

Understanding the physical environment as a place of embodied communication, which fosters meaningful situations, can activate environmental awareness in the context of our climate emergency.

New Phenomenology in architecture: embodied environmental communication for meaningful situations

Nicolai Bo Andersen

Phenomenology in architecture is not new. Philosophical phenomenology – as the study of phenomena experienced in an embodied first-person perspective – has inspired numerous architects and architectural scholars, without, however, having been developed into a literal architectural style. Without using the term phenomenology, Steen Eiler Rasmussen describes how human beings, long before they are able to explain, theorise, or conceptualise, understand architectural phenomena – such as form, colour, scale, proportion, rhythm, textural effects, daylight, and acoustics – through embodied interaction. To Rasmussen, capabilities are strengthened and meaning is developed in embodied interaction with the physical environment when humans ‘[by] a variety of experiences [...] quite instinctively learn to judge things according to weight, solidity, texture, heat-conducting ability.’¹ Paying similar attention to embodied first-person experience, numerous contemporary architects may be regarded as practising architecture inspired by phenomenology. For instance, Peter Zumthor emphasises experience and mood as central to his architectural praxis ‘[...] based on a constant interplay of feeling and reason,’² aiming to move the perceiver emotionally through a specific curated atmosphere.³

This article presents the so-called New Phenomenology conceived by Hermann Schmitz, focusing specifically on experiencing architecture. The aim is to investigate the relation of human beings to the built environment. I ask what it is that characterises the specific mode of first-person experience, thinking of embodied communication and meaningful situations, in the perspective of New Phenomenology. First, the basic principles of philosophical phenomenology are outlined. New Phenomenology as conceived by Schmitz is then presented. Next, three carefully selected classic modern works of architecture are described and analysed through a phenomenological–hermeneutic lens.⁴ New Phenomenology is discussed in relation to key scholarly positions on phenomenology in architecture. It is concluded that an understanding of architecture in terms of embodied communication and meaningful situations may engender environmental awareness.

Philosophical phenomenology

Edmund Husserl – considered the founder of philosophical phenomenology – famously argues that ‘[...] we must go back to the “things themselves”’.⁵ He focused on the world as it presents itself to consciousness, in its intuitive given-ness, as opposed to the reductivism, objectivism, and scientism of modern sciences. Husserl thus called for a return to the perceptual world that preconditions conceptualisation and categorisation. To Husserl, consciousness is not something that happens inside a human head as in a box, but rather that objects ‘[...] are first *constituted* as being what they are for us, and as what they count as for us, in varying forms of objective intention.’⁶ The intentional structure of perception is thus assumed to be central to the constitution of meaning. As a conscious act, intentionality is always directed towards something specific, regardless of whether the object of experience exists. Describing two aspects of intentional experience, Husserl distinguishes between the intentional *quality*, which is the specific type of experience, and the intentional *matter*, which is what the intended object is about.⁷

Human beings always perceive a physical object from a specific point of view. Investigating perception as a multifarious continuum of possible new perceptions, Husserl suggests that it is as if *the perceived* calls out to *the perceiver*, saying that:

*There is still more to see here, turn me so you can see all my sides, let your gaze run through me, draw closer to me, open me up, divide me up; keep on looking me over again and again, turning me to see all sides. You will get to know me like this, all that I am, all my surface qualities, all my inner sensible qualities.*⁸

As such, the experience of a physical object is not structured by abstract mathematical space defined by a Cartesian coordinate system. Instead, perception is always centred in the lived-body from where spatial directions and distances are gauged. For instance, when I perceive a work of architecture, it is always in perspective when engaged in interaction. The building is part of a spatial context and a temporal horizon of memory and expectation. The experience is meaningful, not only to me, but to others as well, due to its intersubjective structure.

In continuation of Husserl, Martin Heidegger⁹ rejected the dogma that there is a real world behind the world as it appears, pointing out that ‘[...] one cannot ask for

something behind the phenomenon at all, since what the phenomenon gives is precisely that something in itself.¹⁰ To Heidegger, the relation of human Being to the world is not characterised by a conscious act directed towards the object of experience as described by Husserl. Rather than a perceptual cognition, the everyday being-in-the-world is characterised by care, since we are always doing something, making something, or attending to something. As a fundamental existential structure, *attunement*¹¹ is an ontological indication of how one feels.¹² Attunement is characterised by disclosing Being in its so-called thrownness, making it possible to direct oneself towards something, to be *touched* and *have a sense* for something. As such, in *attunement lies existentially a disclosive submission to world out of which things that matter to us can be encountered*.¹³ The most familiar and everyday way of being attuned to the world is not characterised by a psychical or inner condition, but rather by mood. Not being a conscious act, '[m]ood assails [...] It comes neither from "without" nor from "within", but rises from being-in-the-world itself as a mode of that being'.¹⁴

As such, human relations with the world, according to Heidegger, are inherently emotionally attuned. In our everyday handiness, we use things in order to do something.¹⁵ Even if we do not pay much attention to them, the things show themselves as they are in meaningful practical engagement, since '[a] useful thing is essentially "something in order to"'.¹⁶ When it suddenly stops working, however, the thing presents itself as an object in objective presence.¹⁷ In contrast to the everyday, instrumental forgetfulness, the thing is perceived more scientifically in objective presence and Being's relation to the world becomes divided into a subject and object relationship.

New Phenomenology

Criticising Western philosophical tradition since Democritus and Plato, Hermann Schmitz radically challenges the reductionist, dualist, and introjectionist paradigm that, he argues, has divided humans into body and soul. To Schmitz, philosophy may be defined as *'man's contemplation of how he finds himself in his environment'*.¹⁸

Developing an approach that aims to clear away artificial ideas repeated throughout history, Schmitz defines a phenomenon, for someone, at a set time, as *'a state of affairs of which the person cannot in earnest deny that it then is a fact'*.¹⁹ Schmitz distinguishes between the *physical body* that can be seen and touched, and the *felt body* that is the place of *affective involvement*. A crucial difference between the physical body and the felt body is their different spatiality. The physical body is a geometrically defined entity located in a three-dimensional space together with other spatially defined bodies that I can see and touch. The felt body, on the other hand, is characterised by a dynamic that only I can experience. Schmitz defines the bodily and the embodied as '[...] whatever someone feels in the vicinity (not always within the boundaries) of their material body as belonging to themselves and without drawing on the senses, in particular, seeing and touching as well as the perceptual body schema (the habitual conception of one's own body), derived from the experiences made by means of the senses'.²⁰

For example, in terms of the bodily, I can be startled and torn out of everyday being, such as when I hear a loud sound. I am the one who experienced the sound, and not anyone else, when the felt body experiences a contraction.

