). *Synesthesia and the Arts*. Jefferson NC, London: McFarland & Company Inc. Publishers.
- Daston, L., Galison, P. (2010). *Objectivity*. New York: Zone Books
- Dippert A. (2023). *We got liminal spaces at home*. Master Thesis 2023. Archive of the Institute for Digital Communication Environments, Basel Academy of Art and Design.
- Elkins, J. (2014). *Artists with PhDs: On the New Doctoral Degree in Studio Art*. Washington DC: New Academia Publishing.
- Gadamer, H.-G. (1968) *Klassische und philosophische Hermeneutik*. In: Grodin, J. (ed.) (1997) *Gadamer Lesebuch*. Stuttgart: UTB für Wissenschaft, pp. 32 – 57.
- Hauskeller, M. (2015). *Begriff und Wahrnehmung von Atmosphären*. Technische Universität Berlin.
- Ingold, T. (2013). *Making: Anthropology, Archeology, Art and Architecture*. New York: Routledge.
- Henke, S., Mersch, D., van der Meulen, N., Strässle, T., Wiesel J. (2019). *Manifest der Künstlerischen Forschung. Eine Verteidigung gegen ihre Verfechter*. Zürich: Diaphanes. DOI: 10.4472/9783035802917
- Pallasmaa, J. (2022). The Ethical and Existential Meaning of Beauty. *DE-PARCH*, Vol.1 Issue 1, Spring 2022 | DOI:10.55755/DepArch.2022.1
- Renner, M. (2010). Practice-Led Iconic Research, *diid, disegno industriale - industrial design* 41, pp. 76 – 82.
- Renner, M. (2011). Die stumme Bildkritik des Entwurfs – The mute Iconic Criticism of Design, *Rheinsprung* 11. Zeitschrift für Bildkritik, Basel, pp. 92 – 116.
- Renner, M., Reymond, C., Schubbach, A. (2017-2018): Practice-led Iconic Research, Visible Language, *The journal of visual communication research*, 51.3/52.1. Dezember 2017/April 2018, Cincinnati University Press.
- Renner, M., Dietzsch, I., Tschoepe, A., Käser, S., (2026). *Participatory Images*. Bielefeld: Transcript Verlag.
- Richter, B. (2016). "Von Weltformat". *Das Schweizer Plakat aus historischer und bildwissenschaftlicher Perspektive*. Unveröffentlichtes Vortragsmanuskript. Video Documentation in the Archive of the Institute for Digital Communication Environments at the Basel Academy of Art and Design.
- Schmitz, H. (2014). *Atmosphären*. Baden-Baden: Verlag Karl Alber.
- Seel, MaM.rtin (2000). *Ästhetik des Erscheinens*. München: Hanser Verlag.

- Seel, M. (1996). *Eine Ästhetik der Natur*. Berlin: Suhrkamp Verlag.
- Valéry, P. ([1957] 2021). *Zur Ästhetik und Philosophie der Künste*. Berlin: Suhrkamp Verlag.
- van Gennep, A. ([1909] 2006). *Übergangsriten* (Les rites de passage). Frankfurt: Campus Verlag.
- Warburg, A. ([1929] 2025). *Bildatlas Mnemosyne*. Berlin: Hatje Cantz Verlag.

Article available at

DOI: 10.60923/issn.2724-2463/21420

How to cite

Renner, M. (2025). Atmospheres. A Contribution of Design to Understand how they Appear. *img journal*, 12, pp. 418-437



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

BUCOLIC LIFE IN THE DIGITAL REALM.

EXPLORING THE
APORIAS OF DIGITAL
DESIGN: THE
IMMATERIALITY OF
DIGITAL EXPERIENCES
AND THE DEPTH
OF SENSORY
ATMOSPHERES

Federico Rita

Università di Camerino

International School of Advanced Studies

federico.rita@unicam.it

ESSAY 187/12

DIGITAL DESIGN

POST-VISUAL ATMOSPHERES

DIGITAL AESTHETICS

In a time when digital environments have increasingly become abstract and disconnected, we are seeing a resurgence of natural and bucolic imagery to describe, design, and engage with the Web. These metaphors go beyond simple rhetorical devices; they represent earnest efforts to redefine the atmosphere of our digital experiences, pushing back against the sterile functionalism that characterized the early decades of digital design. By

critically examining the vibrant movement of digital humanities, this essay aims to trace the origins and potential developments of new aesthetics in digital design. Concepts like Deleuze's Rhizome, Dark Forest theory, Digital Gardens, and Solarpunk aesthetics emerge as reflections of a design ethos that seeks to reintegrate sensory, temporal, and ecological elements into spaces typically perceived as solely visual and mediated.

INTRODUCTION

In recent years, design historiography has increasingly recognized the validity of examining the digital from a historical perspective. Given the rapid developments in sophisticated computational technologies, it seems more beneficial to approach the digital through an archaeological lens before diving into historiography. The archaeological method enables us to uncover “points of insurgence” (Agamben, 2018), revealing elements from the past that may have been overlooked but can serve as a “historical apriori” (Agamben, 2018).

The evolution of digital technologies has paved an incredible path in the realms of STEM (science, technology, engineering, and mathematics), while also making significant contributions to the humanities. This growth is largely attributed to a multidisciplinary approach that has led to the emergence of the *digital humanities*. A key text in this field, “Digital Humanities” (Burdick et al., 2012), notes, “The model we have created is experimental. It moves design—information design, graphics, typography, formal and rhetorical patterning—to the center of the research questions that it poses”.

The text further explains that this model is collaborative and committed to public knowledge. It is designed for a diverse audience with varied and sometimes conflicting interests and needs. As such, it is presented as a flexible construct: both a guide for the perplexed and an invitation to engage, serving as a tool to critically examine new forms of scholarship concerning contemporary society. However, within this new focus on design, which is shaped by technology, we notice a significant absence of the sensory and synaesthetic aspects that have historically defined the field of Design. As Eskilson highlights in his essay “*Digital Design: A History*” (2023), “the digital cannot be separated from the analog. For all its talk of disruption, the digital is firmly

connected to the past,” which helps clarify the common misconceptions surrounding the real versus virtual debate. In this essay – as I stated – we’ll adopt an archaeological perspective to explore the relationship between design and the digital by tracing the evolution of representations. We move from a more practical, functional, and intuitive mode of “figurative speaking” to a symbolic approach that aims to capture the atmosphere, climate, or inherent qualities of a digital environment through the use of more intricate imagery. The metaphors and analogies that link the digital to reality are no longer simply linguistic tools or conceptual shortcuts; instead, they are intertwined with profound metaphysical themes.

TRANSITIONING FROM DESKTOP METAPHORS TO DIGITAL ECOSYSTEMS

In the early days, digital interfaces emerged, creating a significant reliance on physical metaphors in design. The introduction of the *Xerox Alto* in 1973 and the *Macintosh* in 1984 brought forth the desk metaphor: an easily grasped visual representation that helped translate abstract concepts into familiar objects. These pioneering interfaces were fundamentally Cartesian, characterized by neat grids, clear hierarchies, and linear relationships. They conjured an environment reminiscent of a streamlined office space, efficient yet emotionally sterile, populated by items like trash cans, folders, and files (Figure 1).

In the 1990s, a shift towards more organic design concepts began to take shape, notably through the work of pioneers like Muriel Cooper at the MIT Media Lab. She embarked on innovative explorations of three-dimensional interfaces and fluid information spaces. Her groundbreaking project, “Information Landscapes” (1994), (Figure 2) marked a significant departure from

the constraints of two-dimensional design, enabling users to “fly” through dynamic realms of information. Simultaneously, the rise of the World Wide Web began to expose the shortcomings of traditional hierarchical models, particularly the tree metaphor and its foundational decision diagrams rooted in computer science.

Alongside the frequent use of maritime metaphors such as “navigating the web” and “net”, the rapid expan-



Fig. 1 John Feagans, Andy Finkel, Michael Tomczyk, Jeff Bruette, *Main screen of Magic Desk I*, 1983. Retrieved November 10, 2025 from wikipedia.org

sion of the internet also brought attention to the arboreal metaphor of the *rhizome*, as proposed by French post-structuralists Deleuze and Guattari. This idea began to resonate more with designers and theorists as it contrasted sharply with the rigid hierarchy of early operating systems that relied on nested folders. The Web, in its essence, offered a non-hierarchical framework, built on hyperlinks that interconnected content in a crosswise manner, allowing for a more fluid and dynamic exploration of information.

Pioneering projects like *Rhizome.org* (1996) not only embraced the concept but also integrated rhizomatic principles into their design, promoting unexpected connections and nonlinear pathways. During the late 1990s and early 2000s, ventures such as Stuart Moulthrop's "Victory Garden" and the "net.art" aesthetic intentionally delved into nonlinear structures and surprising interactions. The atmosphere in these digital spaces was distinctly different: less about control and more about exploration, marked by a sense of ongoing discovery and emerging connections.

THE DARK FOREST: SHELTER DESIGN IN THE AGE OF SURVEILLANCE

With the rise of centralized social media and heightened digital surveillance in the early 2010s (Zuboff, 2019; Bridle, 2018), a new metaphor has taken shape: *the dark forest*. Popularized by Yancey Strickler in 2019, though it had been around in various forms prior, this term illustrates an Internet that increasingly resembles a shadowy forest where creatures must conceal themselves to evade predators. In this context, the predators include advertisers, tracking bots, clickbait creators, attention-seeking influencers, trolls, and other malicious entities that have multiplied across the public web.

This metaphor has sparked a trend in (un)design that we might refer to as "protective atmospheres" or the "cozy web." In response to a challenging online landscape, individuals often seek refuge in their *Dark Forests*—private or semi-private spaces that allow for a sense of security. These include invitation-only *Slack* channels, *WhatsApp* groups, *Discord* chats, *Telegram* streams, private newsletters, and even exclusive discussion forums or private *Instagram* accounts (Figure 3).



Fig. 2 Muriel Cooper, David Small, Suguru Ishizaki, Earl Rennison, Robert Silvers, Lisa Strausfeld, Jeffrey Ventrella, Yin Yin Wong. *Information Landscapes*, 1994. Retrieved November, 10, 2025 from <http://www.revue-backoffice.com/>

These spaces provide an opportunity for relaxed conversations that are free from the pressures of indexing, optimization, and gamification, which often define traditional social media platforms. They foster psychological and reputational safety, where knowing other members and having a limited audience allows individuals to express themselves without the fear of judgment or backlash. Embracing “Scandinavian” principles, these environments promote a more balanced atmosphere that prioritizes social and emotional safety, in stark contrast to the chaotic nature of the wider internet.

In the *Dark Forest*, websites and platforms operate beyond the reach of mainstream visibility. Their content is hard to discover through search engines; they aren’t designed to boost engagement or increase visibility; they

lack gamification features like point systems, rankings, or rewards; and they primarily remain hidden from the public. Access is usually limited to invited members only.

This type of radical approach to an ethical design clearly presents several challenges. These include the need to navigate governance models, ensure financial sustainability, achieve interoperability, and build a sufficient critical mass to make the alternative system effective, all while maintaining robust cybersecurity.

Several alternative platforms, like *Mastodon*, have embraced the concept of creating smaller, more manageable “lobbies”—almost like small clearings in a dense digital forest. A prime example of this shift is *Are.na*, launched in 2012. This platform offers digital spaces infused with contemplative minimalism, where the lack of intrusive algorithms fosters genuine reflection and connection. *Are.na*’s design, featuring ample white space and a non-competitive atmosphere, inspires a sense of freedom and possibility that stands in stark contrast to the often stifling environment of algorithm-driven feeds.

DIGITAL GARDENS: A NON-LINEAR DESIGN AND ORGANIC GROWTH

In the mid-2010s, the frenetic nature of social media led to the rise of the *digital gardens* movement. This (un)design philosophy shifts away from the traditional reverse chronology and the constant urge for fresh content. Instead, it embraces a more thoughtful approach that values organic growth, continuous refinement, and a layered narrative of time. This creates a richer and more sustainable digital experience for users.

The term dates back to the early days of the Internet, specifically in 1998, when Mark Bernstein first introduced the concept of the “hypertext garden” (Figure

3). He advocated for creating online spaces that offer people the chance to explore the unknown. Bernstein described these gardens as existing “between farmland and wilderness,” noting that they are designed to be pleasurable rather than focused on commodity. Today, this idea is being revitalized by both designers and amateurs who are starting to think of their digital spaces as gardens to be nurtured, rather than mere streams that require constant feeding.

According to an article by Tanya Basu (2020) for MIT Technology Review:

“The new wave of digital gardens discuss books and movies, with introspective journal entries; others offer thoughts on philosophy and politics. Some are works of art in themselves, visual masterpieces that invite the viewer to explore; others are simpler and more utilitarian, using Google Docs or Wordpress templates to share intensely personal lists. Avid readers in particular have embraced the concept, sharing creative, beautiful digital bookshelves that illustrate their reading journey”.

Andy Matuschak, a former designer at *Apple*, has elevated these concepts with his innovative “evergreen notes” system. This interface allows notes to move laterally, resembling a three-dimensional garden. This design approach fosters an environment of spatial exploration, standing in stark contrast to the linear methods typical of conventional information management systems.

Platforms like *Roam Research* and *Notion* embrace many of these principles, crafting interfaces that foster connections between ideas in a more organic way. The atmosphere within these digital spaces is strikingly different: it feels contemplative rather than chaotic, building on what came before rather than vanishing with time, and it’s more about personal expression than algorithm-driven recommendations.

The concern is that *Digital Gardens* might become nothing more than simple “second brains,” serving solely

Fig. 3 Maggie Appleton, Diagram of Dark Forest and Cozy Web. Retrieved November, 10, 2025 from <https://maggieappleton.com/>



as tools for managing knowledge and sharing ideas. In doing so, they risk losing their initial spontaneity and poetic essence.

The challenge lies in resisting the urge to mimic the dynamics of the mainstream web, while still maintaining the intimacy, subtlety, and collaborative spirit that define a genuine garden.

SOLARPUNK: TOWARD REGENERATIVE DIGITAL DESIGN

In the documentary *All Watched Over by Machines of Loving Grace* (BBC, 2011), British filmmaker Adam Curtis reconstructs the cultural genealogy of the idea that society and digital technologies could function like natural ecosystems: perfectly self-regulating, harmonious, and neutral systems. This imaginary, born at the intersection of cybernetics, systems theory, and the Californian ide-

Fig. 4 *The Line, Dear Alice*, 2018 from Bjorn, E.A. (Director). (2018).



ologies of Silicon Valley, profoundly shaped the way the digital realm was conceptualized for decades.

The documentary shows how this vision transformed “nature” into a technical model: an algorithm to be imitated, a mathematical equilibrium to be achieved. In this paradigm, nature is no longer a sensory, complex, ever-changing environment, but an abstract, optimizable device. Curtis highlights how this image shaped the ideology of the early Internet and many techno-utopian narratives, contributing to the construction of digital atmospheres that appear neutral but are, in fact, deeply ideological.

In the early days of the Web, the allure of these emerging digital landscapes and the thrill of a groundbreaking mass communication medium created a vibrant atmosphere that, over time, gradually faded. This story begins in the early 1980s with the rise of a distinct style in American science fiction, prominently championed by William Gibson. In his 1982 short story *Burning Chrome*, Gibson introduced the term “cyberspace.” This era also saw the release of Ridley Scott’s iconic film *Blade Runner*, which, along with influential writers like Bruce Sterling and Donna Haraway, helped solidify a new techno-dystopian aesthetic. This movement, known as *Cyberpunk*, emerged from the underground, gaining traction among web pioneers.

In recent years, however, the *Cyberpunk* aesthetic has been joined by the emerging *Solarpunk* style, which is starting to make waves in digital design. *Solarpunk* envisions a future where technology and nature coexist in a sustainable and harmonious manner. Unlike its dystopian counterpart, *Cyberpunk*, *Solarpunk* presents an optimistic picture where technology enhances human connections rather than distancing us from one another.

On September 4, 2014, Adam Flynn published notes for a *Solarpunk* manifesto in the online platform *Hieroglyph*. This initiative is part of the *Center for Science and the Imagination* at Arizona State University, aimed at promoting

science fiction visions that can spark technological innovations—such as the satellite orbits anticipated by Arthur Clarke and the robots envisioned by Isaac Asimov.

Currently, it's challenging to identify projects that align completely with this atmosphere, which largely resides in the domain of speculative design and literary creation. A striking example of this is a brief animated film created by The Line agency for Chobani in 2018. (Figure 4).

CONCLUSIONS: BEYOND NOSTALGIA

The arboreal metaphors and design practices we examined go beyond mere aesthetics; they represent our efforts to reconnect with a lost notion of the web. As Pintarelli (2020) highlights, we're currently navigating a significant transformation in our relationship with digital spaces, caught between a sense of restorative nostalgia and reflexive nostalgia.

The core issue lies in the struggle between the longing to regain the intimacy and freedom of early online experiences and the acknowledgment that such a return is unattainable. This creates the haunting effect that Mark Fisher referred to as "Hauntology". Digital gardens, rhizomatic metaphors, and solarpunk aesthetics each represent innovative ways to grapple with this loss, turning it into a potential design opportunity.

Building on Svetlana Boym's insights (2008), our goal is not to recreate a nostalgic version of the past but to channel its imagery of freedom into innovative forms of digital design. In this context, arboreal metaphors serve as powerful tools for aesthetic resistance.

Preserving the essence of the old web is not a matter of sealing it inside a digital museum. It means keeping alive the spirit of experimentation, intimacy, and open-

ness that shaped its early explorations, and translating that legacy into a design sensibility capable of imagining new digital ecologies. The recent turn toward ecological aesthetics can be read as a response to the atmospheric impoverishment of contemporary interfaces: a desire for nature that is not escapist, but a call for sensory depth and perceptual richness — slowness, softness, care, density — qualities progressively eroded by the desktop metaphor and the logic of platformization. The Web, then, is not a territory to be conquered, but a garden to be cultivated collectively.

NOTES

- 1 See Boudewijnse, G. (2012).
- 2 For more on the genealogy of the metaphor tree see Mattern (2024).
- 3 The hypertextual version of “The Garden of Forking Paths” created for Eastgate System in 1987.
- 4 It is possible to hypothesize a Web positivist phase and a cyber-nihilist phase that has the financial crisis of 2000, the so-called dot.com bubble, as its fault.
- 5 The term was originally coined by Jacques Derrida in his 1993 book *Spectres of Marx*.

