

MAKING ATMOSPHERES

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This paper discusses a practical methodology, developed for a second-year architectural elective project, that aims to make tangible the qualities of architectural atmospheres. It argues for an embodied practice of making sculptural artefacts. It proposes that these can articulate and make apparent atmospheric qualities. To be able to imagine or recognise atmosphere is a crucial skill for architects since atmosphere determines how people respond to space. The methodology is designed, through iterative cycles of making and critical reflection, to make students increasingly aware of atmosphere and develop their ability to create and articulate certain feeling tones within spaces. This artistic praxis relies upon a nonlinear, bodily knowing that seeks to challenge the dominance of ocularcentric practice in the discipline of architecture.

This paper explores some of the implications of a practical methodology for developing an embodied understanding of the nebulous world of architectural atmospheres. It discusses the outcomes of a second-year architectural elective undertaken during the Covid-19 pandemic, when students made 3D artefacts as a means of gaining insight into and articulating the atmospheric qualities identified from a digital experience of the Chapel of Notre-Dame du Haut in Ronchamp, France. Making sculptural artefacts is investigated as a tool capable of making tangible implicit, even ineffable, experiences of space. The artefacts enable the atmospheric to be articulated and communicated to others, creating a stage for critical reflection and dialogue to occur.

Spatial experience is characterised by a human body moving through space. The body's senses – tactile, olfactory, auditory and visual – come in contact with, and respond to, the distinctive properties of the space. Working in unison, the properties establish an atmosphere that evokes a distinct feeling tone (Griffero 2016). Atmospheres are experienced viscerally, through the “lived and felt body” (Schmitz 2019). This felt body is not identical to the physical anatomical body, but is rather an amorphous space through which we inwardly experience the body and its sensations (Griffero 2016).

Atmospheres influence how people feel about and react to space, architecture, and places. Ever present, these feelings may be subtle or overwhelmingly powerful, but they substantially colour our being-in-the-world, and are thus significant to architectural discourse, pedagogy, and practice (Bressani and Sprecher 2019).

But atmospheres present a difficulty. They are by their nature hard to identify and describe. Even though they can easily be sensed, they exist as a haze-like quality, or as a state of in-betweenness, something present between the observer and the space itself (Böhme 2017). This raises an epistemological concern within the discipline of architecture. It is difficult accurately to describe these felt sensations within the traditional architectural mediums of drawings, text, photographs and models. Because these mediums are the central means through which architectural discourse circulates, atmospheric qualities tend to become marginalised within practice, pedagogy and discourse more generally.

Nevertheless, atmospheres play a crucial role in the perception of space, and therefore an awareness of and ability to harness atmospheric qualities within the design process and the reading of space are arguably essential skills for those responsible for the built environment (Böhme 2017).

The architectural discipline is characterised by an ocularcentric hegemony (Pallasmaa 2012). Architectural drawings are typically established through projection types that have a proclivity to abstract, flatten and dissociate one from the complexities of the lived, embodied realities of an atmosphere (Hill 2003a). Since architects are trained to interpret and design spaces through drawings, and drawings limit the capacity for embodiment, they effectively restrict atmospheric thinking within the process of design.

In an attempt to address the issue, this paper explores a methodology that aims to develop a knowing, communicating, and teaching architecture that reveals atmospheric felt sensations more acutely. It favours an embodied practice that stimulates architectural thinking to challenge the dominance of ocular and drawing-centric methods and tradition. Still at an early stage, the research explores an artistic praxis that uses the making of sculptural artefacts as a medium to frame an understanding of atmospheres, finding ways of recognising more explicitly their qualities, affective nature and character, and how to articulate these.

Wittgenstein points out that “the limits of my language mean the limits of my world” (2001, 68). But is it possible for architects to work beyond the traditional limits of the language of drawing and immerse themselves within the qualities of an

atmosphere, for an enhanced understanding of architectural space that can in turn impart a greater immediacy to the design process?

This paper discusses a second-year architectural elective run for a semester at the School of Architecture and Planning at the University of the Witwatersrand, South Africa. This occurred during the Covid-19 pandemic when students were unable to visit an actual space. Instead, they were asked to explore the iconic chapel of Notre Dame du Haut at Ronchamp (Le Corbusier 1955).

This example was chosen to exploit the plethora of online documentation that exists in a variety of formats. Students were tasked with describing their own internal responses to an experience of the atmosphere of the chapel, and iteratively cast these in plaster of Paris (Gallagher 1986). The chapel as a flattened experience served as a starting point for the project. Neils Albertsen claims that one can only truly understand an atmosphere by being fully immersed within it (Albertsen 2012), but for as long as the pandemic lasted there would not be an opportunity for students to access the same space and personally experience the nuanced realities of place, landscape and architecture. The methodology therefore sought ways to overcome the disembodied digital experience. Importantly, it did not seek to replicate the experience of the chapel itself but encouraged students to generate their own embodied atmospheric experiences, drawn from a reading of the images of the chapel but rooted in their own lived realities, responses, and context.