What the felt body actually experiences is not the space of Greek geometry – as defined by points, lines, and three-dimensional constructs – but rather a surfaceless space that is not geometrically defined. I can look at the physical body objectively, examine it from the outside and use it as an instrument, but I can never escape the felt body as the basis of my experience. As such, New Phenomenology becomes particularly interesting for architects because it is basically a spatial issue: when the felt body contracts in relation to a loud sound, it fills less in space, whereas it fills more in space when the felt body flows away in relaxation.

Schmitz argues that what is phenomenologically given, here, is the felt body in the embodied dynamism between the two intertwined tendencies of *contraction* and *expansion*, which constitute a *vital drive* as the axis of bodily dynamism. We always live in a polar tension, Schmitz argues, between a basic experience of being contracted to a single hard point in space in the *primitive present*, 'the absolute identity of being this and not that', and being expanded into an open space in the unfolded present, which is to say life in the world.²¹ The primitive present is a rare exceptional state that is possibly never reached in its purest form with full consciousness, but remains a prerequisite for, and is to a certain extent present in, the unfolded present. The primitive present is characterised by the five elements *here, now, being, this, and I*.²²

Elements of New Phenomenology: space and the felt body

The initial element this idea of the primitive present is the *here*. This is a spatial, and thus architectural, question operating on three levels. First, through an embodied contraction, the body experiences an absolute place by the sudden dawning of the new, for example the loud sound. Second, the *here* unfolds into a system of relative locations in the pre-dimensional, not-three-dimensional space experienced by the felt body, such as contractions in inhalation, and expansion in exhalation. Third, the physical, three-dimensional space is experienced through sight and touch, for example objects separate from my own body.

Space gets experienced bodily as an expansion into the open, as opposed to the *here* of the primitive present. Thus, I am intimately connected to space through my body since bodily contraction, which defines an absolute place, takes place on the basis of life in the unfolded present.

The second element of the primitive present is a temporal question, which is also divided into three levels. The pure positional time is the *now*: the absolute moment characterised by the sudden interruption of the continuous flow of life, for example the loud sound. The second level is *modal temporality*, which is determined by temporal being and non-being, that is, by what has been and what is not yet. The third level is *modal relational temporality*, which is characterised by the position of chronologically ordered events in relation to the past, present, and future, constantly shifting in the flow of time. The third element of the primitive present is *being*. As soon as the contraction of the primitive present expands into the unfolded present, something that was, is no more, and the being of the primitive present is juxtaposed with a 'no-longer-being of interrupted duration'.²³ The non-being makes it possible to distance myself from being, and separate the being into individual parts allowing me to plan, expect, and remember in the unfolded present. The fourth element of the primitive

present is the experience of *this*, as an experience of absolute identity. The singular being receives a relative identity by being different from anything else, which means that I can manoeuvre and intervene in the world. The fifth element of the primitive present is *I*. The absolute identity is experienced in the primitive present as that which only concerns me. The *I* thus unfolds through complementation, when distanced from the primitive present, and the conscious subject becomes singular in contrast to what is alien. This identity can be unfolded through various relative identities it has in common with others.

The felt body is thus a dynamic volume characterised by the two tendencies of contraction and expansion that can be neither seen nor touched, nor sensorily perceived – through hearing, smell, or taste – but which are experienced as embodied impulses.²⁴ First, embodied impulses are the pure embodied impulses such as fear, pain, anxiety, hunger, thirst, itching, tickling, disgust, pleasure, lust, fatigue, freshness, drowsiness, and many others. Second, they are the grip of emotions such as joy, sadness, rage, annoyance, shame, love, hate, rapture, horror, fear, anxiety, longing, etc. Third, embodied impulses are felt movements that are not perceived by the senses, such as trembling, twitching, chewing, swallowing, inhaling, exhaling, walking, grabbing, dancing, speaking, writing, etc. Fourth, embodied impulses contain embodied directionality, such as looking towards something.

The felt body can be perceived as a whole, for example when one feels dull or fresh. Or it can be perceived as a swarm of more or less diffuse and flowing areas of *embodied islands* that come and go, such as the area around the mouth, heart, abdomen, or feet. For example, when I feel my heartbeat, the area appears in my consciousness and fills more until the area again sinks back into an indefinite background when it leaves my attention. Besides the basic tendencies of contraction and expansion, embodied dynamism is characterised by tension, swelling, intensity, rhythm, protopathic and epicritic tendencies,²⁵ and embodied directionality. The dynamic unity of contraction and expansion is characterised by either tension or swelling, where tension is contraction and swelling is expansion. Intensity occurs when tension and swelling are mixed, such as when I hold my breath. The relation between tension and swelling is rhythmic when a dominant feature alternates in a repetitive motion. Epicritic tendencies occur when areas of the body emerge, for instance by becoming sharpened and pinpointed, while protopathic tendencies are the spreading in a dull and diffuse manner. To illustrate the difference, Schmitz describes Mozart's music as epicritic, while Beethoven's music is protopathic.²⁶ The former is characterised by being pointed, powerful, tense, loose, dense, light, energetic, and fast, whereas the latter is slow, strained, bulging, arched, unifying, dark, tough, and deep.

Embodied directionality constitutes the fundamental orientation of the material-body schema for the motor system that controls the physical body. The directionality mediates between contraction and expansion, irreversibly leading from contraction to expansion and is expressed through movement, but also through, for example, the gaze and exhalation.²⁷ The material body schema for the motor system ensures that I am able to orient, that I can perform fast and precise movements, hold objects outside my own body and dodge incoming objects in motion. With the help of the fast tension and/or relaxation of the embodied

islands, I can distribute the weight of my physical body parts in such a way that I maintain the balance. The material-body schema for the motor system is thus the whole prerequisite for developing bodily skills. When children learn to walk, they try until the material body schema for the motor system is adapted to the task and, after sufficient practice, it gets *in the body* and they do not think about it any further.²⁸ Humans are disposed in three different types of embodied dynamism.²⁹ The *bathmothyme* is characterised by being compact, slightly sluggish but also robust, the *zyklothyme* is characterised by being rhythmic and rapidly shifting between being high up and far down, and the *skizothyme* is characterised by being loose with balanced oscillations between expansion and contraction. In addition to these individual bodily dispositions, collective bodily dispositions manifest themselves in the preferences of different eras, as expressed, for example, in what we call architectural styles.

