INTERFACES 5

New Prairie Press

Atmosphere(s) for Architects: Between Phenomenology and Cognition

a dialogue between Michael Arbib and Tonino Griffero
edited by Elisabetta Canepa, Bob Condia, and Mikaela Wynne
essays by Elisabetta Canepa, Federico De Matteis,
Robert Lamb Hart, Mark Alan Hewitt, and Suchi Reddy

INTERFACES 5

New Prairie Press

Atmosphere(s) for Architects: Between Phenomenology and Cognition

a dialogue between Michael Arbib and Tonino Griffero
edited by Elisabetta Canepa, Bob Condia, and Mikaela Wynne
essays by Elisabetta Canepa, Federico De Matteis,
Robert Lamb Hart, Mark Alan Hewitt, and Suchi Reddy

Atmosphere(s) for Architects: Between Phenomenology and Cognition

Authors
Michael A. Arbib
Tonino Griffero

Editors
Elisabetta Canepa
Bob Condia
Mikaela Wynne

Respondents
Federico De Matteis
Robert L. Hart
Mark A. Hewitt
Suchi Reddy

Copy editors
Kory A. Beighle
Gabrielle Coleman
Brittany Coudriet

Graphic designers
Elisabetta Canepa
Amanda Shearhart

Book format
6" x 9" | 152 x 229 mm

Copyright
© 2023 editors: selection and editorial matter
© 2023 authors and respondents: individual essays

License
This book is published under a Creative Commons Attribution 4.0 International License (CC BY 4.0): www.creativecommons.org/licenses/by/4.0. All quotations retain copyright and remain the intellectual property of their respective originators

ISBN
978-1-944548-50-6

DOI
10.5281/zenodo.8111656

Electronic edition available online
at www.newprairiepress.org/ebooks/51

2023
New Prairie Press
Kansas State University Libraries
Manhattan, KS, USA

Cover image
Markus Krisetya, 2017
Salk Institute for Biological Studies, La Jolla, San Diego, California
Downloaded from Unsplash

Acknowledgements
This book was born to home the dialogue that the neuroscientist Michael A. Arbib and the philosopher Tonino Griffero started at the end of 2021 about atmospheric experiences, striving to bridge the gap between cognitive science's perspective and the (neo)phenomenological one. This conversation progressed due to Pato Paez's offer to participate in the webinar "Architectural Atmospheres: Phenomenology, Cognition, and Feeling," a roundtable hosted by The Commission Project (TCP) within the Applied Neuroaesthetics initiative. The event ran online on May 20, 2022. Bob Condia moderated the panel discussion between Suchi Reddy, Michael A. Arbib, and Tonino Griffero. The RESONANCES project (Architectural Atmospheres: The Emotional Impact of Ambiances Measured through Conscious, Bodily, and Neural Responses) was responsible for developing the editing and publishing process. It 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 book 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. For further information, please visit the project website: www.resonances-project.com

Disclaimer
Every effort has been made to identify copyright holders and secure the necessary permission to reproduce featured images and other visual material. Please direct any inquiries regarding image rights to the editors

Interfaces
Book Series

Director
Bob Condia, Kansas State University | ANFA Advisory Council

Scientific board
Michael A. Arbib, University of California at San Diego | ANFA Advisory Council
Kory Beighle, Kansas State University
Elisabetta Canepa, University of Genoa | Kansas State University | ANFA Advisory Council
David Cronrath, University of Maryland
Andrea Jelić, Katholieke Universiteit Leuven
Hanna Negami, Perkins Eastman
Mikaela Wynne, Perkins Eastman

Interfaces
Interfaces investigates the interplay of architecture, philosophy, and biology through the lens of meaning in architecture. Architecture is a thread, mending the fabrics of disparate realms of comprehension. There is a fractal-like intention of this book series to expand and contract in scale of observation. It serves less as a microscopic and precise account of the science of the experience|body|building triality and more as a kaleidoscope of thought. The allegory of a kaleidoscope seems especially appropriate when reflecting upon its construction and mechanics. A telescoping container houses three mirrors, arranged to form an equilateral triangle toward a fixed axis. When introduced to vision, an optical unfolding occurs as light, color, depth, and angle are adjusted, producing nuance and clarity with each refinement. Furthering the metaphor, our telescoping container is atmosphere; our medium of vision is meaning in architecture; our triangular mirrored prism is the reflective and mutually inclusive realms of experience|body|building — or always the sum of philosophy|biology|architecture.