REFERENCES

- Agamben, G. (2018). *Abitare e costruire*. Quodlibet. <https://www.quodlibet.it/giorgio-agamben-abitare-e-costruire>
- Basu, T. (2020, September 3). Digital gardens let you cultivate your own little bit of the internet. *MIT Technology Review*. <https://www.technologyreview.com/2020/09/03/1007716/digital-gardens-let-you-cultivate-your-own-little-bit-of-the-internet/>
- Bjorn, E.A. (Director). (2021). *Dear Alice* [Animated short film]. Chobani
- Boudewijnse, G. (2012) Gestalt theory and Bauhaus — a correspondence, *Gestalt Theory*, Vol. 34, No. 1
- Boym, S. (2008). *The future of nostalgia*. Basic Books.
- Bridle, J. (2018). *New dark age: Technology and the end of the future*. Verso.
- Burdick, A., Drucker, J., Lunenfeld, P., Presner, T., & Schnapp, J. (2012).

- Digital_Humanities. *The MIT Press eBooks*. <https://doi.org/10.7551/mit-press/9248.001.0001>
- Curtis, A. (2011). *All Watched Over by Machines of Loving Grace* [Documentary series]. BBC.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia* (B. Massumi, Trans.). University of Minnesota Press. (Original work published 1980)
- De Pace, P. Perché abbiamo nostalgia del vecchio internet? *Not*. <https://not.neroeditions.com/perche-abbiamo-nostalgia-del-vecchio-internet/>
- Eskilson, S. J. (2023). *Digital design*. Princeton University Press. <https://doi.org/10.2307/jj.2322030>
- Fisher, M. (2014). *Ghosts of my life: Writings on depression, hauntology and lost futures*. Zero Books.
- Flynn, A. (2014, September 4). *Solarpunk: Notes toward a manifesto*. Hieroglyph. Retrieved February 28, 2025, <https://hieroglyph.asu.edu/2014/09/solarpunk-notes-toward-a-manifesto/>
- Foucault, M. (1972). *The archaeology of knowledge* (A. M. Sheridan Smith, Trans.). Pantheon Books. (Original work published 1969)
- Mattern, S. (2021, September) Tree Thinking. *Places Journal*. Retrieved Feb 2025. <https://doi.org/10.22269/210921>
- Mattioli, V. (2021, February 15). Allucinazioni cyberpunk. *Il Tascabile*. Retrieved February 28, 2025, from <https://www.iltascabile.com/letteratura/allucinazioni-cyberpunk/>
- Pintarelli, F. (2020, April 29). Nostalgia di Internet. *Il Tascabile*. <https://www.iltascabile.com/societa/nostalgia-di-internet/>
- Schwulst, L. (2017, October 25). *Charles Broskoski on self-discovery that happens upon revisiting things you've accumulated over time*. Retrieved February 28, 2025, from <https://thecreativeindependent.com/people/2017-10-25-charles-broskoski-on-self-discovery-upon-revisiting-things-youve-accumulated-over-time/>
- The Dark Forest Collective. (2024). *The Dark Forest Anthology of the Internet* (2nd ed.). Metalabel.
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

Article available at

DOI: 10.60923/issn.2724-2463/21457

How to cite

Rita, F. (2025). Bucolic life in the digital realm. Exploring the aporias of digital design: The immateriality of digital experiences and the depth of sensory atmospheres. *img journal*, 12, 438-453.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

SEALING ATMOSPHERIC LANDSCAPES IN RESONANT SIMULATIONS

Christian Scenini

Design Academy Eindhoven

MA Geo-Design

christian.scenini@yahoo.it

PLANETARY
PACKAGING
ATMOSPHERE
WORLD-BUILDING
SIMULATION

The desire to seal skies within confined spaces crosses disciplines and ages. From food packaging to planetary climate engineering through poetry and painting, atmosphere is continuously portrayed in recurrent simulations reminiscent of a Russian Doll structure. Structuring the notion of “*planetary packaging*” as an interpretative paradigm—and growing around it—this text depicts atmospheres across opposite—but mirroring—scales and contexts. In a system of echoes and reflections, contained atmospheres and atmospheric containers blur and shape each other. By counterposing modified atmosphere packaging—

provocatively landscapes of built worlds gazing toward planetary processes—with climate engineering strategies—systematically reminiscent of procedures employed in modified atmosphere packaging—the research bridges tension between planetary non-linear and complex mechanisms, and the everyday immediate-reachable dimension. Tracing but modeling and speculating its attributes, the smaller atmospheric doll can observe and imitate the largest, while the latter drawing on the smaller omits fundamental elements, offering a reductive, simplified human-graspable understanding of it.

SIMULATION AND WORLD-BUILDING INSIDE A PACKAGING

Being on Earth also means inhabiting and being inhabited by its atmosphere. A gaseous mixture closely connected to the concept of the planet and in a state of interdependence with it, the atmosphere is an elusive and mutable phenomenon, interpreted on a planetary scale as a container but at the same time containable. The artist and author Andreas Philippopoulos-Mihalopoulos (2022) describes atmospheres as “Russian Dolls, one fractally nested into the next” (p. 43). I adopted this Matryoshka pattern, interpreting it as a system of echoing simulations where content and container merge and confuse by shaping and adapting the connotations of the adjacent dolls. From the planetary to the packaging, this text unravels the opposing—yet intertwined—layers of this atmospheric Matryoshka. Introducing the “*planetary packaging*” notion as an interpretive paradigm, it explores atmospheres across scales and contexts, revealing their shifting boundaries and entangled simulations.

If you think about astronauts, they never leave the planet Earth; they are embraced by the simulation of an atmosphere inspired by the Terrestrial one. The astronauts never come into direct contact with other planetary realities; rather, sheathed in spacesuits and ships, they carry with them a simulation of what they know, a capsule of the Terrestrial world that isolates them from the unknown. Hermetically packaged in a modified atmosphere that protects, preserves, and extends their lives, they are not visitors to other planets but the custodians of a simulation of their own.

In an analogous but opposite manner, it is possible to artificially simulate atmospheres by generating worlds within our own. A concrete example is the Martian atmospheric simulation at the Astrobiology Centre Laboratories in Madrid. An accurate replica of Mars’ environmental conditions, where data collected on the red planet are performed and operationalised in a controlled chamber where specific hypotheses and phenomena can be tested.

The simulation achieves such a genuine precision that it is chemically indistinguishable from the records collected on

the planet itself. The physicists working on “Marte, Mars on Earth” emulate a planetary atmosphere, evoking in a quasi-chemical way a planet superimposed on the Terrestrial world.



Fig. 1 Mars simulation chamber at Centro de Astrobiología Madrid Credit: Christian Scenini.

Other technologies act on the atmosphere with similar techniques, although applied in very different contexts and scales. In this section, I discuss MAP, an acronym for “Modified Atmosphere Packaging,” a technology widely used in the food industry to preserve products.

In most food containers there’s an empty space between the product and the packaging. This apparently useless area that consumers often perceive as a form of waste, a space that could have held a few more drops, candies, or salad leaves. Known as headspace or ullage, in MAP this “empty” space is filled by replacing the Earth’s atmosphere with an artificial one. An interstitial environment—a liminal space—is placed between the product and the Earth’s atmosphere with the aim of extending the shelf life of each specific product.

One of the techniques used in MAP to extend product life is to drastically lower the air oxygen levels inside the packaging. More precisely the oxygen concentration is lowered to 1–10 percent instead of its usual 21 percent of Earth's atmosphere. Lowering the oxygen level also involves increasing carbon dioxide concentration above the usual 0.03 percent of the terrestrial atmosphere, reaching for example 80 percent concentration of carbon dioxide in the atmospheres that host parmesan cheese. As the microbiologist Malathi Vakkalanka (2012) explain, “the combination of reduced oxygen and elevated carbon dioxide levels reduces the respiration rates of the cheese, [...] thus extending the life of the product.” (p. 109)

After their generation, despite their artificiality, these atmospheres begin to live on their own. By this I do not want to say that after the packaging is sealed, what happens inside is uncontrolled and unpredictable, but of course changes and reactions are not performed with controllers connected to the packaging. Every possible reaction between the inner environment and the product is taken into account during the atmosphere engineering phase; the changes that take place inside the packaging are therefore predicted but not performed on-site.



Fig. 2 Atmosphere quality control inside a potato packaging
Credit: Campden BRI.

Considering the act of creating these artificial and unprecedented atmospheres, we can find an interesting analogy with Ian Cheng (2022) notion of Worldbuilding. In his

work, Cheng describes Worldbuilding as the art of creating worlds, designed to evolve through autonomous interaction between their constitutive elements. In the book “Emissary’s Guide To Worlding”, he identifies autonomy and vitality as the two fundamental characteristics that define a world, emphasising on how it is “a living thing, artificial, but also still alive” (p. 21). The atmosphere within the packaging is designed with precision, but as we have seen, it is also designed to evolve together with the product, embodying precisely these characteristics. It does not merely contain and preserve, but becomes an active part of a system that like Cheng’s worlds, self-regulates and transforms over time.

These confined systems are configured as atmospheric landscapes, as worlds, as artificial ecosystems in which the interactions between atmosphere and product lead to self-regulating processes similar to those that characterise the Earth planet. We can recognise within them patterns and mechanisms that provocatively echo planetary dynamics but which are also simulated, thus playing with their own set of rules. The ecologist Paul Colinvaux (1973), referring to the processes that alter the Earth’s atmosphere wrote: “Nitrogen, oxygen and carbon dioxide are all manipulated by organisms in ecosystems. [...] the concentration of all three of these gases has been determined or at least drastically altered by life” (p. 24). The same alteration—on a compressed scale—of atmospheric composition is performed by product respiration. A tangible example can be observed in the atmospheres designed to host lettuce. At the time of its genesis, it consists in most cases of 5% Oxygen, 5% Carbon Dioxide, and 90% Nitrogen. After 10 days, the breath of the lettuce has altered the environment composition bringing the Oxygen to 1%, Carbon Dioxide to 15%, and Nitrogen to 84%, making it no longer a place to host that world.

These artificial atmospheres are thus configured as optimised habitats, engineered microcosms that do not exist independently of what they encapsulate but co-evolve with it. They are artificial ecologies superimposed on pre-existing ones, atmospheric landscapes that, as long as they are sealed inside the packaging, exclude but mimic the outside world.

Food Products	N ₂ (%)	CO ₂ (%)	O ₂ (%)	Air (%)
Oily fish	60–40	40–60	<1	
White fish		60	40	0–20
Crustaceans		80–100		
Red meat		15–30	70–85	
Poultry	70–80	20–30	1–2	
Bakery and pasta	20–50	50–80		
Cheese	30–100	0–70		
Vegetables		0–15		
Fruit		0–20		
Coffee	100			
Potato chips	100			

Fig. 3 Recommended gas mixtures for different food products Credit: Cambridge University Press.

Product	Temp. (°C)	Atmosphere	Shelf Life (d)	Ref.
Beef	4	20% CO ₂ , 80% O ₂	> 15	1
Pork	4	100% CO ₂	> 24	2
Chicken	1.5	50–80% CO ₂	≥ 23	3
Trout	1.7	80% CO ₂ , 20% N ₂	~ 20	4
Dungeness crab	1.7	80% CO ₂ , 20% air	≥ 25	5
Submarine sandwich	4	30% CO ₂ , 70% N ₂	30	6
Cheeseburger	4	20% CO ₂ , 80% N ₂	30	6
Broccoli	4	10% CO ₂ , 11% O ₂ 79% N ₂	21	7

Fig. 4 Typical shelf life of MAP products Credit: Cambridge University Press

The protective films of packaging act like the membranes that the philosopher Peter Sloterdijk (1998) describes as “materialised entities for differentiating between inside and outside” (p. 327). Determining what is part of a

world and what is excluded from it “membranes act as media amid border traffic” (p. 327). Opening these films, the atmosphere comes out and encounters another reality. Time on Earth world flows differently; the product loses the protection and privileges that the modified atmosphere offered it and must be consumed in a few days. The world originated inside the packaging and the Terrestrial one mix, the parameters equalise, as they come into contact, they stretch towards uniformity. The smaller atmosphere dissolves into the larger world; gas, pressure and temperature reconfigure and compensate.

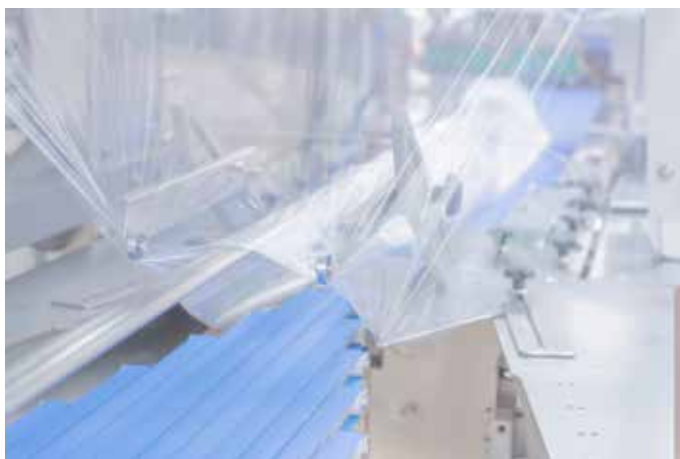


Fig. 5 Packaging machine Credit: Christian Scenini.

EXPIRY DATE AND CLIMATE ENGINEERING

Up to this point I have identified features that echo planetary dynamics within packagings, offering therefore an understanding of the term *planetary packaging* where *packaging* is the subject and *planetary* is the interpretative key subjected to it. From now on, this reading is meant to be reversed, *planetary* becomes the subject and *packaging* the speculative attribute.

To do this, I will start with a fundamental aspect of all modified atmosphere packagings: the expiry date. The product, together with the engineered atmosphere that preserves

it, is subject to a degradation process. Over time, biochemical interactions between the product and surrounding gases alter the atmospheric equilibrium until a critical point where the engineered world changes, assuming other forms no longer useful for its initial purpose. The atmosphere, initially designed to protect and extend the life of the product becomes a toxic space. This is the non-return threshold: beyond it, entropy takes over and the system collapses. From the moment an atmosphere is generated, a countdown begins. The aim is to artificially suspend time and prolong the existence of a controlled ecosystem as long as possible before its inevitable collapse. However, as Parisi's first law stipulates, the tension towards degradation is inevitable; it can be slowed down and controlled, but it is still looming. This process is accelerated and the point of no return moves closer in a directly proportional way to the processing level of the product; the more a system is sectioned, altered and thus artificialised compared to its natural state, the closer its expiry date will be.

A speculatively similar estimated date is recognisable and identifiable on a planetary scale with the one given by the Climate Clock. Indicating the First January of 2028 as the date of the point of no return, it estimates the achievement of $+1.5^{\circ}\text{C}$ in atmospheric temperature compared to pre-industrial levels. This alteration indicates the point of no return, an expected date that—as in the packaging—sets the deadline for the world as we know it. It has moved closer to the present because of anthropogenic and therefore artificial operations that have altered the environment. Returning to packaging, we have seen how an artificial response to the same issue has slowed down this process. The philosopher of technology Benjamin Bratton (2019), in “Terraforming” argues that “The responses to anthropogenic climate change must be equally anthropogenic” (p. 9); this statement is in line with and echoes the strategies of MAP, where an artificial atmosphere slows down the looming degradation countdown in processed food.

Atmospheric engineering procedures on a planetary scale are identified by the term “Climate engineering,” which refers to a set of deliberate, large-scale interventions aimed at altering the Earth's atmospheric system to counteract the ef-

fects of climate change. In both MAP and climate engineering, the atmosphere is seen as a system that can be designed and modified to accomplish certain requirements. In agreement with what has been discussed so far, the media theorist Jussi Parikka (2022) states: “Modern science comes to see weather as a contemporary machine of management of the environment, a project for optimisation” (p. 36). The illusion of being able to control the atmosphere is based on the capacity to obtain ever more accurate simulations, turning them into the reality of reference. To do so, technoscientific solutionism reduces the Earth’s planetary complexity to a system that can be modelled and optimised. Like a packaging where the atmosphere is engineered, the Earth’s atmosphere is objectivised and given into the hands of design. The idea of an optimised planet leads us to the notion of Earth as packaging or a chamber in which the engineered atmosphere is continuously recalibrated.

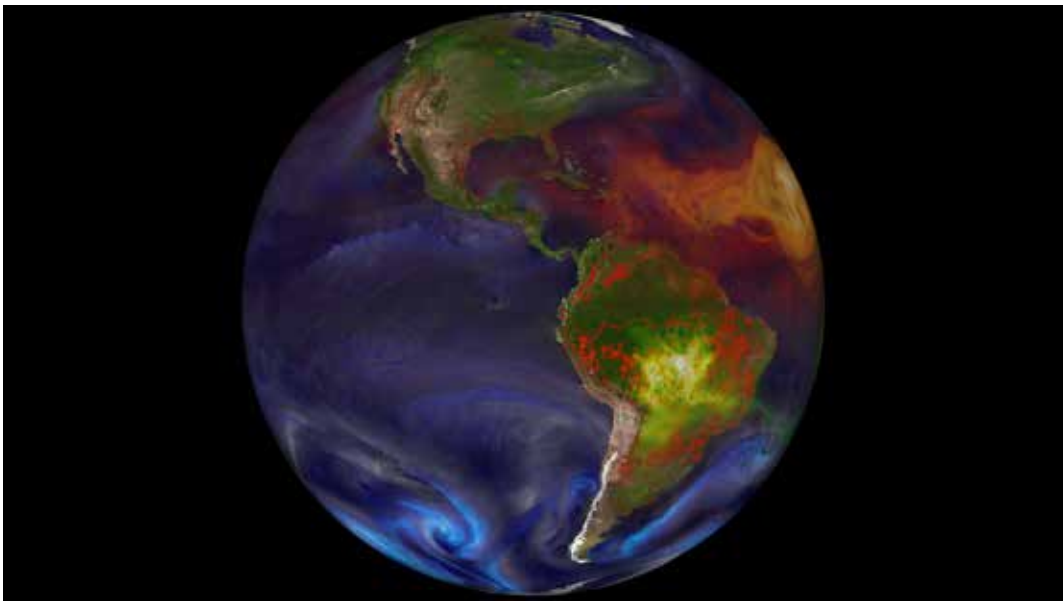


Fig. 6 GEOS-5 simulation Credit: NASA.

This technocratic approach, however, clashes with the physical limits and non-linear loops of a planetary system, revealing the illusion of total control over atmospheric com-

plexity. The overview and actions one believes to perform over the planet are actually over the simulation of it, and therefore atmospheric alterations and adjustments work on the simulation itself because the rules of it are human-established. But at the moment they are scaled up and applied on a planetary level, they will act in a world with other derived laws, making it impossible to impartially predict all the consequences due to these operations, leading therefore “to chain reactions with unpredictable effects on our ecosystem” (Kugler and Longfellow, 2022, p. 36).



Fig. 7 iOS 16 iPhone wallpaper
Credit: Apple.