Elements of New Phenomenology: embodied communication

The mediation between contraction and expansion is the basis of *embodied communication* that takes place when a body becomes involved in a bodily dynamic, which divides it or connects with something else, that being another person or a thing.³⁰ I interact with the world through embodied communication when my felt body contracts in response to an approaching object, for instance a ball, and expands when I throw it back. Similarly, I interact with architecture through embodied communication as I get a sensation of contraction when I experience a gloomy space and a sensation of expansion when I experience a space that is elevating. This pre-linguistic communication is crucial for my experience of and orientation in the world, and, as such, it is fundamental for architectural praxis. Schmitz distinguishes between two kinds of embodied communication. *Encorporation* is where one body becomes one with another body. It is *antagonistic* when a shared vital drive arises as a result of attending to a partner in communication and *solidary* where a shared vital drive connects many individuals without anyone turning to any other. It is *internal* when it takes place through division in the body and *external* when it goes beyond the body. *Excorporation* is when I am carried over my own body, for instance in trance-like states or sinking deep into a sensation.³¹

The photograph entitled *Brancusi's Studio [1]* by Edward J. Steichen (1879–1973) shows a number of more or less finished sculptures placed in the corner of the artist's studio. The sculptures appear to be placed for temporary storage next to and on top of one another. A dry, flat figure with heavily hanging garland-like shapes in the centre of the image acts as a podium for a warm soft stone with delicate facial-like features that balances on top. Next to this, a sharp white figure with pointed edges forms the basis of a tense upwards-pointing figure whose glossiness threatens to dissolve its shape. Behind, a dark rough form rises calmly in a rhythmically repeated movement and in front, a pointy white bellows-like figure flanks a rough, lumpy block. The ascending lines in the photograph makes my body straighten up while the horizontal lines give me a sense of expansion. Some shapes feel sharp while others are soft, some surfaces are rough while others are smooth just as the alternating repetitive motion of the columns give me a rhythmic feeling. Together, the sculptures, seen through the photographer's lens, form an ensemble, which tunes my



1 The studio of sculptor Constantin Brancusi, photographed by Edward J. Steichen, c. 1920.

body in a dynamic movement of contraction and expansion, radiance, and immersion, sharp and soft, warm and cold.

This antagonistic embodied communication between the artwork and me takes place through *synaesthetic qualities* – which are the intermodal properties of specific sensory qualities – and *suggestions of motion* – which are the sensations of movement in objects, whether static or in motion. Synaesthetic qualities move or tune the body with various qualitative expressions, such as the sharp, cutting, delicate, pointed, bright, hard, soft, warm, cold, heavy, massive, gentle, dense, smooth, roughness of colours, sounds, smells and the sharpness, the bouncing or dragging gait, the joy, enthusiasm, melancholy, freshness, and tiredness.³² For instance, the red room in the Carl Petersens Faaborg Museum gives me a feeling of warmth regardless of whether the actual temperature measured in degrees Celsius is higher than in the blue room or not. The rounded shapes in Eduardo Chillida's sculptures give me a feeling of softness, whereas the edged figures look as if they are sharp. And the blurred paintings by Gerhard Richter almost feel wet when I look at them, even though they are actually not.

Suggestions of motion are vivid sketches of movement without being fully enacted, which move the felt body in a direction, for instance through expressiveness of attitude, movement, gesture, gaze, or voice. Sounds and music make suggestions of motion, such as the radiant, immersive, progressive, rotating, unfolding, or contracting. Other

examples of suggestions of motion are swallowing, swelling, lifting, spreading, soaring through fatigue, lust, pride, and joy.³³ Through so-called bridging qualities, the suggestions of motion transfer into the material body schema of the motor system, for instance in '[...] the involuntary ballet that is enacted on the populated streets of cities when people hurry towards one another in crowds'³⁴ decisive for evasion 'without noticing the position and distance of his own material body relative to them, and the parts of his material body'.³⁵ For instance, when listening to Bach's Cello suites performed by Jacqueline du Pré, the music seems to get *under the skin* as a warm pulsating humming. The delicate mesh of thin hand-drawn lines arranged meticulously on the rough canvas by Agnes Martin in her paintings gives me a crisp, vibrant sensation. And the lively interplay of columns and niches, light, and shadow in Michelangelo's Piazza del Campidoglio makes me fall into the polyrhythmic beat as I walk along.

Because of the felt body, we experience emotions³⁶ that are so-called *half-things*, which differ from full-things in that their duration can be interrupted and cause and influence overlap.³⁷ All emotions are moods, and can be divided into three levels. Pure moods merely affect the expanse of surfaceless space, such as contentment and despair. The second layer is pure excitement, such as joy and sadness that are elevating respectively suppressing excitements which are not centred on a topic. The third layer is what is normally known as intentional emotions that are *gestalts*, i.e.,

thematically centred atmospheres, divided into regions like the joy *in* something, or an anchoring point like joy *about* something. According to Schmitz, the felt body is a resonating antenna spreading and absorbing emotions as atmospheres.³⁸ Atmospheres are defined as the '[...] unbounded occupation of a surfaceless space in the region of what is experienced as present'.³⁹ Emotions as atmospheres are experienced either as pure sensation of those atmospheres, or as affective involvement. They grip the felt body and are thus not located in an inner, private sphere – as understood throughout the Western philosophical tradition. Rather, when gripped by an emotion, I sense that emotion bodily and the felt body fills more or less in space, such as when I am struck by fear or moved by an uplifting feeling as expressed in everyday language. Anger is experienced as an overpowering, downwards-pulling gravity. Festive seriousness is a wide, calm, and densely gathered silence. Joy is an uplifting atmosphere causing the felt body to levitate.

In continuation, my mood depends on the atmosphere of the physical space. The atmosphere in a room is something that surrounds me and affects me bodily as well as the felt body of the other inhabitants. As such, the quality of an architectural space is not just a private, subjective question, just as it is not simply objective. For instance, cosiness is an emotion that is not simply located in my inner, private sphere, but something that takes place in the space between me and the physical material through embodied communication. The atmosphere is the mood of the space that grips and moves me and turns into emotions. It can be relaxed or, at other times, tensed, and it is created by the total constellation of the little differences and nuances of material effects, structural principle, and tectonic articulation.⁴⁰ Each space has its own unique atmosphere, for example cheerful, melancholic, oppressive, uplifting, indulgent, warm, hostile, friendly, or familiar. When a spatial atmosphere grips me, it is as if the space announces its presence and sometimes – if the power has executive control and imposes a binding validity of norms over me – the emotion has *authority*. How I react to the impulse depends on my human dispositions as *bathmothyme*, *zyklothyme*, or *skizothyme*, as described above. In any case, I can resist the emotion or give up and make it mine by means of an active *attitude*.