Editorial policy
Interfaces began as an invention of the Advisory Council of the Academy of Neuroscience for Architecture (ANFA) to open our symposiums to the world through live performances, video recordings, and open-sourced publications. We operate here under no authority but in the spirit of academic enterprise.

Every text accepted and published in the Interfaces book series underwent an editorial review procedure that ensures high-quality content. The Interfaces scientific board is composed of academic members and experienced professionals.

Previous
Issues

1 **Meaning in Architecture: Affordances, Atmosphere and Mood**
Edited by Bob Condia. 2019
Introduction by Kevin K. Rooney
Essays by Michael A. Arbib, Bob Condia and Colin Ellard,
and Brent Chamberlain

2 **Affordances and the Potential for Architecture**
Edited by Bob Condia. 2020
Introduction by Andrea Jelić
Essays by Sarah Robinson, Harry F. Mallgrave, and James Hamilton

3 **Generators of Architectural Atmosphere**
Edited by Elisabetta Canepa and Bob Condia. 2022
Introduction by Bob Condia
Essays by Elisabetta Canepa, Kutay Güler, and
Tiziana Proietti and Sergei Gepshtein

4 **Designing Atmospheres: Theory and Science**
Edited by Elisabetta Canepa and Bob Condia. 2023
Introduction by Bob Condia
Essays by Elisabetta Canepa, Zakaria Djebbara, Kory A. Beighle,
and Harry F. Mallgrave

Electronic editions available online
at www.newprairiepress.org/ebooks

INTERFACES 5

Atmosphere(s) for Architects: Between Phenomenology and Cognition

Introduction

Bob Condia
Mikaela Wynne 8 On Becoming an Atmospherologist: A Praxis of Atmospheres

The Dialogue

Michael A. Arbib
Tonino Griffero 34 A Dialogue on Affordances, Atmospheres, and Architecture

Commentaries

Federico De Matteis 170 The Atmospheric Architect

Robert L. Hart 186 What Is Going to Be Relevant to an Architect

Mark A. Hewitt 200 Art History, Human Affects, and Atmosphere in Buildings

Suchi Reddy 210 The New Phenomenology of Space: Bridging Cognition and Emotion in Architecture

Epilogues

Michael A. Arbib 234 The Atmospheric Brain: Beyond the First Impression

Tonino Griffero 258 Concordia Discors: What Can Atmospheres Surprisingly Do

Appendix

Elisabetta Canepa 276 An Essential Vocabulary of Atmospheric Architecture: Experiencing, Understanding, and Narrating Kansas State's Beach Museum of Art

350 **Authors**

354 **Index**

Federico De Matteis

Architect and Professor of Architectural Design
University of L'Aquila, Italy
Author of *Affective Spaces: Architecture and the Living Body*
(Routledge, 2021)

November 2022

The Atmospheric Architect

Atmospheres and Affordances

In their dialogue, Michael Arbib and Tonino Griffero take us on a fascinating journey around architecture. There is always much we can learn when our daily interests are considered through analytical lenses that are not strictly our own. Both the neuroscientist and the philosopher *see* the space of architecture in a certain way, and their way of seeing enriches and articulates the understanding that an architect practicing design may, in turn, have. As the two authors engage in a "battle of ideas," we witness interdisciplinarity at work.

What makes the two authors' take on architecture helpful is their theoretical outlook: the concepts of affordance and atmosphere are addressed in a very incisive way. Architects are, most often, trained to *do* and *make things* rather than rigorously work with concepts. One could object that architectural education is balanced between theoretical and practical knowledge, following a tradition that dates back to the early twentieth century; nevertheless, the architect's theory is usually practice-oriented and engages (sometimes cynically) selective portions of thinking that largely derive from other fields of inquiry. Philosophy has a long-standing history of sustaining architectural thought, while cog/neuroscience is a more recent acquisition of the designer's intellectual portfolio.

Atmospheres and affordances, more specifically, address two deeply rooted and intertwined questions that have always haunted architects: why does a space make me *feel* in a certain way? And why does a space make me *move* in a certain way? We could argue that each question is a corollary to the other, and affordances and atmospheres — or *atmospheric affordances* — are two faces of the same coin. Yet it is in the further implications of atmospherology that the two authors point in distinct directions: where-as Arbib believes that architects can master atmospheres and control them through design, Griffero eschews practical applications, preferring to preserve the aesthetics of atmospheres as a descriptive paradigm only.