As Benjamin Bratton (2024) has observed, “Planetary Computation reveals and constructs the planetary as a humanist category”: the planet is not only observed but is constructed as a human-readable and manageable concept. It is reduced to a unified vision, ubiquitous and accessible to anyone with a screen. Proposed in its forviating totality, it comes

down to the banality and massive diffusion of smartphone wallpapers. Turning on the phone screen, I no longer even pay attention to the simulated planet in the background. I am so familiar with the concreteness of such a depiction that the planet ceases to be an imaginary and becomes just an image. Satellite pictures, climate projections, and computational simulations create an observable planet reduced to an interface that is paradoxically distance because it is too accessible. I have the feeling I have every single aspect of the planet at my fingertips—that I can turn it off and put it back in my pocket with a click.

This detached and concrete familiarity experienced on a massive scale further feeds the techno-optimism that relies on atmospheric engineering strategies. The understanding of the planet performed through planetary computation translates the complexity of nonlinear processes into a packaging of data. The resulting interpretation of “planetary packaging” is therefore a reductive and clarifying interpretive lens through which to observe the entire planet.

CONCLUSION

The understanding of “planetary packaging” that I have unfolded in this text is an interpretive paradigm that depicts atmospheres across different scales and contexts: planets superimposed on planets, worlds excluding worlds, and atmospheres containing atmospheres. Container and content merge and confuse as in a Russian doll. We have seen how the smallest figure can observe and imitate the largest, tracing but modelling and speculating its attributes. While for the larger one, drawing on the smaller means omitting fundamental elements and offering a reductive and simplified understanding of it.

In MAPs the atmosphere is conceived as a protective interstitial space designed to extend the life of the product confined in it. Within these packages, however, we have recognised processes that echo Terrestrial dynamics at a planetary scale. Ceasing to be a liminal space that looks “empty” from the outside, the interior of those packages is transformed

into an optimised world that evolves an artificial ecology, simulated and superimposed on pre-existing ecosystems. The expiry date of worlds within the MAP is postponed by atmospheric engineering processes reminiscent of climate engineering strategies deployed at a planetary scale. The interpretation of planetary packaging in the last section is reversed. Packaging becomes the key to understanding a measured and calculated planetary system, reduced to a package



Fig. 8 Cheese in a Modified Atmosphere Packaging Credit_ Christian Scenini.

of data translated into simulations and images that offer a clarified but distorted understanding of it.

By entering the pockets of much of the Earth's population, the planet is reduced to an agglomeration of pixels that makes it as close as it is detached—an image, a packaging of data paradoxically distant because it is too accessible. The planet dissolves among its own echoing and redundant representations, entering into the common imaginary with the same effortlessness and immediacy as cheese packaging.

REFERENCES

- Adey, P. (2014). *Air: Nature and Culture*. Reaktion Books.
- Baudrillard, J. (1983). *Simulations*. MIT Press.
- Bratton B. (2024). Antikythera. Retrieved from <https://research.antikythera.org/#recursive-simulations>
- Bratton, B. (2019). *The terraforming*. Strelka Press.
- Buck, H. J. (2019). *After geoengineering: Climate Tragedy, Repair, and Restoration*. Verso Books.
- Cheng, I., Constable, J., Lewin, R., & So, V. (2018). *Ian Cheng: Emissaries Guide to Worlding*. Metis Suns.
- Dragona D., Parikka J. (2022). *Words of Weather: A Glossary*. Onassis Foundation.
- Ingold, T. (2011). *Being alive: Essays on Movement, Knowledge and Description*. Taylor & Francis.
- Ingold, T. (2012). *The Atmosphere*. Chiasmi International.
- Messeri, L. (2016). *Placing outer space: An Earthly Ethnography of Other Worlds*. Duke University Press.
- Kugler J., Longfellow S. (2023). *Objective: Earth*. Mudac and Les presse du réel.
- Sloterdijk, P. (2011). *Bubbles: Spheres Volume I: Microspherology*. National Geographic Books.
- Vakkalanka, M. S., D'Souza, T., Ray, S., Yam K., Mir, N. (2012). Emerging packaging technologies for fresh produce." <https://doi.org/10.1533/9780857095664.1.109>, 2012.

Article available at

DOI: 10.60923/issn.2724-2463/21422

How to cite

Scenini, C. (2025). Sealing Atmospheric Landscapes In Resonant Simulations. *img journal*, 12, 454-467.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

ATMOSPHERES AND PHAENOMENOGRAPHY: THE ABILITY OF IMAGES TO GENERATE ATMOSPHERES

Camilla Sette

University of L'Aquila

Department of Civil, Building Construction and Environmental Engineer

camilla.sette@graduate.univaq.it

ESSAY 189/12

ATMOSPHERES

QUASI-THINGS

IMAGES

PHAENOMENOGRAPHY

PERCEPTION

This paper explores the evolving concept of atmosphere in contemporary aesthetics, emphasizing its influence on images and visual representations. Traditionally seen as mere reproductions of reality, images are now recognized for their capacity to evoke atmospheres that shape perceptions and emotions. Drawing on the phenomenological theories of Hermann Schmitz, Gernot Böhme, and Tonino Griffero, the study redefines atmospheres as 'quasi-cosial' entities that exist between the subject and environment. Unlike static objects, atmospheres are fluid, multisensory, and affectively charged, influencing human experience holistically. The research also examines the role of im-

ages as 'generators of atmospheres', highlighting their performative power beyond representation. 'Phenomenographies' are proposed as innovative tools for capturing the ephemeral nature of atmospheres, bridging subjective experience and visual communication. This perspective challenges conventional distinctions between subject and object, offering new interpretative horizons in architecture, visual arts, and aesthetics. By recognizing the affective and sensory dimensions of atmospheres, the paper invites a re-evaluation of contemporary experiences, enhancing emotional engagement and deepening our understanding of lived spaces.

INTRODUCTION

The concept of atmosphere has become increasingly central to contemporary discussions on images and visual representations. While images have traditionally been regarded as mere reproductions of the visible world, they are now recognized as having the capacity to evoke atmospheres, profoundly influencing our perceptions and emotions. This change in perspective not only broadens the understanding of images but also enriches the debate on the relationship between aesthetics, space and sensory perception. Despite the increasing use of images to evoke atmospheres, there is still a lack of a shared language to represent them in a systematic way. Unlike objects that can be described through technical language, atmospheres elude objective codification, remaining vague and tied to the experience of the subject. In an era dominated by hyper-visibility and digital immersion, the focus on atmospheres invites us to reflect on non-visual and multisensory dimensions of experience.

This evolution opens new perspectives not only in art and design, but also in architecture and philosophy. Understanding the atmospheric power of images allows us to explore new modes of aesthetic storytelling and emotional interaction, enriching our experience of the contemporary world. Architectural visualizations, for example, no longer simply represent shapes and spaces, but seek to communicate the atmosphere of the designed environment, evoking feelings of warmth, coolness, intimacy or openness.

Philosophers such as Maurice Merleau-Ponty and Gaston Bachelard explored the link between sensory perception and imagination, suggesting that the image is not just a static representation, but a phenomenological event that transforms the experience of the world.

Sensory perception is not a passive process of registering stimuli, but a dynamic, interpretative activity. According to the phenomenological philosophy of Maurice Merleau-Ponty, we perceive the world not as a series of separate

objects, but as a continuous perceptual field in which body and environment co-constitute each other. In this sense, perception is embodied and situated: it involves not only the senses –sight, hearing, touch, smell and taste–, but also memory, attention and emotion. Every perceptual experience is imbued with expectation and anticipation, as the brain constantly compares sensory stimuli with mental schemata constructed from past experience. A key aspect of the link between perception and imagination is the concept of mental images, internal visual representations that reproduce perceptual experience in the absence of the actual stimulus (Purves et al., 2013; Giacchetta, 2022).

For example, studies in the field of neuroscience have shown that imagining an object activates the primary and secondary visual cortices, just as if one were observing it live. This suggests that imagination is not simply an abstract cognitive activity, but a quasi-sensory experience, involving the same neural networks as perception (Beighle et al., 2023). This dynamic view of the image is particularly relevant in contemporary aesthetics, where there is a re-evaluation of embodied experience and the role of the body in perception. Atmospheric images not only activate the emotional sphere, but also influence our corporeality, engaging the senses in a holistic and multidimensional way. Following on from these considerations, we now turn to the concept of ‘atmosphere’, despite its familiarity in everyday language and increasing academic attention, it remains an elusive and complex phenomenon, characterized by a series of tensions and ambiguities that make its definition and understanding a daring task.

ATMOSPHERES

But what is atmosphere? To define it, we start with essays by philosophers Hermann Schmitz, Gernot Böhme and Tonino Griffero. According to an aesthetic, phenomenological and

ontological view, atmosphere can be defined as a sensory and affective quality diffused in space. It is that particular tone that determines the way a person experiences his or her surroundings. It was 1969, when for the first time Hermann Schmitz, the most influential philosopher of corporeality, lived space and atmospheres, founder of the 'New Phenomenology', raged against psychologist-reductionist-introjectivist objectification with his neo-phenomenological thesis: "feelings are atmospheres and spatially effused – but not locally circumscribed – forces that grasp the felt body" (Schmitz, 2003, p. 20). Schmitz proposes a phenomenological interpretation based on 'spatial affects' – *räumliche Affekte*: the atmosphere manifests itself as "the complete occupation – *Besetzung* – of a space or region without surface within the felt body" (Schmitz, 2023, p. 45).

It is important to clarify at once that for Schmitz, the atmosphere is not to be reified as a third element between two, it is not to be seen as a relationship between two fixed and pre-existing poles – the percipient subject and space; in fact, he firmly opposes this dualistic view, as the proper dimension of the atmosphere is rather holistic (Schmitz, 2023). The atmosphere is "a vague whole or power, without visible and discrete boundaries, which we find all around us and which, resonating in our lived body, even involves us" (Griffero, 2010a, p. 15).

Atmospheres are hardly tangible and cannot be experienced with sight alone, but rather with the whole body, synaesthetically. To this 'hybrid' status of the atmosphere, Schmitz attributes precisely its own ontological genre, for which he uses the term 'semi-thing' – *Halbding* or quasi-thing – (Schmitz, 2011). The ontologies of things deal with things understood as concrete solids, experienced with sight; semi-things, on the other hand, are not tangible like solid things, yet they are not pure inner sensations, as they are also spatially experienced in the external world. The primary differences between semi-things and things are duration and extension. Things persist in space in a stable manner over time, as long as they exist, whereas quasi-things can interrupt their duration over time. They also present two different types of causality: in quasi-things cause and action

coincide, whereas in things we can distinguish between them – as opposed to things in which cause and action are separate (Schmitz, 2005). But what are quasi-things? Schmitz states

feelings are semi-things. Among the almost-things are the voice, the wind, the impetuous weight on us when we slip and fall or manage to stay on our feet, a recurring pain, a melody or a problem that does not want to leave our head, a person's unique and sharp or changing gaze, the piercing cold, the sultry heat, the deep darkness of the night or the time that does not seem to pass while we are bored or waiting nervously. (Schmitz, 2023, p. 81).

And according to Griffero

atmospheres, and, more generally, half-things, are ontologically other than things in the proper sense. Firstly, because a) they come and go without there being any point in asking where they have been in the meantime, but also b) because in their action they coincide with the phenomenon itself, without implying an external cause of their own. (Griffero, 2011, p. 14)

Atmospheres are not easily describable, because they are characterized by an intrinsic vagueness (Böhme, 2017b, p. 159; Rauh, 2017, p. 2), nor are they georeferenciable in a space, nor temporally circumscribable because they are ephemeral as they change over time. For example, a physical space may be the same, but by varying the boundary conditions, the atmosphere we perceive is totally different. Schmitz states that he is happy when he can capture an atmosphere, “a positive feeling, an impression from which I could later deduce particulars and ask myself what had triggered in me that feeling of warmth, of welcome, of lightness or amplitude that remained etched in my memory” (Schmitz, 2011, p. 104). However, it must be specified from the outset that not everything is atmosphere: “While it is true that affectivity ubiquitously colors our existence, not all of this affectivity really possesses the requirements most soberly assigned to an atmospheric feeling by the New Phenomenology” (Griffero, 2011, p. 12). And yet, while all feelings are atmospheres, not all atmospheres are feelings. Moreover, not all quasi-things

and situations are atmospheres: they can also be affectively neutral or have an affective effect only accidentally (Schmitz, 2023). Thus, only some situations are quasi-things and only some are feelings, and thus properly atmospheric. The conception of space ingrained in Western culture has led to feelings and atmospheres being regarded as internal to the soul, and therefore spaceless. But this introjection of atmospheres must necessarily be overcome (Schmitz, 2023). In fact, feeling an atmosphere does not necessarily mean being directly grasped by it

a serious observer caught at a stupid party feels the stupidity of the atmosphere, but this does not make him stupid too; on the contrary, he gets sad and frowns. Stupidity catches him in a mediated way through a presentiment of sadness and desolation. Often this indirect presentiment is the fluid seriousness of an open yet distanced participation, which elsewhere I have called aesthetic reverence – *ästhetische Andacht*). (Schmitz, 2023, p. 129)

Gernot Böhme, a German philosopher and one of the leading exponents of the 'New Phenomenology', expands and deepens the concept of atmosphere, placing it between phenomenology and aesthetics. For the philosopher, the quasi-cosmic character of atmospheres manifests itself in the ability to communicate and discuss atmospheres intersubjectively, as also highlighted by Albertsen (2019), and suggests that atmospheres, while not being tangible objects, possess a kind of autonomous existence, capable of exerting a tangible influence on individual and collective experience: we can agree on the presence of a cheerful atmosphere at a party or perceive the somber atmosphere at a funeral, regardless of our pre-existing state of mind. A central theme of Böhman aesthetics, atmospheres are that something between the subject and the object, which constitute the 'prior' of our perceptual and affective experience of the world and our involuntary involvement (Griffero, 2010a).

Atmospheres, therefore, arise between people and things; they are neither objective nor subjective, but "the shared reality of the perceiver and the perceived" (Böhme, 2017a, p. 23); "they are not something relational, but the relationship itself" (Böhme,

2010, p. 92). Following in the footsteps of Schmitz (Schmitz, 2003), who calls them semi-things, Böhme defines the quasi-cosical qualities of atmosphere “neither subject nor object - and yet not nothing” (Böhme, 2013a, p. 66).

Atmospheres are indeterminate, especially regarding their ontological status. One is not sure whether to attribute them to the objects or environments from which they emanate or to the subjects who experience them. Moreover, one is not sure where they are located. They seem to fill the space with a Gefühlston (tone-feeling), like a haze, as it were. (Böhme, 2017a, p. 13)

They are not conceived as ‘something objective’ –i.e. as properties of things–, yet they are something like the thing, belonging to the thing. Böhme defines the atmosphere as an intermediate phenomenon that can neither be reduced to an intrinsic property of things nor merely a projection of the self, “[it] is rather unclear where to place them: should they be attributed to the objects and the environment from which they seem to come, or should they be attributed to the subjects experiencing them” (Böhme, 1993, p. 22).

Atmospheres emerge from the complex interaction between human bodies, material objects, sensory elements such as sounds, lights, smells and other environmental factors, spreading through space in a fluid and dynamic manner: “the primary object of perception is atmosphere. [...] Atmospheres are apparently what is experienced in the bodily presence of humans and objects, and in space, respectively” (Böhme, 1993, p. 120).

Atmospheres therefore constitute the object pole of bodily presence in space, while the other pole is the subjective disposition. The presence of the percipient subject is therefore necessary to experience an atmosphere: it is necessary for him to be ‘exposed’ to it, to be present ‘here and now’ (Minkowski, 1970).

The essence of atmospheres can only be defined if and when we are affectively involved in them, and thus present. When there is therefore no subject involved, atmospheres cannot be “fully determined in their essence [...] Without the sentient subject, (atmospheres) are nothing” (Böhme, 2013b, p. 3).

In contrast to Schmitz's approach, which emphasizes the floating character of atmospheres and severely limits the feasibility of atmospheres (Schmitz, 2011), Böhme asserts that atmospheres are not free to float, but, on the contrary, are "something that emanates and is produced by things, people or their constellations" (Böhme, 2017b, p. 19) atmospheres do not float freely, but radiate from things and grasp us emotionally, characterizing our state of being. "It 'radiates', so to speak, into the surroundings, takes away the homogeneity of the surrounding space and fills it with tensions and suggestions of movement" (Böhme, 2017b, p. 19). The relationship of the atmosphere with the sentient subject occurs through this irradiation, which Böhme calls the "ecstasy of things" (Böhme, 1993, p. 121). Through ecstasies, from the Greek *ekstasis*, coming-out-of-self literally –and in a properly spatial sense–, we can perceive things and people. Atmospheres, therefore, can be produced: it is not just something that can be felt, but something that can be deliberately generated. Atmospheres can therefore be generated by generators of atmospheres (Böhme, 2013a). We can identify at least five types of generators of atmospheres: moods, synesthesia, motor impressions, social characters and communicative characters (Böhme, 2017b).

Böhme, moreover, identifies and analyses classical aspects, such as geometry, shape, proportions, size, but also light, color and sound, among the objective means by which atmospheres can be generated (Böhme, 2017a), but other generators have been identified in the most disparate elements (DeSilvey, 2006; Edensor, 2012, 2015; Bille et al., 2015; Hudson, 2015).

Each atmosphere then has its own distinctive character. Indeed, we usually speak of atmospheres by describing their character, and everyday language offers a very rich repertoire for this purpose: "we always already live in atmospheres... we know how to move in them, and we discover, working with them, that we also have a rich vocabulary for naming them" (Böhme, 2017b, p. 88). This character of the atmosphere can influence our mood and transforming it, of exerting a certain authority over the subject, regardless of his or her will or disposition. Through the

experiences of ingression and discrepancy, Böhme supports the previous statement, such that for example even if we are sad, we can perceive the joy of a sunny day, which therefore cannot be our projection, as it is discrepant to our sad mood. The moods of joy and sadness then have a different authority, so that the latter will prevail over the former: “atmospheres can be experienced as surprising and sometimes at odds with one’s mood. An example is when, cheerful, I enter a grieving community: its atmosphere can transform my mood to the point of tears” (Böhme, 2013a, p. 2). Again, Böhme states

perceiving atmospheres means opening up emotionally. This can compensate for the externalization of the environment and counteract the lack of contact, the coldness of modern individuals. To involve oneself in atmospheres is to want to participate and expose oneself to impressions, an indispensable condition for experiencing the pleasure of life and for discovering one’s own body as a means of being. (Böhme, 2017a, p. 50).

According to Griffero, atmospheres possess an affective quality that immediately and pre-reflectively affects the individual, constituting a form of intuitive and immediate knowledge: “atmospheres are perceived before they are understood, they are felt through the body before they are felt through the mind” (Griffero, 2019a, p. 125). For Griffero, who echoes the phenomenological definition of Schmitz and later Böhme, atmospheres are “this And, this in between, through which environmental qualities and human states are related, is the atmosphere” (Griffero, 2019a, p. 128).