The felt body, and emotions, are embedded in situations – the most important sources of which are embodied dynamism and embodied communication.⁴¹ A situation is a personal state that I always live in and can never escape. It is a whole separated from the outside. It hangs together internally by *meaningfulness*, and the situation is internally diffuse. To Schmitz, meaningfulness consists of three types of meaning: *facts*⁴² are something that is the case; *programmes* are something that must or should be the case; and *problems* concern whether something is. For instance, it is a *fact* that I am an architect. The *programme* is that I have to design a building. The *problem* is how the building, which is not yet, must or should become. In the situation, the three types of meanings merge into a whole. For instance, when I walk along the street, a lot is understood (facts), planned (programmes) and resolved (problems) without being consciously perceived as particular. In addition to facts, programmes and problems, the meaningfulness of a situation can be a specific atmosphere that gives a situation a certain significance, such as the solemn atmosphere in Cologne cathedral.

The holistic, internally diffuse meaningfulness of meaning – i.e., the situation – is characterised as an expressive whole. For instance, when I experience a building as a building, and not just as background, it stands out against everything else. Standing out, the situation can yield *impressive situations*, characterised by the immediate understanding of chaotic diversity, *segmented situations*, characterised as perceived in multiple impressions, *current situations*, lasting for a short period of time, and *state-like situations*, that operate over time. Navigating the situation can be mastered by skilled professionals who have become good at *estimating*, not because of their analytical abilities, but because they have developed a sensitivity to the impressions: a strong *hermeneutic intelligence*.⁴³

Elements of New Phenomenology: spatial structures

The felt body and human dispositions determine our *personal* situation. In addition, we are embedded in *shared* situations from which the individual is affected, such as the family, tradition, landscape, and city in which the individual has grown up. Unlike animals, humans can articulate facts, programmes, or problems by virtue of *sentence-form communication*, isolating and (re)combining meaning that can be included in combinations with others in constellations that give the opportunity to build a *world*.⁴⁴ Language is an entity in a holistic, internally diffuse meaningfulness composed of meanings that are programmes, namely sentences.⁴⁵ A competent user of language does not search for the sentences blindfolded. Instead 'the poet, from the [facts], programs and problems, in elegant austerity weaves a net so thin that the situational network invoked by him [*sic*], especially in extended and complex lyrics, transpires in its entirety'.⁴⁶ Translated into an architectural practice – poetic making – building materials may be understood as a physical vocabulary (words) that the competent architect through a knowledge of tectonics (grammar) articulates into a meaningful spatial whole (syntax).

According to Schmitz, there are four different spatial structures.⁴⁷ *The space of the felt body* is the fundamental space that is determined solely by embodied dynamism and embodied communication. *The space of emotions* is where emotions, as placeless atmospheres that grip the felt body, unfold. *The locational space* is the space defined by the interrelationship between location and distance, i.e., the mathematical and scientific space. Finally, *the dwelling* is where emotions are cultivated in enclosed space.⁴⁸ Describing historic architectural forms, Schmitz classifies Byzantine architecture, and the Asam Church in Munich, as *privative* expanding spaces and baroque architecture as expanding space with a *swelling* tendency. Romanesque architecture is predominantly characterised by a *protopathic* tendency, whereas Gothic architecture remains ambiguously determined by a concurring *protopathic* and *epicritic* tendency.⁴⁹

In dwelling, humans arrange themselves so they can live in a certain form of harmony and balance, in the purest form exemplified by the church, garden and Japanese teahouse.⁵⁰ Dwelling is a property of atmosphere that is made possible through *enclosure*, and which gives humans the opportunity to create a protected space with the right mood and provide an intense and nuanced emotional climate. For example, a cosy space is created through the warm, mild, soft, swimming light or a dim, sonorous, dark background sound such as the creaking and squeaking that characterise the fire



2 Sigurd Lewerentz,
Church of St Peter,
Klippan, Sweden,
1966.

in an open fireplace.⁵¹ The atmosphere of the Gothic cathedral is a cultivation of the emotions by means of the *luminous walls* of the large stained-glass windows, characterised by the ‘authority of the luminous in the width and depth of the space’, experienced through incorporation.⁵² Atmosphere as emotion emerges by virtue of light shining through the large windows, in this case a result of synaesthetic characters, whereas other atmospheres may be created by suggestions of motion. In this perspective from New Phenomenology, a specific embodied responsiveness is articulated in a total material constellation – through synaesthetic characters, and suggestions of motion as cultivation of emotions in enclosed space.

Three works of architecture

In the following, three works of architecture are described and analysed through the lens of New Phenomenology: the Church of St Peter in Klippan, Sweden designed by Sigurd Lewerentz (1966); the Salk Institute in San Diego designed by Louis Kahn (1965); and the Nordic Pavilion in Venice designed by Sverre Fehn (1962). The three works are all slightly more than fifty years old. They represent three different programmes: religion, science, and culture. And they achieved canonical status as modern classics long ago. A characteristic space that represents each of the three

works – a place of worship, a common plaza, and an exhibition space – have been selected for further study. Embodied, first-person experience is recorded in notes, sketches, and/or photographs, and subsequently summarised in a short description. The aim is not to give a complete and exhaustive account of all the aspects of the respective works but rather, through an embodied first-person perspective, to say something meaningful that may help uncover characteristics of the experienced building as part of embodied communication. It is asked what characterises direct bodily experience, phenomenologically speaking, and in continuation of this, what characterises an experienced work of architecture in the perspective of embodied communication? In other words, what experiential properties constitute the architectural space, and how may we describe these properties by aiming to make them operational in architectural design.