Arbib claims that while atmospheres are borne from a first encounter, they can eventually become the object of a precise explication, identifying their point of origin and structure. They are not only about the pre-reflective experience, since beyond that there is also a semantic sphere that we can address: in the future, we may train computers to perceive atmospheric conditions just like they have become quite skilled at recognizing visual cues. In new phenomenology, on the other hand, atmospheres are considered too "fragile" to be fully understood, and, as soon as one tries to identify their causes, a sort of critical distancing mechanism sets in, making them disappear. The former model implies a full producibility of atmospheric effects — such as has been widely enacted in architectural history — while the latter, rejecting normativity, at most considers possible the establishment of the *conditions* under which atmospheres are more likely to appear — that "stage set" which Gernot Böhme (2013) metaphorically considers the paradigm for aesthetic work.

My feeling is that atmospheres are not entirely available for us to design: they cannot be fully grasped since a part of their entity is always on the move, coming and going in mysterious ways. As architects, we cannot precisely design them, but we can help them emerge and stabilize. Schmitz (2019, 94) provides us with a stringent definition of what an atmosphere is; on the other hand, the concept of atmosphere is often used in a much broader way. Despite these vaguer theoretical models that have entered common use, we can still instantly recognize an atmosphere when we encounter it: they are part of our life, permeating our lived bodies throughout our existence. Would it not be necessary to question *how atmospheres influence the designer*?

The Atmosphere of Design

Arbib and Griffero do not address one aspect when discussing architectural atmospheres: the *atmosphere of design*. Architectural design is a complex anthropological practice requiring theoretical articulation and practical knowledge. As Juhani Pallasmaa (2009) has masterfully demonstrated, it is all but disembodied. While engaged in the design process, the architect *feels* a certain atmosphere, a mood that will inevitably emerge in the project. Making architecture is certainly not a scientific, mechanical practice, something that happens only in specific moments while I am sitting at a drawing desk or in front of a computer. The creative act sometimes becomes an almost obsessive corporeal attitude, well-illustrated by the cliché of the architect doodling on any available paper surface. Design may include the third-person perspective on how to arrange the features of a building, but this perspective is, in turn, influenced by the architect's embodied, first-person disposition.

There are some questions I would like to add to the authors' reflections, asked this time from the architect's point of view.

Where does design take place?

Architectural practice can happen in many different settings, from vast open-space offices of corporate firms to the romantic atmosphere of a traditional atelier. The architecture school's studio is another typical setting of design that is inhabited by exciting atmospheres of learning and sharing or by the menacing mood of aggressive confrontation with teachers or peers. Beyond environments formally dedicated to design tasks and creative contemplation, projects can also begin to gestate in unlikely situations: at a bar or even in the shower. One should also consider the differences in the occasions of design: the rush of a design competition, where a convincing idea must be produced within a matter of days, differs from the slower pace of a theoretical project. In any case, it is hard to detach the architect's work from the atmosphere wherein this work is performed, which somehow remains embedded in the project.

Illustrations of the situations where design happens can give us a clue about this diversity. In *Thinking Architecture*, Peter Zumthor provides several instances where design comes to life. Some are bound to more formal office settings, where architecture is not only designed but also "discussed" (1999, 37). The dialectic confrontation leads to a sort of *epiphany*, bringing to light a latent spatial condition. Here, even the individual personality of each actor involved comes into play to shape a specific social situation that helps create a palpable atmosphere. In other pages of the same book, design thinking happens in unexpected places, including cafes, small hotels in the mountains, and urban parks: design is a form of *situated thinking* influenced by environmental conditions. This influence is not necessarily immediate or causal: the brief moment in which we become aware of a certain atmosphere, it may fade, only to reappear, many years later, as we are working on some completely unrelated project.

Le Corbusier's legendary atelier in the Parisian rue de Sèvres appears in photographs as a place of Cartesian order, with the arrangement of tables almost hinting at serial production: a space of rationality, of third-person design objectivity. Yet the Master was a prolific drawer, used to design live during lectures and carry half-finished designs with him. An anecdote he recounts in his book *Une Petite Maison* (1954) is about this: Le Corbusier had a design for a small house for his parents in his pocket but needed to find the right place to build the house. The plot required a specific view to complement the interior space he had imagined: he eventually found it on the shore of Lake Leman, on the north side of the Alps, where the house still stands today. In this case, design is an almost experiential practice since a design scheme can only become complete while traveling and encountering the real space of the world.