Among the various phenomenological philosophers who have related atmosphere to the sensations and emotional tone of environments, spaces or places, Griffero defined atmospheres as “spatialized sensations” and “the specific emotional quality of a given ‘lived space’” (2015, p. 37). Atmospheres have an important incipient and liminal quality, as they belong neither to the percipient subject nor to the situation experienced by the subject. The paradox of ‘being precise with respect to the vagueness’ of atmospheres is addressed by Rauh (2017), who

focuses on the elusive and undefined nature of atmospheres, arguing how this aspect, often considered an obstacle in science, can instead be a fundamental characteristic for understanding and analyzing atmospheres, and not lead us to neglect them as subjects of investigation (Bille et al., 2015).

Rauh starts with the definition of atmosphere as a phenomenon that lies between the subject and the object, an 'and' that mediates between the subjective state and the qualities of the surrounding environment – see Griffero. This 'and', however, introduces an element of 'vagueness', making it difficult to define precisely what an atmosphere is and what its boundaries are. "The origins of vagueness can be traced back to the relational triangle world/language/self. Vagueness appears possible at every level and thus three forms can be distinguished: semantic, ontological and epistemic" (Rauh, 2017, p. 5). Rauh compares the experience of an atmosphere to that of being 'in the clouds' (Rauh, 2017). Like clouds, atmospheres are elusive and ever-changing phenomena, impossible to grasp completely. However, it is precisely this indeterminacy of theirs that makes them fascinating and capable of arousing intense emotions.

PHENOMENOGRAPHIES

One of the main difficulties when speaking of atmospheres lies in the ability to make the affective and experiential dimension of the lived space visible and shareable.

The perception of an atmosphere is, as mentioned earlier, a holistic experience that eludes analytical breakdown and precise description. This 'vagueness' of atmospheres should not, however, lead to a rejection of analysis, but to a search for methods better suited to grasping its complexity. Among the various methods, phenomenographies present themselves as fundamental tools for exploring, analyzing and representing the plurality of atmospheric worlds.

Phenomenographies are distinguished from traditional forms of spatial documentation and representation, such as

maps and photographs, by their focus on the atmospheric dimension: they do not set out to provide an objective or universal representation of a place, but seek to capture the sensations, emotions and bodily dispositions that a place arouses in those who inhabit or pass through it. Phenomenographies can be understood as “deferred representations of an experienced situation, real or imagined, using one or more expressive media –including written narratives– to embrace the spatial, bodily and affective spheres” (De Matteis et al., 2019, p. 5).

Phenomenography is “the deliberate application of technical tools that produce a description. In this sense, it can either be an interpretation of reality, as an account of a perceived atmosphere, or produce atmospheric effects itself” (De Matteis et al., 2019, p. 6). Phenomenographies thus attempt to translate the multisensory and subjective experience of lived space into a communicable format, using tools such as images, texts, sounds, or a combination of these, often relying on the collaboration between different sensory domains that are synaesthetically intertwined, and are in turn linked to the object of representation (Sumartojo et al., 2019; Morselli, 2019; Mackrodt, 2019; Canepa et al., 2019; Havik, 2019; De Matteis, 2022).

Representing lived space, and in particular atmospheres, is a complex and multifaceted undertaking. Indeed, atmospheres are by their very nature vague and elusive and do not lend themselves to overly sharp descriptions, but their phenomenographic description can paradoxically be very precise in capturing this vagueness, through “vague descriptions of precise phenomena or rather, and preferably, precise descriptions of vague phenomena” (Griffero, 2010a, p. 55). Capturing them through a specific medium, such as an image, text or sound, necessarily involves selection and interpretation, which risk betraying the original experience. De Matteis writes (2022) “The distance between direct experience and any form of subsequent representation cannot be eliminated, as even the most accurate phenomenography

produces a new perceptual object distinct from its origin in real space. However, affective topography does not stand as an imitation of reality” (De Matteis, 2022, p. 67).

It is therefore not an imitation but rather has something in common with lived experience. We have various phenomenographic tools at our disposal, of which the primary ones are undoubtedly images which, although they cannot faithfully reproduce an atmosphere, can evoke feelings and emotions, stimulating the reader’s imagination and creating a bridge between the lived experience and its representation. Images, following a distinct change in ontological status, can capture visual and spatial aspects of an atmosphere, but fail to convey its multi-sensory and temporal dimension. However, the very act of framing and selecting a specific moment in reality can amplify the affective content of the image (De Matteis et al., 2019, p. 9). Böhme (1999) in *Theorie des Bildes* –Theory of the Image– examines the role and function of images in contemporary culture, starting from a reflection on the ontology and aesthetics of images themselves. The philosopher attempts to develop a comprehensive theory that addresses the meaning, power and impact of images in our perception and society (Böhme, 1999). Indeed, the image is not just a vehicle of symbolic representation but possesses a presence and reality of its own. Images are not merely copies of reality, but create a world of their own, exerting a direct and immediate effect on our senses and experience. Their power lies in the fact that they manifest themselves as more than mere representation: they act as ‘apparitions’ that influence our perception (Böhme, 1999, p. 29). Böhme explores the aesthetic dimension of images, proposing a theory according to which images are aesthetic phenomena that actively involve the observer. In this context, aesthetics is not only a question of beauty, but of a sensitive experience that emerges through the encounter with the image (Böhme, 1999). Images, therefore, are not only objects of contemplation but have a performative function, capable of modifying the viewer’s perception of the world (Böhme, 1999).

Taking up Benjamin's (2020) concept of aura in part, but expanding it in original directions, for Böhme "the aura of an image refers to its ability to evoke a sensory and affective experience that goes beyond the represented object" (1999, p. 69). Images create atmospheres, influencing the surroundings and the mood of the observer.

The philosopher also addresses the role of images in contemporary society, particularly in relation to the media and visual culture. Images have an intrinsic persuasive and formative power, which goes beyond the content they represent. Böhme analyses the power of images as instruments of manipulation or control, highlighting how they are used to influence public opinion, arouse collective emotions or create group identities (Böhme, 1999). The author notes that images are never neutral: they carry a specific power that can be used for different purposes, from artistic to political or commercial.

Images touch our bodies and senses, influencing our emotional and physical state (Böhme, 1999). This connection between image and body is fundamental to understanding how images engage us on a deeper level than mere intellectual contemplation.

Böhme criticizes the Western philosophical tradition, in which the image has often been seen as a 'double' of reality, an imperfect imitation of reality, or as a sign to be decoded (Böhme, 1999). On the contrary, he proposes to consider images as autonomous entities that have their own capacity to act on the pathic subjects as primary objects of perception rather than as symbols of a represented reality (Böhme, 1999); they are much more than the imitation of reality (Böhme, 1999), they have their own perceptual autonomy – what Josef Albers calls 'actual fact' (1971).

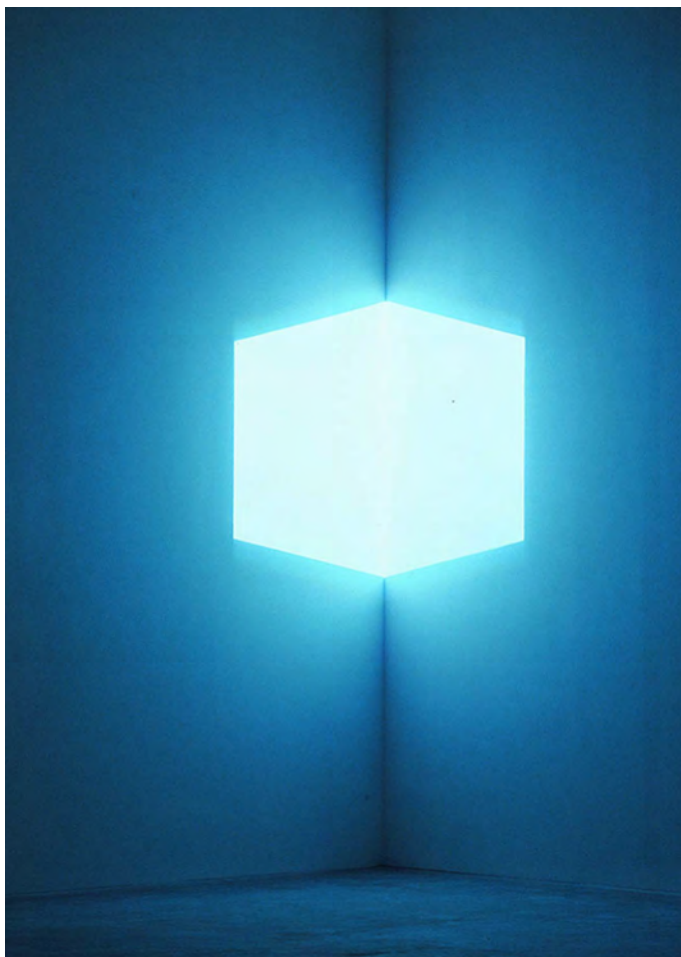
His criticism is mainly directed at idealistic and semiotic philosophy, which has subordinated images to the domain of concept or language (Böhme, 1999). For Griffero (2013), among the most tenacious prejudices is the idea that the image is always the image of something and not a thing itself,

“the temptation is always to see in the image, realistic or not, a primarily denotative if not even documentary role. And yet, the image notoriously ensnares us [...] It undoubtedly arouses our desire for it [Images] do not just speak of an atmosphere, they create it. The images themselves are this atmosphere and not just its representation” (Griffero, 2013, p. 82). Images, Griffero argues, are not mere copies of reality, but ‘things’ with which to ‘make’ something else. They ‘entice’ us with their ‘*Wirklichkeit*’, their reality in action, arousing emotions and desires. The atmospheric image is distinguished by its vagueness, its ability to evoke a distance, its deobjectivization and its ephemerality. For Griffero, of all images, the twilight image is particularly evocative as a combination of these four characteristics: it distances the near, alienates the familiar and transforms it into a memorial silhouette (2013). Images, which, prejudicially, are always regarded as denotative and documentary, for Böhme “do

Fig. 1 Olafur Eliasson, *Your rainbow Panorama* (2011). Credit: Studio Olafur Eliasson



Fig. 2 James Turrell, *Afrum Pale Blue* (1968). Credit: James Turrell



not merely speak of an atmosphere, but create it; the images themselves 'are' this atmosphere and not its representation" (1999, p. 149). Atmospheres are 'diffused' in the very image that generates them.

On a psychological and emotional level, the impact of images on human beings is analyzed by Freedberg (2009), who shows how the power of images is not only an aesthetic issue, but also a social and political one, and calls for a reassessment of the traditional approach of art history, which often focuses on formal, stylistic or contextual issues, but ignores the role of emotional and experiential reactions.

Fig. 3 James Turrell, *Stone Sky*
(2005). Credit: James Turrell



Wunenburger (1997) also examines the role and significance of images in human culture, knowledge and thought, assessing how images influence our understanding of the world and what functions they play on an epistemological, cultural and social level. The image for Wunenburger is not only a visual representation, but also a mediating tool between the subject and the world, capable of conveying meanings and values (Wunenburger, 1997). The image becomes a bridge between sensory experience and abstract conceptualization; not simply a reflection of the real world, but a tool through which we perceive and interpret it.

In contemporary art, artists such as James Turrell and Olafur Eliasson explore the atmospheric potential of images and light installations, immersing the viewer in sensory spaces that solicit emotional and bodily participation (Figures 1, 2, 3 and 4). These works demonstrate how the image can transcend representation to become an atmospheric experience itself. Of the various types of images, photographs also represent a social “memory bank” (Shanks, 1997, p. 98). Photography works on memory and time, crystallizing a past moment that becomes present again. And if “memory is the act of remembering from the point of view of a later time” (Shanks, 1997, p. 99), photographs help us in the reactivation



Fig. 4 *A moment suspended in time, where the silence of dawn intertwines with the vastness of the mountains on the horizon. Credit: Camilla Sette*

of the same, soliciting a bodily resonance felt through multi-sensory effects. "Photography is a medium capable of articulating reality in a non-representational manner, bringing the dynamics of the emotions to the fore [...] Images become formidable descriptors of the qualities of lived space, capable of making present that surplus that otherwise remains invisible to analytical methods" (De Matteis, 2022, p. 139-142). Photography makes it possible to capture "the situation of the moment" (Hasse, 2012, p. 65) and the immediate presence of atmospheric perception, a direct impression of what exists in the form of an image (Figure 4). Not all images, however, can generate an emotional response, and thus fix an atmosphere. Only images that stimulate us synaesthetically can generate an emotional response (Morselli, 2019).

CONCLUSIONS

In conclusion, the analysis of the concept of atmosphere revealed the complexity and depth of a phenomenon that eludes rigid definitions but, at the same time, permeates every aspect of our sensory and affective experience. Through the theories of Schmitz, Böhme and Griffero, it has been highlighted how atmospheres are not simply objective properties of space or mere subjective projections, but quasi-cosical entities that inhabit the intersection between subject and environment, influencing our state of being in a holistic and multisensory manner. The phenomenological approach has allowed us to overcome traditional dichotomies between subject and object, opening new horizons of interpretation in contemporary aesthetics, architecture and the visual arts. In this context, images not only represent, but also create atmospheres, confirming their evocative and performative power. The future challenge will be to develop phenomenographic tools capable of capturing and communicating this ephemeral and multisensory dimension, overcoming the limits of traditional visual representation.

Attention to atmospheres not only enriches our cognitive baggage but invites us to rethink our experience of the contemporary world, enhancing the emotional and affective dimensions of the body.

REFERENCES

- Beighle, K., Canepa, E., Condia, B., Djebbara, Z., & Mallgrave, H. F. (2023). *Designing atmospheres: Theory and science*. New Prairie Press.
- Bille, M., Bjerregaard, P., & Sørensen, T. F. (2015). *Staging atmospheres: Materiality, culture, and the texture of the in-between*. *Emotion, Space and Society*, 15, 31-38.
- Böhme, G. (1993). *Atmosphere as the fundamental concept of a new aesthetics*. *Thesis Eleven*, 36(1), 113-126.
- Böhme, G. (1999). *Theorie des Bildes*. Wilhelm Fink.
- Böhme, G. (2010). *Atmosfera, estasi, messe in scena*. Christian Mariotti Edizioni.
- Böhme, G. (2013a). The art of the stage set as a paradigm for an aesthetics of atmospheres. *Ambiances. Environnement sensible, architecture et espace urbain, Redécouvertes*.
- Böhme, G. (2013b). *Atmosphäre: Essays zur neuen Ästhetik*. Suhrkamp Verlag.
- Böhme, G. (2017a). *Atmospheric architecture: The aesthetics of felt spaces*. Bloomsbury Academic.
- Böhme, G. (2017b). *The aesthetics of atmospheres*. Routledge.
- Canepa, E., Scelsi, V., Fassio, A., Avanzino, L., Lagravinese, G., & Chiorri, C. (2019). Atmospheres: feeling architecture by emotions. Preliminary neuroscientific insights on atmospheric perception in architecture. *Ambiances. International Journal of Sensory Environment, Architecture and Urban Space*. DOI: 10.4000/ambiances.2907
- De Matteis, F. (2022). Una topografia affettiva. In De Matteis, L. & Catucci, S. (Eds.) *The affective city. Abitare il terremoto*. Lettera Ventidue.
- De Matteis, F., Bille, M., Griffero, T., & Jelić, A. (2019). Phenomenographies: describing the plurality of atmospheric worlds. *Ambiances. International Journal of Sensory Environment, Architecture and Urban Space*. DOI: 10.4000/ambiances.2526
- DeSilvey, C. (2006). Observed decay: telling stories with mutable things. *Journal of material culture*, 11(3), 318-338.
- Edensor, T. (2012). Illuminated atmospheres: Anticipating and reproducing the flow of affective experience in Blackpool. *Environment and Planning D: Society and Space*, 30(6), 1103-1122.
- Giachetta, A. (Ed.) (2022). *Architettura e immagini mentali: processi cognitivi per il progetto dello spazio costruibile nell'era della complessità*. Franco Angeli.
- Griffero, T. (2010a). *Atmosfera: Estetica degli spazi emozionali*. Editori Laterza.
- Griffero, T. (2011). Come ci si sente qui e ora? La "Nuova Fenomenologia" di Hermann Schmitz. In Schmitz, H. *Nuova Fenomenologia. Un'introduzione*. Christian Marinotti Edizioni.

- Griffero, T. (2013). A bassa definizione. L'atmosfera intercorporea e memoriale dell'immagine in Conte, P. (Ed.) *Une absence presente. Figures de l'image memorielle*. Mimesis Edizioni.
- Griffero, T. (2015). *Atmospheres: Aesthetics of emotional spaces*. Ashgate.
- Griffero, T. (2019a). In a neo-phenomenological mood: Stimmungen or atmospheres? *Studi di estetica*, (14).
- Havik, K. (2019). TerriStories. Literary Tools for Capturing Atmosphere in Architectural Pedagogy. *Ambiances. International Journal of Sensory Environment, Architecture and Urban Space*. DOI: 10.4000/ambiances.2787
- Hudson, C. (2015). ION Orchard: atmosphere and consumption in Singapore. *Visual Communication*, 14(3), 289-308.
- Mallgrave, H. F. (2015). *L'empatia degli spazi*. Architettura e neuroscienze. Raffaello Cortina Editore.
- Purves, D., Cabeza, R., Huettel, S. A., Platt, M. L., LaBar, K. S., & Woldorff, M. G. (2013). *Principles of cognitive neuroscience* (Vol. 83, No. 3, p. 757). Sinauer Associates.
- Mackrodt, U. (2019). How atmospheres inform urban planning practice—insights from the Tempelhof airfield in Berlin. *Ambiances. International Journal of Sensory Environment, Architecture and Urban Space*. DOI: 10.4000/ambiances.2739
- Minkowski, E. (1970). *Lived-time: Phenomenological and Psychopathological Studies*. Northwestern University Press.
- Morselli, E. (2019). Eyes that hear. The synesthetic representation of soundspace through architectural photography. *Ambiances. International Journal of Sensory Environment, Architecture and Urban Space*. DOI:10.4000/ambiances.2835.
- Rauh, A. (2017). In the Clouds: On the Vagueness of Atmospheres. *Ambiances. International Journal of Sensory Environment, Architecture and Urban Space*. DOI: 10.4000/ambiances.818
- Schmitz, H. (2003). *Was ist neue Phänomenologie?* Ingo Koch Verlag, Rostock.
- Schmitz, H. (2005). Der leibliche Raum. System der Philosophie III Teil 1 p. XIX, 512. Bonn Verlag.
- Schmitz, H. (2016). Atmospheric Spaces. *Ambiances. Environnement sensible, architecture et espace urbain, Redécouvertes*.
- Schmitz, H. (2011). *Nuova Fenomenologia. Un'introduzione* (trad. a cura di Griffero T.). Christian Marinotti Edizioni.
- Schmitz, H. (2023). *Atmospheres* (trad. a cura di Marinucci, L. & Griffero, T.). Mimesis Edizioni.
- Shanks, D. (1997). *Human Memory: A reader*. Routledge.
- Sumartojo, S., Edensor, T., & Pink, S. (2019). Atmospheres in urban light. *Ambiances. International Journal of Sensory Environment, Architecture and Urban Space*. DOI: 10.4000/ambiances.2586
- Wunenburger, J.J. (1997). *Filosofia delle immagini*. Einaudi Editore.