The Church of St Peter

The building is experienced as a massive block resting heavily on the ground [2]. A large rectangular volume containing ecclesiastical functions is accompanied by an adjacent L-shaped building containing offices and parish rooms. The homogeneous, cold, dark brickwork with characteristic wide flush joints gives the impression that the

3 Louis Kahn, The Salk Institute, San Diego, California, United States, 1965.



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complex is formed as a single tough mass whose vaulted roofs slope in several directions as if modelled as in clay. A narrow slit that seems cut out of the primary figure forms the access to the main entrance. Along a bell tower that rises from the mass, the brick floor dips giving the impression of arriving at a deep cave. Inside, after a sharp turn, a low dark room lit only by thin icicles of light secretly opens. The sense of orientation disappears until the eyes slowly adjust to the darkness. The space is completely silent apart from a thin, reverberant sound of water dripping in the distance. Inside the dark nave, the floor subtly declines towards the altar. A deep incision in the brick floor reveals that the sound of dripping water comes from the baptismal font formed by a large conch shell. In the middle of the broad space, a heavy steel cross supports the vaulted ceilings, like temporary scaffolding for an excavation. A single light coming from a high-seated window pierces this luminous cavern endowed with a feeling of slow contemplation.

The Salk Institute

This complex, on the Californian coast, is experienced as two building units joined by a raised central plaza [3]. Each unit consists of a long volume that contains laboratories and associated service floors, rhythmically organised towers of stairs on each side, complemented by five housing towers

oriented towards the plaza. The delicate in-situ cast structure leaves floor-height openings lined with panels of wood. Arriving from the back of the building complex through a building section added later on, a low retaining wall blocks movement and a grove of trees shield the gaze. Entering an axially placed staircase, the deep plaza opens out towards the horizon. The bright space forms the central point of orientation from where there is access to the surrounding courtyards, rooms, and laboratories as well as to the landscape in front via a staircase hidden at the end of the plaza. A longitudinal slit in the strictly modular travertine floor cladding forms a central axis of water running towards the ocean, accompanied by the obliquely cut housing towers that set a rhythmic pace along the way. The warm tonality of the concrete structure and delicate wooden panels reflect a soft light under the strong Californian sun. Like an elevated gorge, the building structure frames the horizon and imparts a feeling of rhythmic concentration.

The Nordic Pavilion

This structure is experienced as a light structure nestled among the tall trees in the Giardini grounds of the Venice Biennale [4]. The cool in-situ-cast concrete building is composed of a large L-shaped wall, a giant Y-shaped beam borne by the wall and a single pillar in the opposite corner.



4 Sverre Fehn, The Nordic Pavilion, Venice, 1962.

The wall and beam support a crisp concrete ribbed roof that creates a dense grid to filter the bright Mediterranean sun. The porous volume is entered either directly from the main boulevard or from the garden, between the neighbouring pavilions. A large staircase at the corner of the pavilion gives access to a higher level behind the building. Upon entering the exhibition space through the open façade, allowing a fluid connection between inside and outside, there is a strong contrast between the hectic heat of the city and the cool calm of the interior. Inside the quiet exhibition space, direction is lost. Three trunks of trees piercing the roof are all that interrupts the continuous movement on the concrete floor floating beneath the large luminous roof. In contrast to the hard shadows outside delineated by the Venetian sun, the filtered light coming through the concrete sky hovering above the light space gives the pavilion a feeling of serene tranquillity.

According to this phenomenological description, the church designed by Lewerentz may be described as massive, cold, broad, tough, dark, reverberant, and slow. By contrast, the research institute designed by Kahn is firm, warm, deep, delicate, soft, bright, and rhythmic. And the art pavilion designed by Fehn is porous, cool, floating, crisp, light, calm, and serene. As such, the embodied dynamism of the Church of St Peter is characterised by a predominantly protopathic

tendency. Meanwhile, the Salk Institute is characterised by a predominantly rhythmic tendency. And the Nordic Pavilion is characterised by a predominantly epicritic tendency.

These characteristic dynamic tendencies may be organised in categories that describe the bodily experienced spatial effects relating to form, colour, proportion, material, light, sound, and rhythm:⁵³

- Density: massive, firm, porous
- Temperature: cold, warm, cool
- Direction: broad, deep, floating
- Consistency: tough, delicate, crisp
- Lightness: dark, soft, light
- Tonality: reverberant, bright, calm
- Orientation: slow, rhythmic, serene

In widely differing ways, all three projects articulate a distinct, meditative mood created through embodied communication, as a cultivation of the emotions in the enclosed space. The character of the Church of St Peter may be characterised as slow contemplation. The Salk Institute has a quality of rhythmic concentration. And the Nordic Pavilion exudes a feeling of serene tranquillity. As such, the three works of architecture briefly addressed here express the three dispositions of embodied dynamism as described above: the compact *bathmothyme*, the rhythmic *zyklothyme*, and the balanced *skizothyme*.

New Phenomenology and architectural theory

Describing how Schmitz rejects twentieth-century philosophical discourse aiming to renew the phenomenological tradition, Tonino Griffero points out that 'New Phenomenology presents itself not as metaphysical or speculative but as empirical knowledge, ontologically tolerant and anti-spiritualist without being materialist, essentialist without being nihilist, intentionally and productively naïve in rejecting the transcendental-eidetic approach and the epoché, while embracing the phenomenological motto "to the things themselves!"'⁵⁴ As described above, in the Western philosophical tradition the human body has been understood as an entirely mechanical instrument and emotions as a purely internal affair. At a time when architectural discourse seems dominated by technological, formalist, and self-sufficient concepts,⁵⁵ the human body appears to have been entirely forgotten.

Quoting Maurice Merleau-Ponty, Juhani Pallasmaa points out that '[m]y perception is [therefore] not a sum of visual, tactile and audible givens: I perceive in a total way with my whole being [...]'.⁵⁶ Criticising what he understands as the predominance of sight in contemporary technological and consumer culture – when in fact our experience of the world is multi-sensory – Pallasmaa argues that '[...] vision separates us from the world, whereas the other senses unite us with it'.⁵⁷ Architecture is understood here as the art of reconciliation between humans and the world. It takes place through the senses, the physical body, with subjective judgement remaining the centre of human experience. In contrast, emphasising the felt body, Schmitz points out that:

*New Phenomenology [...] aims to make their actual lives comprehensible to humans, that is, to make accessible again spontaneous life experience in continuous contemplation after having cleared away artificial ideas prefigured in history. Spontaneous life experience is anything that happens to humans in a felt manner, without their having intentionally constructed it.*⁵⁹

Even if not addressing the technical term 'intentionality', as described by Husserl, Schmitz emphasises that experience is not consciously directed towards an object. In contrast to the phenomenology of Husserl and Heidegger, New Phenomenology aims to become a thoroughly empirical endeavour focusing on the concept of a state of affairs rather than the concept of a thing in describing phenomena.⁶⁰ As such, the human relation to the environment is characterised by continuous contemplation in ubiquitous embodied communication.