Personally, I feel that spatial thinking innervates my way of being like the rhizomes of a plant. As a trained architect, a continuous reflection on existing or projected situations is always in the process of being worked out at some nonconscious level of my mental activity. Drawing, an almost automatic practice that takes up a remarkable part of my (limited) free time, serves the purpose of further investigating some form of space. All this, however, is not what I would properly call design: it is a primordial soup of configurations, conditions, situations, details, solutions, and materials that do not equate to the creation of a full-fledged project. Yet when I am engaged in actual, formalized design work, this is the repertoire from where I extract the elements of architecture, like a cook searching for ingredients in a pantry. The imagined fragments of spaces merge with the *embodied memories* of many architectural environments I have visited and observed over the years. Many exchanges with colleagues over time also tell me that this kind of practice is quite common among architects.

When does design take place?

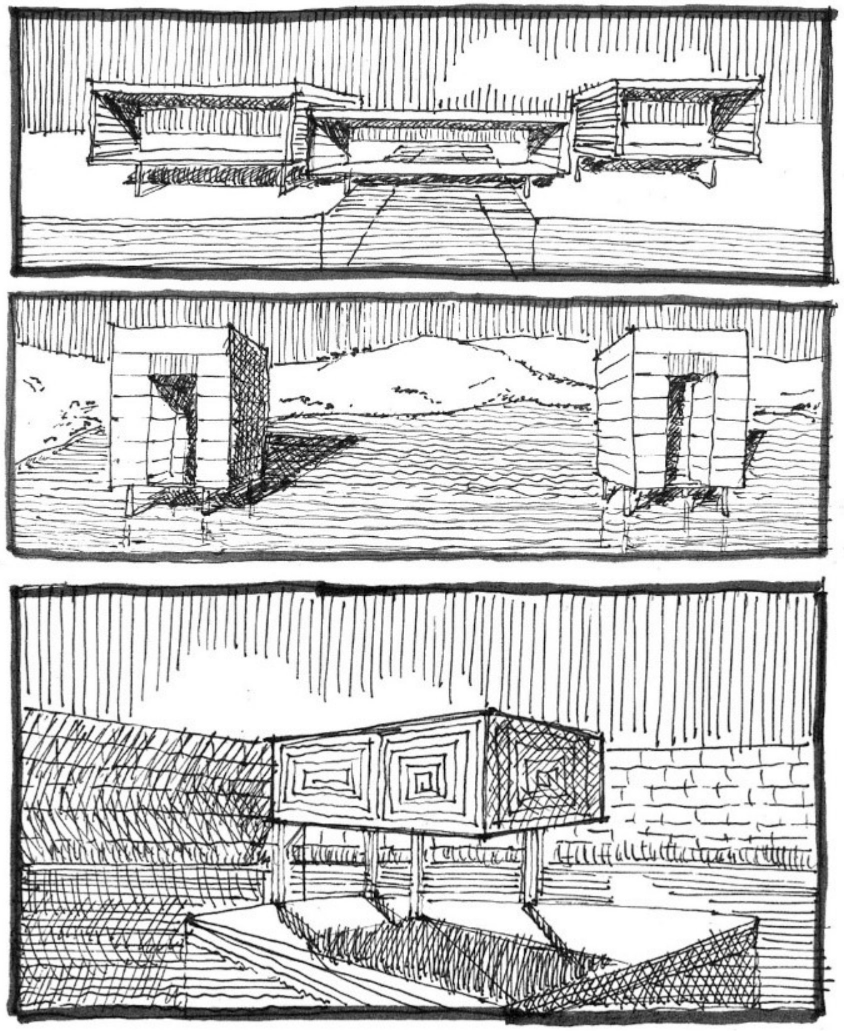
Hence the question: when does design happen? Is it only that which takes place when I am committed to a specific architectural task, at a drawing board, or with CAD software? Or does it encompass far more than just that, thus including the myriad of hours spent doodling buildings and spaces? [**F1**]

How does a collectively perceived atmosphere influence design?

Design is a creative cultural practice imbued with anthropological resonances. It does not happen under isolated conditions, for the designer responds — more or less voluntarily — to situations and events unfolding around them. Since some of these circumstances and events are conveyed as cultural trends, it is simple to identify them: in the 1980s and 1990s, for example, fragments of architectural orders would pop up rather incongruously on buildings, around the world, due to the postmodern fascination. Each epoch has its style: but beyond the mechanical reproduction of merely visual elements or typological patterns, we find something deeper at work.