Article available at

DOI: 10.60923/issn.2724-2463/21421

How to cite

Sette, C. (2025). Atmospheres and Phaenomenography: the Ability of Images to Generate Atmospheres. *img journal*, 12, 468-489.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

FROM THE 'GENITIVE' MODALITY TO THE ATMOSPHERE: AN OSMOLOGICAL STUDY IN TO EPISTEMIC SPACE

Alessia Ugolin

Independent Researcher

alessia.ugolin@gmail.com

ESSAY 190/12

OLFACTION

NEUROCOGNITION

CROSS-CULTURAL LEXICON

ENVIRONMENTAL AESTHETICS

PSYCHOGEOGRAPHY

This paper foregrounds the 'genitive' modality of olfaction of olfaction –the linguistic habit of naming a smell by referring to its source– as a fundamental structure for understanding the resistance of this sense to abstraction.

Through a comparative analysis between Western lexical scarcity and the terminological granularity found in specific non-Western cultures, the study investigates the neurocognitive and philosophical reasons for this ineffability.

Starting from these foundations, the research outlines the intrinsically atmospheric character of smell, thereby analysing its connection to the concept of transition and its role as a socio-political indicator, capable of mapping and negotiating urban space.

Integrating neuroscientific evidence, phenomenological analysis and ethnography, the article proposes a polyphonic framework that elevates smell from a peripheral sense to a primary epistemic device for constructing and navigating lived atmospheres.

THE DESCRIPTIVE ISSUE

It seems that smell eludes attempts to be fixed through language, to be named and, above all, communicated and transmitted linguistically, thus circumventing any attempt at abstraction (Majid *et al.*, 2018). Think of when we are faced with the problem of verbally recounting an olfactory memory. No matter how dear the aroma described is to us, words fail us, causing us to fall into banality.

When Wittgenstein asks us to describe the aroma of coffee, it seems that words are insufficient for a correct description, and he inquires: 'Why can't we do it? Are we lacking the words? And what are we lacking them for?' Above all, he asks a fundamental question for our study: 'But where does the idea come from that such a description should be possible?' Have you ever felt the lack of such a description?" (2009, p. 610).

We can say that the essence of language is definitional, i.e. that it responds to the metaphysical need for *tì estin*, for "what is" (Caporossi, 2013). This tendency is inherent in the structure of every type of language and arises when we arbitrarily assign a meaning to a signifier. Let us therefore try to understand why we may feel the lack of such a description, since even when an olfactory sensation is very precise, finding the words to describe it is almost impossible.

Sight and hearing work at a distance, they have a visible and audible object that can be described and shared. Smell, on the other hand, has no objects, it has the sensations of objects. Sensations that cannot be felt over time without perceiving the source itself. Smelling means entering reality chemically, a fleeting reality, often without awareness.

Analysing the neuroanatomy of the olfactory system can help us highlight the unique attributes of olfactory cognition in order to understand the reasons for its weak link with verbalisation. The olfactory system is the only sensory system whose passage of information bypasses the thalamus, that particular component of the brain, the centre for collecting and sorting sensory information to and from the cerebral

cortex, which activates conscious attention by regulating the state of consciousness (Jacobs, 2023). The thalamus works when stimuli are visual or auditory, but not with olfactory stimuli. For this reason, the main olfactory bulb acts as its own “relay station” (Howes, 2008), without the need for the intermediate action of the thalamus, sending input to the olfactory cortex, i.e. the piriform cortex. The olfactory system also has connections with the limbic structures of the amygdala, which controls emotions and moods, and the hippocampus, where memory structures are regulated; this proximity helps us understand why smells are intrinsically emotional (hedonic).

This peculiar neural circuit would explain why it is difficult to recall an olfactory memory, in contrast to visual and acoustic accuracy, which allows us to picture a memory of this nature much more effectively. Think about how the way we store a smell is influenced by our mood, the place we are in, the people we are surrounded by; this dependence of the olfactory stimulus on the variables of the context in which it is presented (presentation, identity and duration of the stimulus itself) causes an easy distortion of the input, a difficulty in consciously remembering or labelling that smell, in contrast to learning and olfactory memory, which are remarkably resistant to decay (Herz and Engen, 1996).

Odours, therefore, create a sense of phenomenological proximity to the odour source.

In these terms, smell can be a radical example of what Deleuze calls an “image-affection”, i.e. an image “that connects directly to the body”, a “motor effort on an immobilised receptive plate” (2002, p. 85). In fact, it provokes a sensation of direct physical contact and, in extreme cases, can even cause migraines or trigger involuntary reflexes, such as retching.

These notions fuel reflection on the possibility of considering smell as a memory system in its own right. One of the reasons why this question remains unanswered is that we still lack a standard model of odour perception (Sagar *et al.*, 2023). Psychological research on language highlights that it

is possible not to remember a term while still being able to recall the morpho-lexical information associated with it (e.g., whether the term was masculine or feminine). This linguistic phenomenon has been called the 'tip of the tongue' phenomenon. More recently, a similar phenomenon has been identified in the olfactory sphere, the 'tip of the nose' (Brud, 1986), i.e. an experience of great familiarity with a smell, but, unlike the 'tip of the tongue', in the 'tip of the nose' there is no lexical access, an impossibility of linguistic naming.

Much linguistic research is based on the idea that for each smell there is only one "veridical label" that identifies it based on the name of the odour source (Brud, 1986). The fact that only the names of smells that correspond to veridical labels are considered correct in experimental scientific literature risks underestimating the potential of language. People call the same smells by different names: even professionals, such as noses, olfactory analysts and sommeliers, have this difficulty. Luca Turin, who can be counted among the aforementioned experts, states that two experts can describe a similar olfactory stimulus in completely different ways. Various studies support this claim. For example, in 1986, a test was conducted in which 120 noses, i.e. olfactory experts who formulate perfumes professionally, were asked to identify the names of 20 distinct odours, resulting in a list of 507 substances (Brud, 1986).

This experiment shows that, even among experts, not only is there no reference alphabet, but perhaps even perception itself can have peculiarities that change according to experience, origin, age, etc. It is necessary that the simple 'one smell-one name' relationship, introduced in the olfactory field because it has historically worked in the visual field (think of the concept-name, colour-name, shape-name, number-name), be adjusted to reflect greater complexity, within the contours of a more layered and tortuous correspondence that can be summarised in the formula 'one smell-many names'.

Therefore, let us outline a multifaceted and polyphonic approach to olfactory verbalisation, starting with a passage from

Cassirer (2015, p. 123), where he states that: “When language attempts to indicate certain olfactory qualities, it is mostly forced to follow the indirect route of words indicating things, which it has coined on the basis of other intuitive-sensory data”.

A smell can be described as bitter, peppery or burnt, borrowing from the sphere of taste; it can be described as cold, full-bodied or velvety, referring to the tactile component; we can mention green smells or dark, monolithic, powdery nuances, using visual metaphors; and even sombre, strong, vibrant notes, borrowed from musical notation. The path of words indicating things, therefore, is taken by using verbal expressions that refer to one sense to describe another, resorting to the expressive association between words pertaining to at least two different sensory spheres, or synaesthetic metaphors. Synesthetic metaphors can enlighten us about the relationship between sensoriality and language, since metaphorical correspondences move ‘horizontally’, from one sensory realm to another, without the vertical transition from sensoriality to abstraction.

If we analyse the phenomenon from a psychophysical point of view, we discover that synaesthetic metaphors originate in the cerebral architecture underlying sensory perception, thus becoming embedded in the neural interconnections that direct sensory and motor experiences. Perceiving the same object through different sensory modalities allows us to retrace the path that, from language through linguistic apprenticeship, returns to the sensory sphere. The word is endowed with a new sensory dimension, which starts from the senses and extends to such an extent that it turns on itself, reveals itself, unfolds until it returns to the senses. It leans over the precipice of language and then returns to the den of the senses. From the senses to the senses.

Let us return to Wittgenstein with the notion of *sehen als* (1983, pp. 130, 318-321), “seeing as, grasping aspects”, in his interpretation of recognising significant aspects, bearers of meaning, in the immediacy of the moment. Wittgenstein’s *sehen als* is explained by Merleau-Ponty with the opposition

between *vor ceci* and *voir selon* (More, 2024, p. 19), i.e. seeing dominated by the frontal relationship with the object, optical seeing (*vor ceci*), or “seeing that”, which we never experience during vision, because when we see, we always do so with our experiential and cultural baggage, etc., which makes us “see according to” the filter of our perceptual habits (*voir selon*). *Voir selon* does not concern interpretation, but a lens that is placed on optical vision, and therefore takes the form of the subject's mode of perception. *Sehen als* is *voir selon*, which allows *Aufleuchten des Aspekts* (Wittgenstein, 1983, p. 318), which we can translate as “a flash of insight”, “suddenly grasping”, detecting similarities between things piled up in the background of reality using aesthetic intelligence. Seeing what is common, recognising a strangely familiar shape in the formless, and attributing meaning to that aspect as it emerges.

In *Remarks on the Philosophy of Psychology*, there is a passage in which taste and smell are linked and then the focus returns to vision:

But now let us consider this type of explanation: if one holds the nose while eating, foods lose all flavour except sweet, bitter, salty and sour. So, we really want to say that the particular flavour of bread, for example, consists of this “flavour” in the strict sense and the aroma that is lost when we do not breathe through the nose. Why should something similar not happen when we see something as something? Something like this: the eye does not distinguish the figure as a metal wire structure from the figure as a box, etc. This is, so to speak, the aroma that the brain adds to what is seen. On the other hand, the eye also discerns distinct aspects: it almost phrases the visual image; and one phrasing is more suited to one type of interpretation, while another is more suited to another. (Wittgenstein, 1990, I, p. 22).

Like all other sensory activities, tasting is an operation enabled by *sehen als*, a perception of the taste of bread given by the flavour of bread, which must be associated with the aroma related to what is seen.

We can imagine perception as a very fine, thin fabric, in which the skilled hands of the weavers, the senses, weave tirelessly, each using a different thread. If we observe the fabric resulting from the weaving work, we would not distinguish either the weaver's hand or the colour of the thread used, because the fabric has become a single shade.

Thus, in perception, the contribution of each sense is shaped by the others, in a game of innate and structural synesthesia: in Wittgenstein's metaphor, the eye, i.e. sight itself, sees only lines, taste senses only flavour, it is the brain that adds aroma (i.e. olfactory information) and allows us to grasp the change in the appearance of the figure, to grasp the structure, *etwas als etwas sehen*, or "to see something as something" (Wittgenstein, 1983, pp. 318-321).

Excluding these "aromas" of cerebral origin, we would see only lines and junctions, not the figures as such. For Merleau-Ponty, this synergistic character is the basis for understanding bodily unity. He states that 'synaesthetic perception is the rule' (2003, p. 308), because our daily experiences are permeated by multisensory perception, as a result of a bodily unity that perceives through action in time, change and metamorphosis. In the field of neurology, synaesthesia is conceived as a rare condition and an indication of a pathological defect. Merleau-Ponty deconstructs this conception and thinks of each sense as part of a whole that collaborates with the whole. It is the synaesthetic synthesis operated by the body that creates perceptual unity.

The limited linguistic permeability of smell clashes with the natural tendency of language to struggle with the inexpressible until it can be expressed, a struggle against the ineffable that finds its end in fitting the word as deeply as possible into a particular feeling, marginalising the emptiness of the absent concept with a symbolic comment on that absence, a construction representative of the object.

We will now focus on the analyses and linguistic subdivisions that have been applied to smells and which, over time,

have gained the most credibility. Among these, the 'genitive' modality of referring to smell is dominant, as talking about smell inevitably means mentioning its source.

GENITIVE CLASSIFICATION

The classification of odours is a subject that receives considerable attention in scientific literature. The principle underlying the various attempts at cataloguing consists in identifying a fundamental organisational system on which all other olfactory sensations can subsequently be arranged. This grouping is similar to that of colours, but encounters difficulties due to the richness of olfactory stimuli and, as we have seen previously, their difficult linguistic permeability.

Aristotle distinguishes two main categories of odours (Cavalieri, 2009, p. 129). The first is the prerogative of humans and animals and is connected to the perception of the taste of food. The odours belonging to this first category have the quality of being perceived accidentally as pleasant or unpleasant. The second, on the other hand, is only perceptible to humans. These two categories are in turn divided into six others, which can be summarised as acidic, austere, unripe, sweet, foul and fatty scents. The link between scent and heat also emerges: smell is a type of heat, the diffusion of odour comes from a process of evaporation of the substance that acts as a sort of cooking of the raw material. In this way, the odour is released, which belongs to the category of 'dry' substances as a smoky or vaporous effluvium that comes from the metamorphic action of fire. Plato presents a similar approach: the scent is smelled during the transition of the substance, that intermediate passage that allows the body to burn, evaporate, melt and rot. Only the acquisition of this intermediate form allows our olfactory system to capture the smell (Cavalieri, 2009, pp. 116-117).

Linnaeus divided seven classes using hedonistic pleasure as a criterion, ranking smells from the most pleasant to the least agreeable to the nose. The two most pleasant classes

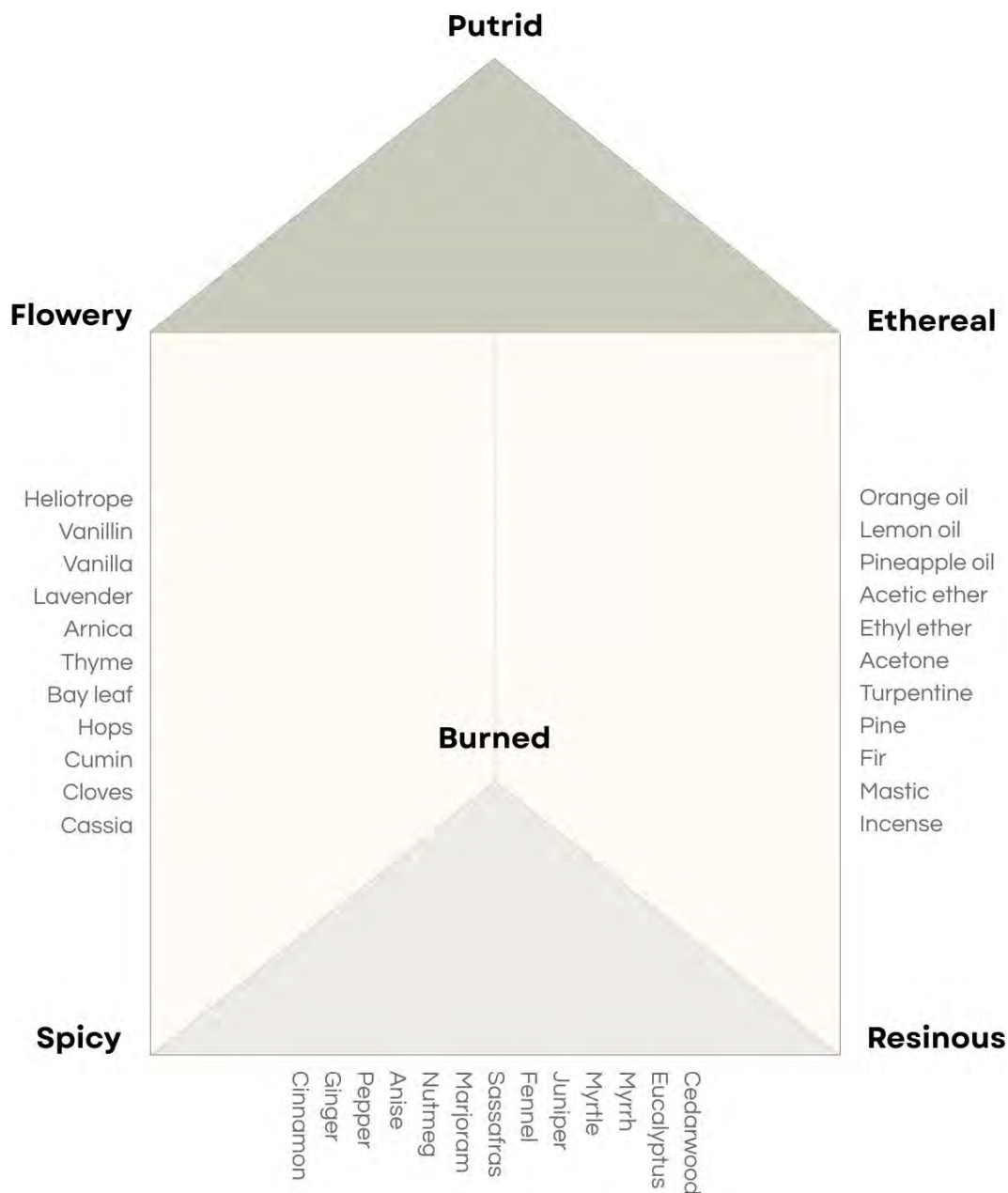


Fig. 1 Author's own work,
Henning's Smell Prism.

are aromatic and fragrant, followed by ambrosial, alliaceous and fetid, which can be relatively pleasant or unpleasant. Finally, there are poisonous and nauseating smells, which are always unpleasant. To Linnaeus' categories, physiologist Hendrik Zwaardemaker added the category of etheric odours, such as ether, acetone and chloroform; and empyreumatic odours, obtained by heating, distillation or roasting, such as tobacco smoke, tar, hot chocolate, jams, petrol and coffee (Cavaliere, 2009, p. 117). In 1916, Hans Henning developed a theory that geometrically distributed all possible odours (putrid, fragrant, spicy, resinous, burnt, fruity) on the six faces of a prism (Fig. 1). Subsequently, John Amoore published the stereochemical theory, which identifies correspondences between primary odours, which have molecules with certain chemical characteristics, and types of receptors located in the nasal mucosa. He identified seven primary odours, distinguished as mentholated, camphorated, musky, floral, ethereal, putrid, and spicy (Fullman, 1963).

Despite the variety of classification schemes proposed, the physical and chemical properties of odours are difficult to classify with certainty, making these attempts partial and overlooking the variability of characteristics in relation to individuals. In this regard, we should mention the widespread occurrence of specific anosmia for certain odours, which is comparable to colour blindness (Klyuchnikova and Voznessenskaya, 2019), on which no research has yet been conducted to understand whether these variations are systematic in nature.