In Anglo-Saxon architectural discourse, a number of prominent scholars have advocated the communicative potential of architecture. As an alternative to understanding architecture as a matter of appearance or technical performance, David Leatherbarrow calls for '[...] a new understanding of the ways [buildings] can, indeed must, communicate with one another and the unbuilt environment'.⁶¹ This understanding of architecture has also been advanced by Dalibor Vesely, arguing that the division between the instrumental and the communicative understanding of architecture is the main source of confusion in contemporary culture. To Vesely, it is not instrumental thinking, nor the subjective experience of appearance, but rather hermeneutic pre-understanding that structures representation. In symbolic representation, there is a reciprocity between articulation and embodiment when building geometry depends on certain basic movements

and gestures, creating a continuum of relations described as *communicative space*.⁶² The corporeal scheme is a spatial and temporal unity of sensory-motor experiences made possible through communicative movement which is '[...] neither physical, physiological, nor subjective; it is ontological and situational because it animates and transforms human circumstances as a whole'.⁶³ This communicative understanding of architecture may, at first glance, seem quite similar to embodied communication as described by Schmitz. However, it omits the question of how the body feels in the environment.

Indebted to the phenomenological hermeneutics of Hans-Georg Gadamer, who describes architecture as determined by the aim to serve a specific way of life and the relation to the spatial context,⁶⁴ Vesely understands poetic making as characterised by 'the situatedness of the results in the communicative space of culture'.⁶⁵ According to Vesely, architecture is not a representation of abstract ideas but rather of human living and acting, in accordance with ethical principles, thereby contributing to the fulfilment of human life.⁶⁶ As such, meaning is presented through symbolic representation of (typical) situations, described as *praxis*. To Vesely, a new poetics in architecture must be based on the creative representation (*mimesis*) of the practical nature of typical situations, such as dining, study, place of work, etc., in contrast to rationally formulated standards and theoretical knowledge. In continuation, Peter Carl describes typology as focusing on architectural objects as the very embodiment of conceptual thinking, whereas typicality never comprises abstract forms, processes, or relationships but concentrates upon human situations. To Carl, the alternative to thinking of architecture in terms of types '[...] is the structure of involvements with people and things that comprises urban *praxis* (situations)'.⁶⁷ Similarly, Leatherbarrow places 'human praxis, its situations and typicalities, at the center of architectural configuration and representation'.⁶⁸ To Leatherbarrow, situations are not simply related to the material or tectonic reality of the work of architecture, but rather to human praxis and the performances that people and buildings enact together.⁶⁹

Emphasising human praxis points to the relational quality of architectural experience, without including the emotional affectedness of the situation, however. In continuation of Heidegger's concept of *mood*, Alberto Pérez-Gómez argues that architecture affects us not only intellectually but more fundamentally at a pre-reflective level and may be '[...] grasped as a *cognitive and emotional* communicative setting appropriate for lived situations in qualitative *places*'.⁷⁰ Emphasising the attunement of embodied consciousness, Pérez-Gómez calls for an architecture that is intellectually and emotionally connected to its location and its inhabitants. In contrast to the essentialist interpretation of Heidegger's concept of dwelling as presented by Christian Norberg-Schulz when arguing that '[a]rchitecture means to visualise the genius loci',⁷¹ the concept of attunement emphasises experiential qualities, not simply the immanent properties of physical place.

Similarly, the concept of atmosphere points to architectural experience as neither simply objective nor purely subjective, but rather as 'the common reality of the perceiver and the perceived'.⁷² Inspired by Schmitz, Gernot Böhme describes atmosphere as '[...] the reality of the perceived as the sphere of its presence and the reality of the perceiver, insofar as in sensing the atmosphere s/he is bodily

present in a certain way.⁷³ In contrast to the somewhat theatrical understanding of atmosphere, including the full range of aesthetic work, promoted by Böhme, Schmitz differentiates between the mere perception of the atmosphere and the gripping atmosphere as an emotion,⁷⁴ thus suggesting a strong compliance with the existential structure of *mood* as described by Heidegger. Just as *Da-sein* is assailed by mood in its unreflected taking care, emotions as atmospheres grip the felt body as pure sensation or affective involvement.

As described above, Anglo-Saxon architectural discourse understands architecture as the symbolic representation formed through interpretation of human praxis. According to Carl, 'there is no such thing as absence of content (no gap between the practical and the symbolic), only progressively more explicit modes of symbolic representation'.⁷⁵ In the classical definition, a symbol is a visualisation of the invisible formed through hermeneutic interpretation. Referencing Gadamer, Vesely argues that symbolic representation does not simply point toward meaning outside itself. Instead the symbolic allows meaning to present itself.⁷⁶ As such, a work of architecture is meaningful only when human praxis is coming to presentation. However, as an object of hermeneutic interpretation, the material reality of a building seems to remain a messenger of the intended content. In this perspective, understanding architecture as symbolic representation of typical situations reduces the built structure to an inert frame (however meaningful) around a content.

Closer to the material reality of architecture, Patrick Lynch argues that rhythmic spatiality may situate a sculpture or a building in its physical setting and civic context. To Lynch, rhythm – understood in ancient Greece as 'a form of measure, and as a pause in movement that makes it communicative'⁷⁷ – is a primary aspect of both participatory interaction and communicative space. Arguing for a renewal of poetic architectural *praxis*, Lynch aims to recover the communication between architecture, site and sculpture that may re-establish the possibility for a civic ground closer to the conditions of (urban) life. Through a phenomenological description of the Church of St Peter, Lynch argues for the potential of architecture to articulate the conditions of life common to all, concluding that '[w]hen the bells ring out, and the sky is reflected in the pond, the world is converted into pure rhythm, fulfilling Heidegger's description in "Art and Space", of art's role in "evoking harmony".'⁷⁸

New phenomenology in architecture

According to the perspective of New Phenomenology, the physical matter of the three works analysed above is not simply a vehicle for a content coming to presentation. Rather, the material body of architecture is a communication partner in a situation from which meaning emanates. Transcending pictorial, historic, political, or – in the case of the Church of St Peter – liturgical representation, the content of the works may be understood instead as meaning made present through embodied communication. Describing how '[a] building, a Greek temple, portrays nothing',⁷⁹ Heidegger argues that the work of architecture *sets up a world* and in this *setting forth*, '[t]he rock comes to bear and rest and so first becomes rock; metal comes to glitter and shimmer, colours to glow, tones to sing, the word to say'.⁸⁰ As a material reality articulated tectonically at a

specific place, each of the three buildings enables a meaningful presenting of a place of worship, scientific research, and artistic contemplation when experienced. Similar to when the poet is 'letting the holistic structure of situations and their internally diffuse meaningfulness shine through and take effect',⁸¹ the architect has enabled a meaningful world to become present in respect of the meaningfulness of the situations on which they draw.