In their conclusions, Arbib and Griffero recognize the challenge of extending the spatially circumscribed notion of atmosphere to the mood and way of thinking of an entire community, identifying the *climate* of a historical era. How architectural making is shaped by such a climate cannot be underestimated: we may, for example, think of post-catastrophe reconstruction and of how, in such cases, designers are driven by the urgency of repairing both the physical environment and the traumatized inhabitants' affects. Even this form of design, which should shed

F1 Architecture doodles



any collateral implication and pragmatically focus on the emergency, may end up betraying corporeal attitudes that fill design practice with pre-reflective indeterminacy (De Matteis 2019).

In his novel *Billiards at Half-Past Nine*, Heinrich Böll (1961) illustrates a remarkable parable connecting architecture with historical atmospheres. The plot begins in 1907 when young architect Heinrich Fähmel unexpectedly wins the design competition for the abbey of Saint Anton in Western Germany, built during the years leading up to the First World War. Yet during the Second World War, Fähmel's son Robert, who serves as an artilleryman in the German army, convinces his commander that destroying the abbey will provide a crucial strategic advantage over the enemy. In turn, Robert's son Joseph, who is an architect like his grandfather, engages in the *à l'identique* reconstruction of the building during the years of the country's miraculous postwar economic boom. We could consider Böll's storyline as a token of that collective historical atmosphere that Hermann Schmitz (2011, 116) deems capable of making mountains seem higher or lower. The mood felt by German communities during the Second World War was so terrifying that even architectural design became destructive — and, instead of imagining a building's production, one could think about its undoing.

A similar, perhaps even more somber mood animates the existential condition of Jacques Austerlitz, a central character in Winfried Georg Sebald's eponymous novel from 2001. The man — an art historian — is a keen observer of architecture, and the book dedicates long reflections on how buildings engage public space, how they embody the capitalist era, or how they (counterintuitively) create death. The place that drives Austerlitz's deepest curiosity is the Nazi prison town of Theresienstadt, where his mother had been interned during the Second World War, never to return. His crude analysis of this uncanny place thoroughly describes its functioning as a punishment machine, not so much intended to make its inhabitants die but rather to make their life as unbearable as possible. While the novel is set between the 1960s and 1990s, long after the war's end, it shows how the atmosphere of collective trauma generated by the Holocaust exerted prolonged effects. Under such conditions, architectural design may cease to be a shelter and a place of comfort, becoming a fiendish tool for destruction and punishment.

What are the corporeal and noetic conditions of design?

Perhaps there is no definition of the architect figure so celebrated as that given by Leon Battista Alberti in the prologue to his *De Re Aedificatoria*: "him I consider the architect, who by sure and wonderful reason and method, knows both how to devise through his own mind and energy, and to realize by construction, whatever can be most beautifully fitted out for the noble needs of man, by the movement of weights and the joining and massing of bodies" (1988 [1443–1452], 3). What can appear questionable today, seen through the clarity of Alberti's Renaissance definition, is the almost unconditioned faith placed in the architect's rational structure and their capacity of addressing the problems of building solely through the application of cognitive means. Although Alberti's monumental treatise becomes far more nuanced than in the opening definition, uncertainty regarding the architect's field and modes of action remains. If architectural practice is, sometimes, criticized for its lack of solid scientific foundations, one could argue that, on the contrary, what makes the imagination of spaces altogether possible is the adoption of vague, non-semantic forms of thinking.

In this sense, the Italian philosopher Franco Rella (2004) postulates that our bias for logic and language-based reasoning is culturally trained and has a precise origin in Greek philosophy, particularly in the work of Plato. Other ecologies of thought are possible: for example, those that unfold through images rather than words or those that emerge in the oneiric penumbra of sleep while remaining latent in the crystalline clarity of geometry and mathematics. [1] Something slightly similar also appears in Zumthor's account of design sessions, where memories and imagination come together and partially overlap in a process that is certainly not linear (1999, 45). In any case, the imagination driving the architect's creative process is based more on spaces and images than on words and numbers, and its process is difficult — if not altogether impossible — to verbally articulate. [2]

The process of design has many phases, each with a distinct character. For instance, the final part of project development is more technical, based on exact measurements, the production of detailed drawings and specifications, and countless interactions with other specialized technicians. Yet, in the earlier stages of design, where we address concepts and imagine spaces, the balance often tips away from technical matters towards the more creative aspects of practice. Here is the moment when atmosphere makes itself most directly felt in the design process.