Speaking of variability, it is also necessary to mention the perceptual changes that a person undergoes during their lifetime, but also in the course of a single day: if a smell is sniffed for a prolonged period, sensitivity to it decreases until habituation occurs, a phenomenon that can be observed when we become so accustomed to wearing a perfume that we forget about it until someone points it out to us.

Furthermore, basing the classification on a hedonistic liking attributable to the pleasantness or unpleasantness of the smell could be misleading. Considering the individual

experience of the subject, a smell that is not unpleasant in itself could cause rejection if it is associated with a traumatic or painful event, whereas a neutral smell can be sublime if linked to an emotionally intense experience. Imagine the intolerance we experience during childhood towards the aromas of certain foods and how this can persist throughout our lives, altering the taste of the adult (and therefore the sense of smell, given that only a quarter of taste perception belongs to taste, the rest, about 80%, is a matter of smell) (Levi, 2012, p. 3).

OLFACTORY ATMOSPHERE

Not breathing is impossible. Without the tension between inhaling and exhaling, human beings cannot survive. Our nose is the filter that maintains an ever-living contact with the outside world, allowing the world into the body and releasing the body into the world, like a gateway, a threshold that modifies the atmosphere breathed in and its inhabitants.

The literary critic Steven Connor (2010) traces the etymology of the word 'atmosphere' back to the Sanskrit *atman*, meaning breath, and notes that the first recorded use of the word in the English language is found in a 1638 treatise by Anglican cleric John Wilkins, concerning the possibility that the Moon might be habitable (Connor, 2010; 2016). Wilkins speculates that there is an *atmos-sphæra*, a sphere of vaporous air surrounding the Moon that might be capable of supporting human life (Wilkins, 1684, p. 103). In fact, modern usage of the word atmosphere denotes the conditions under which real or imagined life could flourish (Fig. 2).

We can attempt to connote the notion of atmosphere, even though it is a concept resistant to schematisation, as a tonalised space (Mancioppi and Perullo, 2020), which takes on a tone according to the objects it contains, be they people, spaces, environments, or climates (both meteorological and sentimental). It is a connective tissue, the space between objects and, at the same time, the force that holds them together. In this context,

Fig. 2 Baldwin, T., *Airopaidia: Containing the Narrative of a Balloon Excursion from Chester*, 1786, Chester, Printed for the Author by J. Fletcher. [Online] Available from: Internet Archive <https://archive.org/details/airopaidiacontaioobald> [Accessed: 26 December 2025]. The atmospheric nature of smell reflects a complexity already glimpsed in the late eighteenth century. Thomas Baldwin's *A Balloon Prospect from Above the Clouds* (1786) exemplifies this duality, capturing the atmosphere as both a physical, meteorological phenomenon and an affective, sensory experience.



we may consider odors as the most atmospheric elements of all. This characteristic is evident in the 'genitive' modality we use to call them, as talking about smell inevitably means mentioning the source of it, as we have seen in previous chapters.

The significance of the olfactory dimension clearly emerges within the ritual practices of various ethnic groups. The anthropologist David Howes (2008) asserts the existence of

a link between olfaction and transition, understood as a moment of cognitive transformation, a link that stems from the tendency of odours to constantly escape from the objects that produced them and the way they traditionally signal processes of transformation, such as cooking or putrefaction.

For these reasons, odours are used to mediate and manage transitions between important moments and social categories. Olfactory stimulation occupies a primary role in rites of passage, as it sanctions the individual's penetration into the atmosphere of the moment, uniting them with their companions and triggering strong mnemonic-affective reactions (Mancioppi, 2021).

We can therefore deduce the socio-political nature of scent, which produces dynamics of inclusion and exclusion, acceptance and rejection, recognition and aversion towards the source of the odour itself. This is a pathic character that governs collective mechanisms covertly, imposing itself with the same compelling nature as pheromones (Herz, 2008, p. 87–88). Pheromones, in fact, structure social behaviours and influence what we call aura, *Stimmung*, mood, climate, or 'ambiance', dimensions that are as sensitive as they are cognitive, creating intimate and instinctive reverberations on how we experience the nature of the space in which they are perceived (Craver, 2009).

CROSS-CULTURAL OLFACTORY LEXICON

The olfactory dimension is delineated as processual, as, being tied to breath, it represents the becoming of the being. Every living organism goes through vital phases marked by its own effluvia, culminating in the putrefaction of matter. It is no coincidence that the words *odore* (scent, presentiment) and *odio* (hatred, in the sense of keeping away, cursing) historically share a common root (Mancioppi and Perullo, 2020). Throughout history, this pathic nature has been used for discrimination: uncomfortable people, ethnic groups considered

inferior, and poorer classes have been labelled as carriers of foul smells, indicators of both social corruption and physical decay. Here, the inclusive or exclusive dynamics lead to the need for deodorisation, displacement, or ghettoisation of the reclusive individual (Majid and Burenhult, 2014, pp. 266–270).

If we turn our attention outside Western cultures, we discover that olfaction is, in some cases, held in high regard. The inhabitants of the Andaman Islands base their counting of time on the biological cycle of plants and name the different periods of the year according to the fragrant flowers that bloom at different times. Their year can be summarized as a cycle of scents (Ives, 2022). The Dassanetch group, in contrast to most people who find burnt or decomposed odours unpleasant, recognise that both bad and good odours are necessary for the rhythm of time and life, and that one olfactory season paves the way for the next (Classen et al., 1994, p. 105). The Brazilian Bororo tribe has two fundamental odours, putrid and sweet, which serve to indicate the two regulating cosmic forces, life and spirit (Classen et al., 1994, p. 102). This simple olfactory division determines the structure of the Bororo beliefs and practices concerning the body, social and natural orders, and spirituality; the olfactory code in this case reinforces social hierarchies, even at a subconscious level.

The Amazonian people of the Desana, who call themselves *wira*, the smelling people, exhibit ways of existing and managing space that are nose-oriented. They believe that every tribal group has a characteristic odour, which imbues the place where they live with a specific territorial scent. Men and women also have distinct characteristic odours. Therefore, the olfactory landscape of their environment consists of a variety of distinct olfactory zones crossed by the different olfactory traces of the people, animals, and plants living in them. Their olfactory linguistic structure is genitive, always citing the source of the odour, but it refers to a much wider range of sources and odorous objects than the Western one (Classen et al., 1994, p. 99)

These examples of non-Western groups seem to highlight how material development can contribute to a linguistic elusion of the olfactory sphere. This development points to the structural and geographical variations encountered by a group when moving from a life filled with attempts to navigate themselves in the natural environment to living surrounded by artificial structures where smelling danger is no longer necessary. In our society, no longer dominated by the hunter-gatherer binary, verifying the degree of putrefaction of matter solely with one's nose, for instance, is an activity that we can forgo (Sharma, 2023, p. 5).

These ethnolinguistic studies also highlight that the olfactory lexicon of Western languages presents a poverty that does not correspond to the richness of terminology and the potential for abstraction found in many non-Western societies. Western material development has allowed for a linguistic elusion of the olfactory sphere: in a world already marked by labels and signs, designating the odour by the name of its source proves sufficient for daily life (Sorokowski *et al.*, 2024).

It is therefore plausible to hypothesise that odours have developed a loose relationship with verbalisation because they carry a certain semiotic completeness that manifests itself in the immediacy of the impressions, memories, and emotions they elicit.

TOWARDS ENVIRONMENTAL AESTHETICS

Odours, as 'atmospheric' elements, can be used as a tool to represent a place, which can be evoked through its real or imaginary scent. The approach of olfaction and Psychogeography feels natural. Psychogeography, in the definition of Guy Debord, is the study of the precise effects of the geographical environment, which acts directly on the affective behaviour of individuals (Drobnick, J., 2002). The deeply personal associations evoked by odours and the holistic environments of the city are equally difficult to integrate into any kind of

shared vocabulary, making olfaction a perfect device for the unrepentant practice of the psychogeographical *dérive*.

Jim Drobnick (2002) identifies, in *Toposmia*, relationships between olfaction and *smellscape*s through terms such as psychic atmospheres, micro-climates, and direct emotional effects, which point to a conception of the city as a complex sensory matrix that includes the presence of olfaction. The article provides precise guidelines for artists wishing to undertake an olfactory walk, recommending that they seek out dialectical and spectacular smells. The former refer to those smells that “critically intervene into public situations and oppose overdetermining ideologies of space” (Drobnick, 2002, p. 38), for example the London Olympic Stadium, a completely deodorised place made of steel and plastic, built in an area that once housed a large number of heavy industries, including, in particular, a soap factory. It is said that when it rains, you can smell this old industrial past coming back to life, in a sort of olfactory return of the repressed. Spectacular smells, on the other hand, refer to a reality opposite to the former; they are smells developed by marketing experts that characterise shopping centres and clothing lines, accustoming consumers to depend on consumerist haze.

Olfaction thus becomes a tool for the critique of capitalism, escaping the conventionalised and commodified forms of consciousness that characterise organised domination. Marcuse argues that smell escapes the conventionalised and commodified forms of consciousness that characterise the organised domain of capitalism, and is therefore inherently transgressive (Marcuse, 2001, p. 82).

In the wake of this politically charged conception of smell, psychologist Douglas Porteous, in his essay *Smellscape* (1985), coined the concept of “olfactory walks”, defining them as “investigation and mapping of the olfactory landscape”. In this text, he condemned the sterility of modernity, stating that “the worldwide homogeneity of faceless glass buildings will be accompanied by large-scale deodorisation” (Porteous, 1985, p. 361). A prime example of this is “the american motel

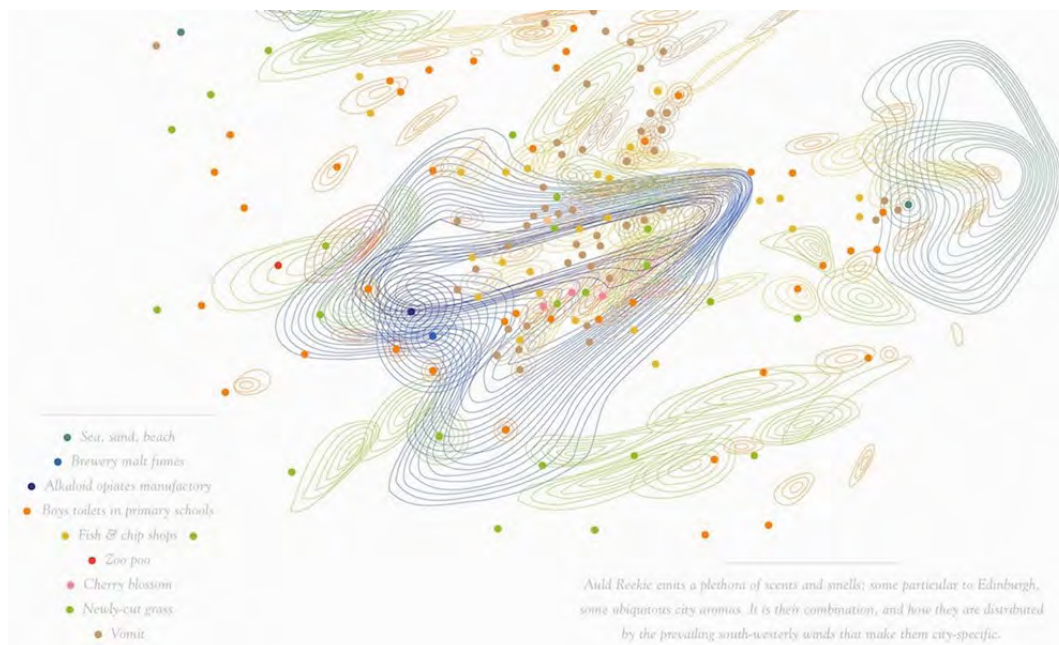


Fig. 3 McLean, K. , *Smells of Auld Reekie on a very breezy day in 2011* [Smell Map], 2012, available at: https://www.researchgate.net/figure/Kate-McLean-Smell-Map-2012-Notes-This-unconventional-map-is-a-qualitative-and_fig8_310741254 (Accessed: 26 December 2025). Smell Map of Edinburgh, a framework for sensorial charting by Kate McLean. Her approach exemplifies how olfaction can be used as a primary epistemic device to map and navigate urban spaces.

bathroom, sanitised for protection, is the aseptic symbol of sensual death. Since not all environmental odours can be pleasant, we will have none at all” (Porteous, 1985, p. 367)

Subsequently, artists and academics such as Victoria Henshaw and Kate McLean would build on Porteous’ work by undertaking their own olfactory walks and exploring various cities in groups to produce their own smell maps (Fig. 3). Under their auspices, the olfactory walk evolved into a political practice, with the aim of sensitising participants to environmental odours and raising awareness of the importance of smell for the identity memory of a place. Jenny Marketou, Rion Willard, Nicola Twilley, Gwenn Aël Lynn and Cat Jones have worked on the Situationist legacy of mapping cities olfactorily, developing different ways of rediscovering the urban landscape through smell.

An urban space that, in these terms, is not disconnected from the notion of the body, and is therefore related to the individual and their systemic interconnections (Barwich, 2020, p. 247). From this perspective, space becomes

a practised place, whose phenomenological construction can only be understood by perceiving it as the constant and dynamic construction of a certain order, or rather a way of experiencing.

CONCLUSIONS

Our study originated in a linguistic attempt to analyse the main theories of olfactory classification. If language defines the limits of our action and thought, an analysis of the olfactory lexicon reveals the inherent resistance of this sense to linguistic permeability. Through the study of the neuroanatomy of the olfactory system, we have outlined the origins of the unique, instinctive relationship between scent and verbalisation, a connection that operates largely beyond the realms of will and conscious attention.

Having established that the descriptive and classificatory modalities of odours remain tethered to a genitive structure, we sought to investigate possible alternative forms of expression. Our analysis clarifies that the information produced by perception should not be framed in terms of classes of odours related to objects but in terms of odours that describe situations, where the odour input is integrated through synaesthetic associations with other sensory realms, lived experiences, and mnemonic traces. Only after processing various associative processes on the same odour can we identify and separate a specific pattern, and that odour can be semantically linked to others previously encountered belonging to the same semantic group, to be finally recognised.

Recognising the intrinsic intelligence of nasal perception implies a fundamental shift in our conception of knowledge, shifting the focus towards an embodied and “naturalised” cognition (Cavaliere, 2010). In this framework, the act of smelling ceases to be a passive biological reflex and emerges as an active epistemological engagement with the world.

Ultimately, this study proposes that smell carries socio-political implications, as odours constitute the connective tissue of our shared atmospheres, learning to “(re)start breathing well” constitutes an “essential aesthetic, ethical and political move” (Mancioppi and Perullo, 2020, p. 132). This approach embodies a commitment to reclaiming shared space from environmental and social indifference, therefore, fostering an educated olfactory perception becomes an essential task for navigating contemporary reality, offering a path towards more authentic, sustainable, and ethically grounded forms of human existence.

REFERENCES

- Barwich, A. S. (2020). *Smellosophy: What the nose tells the mind*. Cambridge, MA: Harvard University Press. <https://doi.org/10.4159/9780674245426>
- Brud, W. S. (1986). Words versus odors: How perfumers communicate. *Perfumer and Flavorist*, 11(3), 27–44.
- Caporossi, S. (2013, 26 giugno). *Wittgenstein - Un monologo*. Nazione Indiana. Recuperato da <https://www.nazioneindiana.com/2013/06/26/wittgenstein-un-monologo/> (Accessed: 25 December 2025).
- Cassirer, E. (2015). *Filosofia delle forme simboliche: Vol. 3. Fenomenologia della conoscenza* (E. Arnaud, Trad.). Milano: Pgreco.
- Cavalieri, R. (2009). *Il naso intelligente: Che cosa ci dicono gli odori*. Roma-Bari: Laterza.
- Cavalieri, R. (2010). Nasus cogitans. Divagazioni sull'intelligenza del naso. *Dialegesthai*, 12. <https://mondodomani.org/dialegesthai/articoli/rosalia-cavalieri-01> (Accessed: 26 December 2025).
- Classen, C., Howes, D., & Synnott, A. (1994). *Aroma: The cultural history of smell*. London: Routledge.
- Connor, S. (2010). *The matter of air: Science and art of the ethereal*. London: Reaktion Books.
- Craver, C. F. (2009). *Explaining the brain: Mechanisms and the mosaic unity of neuroscience*. Oxford: Oxford University Press.
- Deleuze, G. (2002). *L'immagine-movimento*. Milano: Ubulibri.
- Drobnick, J. (2002). Toposmia: Art, scent, and interrogations of spatiality. *Angelaki*, 7(1), 31–47. <https://doi.org/10.1080/09697250220142047>
- Fullman, B. (1963). Stereochemical theory of olfaction. *Nature*, 199(4896), 912. <https://doi.org/10.1038/19991220>
- Herz, R. (2008). *The scent of desire: Discovering our enigmatic sense of smell*. New York, NY: Harper Perennial.