Just as Western philosophical tradition, since Democritus and Plato, has divided body and soul, humans have considered themselves separate from and masters of nature. Insisting that 'we could put [fire, water, air, stars, the heavens, and all the other bodies that are around us] to all the uses for which they are suited and thus make ourselves as it were the masters and possessors of nature', René Descartes regarded nature as a mechanical system that humans must control.⁸² Through objectivity and classification, natural resources have been understood as lifeless objects that can be exploited at will, while the emotional relationship to nature has been regarded an exclusively private and romantic affair. Criticising the typical technological outlook on sustainability, Pérez-Gómez points out that '[e]cologically responsible buildings and sustainable cities do not in themselves connect us to a meaningful life [...]':⁸³ Aiming at the well-being and sustainability of human cultures, Pérez-Gómez argues that architecture 'should aspire to create atmospheres conducive to moods appropriate for skilful focal practices [...] arising as action disclosed in its fully *present* temporality'.⁸⁴ If modern reductionism, objectivism, and scientism – as continuously criticised by phenomenologists since Husserl – have created distance and separation, perhaps an understanding of the felt body as characterised by embodied communication with the environment may encourage a feeling of empathy and care. As such, the material architectural language creating an emotional climate articulated by means of synaesthetic characters and suggestions of motion may be one way to affectively involve and reconnect human beings to the work of architecture as well as to the environment.

Activating environmental awareness

As discussed above, seen through the lens of New Phenomenology, neither the physical body nor sensuous pleasure is at the centre of human experience. I am not inside my body, rather I am my felt body in continuous embodied communication with my surroundings. Human relation to the world is not (just) consciously directed, nor is it (just) characterised by practical engagement. Instead, the felt body is spreading and absorbing emotions as atmospheres in resonate connection with the environment.

As such, Schmitz radically transcends the ontological divide between subject and object in favour of human relation to the environment, characterised by continuous contemplation in ubiquitous embodied communication. Experiencing the surroundings in general, and architecture in particular, is characterised by embodied dynamism. Situated between the two tendencies of contraction and expansion, it is the basis of antagonistic embodied communication through synaesthetic characters and suggestions of motion. In continuation of this, architecture may be understood as a material language that, articulated tectonically at a specific place, isolates and (re)combines meaning through facts, programmes, and problems, which combine with others in complex constellations to build a

world. Articulating the *density, temperature, direction, consistency, lightness, tonality, and orientation* of space, the architect may enable a specific and distinct mood to shine through and take effect as a *cultivation of the emotions in the enclosed space*. In this perspective, a building is not consciously understood as a symbolic representation of typical situations. Instead, the content of the work of architecture is being emotionally gripped as a meaningful presence in a specific situation.

In a world where we desperately need to rethink human relations with the environment in general – and the

architect's relation to building specifically – New Phenomenology may thus draw attention to humans and the environment as intrinsically connected. Rather than understanding the relation of human being to the (built) environment as characterised by conscious perception directed towards things, New Phenomenology in architecture offers the possibility of being in the world in continuous contemplation. In this perspective, understanding architecture as embodied communication and meaningful situations may be one way to activate environmental awareness.