If we look at how architects are portrayed in cinema, we can get a sense of this notion. We all recall the figure of Howard Roark, Ayn Rand's stereotypical character in the novel *The Fountainhead*, and perhaps the forefather of all film architects. Roark challenges a hostile professional world through his oversized, manic ego but is otherwise perfectly rational when it comes to designing. Similarly, the cliché architect in movies

---

[1] Rella exemplifies this form of alternative thought with the character K in Kafka's *The Castle*. As the novel's protagonist battles against sleep, he seems to grasp the sense of the day's mysterious events, which he could not fathom while awake.

[2] We could argue that the contemporary insistence on design schematics, which attempt to illustrate in an unassailable way the steps of a process, has produced a certain stiffening of creativity: all that we cannot explain through a simplified or comic-style diagram cannot be duly designed.

often exerts unrelenting creativity under any circumstances. But perhaps a more interesting and nuanced film architect is Stourley Kracklite, [3] the main character of Peter Greenaway's *The Belly of an Architect* (1987). Kracklite travels from the United States to Rome to work on a grandiose exhibition dedicated to Étienne-Louis Boullée. The city's moody, byzantine atmosphere, together with an obsession with the visionary French architect that haunts him like a ghost, eventually deprives Kracklite of his sanity and his life. What causes him to unravel as he progresses through the precise, technical work is the darkness surrounding him, which makes him fall into a dreamlike world where architecture itself becomes warped.

The Belly of an Architect presents an extreme, romanced conception of architect: yet also the contrary must be taken with caution since design activity is not performed by a "brain-in-the-vat" but rather by an incarnate subject who is pathically affected by the situations and atmospheres of the world they inhabit.

Designed Atmospheres

Whether atmosphere can be designed is a debate that, in the specific case of architecture, has a relative relevance. Empirically, we know that buildings generate moods, and that a skilled designer has the ability to modulate a feeling spatially experienced by whoever encounters it. Yet we also know that we cannot determine an atmosphere with the same certainty with which we select a floor tile: whatever situation may unfold in our architectural environment must inevitably accept the unexpected, the unwanted, the transformation over time, the aging of a building lying far beyond the architect's control. In a nutshell, architectural atmospheres (if such a specific thing exists) can be designed, but not entirely.

---

[3] There is some form of assonance between the names Howard Roark and Stourley Kracklite that makes me think that this is no coincidence. In any case, for more on the figure of the *tragic architect* see Beal 2021.

The questions I have raised commonly point in one direction: design practice is not merely a third-person technique but quite potently incorporates the atmospheric conditions wherein it occurs. Design is not a purely mechanical sequence of operations — at least not in its early, creative phases before the technical side takes the lead. Atmospheres enter design indirectly: the designer experiences an atmospheric world, made of enduring historical moods and fleeting situations, and becomes affected by them. Atmospheres can be described, as becoming part of the designer's culture, or remain corporeally embedded beneath the threshold of awareness. These atmospheres can be introduced in the design process deliberately or enforced more subtly and spontaneously through the designer's practical corporeity. We should not consider atmospheres only an object of design but also something that, well before the design process takes place, starts to shape it like a submarine current. Design is not strictly a third-person practice: its incipient stages are distinctly first-person since they call into play the experience of space, the forms of retention that shape our daily going about the world.

Quite obviously, there are many different ways of designing, some of which are more prone to atmospheric influences, while others are endowed with a greater degree of detachment. We could argue that in the latter case, the spatialized moods that modulate our life have a limited impact on the outcome of the design process, but we can never consider ourselves "outside" of the atmospheric condition since our thinking — and our actions as well — occurs *in*, *about*, and *through* atmospheres (Sumartojo and Pink 2019, 72). As design is never a disembodied practice but rather influenced by the corporeal skills of the designer, it falls into that realm of the "philosophies of making" that tends to blur — if not erase — the dualist boundaries between theory and practice. As Luigi Pareyson argued, the ways of making are "invented" by the maker in the process of making (Ribault 2022). Since makers are corporeally engaged in the creative process, they will resound with the surroundings' atmosphere.