- Herz, R. S., & Engen, T. (1996). Odor memory: Review and analysis. *Psychonomic Bulletin & Review*, 3(3), 300–313. <https://doi.org/10.3758/BF03210754>
- Howes, D. (2008). Olfaction and transition: An essay on the ritual uses of smell. *Canadian Review of Sociology*, 24(3), 398–416.
- Ives, S. (2022, 30 giugno). What the anthropology of smell reveals about humanity. *Sapiens*. Recuperato da <https://www.sapiens.org/biology/anthropology-of-smell/> (Accessed: 25 December 2025).
- Jacobs, L. F. (2023). The PROUST hypothesis: The embodiment of olfactory cognition. *Animal Cognition*, 26(1), 59–72. <https://doi.org/10.1007/s10071-022-01734-1>
- Klyuchnikova, M. A., & Voznessenskaya, V. V. (2019). Specific anosmia in humans and animals: Environmental and genetic influences. *Ukrainian Journal of Ecology*, 9(3), 52–59.
- Levi, J. (2012). *Engraved in the mind: The significance of smell*. London: The London Consortium.
- Majid, A., & Burenhult, N. (2014). Odors are expressible in language, as long as you speak the right language. *Cognition*, 130(2), 266–270. <https://doi.org/10.1016/j.cognition.2013.11.004>
- Majid, A., Burenhult, N., Stensmyr, M., de Valk, J., & Hansson, B. S. (2018). Olfactory language and abstraction across cultures. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 373(1752), Art. 20170139. <https://doi.org/10.1098/rstb.2017.0139>
- Mancioppi, E. (2021). Towards a sociopolitical aesthetics of smell. *Rivista di Estetica*, 78, 131–152. <https://doi.org/10.4000/estetica.8383>
- Mancioppi, E., & Perullo, N. (2020). Estetica aromatica: Odore, politiche dell'atmosfera e impegno percettivo. *Rivista di Estetica*, 73, 118–135.
- Marcuse, H. (2001). *Eros e civiltà* (L. Bassi, Trad.). Torino: Einaudi.
- Merleau-Ponty, M. (2003). *Fenomenologia della percezione* (A. Bonomi, Trad.). Milano: Bompiani.
- More, E. (2024). La sinestesia come prassi corporea di senso: Tra Merleau-Ponty e Wittgenstein. *Rivista Italiana di Filosofia del Linguaggio*, 10–22. <https://doi.org/10.4396/SFL202309>
- Porteous, J. D. (1985). Smellscape. *Progress in Human Geography*, 9(3), 356–378. <https://doi.org/10.1177/030913258500900303>
- Sagar, V., Shanahan, L. K., Zelano, C. M., Gottfried, J. A., & Kahnt, T. (2023). High-precision mapping reveals the structure of odor coding in the human brain. *Nature Neuroscience*, 26(9), 1595–1602. <https://doi.org/10.1038/s41593-023-01414-4>
- Sharma, C. (2023). Language of smell: Tracing some cross-cultural insights from past and present. *Frontiers in Food Science and Technology*, 3, Art. 1091355. <https://doi.org/10.3389/frfst.2023.1091355>
- Sorokowski, P., Misiak, M., Roberts, S. C., Kowal, M., Butovskaya, M., Omar-Fauzee, M. S., Huanca, T., & Sorokowska, A. (2024). Is the perception of odour pleasantness shared across cultures and ecological conditions? Evidence from Amazonia, East Africa, New Guinea, Malaysia and Poland. *Biology Letters*, 20(6), Art. 20240120. <https://doi.org/10.1098/rsbl.2024.0120>

- Wilkins, J. (1684). *The discovery of a world in the moone: Or a discourse tending to prove that 'tis probable there may be another habitable world in that planet* (4a ed.). London: John Gillibrand.
- Wittgenstein, L. (1983). *Ricerche filosofiche* (M. Trinchero, Trad.). Torino: Einaudi.
- Wittgenstein, L. (1990). *Osservazioni sulla filosofia della psicologia* (G. E. M. Anscombe & R. Rhees, A cura di, M. G. Rossi & R. Piovesan, Trad.). Milano: Adelphi.
- Wittgenstein, L. (2009). *Ricerche filosofiche*. Torino: Piccola Biblioteca Einaudi.

ADDITIONAL READING

- Connor, S. (2016). *On atmosphere*. Recuperato da <http://stevenconnor.com/on-atmosphere.html> (Accessed: 25 December 2025).

Article available at

10.60923/issn.2724-2463/21430

How to cite

Ugolin A. (2025). From the 'Genitive' Modality to the Atmosphere: an Osmological Study into Epistemic Space. *img journal*, 12, 490-511



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.

UNBOUND ACOUSTICS. EMBRACING COMPLEXITY IN VIRTUAL SOUNDSCAPES

Nicola Zolin

Università Iuav di Venezia

Department of Project Cultures

nzolin@iuav.it

This paper examines how sound structures and transforms the experiential conditions of video game worlds, foregrounding the dynamic relations that arise between auditory phenomena and the environments in which they unfold. Through an analysis of *Rain World* (Videocult, 2017) and *Silent Hill* (Konami, 1999), it argues that sound functions as an active agent linking player, avatar, and world. Departing from the objectifying tendencies of traditional soundscape theory, the paper draws on ecological and embodied perspectives to propose an analysis in which perception emerges through continuous interaction among sensory, cognitive, and material dimensions. In this view, sound is not merely representational but constitutive of the player's experience, shaping the agencies that

define virtual worlds. Through concepts such as *embodiment*, *kynesonic syncretis*, and *transdiegesis*, the investigation reveals how game environments decentralize human subjectivity, situating the player within complex networks of interdependence. By engaging with the phenomenology of listening and the porous boundaries between diegetic and extradiegetic spaces, the paper argues for an understanding of virtual soundscapes as dynamic ecologies where meaning arises from complexity. Ultimately, it advances a holistic framework that situates sound as a central mode of world-making, one that reconfigures and problematizes the ontology of the *game-world* and invites a broader reflection on the entangled nature of perception, agency, and environment in digital media.

AN ECOLOGICAL EMBODIED INTERACTION

A couple of timid steps out of a filthy subterranean burrow and I am immediately overwhelmed by a resounding emptiness –punctuated solely by the incessant whistle of the wind - which serves as a stark warning of the desolation encircling my avatar. This avatar is a small, white creature half cat, half slug– aptly named ‘slugcat.’ Having entered a vast, unexplored area, I remain motionless while surveying my surroundings, pricking my ears in an attempt to discern any movement beyond the screen’s confines. In the stillness characteristic of my slugcat, I inadvertently press the button assigned to the jump action, producing a slight noise reminiscent of a weight dropping to the ground; almost immediately, what I had assumed to be a static mass of dark-hued vines shifts toward me, seizes me with its tentacular limbs, and engulfs me. Game over. The sound output generated by my avatar’s jump conveys a fundamental message: I am prey, and I must remain unheard.

Rain World (Videocult, 2017) is a game that compels the player to reposition their role within the virtual worlds we typically traverse during our video game experiences. In this hostile game environment, challenges arise not only from the demanding gameplay mechanics but, more importantly, from the opaque, hermetic structure underpinning the entire game (Caselli, 2024). As one navigates the labyrinthine burrows and the ruins of *Rain World*’s ecosystem, the gaming experience sharpens both the player’s senses and those of the slugcat. This heightened sensory acuity serves to underline the true protagonist of the title: the environment. From the very onset, the architecture of this game world reveals itself as a network of innumerable passages –traversable via diverse modalities– that further accentuates the inherent inscrutability of the surrounding world.. Videocult’s design deconstructs the traditional hierarchy in which the player is often cast as the dominant force, instead positioning us horizontally as one among many components within

an overwhelming network of agents (Latour, 2005). As philosopher and game designer Stefano Gualeni observes, a 'world' can be conceived as an assemblage of relations perceived through the specific sensibility of its inhabitants, a reminder that every environment is shaped by the modes through which it is perceived (Gualeni, 2024, pp. 36–37).

The growing prominence of game studies and design has brought renewed attention to the sensory dimensions of experience within digital environments. While research in visual perception has long dominated discussions of mediation and representation, recent developments have extended this focus to videogame sound design – commonly referred to as game audio– revealing its central role in shaping virtual worlds. Over the past five decades, game audio has evolved from a functional or ornamental accompaniment into an architectural and affective force that structures spatial, temporal, and emotional dimensions of gameplay. Early arcade and domestic gaming platforms –powered by rudimentary tone and noise generators and bounded by the severe memory limitations of the 1970s and toward the early 1980s– generated a markedly synthetic sonic palette, a condition that composers progressively transformed from a technological constraint into a deliberate aesthetic resource (Collins, 2008). Under these technological limitations, however, the player's perceptual experience remained peripheral: sound functioned less as an immersive medium than as a stylistic expression of the machine's material affordances. The advent of personal computing and digital sampling expanded both the timbral palette and the polyphonic complexity of sound, while innovations such as LucasArts' iMUSE system introduced conditionally sequenced and dynamically adaptive compositions responsive to player input (*ibid.*, pp. 51–52). This marked a decisive shift toward adaptive audio, establishing a new grammar of interactivity and laying the foundation for contemporary middleware platforms –such as FMOD and Wwise– that simulate the materiality of sound in real time. These systems render

sonic elements as spatially and temporally situated objects, endowed with kinetic and environmental qualities through extensive parametric control (ibid., p. 101).

Despite major technological advances, much of game audio scholarship still treats virtual *soundscapes* as fixed, representational fields rather than as relational and emergent processes. The emergence of ecological perspectives invites a different understanding: perception arises through the continual interplay of player, sound, and environment, in which emitter and receiver are no longer distinct but co-constitutive. As demonstrated by the initial sound design during the slugcat's jump, *Rain World* employs a peculiar auditory strategy that deepens the player's engagement with an ecological perspective. The game achieves a profound decentralization of human subjectivity by positioning the player as a non-human creature whose sensory and operational experiences define its interaction with the environment (Fig.1). This shift disrupts the anthropocentric worldview, urging the player to engage with the world not

Fig. 1 Still from *Rain World*, 2017. Retrieved February 19, 2025 from <https://thecakeisaliegaming.wordpress.com/2017/04/12/rain-world-review-discovery-and-wonder-tinged-with-frustration-n3dabl3/>



from the vantage point of a human protagonist but through the embodied experience of another form.

According to Paul Dourish (2004), embodiment does not simply denote the physical presence of the body but the condition through which our actions acquire meaning within a shared world. Interaction, then, is embodied insofar as it is situated in our practical, perceptual engagement with both technological and social environments (ibid.). Within *Rain World*, this dynamic becomes central: the player's bodily responses –tension, stillness, or hesitation– mediate perception and determine survival. In this sense, the game exemplifies what Peter Bayliss (2007) terms *embodied gameplay*, where play arises through the sensory negotiation between player and system. The body thus functions not as a mere interface but as the locus through which meaning, perception, and action converge.

The complex interconnection of components within a virtual world –mediated by embodied interaction– calls for a reconsideration of how perception operates in digital environments. Anthropologist Tim Ingold invites us to conceive perception not as the passive reception of sensory data but as a movement of the body within the world, a continuous scanning that ties sensory awareness to physical presence (2000, p. 244). Even in stillness, the perceiving body remains active, tracing fluctuations in its surroundings and responding to them through subtle adjustments of attention and orientation. His research further revisits established concepts such as the *soundscape*, showing how interactions with the environment shape our very capacity to gather and interpret auditory information (Ingold, 2011). Perception thus unfolds as an ecological process, a dynamic circuit that joins brain, body, and environment in a single flow of engagement.

Transposed into the virtual domain, this theory helps to explain how auditory experience in games like *Rain World* emerges from the player's situated negotiation with the environment. Listening becomes a form of orientation: each sonic cue invites the player to recalibrate distance, anticipate

movement, and act within a precarious ecology. The game's sonic design thus transforms perception into a mode of navigation, dissolving the separation between listener and world and grounding play in a shared field of sensitivity (Roddy, 2018). This active reconfiguration of auditory perception proves particularly valuable in addressing key issues related to sound and its interaction within game design.

CRITICAL APPROACHES TO *SOUNDSCAPE*

In his text *UDO* (2023), Matteo Lupetti proposes an understanding of the video game medium as an object capable of establishing a relationship between the human and the non-human, also describing it as the quintessential medium of the Anthropocene. In his analysis, the video game –referred to here as ‘UDO’ (Unidentified Digital Object)– is presented as a complex, not fully knowable object, formed by a series of elements, systems, and sections that cannot be encapsulated under a single concept. According to Lupetti, the individual components of a game cannot be reduced or cataloged into specific research areas; instead, the game as a medium necessitates a theoretical exploration that begins with the very vastness that defines it, echoing Donna Haraway’s (2016) call for the acceptance of complexity and the unknown.

The analysis of a video game environment reveals the inherent limitation of reducing its entirety to the simple dichotomy of sound and images, a framework that once sufficed for traditional media like cinema. What fundamentally distinguishes a video game as a medium is its ergodic nature, grounded in the action and interaction of the player, whose experience is inherently unpredictable and predominantly subjective (Bilchi, 2022). Just as within game worlds, it is impossible to separate the various realms of our sensory perception without considering the interactive act,

the same problem arises when we perceive an environment in the 'material' world. Here, our sensory experience is also interconnected and dynamic.

The perception of a given *soundscape*, therefore, cannot be isolated from other sensory dimensions and from an active reading of the environment itself. Historically, the term *soundscape* was coined by Canadian composer Raymond Murray Schafer to designate an acoustic version of landscape, which is similarly experienced by the individual (listener) immersed in it (Schafer, 1977). However, the concept of the *soundscape* has historically been associated with objectifying approaches to the *scape*: despite Schafer's study being one of the early foundations of acoustic ecology and sound studies, the listener finds themselves contemplating sounds, seeing them as objects rather than phenomena, and cataloged with the same kind of definition (ibid.). At the same time, the broader field of soundscape studies has long accommodated perspectives that complicate this objectifying tendency. Already in early acoustic ecology, Barry Truax's relational model (1984) reframed the *soundscape* as a system of communicational exchanges in which meaning arises through ongoing feedback between listener and environment rather than through the cataloguing of discrete sonic objects. Moreover, ethnographically oriented approaches –most notably Steven Feld's *acoustemology* (1996)– further emphasized the experiential and affective conditions through which sonic environments come into being, foregrounding listening as a mode of dwelling and environmental attunement. These trajectories already indicate that the *soundscape* is less a stable acoustic tableau than a shifting configuration shaped by the ways listeners move through and attune to their surroundings.

Building on these considerations, Schafer's conception of the *soundscape* calls for a reframing that relocates the subject within a field of active perceptual engagement rather than passive observation, a shift that becomes particularly necessary when the notion of *soundscape* is transposed into

the interactive and processual conditions of game audio. One of the fundamental points of Ingold's counter thesis focuses precisely on the traditional conception of sound as an 'object', a tendency often stemming from representation theories, which view our eyes and ears as technological instruments capable of recording data, whereas they are actually apparatuses capable of perceiving phenomena (Ingold, 2011, p. 137). Just as the eyes are capable of seeing thanks to the phenomenon of light, which makes sight possible, the ears are capable of hearing thanks to the phenomenon of sound, which travels through matter (ibid.). Talking about a *soundscape*, whether virtual or not, thus becomes problematic when conceived through a presumed materiality, or in other words, it is "a phenomenon of experience, that is, of our immersion in, and commingling with, the world in which we find ourselves" (ibid.).

In this exploration, understanding sound phenomenologically allows for a closer adherence to the interactive conceptions of the videogame *soundscape* and its various modes of reproduction and listening. Garner and Grimshaw offer their definition of sound as "an emergent perception arising primarily in the auditory cortex and that is formed through spatio-temporal processes in an embodied system (2014, p.1)." This definition of sound –specifically theorized by the authors in relation to a research area concerning virtual environments– emphasizes a focus on immersion within an environment, termed as the embodied system here. As previously mentioned, Ingold's starting point highlights the essential embodied action of 'scanning'; it is not an action carried out only through the activation of the eyes or ears, but an action that materializes through the entire body, in a process where one is 'immersed' in the environment itself (Ingold, 2000). Listening, therefore, means performing an action, even more accentuated when traversing a virtual world through the body of an avatar. Theorist Alexander R. Galloway proposes a theory that is based on action rather than interaction in the video game

field; this conception does not exclude the interactivity inherent in the medium but emphasizes the physicality of the experience itself within a virtual environment, through which tangible material changes can occur (Galloway, 2022, p. 23-24).

To underscore this connection between sound and embodied action, Karen Collins highlights the semantic distinction between traditional listening to sound, and its interaction within a game world, or “interacting with sound” (2013, p. 3). The passive conception of traditional listening echoes Schafer’s *soundscape* theory, indirectly focusing attention on Ingold’s conception of listening and the importance he attributes to listening as action, making it a theoretical model particularly suited for the study of virtual *soundscapes*.

In light of the foregoing, immersion becomes a pivotal nexus in Ingold’s study, wherein our engagement with an environment is defined through an embodied perceptual act. This sense of attunement with the environment we traverse causes our subjectivity –comprising both material-world subjectivity and virtual subjectivity (Gualeni, Vella, 2020)– to become increasingly porous.

The complexity stemming from the very structure of virtual worlds and from our perceptual activities necessitates a re-examination of the definitions that accompany sound analyses in traditional media. Terms associated with sound in linear audiovisual media, such as *diegetic* –part of the internal narrative of a fictional world, what the characters can hear– and *extradiegetic* –external to the narrative, such as the soundtrack (Chion, 1994)– become problematic within the game context. This is precisely because the immersive nature of the medium and the resulting interactivity render porous the distinction between the real and the virtual, between what the player perceives as the avatar within the game experience and what is heard outside the screen, thereby shaping a *soundscape* with exceedingly ambiguous boundaries.

TRANSDIEGETIC SOUNDS AND VIRTUAL ACOUSTIC ECOLOGY

In his seminal text *Audio-Vision* (1994), Michel Chion theorizes what he terms *syncretism*, the automatic association that occurs in our minds between a sound and its corresponding image. This process reflects the ability to spontaneously link a given sound, detached from its source, with a visual stimulus reminiscent of its characteristics. For example, in a science-fiction film such as John Carpenter's *The Thing* (1982), the inhuman roars and screams of the alien parasite are sonically appropriate to the creature, despite it being a fictional entity with no direct counterpart in the material world. This is an extreme example intended to demonstrate a simpler concept, such as associating the classic sound of footsteps with a walking sequence, two elements that are technically separate in cinema.

However, when navigating a virtual environment, *syncretism* becomes a far more structured concept. Whereas in linear media sound is paired with images in a continuous reverberation of meanings dictated by our perception, in the video game medium the sonic phenomenon is intimately linked to action. Collins defines this concept as *kinesonic syncretism* –the juxtaposition of sound and action within a virtual world (2013, p. 32). Notably, the action in question is not the exclusive domain of the player; while a player may execute actions via a controller such as running, throwing objects, or speaking– that generate various sounds, *kinesonic syncretism* is continuously realized within the game environment itself, independent of complete player control. In *Rain World*, for example, the creatures inhabiting the ecosystem autonomously emit an array of sounds. One can often hear the hissing emitted by vividly colored lizards engaging in noisy territorial disputes, driven by the procedural intelligence of these entities. According to Galloway, however, the distinction between the player's actions and those of the environment –or the 'machine' (i.e.,

the hardware)—is purely theoretical, as both are integral to the overall game experience in a “cybernetic relationship aimed at realizing the various actions of the video game in its totality” (2022, p. 25).

Action thus emerges as a pivotal element in critically redefining sound within the complex ecosystem of the game, continuously questioning the player’s position relative to phenomena and the environment itself. As previously noted, whereas cinema traditionally distinguishes between *diegetic* and *extradiegetic* sound, in the video game medium this binary is undermined by the interactive component and the consequent redefinition of the player’s environment. According to Kristine Jørgensen (2017), a subject’s agency in relation to a virtual environment is fundamentally different from that of a cinematic audience; the *soundscape* in a game is action-oriented, much like how we engage with the material world around us. Our ‘perspective’ is based on the perception of the environment and the subsequent bodily actions we perform (Uexküll, 1934). In experiencing a video game, we thereby challenge the boundaries between what exists ‘inside’ (*diegesis*) the narrative and what exists ‘outside’ (*extradiegesis*), since our environment becomes a fusion of material and virtual realities. This inability to apply a strict *diegetic/extradiegetic* binary to the video game medium has led to the conception of the term *transdiegetic*, which denotes a particular action-oriented sonic typology that functions according to the player’s environment. As Jørgensen explains:

Such sounds will be defined as *transdiegetic* sounds, and what is characteristic for these is that they cannot be posited as clearly *diegetic* or *extradiegetic*. Instead, they seem in some respect to place themselves somewhere between the two, either by being virtually *extradiegetic* sounds that communicate to entities internal to the *diegesis* (typically the avatar, for example *extradiegetic* music that alerts about upcoming dangers), or they are *diegetic* sounds that directly address entities external to the *diegesis* (typically the player, for example when a

strategy game unit says ‘all right’ when the player gives it an order). These sounds are central for the comprehension of the positioning of sound in computer game spaces, and work as a bridge between the game world and the player’s world (Jørgensen, 2007, p. 3).