Notes

- 1 Steen Eiler Rasmussen, *Experiencing Architecture* (Cambridge, MA: MIT Press, 1959), p. 18.
- 2 Peter Zumthor, *Thinking Architecture* (Basel: Birkhäuser, 2006), p. 20.
- 3 Peter Zumthor, *Atmospheres: Architectural Environments – Surrounding Objects* (Basel: Birkhäuser, 2006).
- 4 For descriptions of phenomenological methods, see: Shaun Gallagher and Dan Zahavi, *The Phenomenological Mind* (New York, NY: Routledge, 2012); Linda Groat and David Wang, *Architectural Research Methods* (Hoboken, NJ: John Wiley & Sons, 2013) and Nicolai Bo Andersen, 'Phenomenological Method: Towards an Approach to Architectural Investigation, Description and Design', in *Formation – Architectural Education in a Nordic Perspective*, ed. by Elise Lorentsen and Kristine A. Torp (Copenhagen: Architectural Publisher B, 2018), pp. 74–95.
- 5 Edmund Husserl, *Logical Investigations I* (London: Routledge, 2001), p. 168.
- 6 *Ibid.*, p. 275.
- 7 Edmund Husserl, *Logical Investigations II* (London: Routledge, 2001), pp. 119–20.
- 8 Edmund Husserl, *Analyses Concerning Passive and Active Synthesis: Lectures on Transcendental Logic* (Dordrecht: Kluwer Academic Publishers, 2001), p. 41.
- 9 Heidegger has been regarded as one of the most significant philosophers of the twentieth century. However, Heidegger's commitment to Nazism and his involvement in the activities of the Nazi regime have rightly attracted serious criticism.
- 10 Martin Heidegger, *History of the Concept of Time* (Bloomington, IN: Indiana University Press, 1985), p. 86.
- 11 *Befindlichkeit* is translated as *attunement* in Joan Stambaugh's 1996 translation used here and as *state-of-mind* in John Macquarrie and Edward Robinson's 1962 translation.
- 12 Martin Heidegger, *Being and Time* (Albany, NY: State University of New York Press, 1996), p. 126 ff.
- 13 *Ibid.*, pp. 129–30.
- 14 *Ibid.*, p. 129.
- 15 *Zuhanden* is translated *handiness* and *Zeug* is translated *useful things* in Joan Stambaugh's 1996 translation whereas John Macquarrie and Edward Robinson's 1962 translation render it as *ready-to-hand* and *equipment*, respectively.
- 16 Heidegger, *Being and Time*, p. 64.
- 17 *Vorhanden* is translated *objective presence* in Joan Stambaugh's 1996 translation and *present-at-hand* in John Macquarrie and Edward Robinson's 1962 translation.
- 18 Hermann Schmitz, *New Phenomenology: A Brief Introduction* (Mimesis International, 2019), p. 45.
- 19 *Ibid.*, p. 47.
- 20 *Ibid.*, p. 65.
- 21 *Ibid.*, p. 64.
- 22 *Ibid.*, p. 78 ff.
- 23 *Ibid.*, p. 80.
- 24 Hermann Schmitz, *Kroppen* (Aalborg: Aalborg Universitetsforlag, 2017), p. 11 ff.
- 25 Schmitz, *New Phenomenology*, p. 66 ff.
- 26 Schmitz, *Kroppen*, p. 42.
- 27 Schmitz, *New Phenomenology*, p. 66 ff.
- 28 Interestingly, this understanding of embodied learning corresponds to that of Steen Eiler Rasmussen as described above.
- 29 Schmitz, *Kroppen*, p. 86 ff.
- 30 *Ibid.*, p. 35 ff.
- 31 Schmitz, *New Phenomenology*, pp. 68–9.
- 32 Schmitz, *Kroppen*, p. 43.
- 33 *Ibid.*, p. 40.
- 34 Hermann Schmitz, 'Atmospheric Spaces', in *Ambiances: Environnement sensible, architecture et espace urbain Redécouvertes*, 27 April (2016), 5.
- 35 *Ibid.*
- 36 Characteristically, the English term *emotion* is etymologically connected to *motion*, i.e., *movement*.
- 37 Schmitz, *New Phenomenology*, p. 99 ff.
- 38 Schmitz, *Kroppen*, p. 122.
- 39 Schmitz, *New Phenomenology*, p. 94.
- 40 For structural principles and tectonic articulation as an aesthetic significant part of sustainable building culture, see: Nicolai Bo Andersen, 'Beautiful Tectonics: Corporeal Aesthetic in Tectonics as Sustainable Parameter', in *Structures and Architecture: Bridging the Gap and Crossing Borders*, ed. by Paulo J. S. Cruz (London: Taylor & Francis Group, 2019), pp. 134–42.
- 41 Schmitz, *New Phenomenology*, p. 73 ff.
- 42 I prefer the translation *fact* as opposed to *states of affairs* used in the 2019 English translation.
- 43 Schmitz, *New Phenomenology*, p. 78.
- 44 *Ibid.*
- 45 *Ibid.*, p. 74.
- 46 *Ibid.*, p. 78.
- 47 Hermann Schmitz, *Der Leib, der Raum und die Gefühle* (Bielefeld: Aisthesis Verlag, 2015), p. 46 ff.
- 48 In this context, *dwelling* [*Wohnen*] should not be confused with Heidegger's *dwelling* [*Wohnen*] which denotes the specific way in which *Dasein* is in the world.
- 49 Hermann Schmitz, *System der Philosophie, Bd. 2, T.2: Der Leib im Spiegel der Kunst* (Bonn: H. Bouvier u. Co. Verlag, 1966), pp. 149–219.
- 50 Schmitz, *Der Leib, der Raum und die Gefühle*, p. 75.
- 51 *Ibid.*, p. 77.
- 52 My translation of 'Autorität des Leuchtenden in der Weite und Tiefe des Raumes'. Schmitz, *Der Leib, der Raum und die Gefühle*, p. 79.
- 53 These categories are somewhat related to the ones used by Steen Eiler Rasmussen described in the above.
- 54 Tonino Griffero, *Atmospheres: Aesthetics of Emotional Spaces* (Surrey: Ashgate Publishing Limited, 2014), p. 13.
- 55 See below for the critique of contemporary architecture forwarded by Pallasmaa, Pérez-Gómez, Leatherbarrow, Vesely, Carl, Lynch, and others.
- 56 Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (Chichester: John Wiley & Sons Ltd., 2005), p. 21.
- 57 *Ibid.*, p. 25.
- 58 *Ibid.*, p. 72.
- 59 Schmitz, *New Phenomenology*, p. 43.
- 60 *Ibid.*, p. 47.

- 61 David Leatherbarrow, *Architecture Oriented Otherwise* (New York, NY: Princeton Architectural Press, 2009), p. 12.
- 62 Dalibor Vesely, *Architecture in the Age of Divided Representation: The Question of Creativity in the Shadow of Production* (Cambridge, MA: MIT Press, 2004), p. 72.
- 63 Ibid., p. 74.
- 64 Hans-Georg Gadamer, *Truth and Method* (London: Continuum, 2004), pp. 149–50.
- 65 Vesely, *Architecture in the Age of Divided Representation*, p. 387.
- 66 Ibid., p. 368.
- 67 Peter Carl, 'Type, Field, Culture, Praxis', *Architectural Design*, 81:1, 25 January (2011), 9.
- 68 Leatherbarrow, *Architecture Oriented Otherwise*, p. 14.
- 69 Ibid., p. 248.
- 70 Alberto Pérez-Gómez, 'Architecture as Musical Atmosphere', *Atmosphere and Aesthetics: A Plural Perspective*, ed. by Tonino Griffero and Marco Tedeschini (Cham: Palgrave Macmillan, 2019), p. 313.
- 71 Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (New York, NY: Rizzoli, 1979), p. 5.
- 72 Gernot Böhme, 'Atmosphere as the Fundamental Concept of a New Aesthetics', *Thesis Eleven*, Number 36, 1 August (1993), p. 122.
- 73 Ibid.
- 74 Schmitz, *New Phenomenology*, pp. 97–8.
- 75 Peter Carl, 'City-Image versus Topography of Praxis', *Cambridge Archaeological Journal*, 10:2 (2000), 329.
- 76 Vesely, *Architecture in the Age of Divided Representation*, p. 358.
- 77 Patrick Lynch, *Civic Ground: Rhythmic Spatiality and the Communicative Movement between Architecture, Sculpture and Site* (London: Artifice, 2017), p. 19.
- 78 Ibid., p. 141.
- 79 Martin Heidegger, *Basic Writings* (London: Routledge, 2011), p. 106.
- 80 Ibid., p. 109.
- 81 Schmitz, *New Phenomenology*, p. 78.
- 82 René Descartes, *Discourse on Method* (New York, NY: Oxford University Press Inc., 2006), p. 51.
- 83 Alberto Pérez-Gómez, *Attunement: Architectural Meaning after the Crisis of Modern Science* (Cambridge, MA: MIT Press, 2016), p. 232.
- 84 Ibid.

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Competing interests

The author declares none.

Author's biography

Nicolai Bo Andersen is an architect and Professor in Sustainable Building Culture working across research, education, and practice. He is head of the Master's Programme in Sustainable Building Culture, and head of the Centre for Sustainable Building Culture at the Royal Danish Academy, Copenhagen.

Author's address

Nicolai Bo Andersen
nande@kglakademi.dk