Jørgensen intentionally keeps the notion of the *transdiegetic* open-ended, reflecting the inherent fluidity of sonic elements that emerge through interaction rather than belonging to a fixed spatial category. Since computer games constitute a hybrid of user-system and fictional world, this mixed condition generates the need for sounds that operate across, rather than within, established boundaries (ibid. p.13). According to Jørgensen, these sounds are defined not by their location but by their directionality: they are either *diegetic* elements that address the player beyond the diegesis, or *extradiegetic* cues that communicate inward to entities within the game world. Crucially, the *transdiegetic* is not a third autonomous space; it is a functional property of *diegetic* and *extradiegetic* sound alike, one that foregrounds how sonic meaning in games is continually reconfigured through context rather than fixed by spatial origin (ibid. p. 14).

When discussing these categorizations within a virtual environment, a series of discourses emerge regarding the relationships between the player, sound, and the environment itself, especially in anxiety-related contexts or first-person shooter games (Grimshaw, 2007). This acoustic ecology is rooted in the central role that fear has historically played in ecosystems, as it is intrinsically linked to taking action and responding to the environment, thereby influencing decision-making and reinforcing societal standards, with different cultures upholding distinct rules regarding fear (Bergström, 2007). Ecological phenomena such as emotions, physiology, memory, ability, and environmental factors can all influence our sensation of fear in response to sound. In the survival horror game *Silent Hill* (Konami, 1999), various types of sounds challenge the very concept of ‘environment’ in relation to their *transdiegetic* nature. The game casts the player in the

role of Harry Mason, who searches for his adoptive daughter Cheryl in the eerie town of Silent Hill. The uniqueness of the game's environment lies in the transition between two realities through which the avatar moves: one version of the town shrouded in constant fog and inhabited by nightmare creatures, and an even more terrifying variant immersed in a horrific decay marked by blood and metal, called the Otherworld (Fig.2). The game's soundtrack, composed by Akira Yamaoka, has over time become an exemplar for subsequent survival horror models; its compositions range from trip-hop ballads to nerve-wracking industrial loops designed to create a sense of defamiliarization and anxiety. These tracks, resembling elements of ambient sound design more than a traditional film score, emerge at the moment when *Silent Hill* shifts from a fog-enshrouded town to its nightmarish variant, where building facades rot and the entire environment exudes death (Perron, 2012). As the game progresses, Harry Mason learns that *Silent Hill* itself represents the resentment and frustration of a young girl, Alessa, sacrificed by a pagan cult and now merged with the town's subterranean world, trapped in an endless cycle of

Fig. 2 Still from the gameplay session by Youtube channel Avenger-senpai, depicting the Otherworld from *Silent Hill*, 1998, Retrieved February 19, 2025 from https://www.youtube.com/watch?v=uCXEBaT-rs4&ab_channel=Avenger-senpai



suffering. Alessa's influence becomes perceptible within the game world, both to the player and the avatar, rendering her pain «palpable in its world's gruesome sights and sounds» (Cheng, 2014, p. 95). Through this narrative information, the game communicates that its sound design operates on multiple levels simultaneously. On one hand, the affective component of sound –perceived extradiegetically as part of the soundtrack– is designed to evoke specific emotional states in the player, often employing low-frequency sounds to induce anxiety and fear (Goodman, 2012, p. 121-127). On the other hand, the narrative conveys environmental influence exerted by Alessa, reconfiguring the music in the nightmare sequences as a projection of the girl's own pain, effectively rendering it a *diegetic* element within the game world.

The haunting soundtrack is not the only example in *Silent Hill* that provides parameters for an acoustic ecology of virtual environments. One of the game's most iconic features is the small radio that the protagonist discovers early on. This radio functions as a crucial tool for detecting hostile creatures, often located off-screen, by emitting a static signal that intensifies as enemies approach. This gameplay mechanic enables players to locate threats outside their immediate visual field, frequently obscured by fog or limited lighting. Interestingly, the radio's sound is not merely a gameplay tool but also an integral part of the in-game environment, meaning that the protagonist too can hear it, rendering it a *transdiegetic* element. However, the crucial point is not solely which event emits the sound, but what generates it.

As Kristine Jørgensen (2007) notes, the sound generator is distinct from the sound source; the source is the object producing the sound, while the generator is the event that causes the sound to occur. In this way, the radio's static becomes more than a simple signal for the player, it reflects the game state and provides feedback on the player's actions (Roux-Girard, 2010).

These examples demonstrate how the environment in which the player's action unfolds is extremely complex to

define using classical theoretical tools. According to Michiel Kamp, the acoustic ecology of a game world should be understood as a mutual process in which both the subjects inhabiting or perceiving it and the environment itself shape one another through their interactions, giving rise to a process of 'reciprocal attunement' (2013). In this perspective, the network of interactions established between the player and the game world contributes to the construction of a personal 'perspective' that is both individual and entangled with the environment (Bridle, 2020). Drawing on James Gibson's cognitive theories of interaction (1979), Kamp's study proposes an approach to the *soundscape* that is largely based on the affordances that sound provides in a virtual environment:

(Affordance) are possibilities for (inter)action –specific patterns or relationships– between organism and features of the environment. The kinds of actions that an object in the environment affords are dependent on the morphology of the perceiving organism, their goals and the environment (Kamp, 2013, p. 237).

Thus, affordances are variables that can offer the individual a range of interactive possibilities subject to situational modifications. Although Gibson's analysis primarily focuses on visual elements, its framework of affordances is equally applicable to sound, extending across a wide range of situations and sensory phenomena. Consider again the case of the radio in *Silent Hill*. This device enables the player to receive information about the game environment through fluctuations in its emitted signal. While its primary function is to alert the player to the presence of hostile entities within the game world, in certain situations this function may yield different outcomes. Some enemies, for instance, are capable of evading the radio's detection, activating it only when they move or not activating it at all, as in the case of a particular Slurper enemy encountered in the Brookhaven Hospital in *Silent Hill 3* (Konami, 2003). This scenario allows the radio's sonic affordances to disrupt the player's established interaction with the game ecosystem, prompting

a shift in the way the player perceives and responds to the environment. As Kamp argues, the set of actions offered by the *Silent Hill* radio is continuously reconfigured by both the game's environment and the player's immediate objectives, thereby shaping the experience in real time (Kamp, 2013). In this sense, ecological-embodied listening does not merely supplement gameplay; it constitutes the very conditions of world formation in digital environments, where perception and action are inseparable from sonic processes.

CONCLUSION (?)

This exploration of the virtual environment and its embedded sounds demonstrates how challenging it is to define the video game medium, while simultaneously encouraging an openness to its intrinsic complexity and form. In reference to the inseparability of 'scapes' as described by Ingold (2000) –understood by the anthropologist as the totality of the environment perceptible to a subject–the video game medium reveals itself as an amalgam of theoretical and practical domains, sustained by the player's own experience and the affordances that develop throughout that process.

As the example of the *Silent Hill* radio illustrates, sound becomes a tool for rendering the boundaries between the player –as avatar– and the surrounding environment porous. In this regard, William Cheng observes that the industrial sounds in *Silent Hill* have the capacity to transcend the virtuality of the town, penetrating directly into the player's material world; this is made possible precisely by the *transdiegetic* ambiguity inherent in the game (2014). Consequently, the player's acoustic space during gameplay is not simply shaped by the *diegetic* narrative, but instead constitutes an environment shaped by the perception of the entire surrounding world. If one attempts to partition this experience into discrete compartments or relegate it to narrowly defined disciplinary territories, the so-called

gameworld becomes an extremely problematic field of inquiry. Various scholars have attempted to define this term: it may be considered an environment founded on the rules of the game (Jørgensen, 2017) or alternatively defined through a phenomenology of the avatar as an ‘organism’, both a *diegetic* organism within the game world and a construct shaped by the player’s perceptions (Kamp, 2013). This perspective invites a broader reflection on the ontology of the *gameworld* as a distributed ecology, in which the boundaries between the human, the machinic, and the environmental are continuously renegotiated. To understand sound as constitutive rather than supplementary is to recognize its role in shaping the temporal, spatial, and affective conditions of play. Listening becomes an act of ecological participation, where perception and world are co-produced through exchanges of attention, movement, and resonance.

In examining the layered structure of video games, it becomes evident that these games exist both within and beyond the boundaries of the simulated worlds they construct. The experiences afforded by these games are not about a simple escape from the materiality of our existence; rather, they involve engaging with the complexities and contingencies that shape our lived experience. Sound, in conjunction with embodied interaction, plays a significant role in how we phenomenologically perceive and navigate these virtual spaces. Audiovisual interactive media extend far beyond the confines of the screen, unfolding simultaneously in the auditory and peripersonal spaces surrounding us and thereby influencing our interaction with and understanding of the environment.

There is one final example that further highlights the complexity of this field of research and underscores the necessity of accepting that complexity as such. In *Bloodborne* (FromSoftware, 2015), one particular sonic element has the capacity to challenge the very notion of the *gameworld*. The title is renowned among players for its hermetic and indirect narrative, communicated through object descriptions and

hidden information dictated by the environment itself. During an introductory sequence for a boss battle, the entity known as the Orphan of Kos emits a cry while gazing at a decaying sun on the horizon (Fig. 3), sparking a series of theories among the most active online communities. Some data miners within these communities, delving into the game's system files, discovered that the audio file for that cry is identical to one produced by another character in the game, a character who, as the title's narrative subtly implies, is both the cause of the Orphan's suffering and its progenitor. This action, although external to the canonical gameplay of *Bloodborne*, successfully provided a *diegetic* piece of information about the ambient sound through a noncanonical process. In this instance, one must ask: what constitutes the *gameworld* of *Bloodborne*? What is its *soundscape* when its virtual acoustic ecology is considered within the entirety of the video game medium, not only the internal narrative space but also the player's interactions with it and with the hardware itself, the 'machine'?

Revisiting Lupetti's thesis on accepting the indefinability of this medium, this final example does not seek to provide yet another answer to these questions. As previously noted, the

Fig. 3 Still from the gameplay session by Youtube SHiNWiN, depicting the Orphan of Kos facing the horizon in *Bloodborne*, 2015, Retrieved February 19, 2025 from https://www.youtube.com/watch?v=79JSktm-alA&ab_channel=SHiNWiN



objective of this paper is not to establish a definitive or stable definition of how sound operates within virtual environments, but to demonstrate that the field of game studies—and, more specifically, sound studies in relation to games—constitutes a complex and evolving research terrain. The theoretical perspectives discussed here participate in an ongoing process that shifts attention toward the player's interaction with the environment itself, which lies at the core of this contribution. In doing so, this exploration of virtual soundscapes invites a reconsideration of the very nature of interaction, pushing the boundaries of traditional media studies.

At the same time, the continuous evolution of game audio technologies opens new trajectories for both design and research. Procedural and AI-driven sound generation already points toward the emergence of autonomous sonic ecologies, capable of adapting dynamically to the player's state or the system's material conditions. Future developments may further extend this ecological-embodied paradigm toward adaptive listening environments in which human and non-human agencies co-compose the auditory field. Beyond entertainment, such approaches could inform experimental design practices and critical sound art, fostering new forms of situated listening that reflect the interdependence of digital and planetary ecologies. In this sense, to study sound in games is not merely to enrich our understanding of interactive media, but to engage with a broader model for perceiving and inhabiting complexity, one in which virtual worlds are not pre-given spaces awaiting exploration, but dynamic processes of sonic becoming: worlds that listen back.

REFERENCES

- Bayliss, P. (2007). *Notes toward a sense of embodied gameplay*. Tokyo, s.n.
- Bergtröm, J. (2007). Fear and design; how can design impact on fear? How can design raise questions about fear?. *Nordes 2007*, 2, Oslo.
- Bilchi, N. (2022). *Abitare gli ambienti virtuali. Per un'estetica delle tecnologie immersive*. Roma: Bulzoni.

- Bridle, J. (2022). *Modi di essere. Animali, piante e computer: al di là dell'intelligenza umana*. Milan: Rizzoli [orig. (2022) *Ways of Being: Animals, Plants, Machines: The Search for a Planetary Intelligence*. New York: Farrar, Straus and Giroux].
- Caselli, S. (2024). Animalizzare l'utenza: "Rain World" e la povertà di mondo virtuale, *Lo Specchio Scuro*. Retrieved January 30, on: https://specchioscuro.it/rain-world/#_ftn3
- Carpenter, J. (Director). (1982). *The Thing* [Film]. Universal Pictures.
- Cheng, W. (2014). *Sound Play. Video games and the musical imagination*. New York, NY: Oxford University Press.
- Chion, M. (2017). *L'audiovisione. Suono e immagine nel cinema*. Torino: Lindau [orig. (1994), L'audiovision, Paris: Nathan].
- Collins, K. (2008). *Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design*. Cambridge: The MIT Press.
- Collins, K. (2013). *Playing with Sound. A Theory of Interacting with Sound and Music in Video Games*. Cambridge: The MIT Press.
- Dourish, P. (2004). *Where the Action is. The Foundations of Embodied Interaction*. Cambridge, MA: The MIT Press.
- Feld, S. (1996). Waterfalls of Song. An Acoustemology of Place Resounding in Bosavi, Papua New Guinea, In: S. Feld, S. and K. H. Basso, Eds., *Senses of Place*, School of American Research, Santa Fé, 1996, pp. 91-135.
- FromSoftware. (2015). *Bloodborne* [Videogame]. Sony Computer Entertainment.
- Galloway, A. R. (2022). *Gaming. Saggi sulla cultura algoritmica*. Bologna: Luca Sossella Editore. [orig. (2006) *Essays on Algorithmic Culture*. Minneapolis: University of Minnesota Press].
- Garner, T. (2013). Nightmares and Soundscapes: Implementation of Acoustic Ecology Related Sound Design Techniques to Better Terrify your Players, *Designing Sound*. Retrieved February 16, on: <https://designingsound.org/2013/07/25/nightmares-and-soundscapes-implementation-of-acoustic-ecology-related-sound-design-techniques-to-better-terrify-your-players/>
- Garner, T., & Grimshaw M. (2015). *Sonic Virtuality. Sound as Emergent Perception*. New York, NY: Oxford University Press.
- Gibson, J. J. (2014). *L'approccio ecologico alla percezione visiva*. Milano: Mimesis. [orig. (1979) *The ecological approach to visual perception*. Boston: Houghton Mifflin].
- Goodman, S. (2024). *Guerra Sonora*. Roma: Nero. [orig. (2012) *Sonic Warfare. Sound, affect and the ecology of fear*. Cambridge: The MIT Press.
- Grimshaw, M. (2007). The acoustic ecology of the First-Person Shooter, *Games Computing and Creative Technologies: Dissertations*. Retrieved February 18, on: <https://ub-ir.bolton.ac.uk/esploro/outputs/doctoral/The-acoustic-ecology-of-the-First-Person/999610008841>
- Gualeni, S. (2024). *Il videogioco del mondo. Istruzioni per l'uso*. Palermo: Timeo.
- Gualeni, S., & Vella, D. (2019). Virtual Subjectivity: Existence and Projectuality in Virtual Worlds, *Technè: Research in Philosophy of Technology*, 23 (2).

- Haraway, D. (2016). *Staying with the trouble. Making kin in the Chtulucene*. Durham, NC: Duke University Press.
- Ingold, T. (2000). *The perception of the environment. Essays on livelihood, dwelling and skills*. New York, NY: Routledge.
- Ingold, T. (2011). *Being alive. Essays on movement, knowledge and description*. New York, NY: Routledge.
- Jørgensen, K. (2007). On Transdiegetic Sounds in Computer Games. *Northern Lights: Film and Media Studies Yearbook*, 5 (1), 105-117.
- Jørgensen, K. (2017). Emphatic and Ecological Sounds in Gameworld Interfaces. In Mera M., Sadoff R. & Winters B. (Eds.), *The Routledge Companion to Screen Music and Sound*. New York, NY: Routledge.
- Kamp, M. (2014). Musical Ecologies in Video Games. *Philosophy and Technology*, 27 (2), 235-249.
- Konami Computer Entertainment Tokyo. (1999). *Silent Hill* [Video game].
- Konami Computer Entertainment Tokyo. (2003). *Silent Hill 3* [Video game].
- Land, M. Z., & McConnell, P. N. (1994). *Method and Apparatus for Dynamically Composing Music and Sound Effects Using a Computer Entertainment System*. US Patent No. 5,315,057. May 24, 1994.
- Latour, B. (2005). *Riassemblare il sociale. Actor-Network Theory*. Milano: Meltemi. [orig. (2005) *Reassembling the Social: An Introduction to Actor-Network-Theory*. New York: Oxford University Press].
- Lupetti, M. (2023). UDO. *Guida ai videogiochi nell'Antropocene*. Genova: Edizioni SIDO.
- Perron, B. (2012). *Silent Hill. The Terror Engine*. Ann Arbor, MI: The University of Michigan Press.
- Roddy, S. (2016). *Embodied Sonification*. PhD Dissertation. University of Dublin. Retrieved on February 3, on: https://www.researchgate.net/publication/318115149_Embodied_Sonification/citations
- Roux-Girard, G. (2011), Listening to Fear: A Study of Sound in Horror Computer Games, *Game Sound Technology and Player Interaction: Concepts and Developments*. Hershey, PA: Information Science Reference.
- Schafer, R. M. (2022), *Il paesaggio sonoro. Il nostro ambiente acustico e l'accordatura del mondo*. Lucca: LIM [orig. (1977), *The Tuning of the World*, Philadelphia: University of Pennsylvania Press].
- Truax, B. (1984). *Acoustic Communication*. Norwood, NJ: Ablex Publishing..
- Uëxkull, J. v. (2010). *Ambienti animali e ambienti umani. Una passeggiata in mondi sconosciuti e invisibili*. Macerata: Quodlibet [orig. (1934) *Streifzüge durch die Umwelten von Tieren und Menschen: Ein Bilderbuch unsichtbarer Welten*, Berlin: J. Springer].
- Videocult. (2017). *Rain World* [Video game]. Adult Swim Games.

Article available at

DOI: 10.60923/issn.2724-2463/21426

How to cite

Zolin, N. (2025). Unbound acoustics. Embracing complexity in virtual soundscape. *img journal*, 12, 512-533.



© 2025 The authors. The text of this work is licensed under a Creative Commons Attribution 4.0 International License.