Limited instructions were given online for working with materials. These included techniques for creating moulds out of High Impact Polystyrene (HIPS), casting in plaster of Paris, and finishing off the artefact. Predictably, the initial results were poor in their resolution. But since the process was iterative in its nature, over time students developed a deeper understanding of the material's qualities and began experimenting and innovating with the processes. I was surprised by how quickly students invented techniques and developed skills. Frequently the agency and qualities of the material would deform students' preconceived conceptions of the artefact. By following the material's characteristics and agency they often arrived at new understandings.

For this project, students focused on generating a singular expression for their response to the images of the chapel.

The initial attempts are essentially a response to bodily or "gut" feelings. The qualities that students envision and wish the artefact to express are rarely achieved in the first iteration. Translating a feeling, giving it form as a spatial expression, is remarkably difficult. The results never arrive at what was initially intended, as the material always resists the imposition of preconceived ideas in ways that stem from the complexities of making. It is also impossible to anticipate the whole with its nuanced material reality when conceiving the artefact. When the first artefact was completed, its expressive and communicative qualities were evaluated through critical class discussion. The mismatch between conception and realisation requires constant re-evaluation of what is seen and understood. This reflective process gives students insights into the atmospheric qualities of their own and others' work, revealing avenues of possibility for further development. This process is repeated through numerous cycles, with each pass achieving greater articulation.

To arrive at certain expressive qualities, a high level of precision in the manipulation of material properties and form is required. Also required is an expressive balance between the various qualities, as each has a dramatic impact on the other. For example, when an attempt is made to convey certain affects through light qualities or how the artefact is illuminated, the light must be of a very particular nature.



Figure 1. Fraser, H. 2008. Ronchamp. Reprinted under permission from author.



Figure 2. Mabuda, N. 2021. Gypsum . Student project articulating exterior form, seeking to express the difference between identical heavy masses, the one grounded and other floating. The artefact on the right shows the further articulation that occurs through the iterative process. Image: Mabuda, N.

Brightness, hue, the position of the light source, the kind of surface it falls on, and the type of shadows that are cast are all specific dimensions. Each dramatically impacts other qualities within the artefact, determining how it is read, felt and understood. In experimenting with these qualities, students begin to understand nuanced values and their impact within the material world.

Importantly, here, the qualities and effects of light, materials, form etc., are actual, embedded and tempered in the specificity, subtlety and complexity of real qualities, not imagined ones. To recognise how the qualities of materials express themselves, and how to manipulate them into particular configurations, form part of the pedagogical goal of getting architectural students to become versed in a material language, the basic building blocks of architectural scenography. This is especially vital for a generation largely enfolded in an artificial, spaceless, immaterial digital experience.

Even though the artefacts are a form of representation, they do not occupy the same fictional space as, say, a drawing would. They may have affinities and similarities to architectural models, but are fundamentally distinct. The artefacts do not refer to and stand in for something larger, as the representational values do in architectural models. They are indeed miniaturised as models, but they are intended to realise, hold and manifest certain tones of feeling.

Through their engagement in the process of making, of working with materials and realising the sculptural artefacts' qualities, students experience real lived and spatial affects. Initially these experiences are tacit, automatic and instinctual, but are important because they are foundational and sensed within the body. Through successive cycles of reflection, the experiences and sensations become increasingly explicit, describable and (through the models) tangible. This process unfolds partially through the discussion in class, but also in further attempts to refine the qualities of the model in the iterative remaking process.

This continuous cycle of making, reflection and evaluation, and re-making, is understood as a methodology. The recalibration of the design through successive cycles in response to what is discovered develops an embodied understanding with an evolving ability to read, create and describe particular affective qualities within the atmospheric experience. In the cycle of making and remaking, a dialogue is established with the artefact/s that emerges from questioning how to accentuate certain expressions and how to minimise or eliminate others. This continual refinement is the process of learning an atmospheric language. The methodology trains architectural students to become experientially aware and develops in them an ability and sensitivity to navigate the subtle realm of the relationship between atmospheric feelings and their generation in the spatial / formal / material matrix.

The anthropologist Tim Ingold terms this "correspondence," in the sense that it allows students to respond to, and correspond with, the realities of their world (Ingold 2013). The recognition of how spaces, places and architecture affect their being-in-the-world will inform students' design work in the future.

Making plays a central role as it facilitates an embodied experience of first-hand and direct understanding of the feeling tones of atmospheres, what Ingold (2013) calls learning from the "inside." The process of making places the students' feeling bodies in direct contact with materials, forms and qualities through continuous handling, touching, smelling and hearing of the material. This enlivens perceptions of the material. It is no longer something that is mute, dead and inanimate, but rather something vibrant, alive and possessing agency (Bennett 2010). It is distinct in its qualities, reactive and transformed in the processes of making. These are lived experiences, and while they happen externally, one senses them as the co-presence of oneself alongside the materials (Galati 2002). Making forces the students' bod-

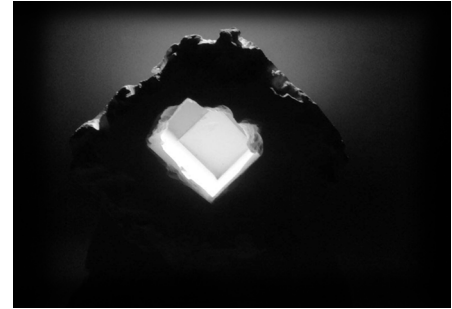


Figure 3. Nkohla, A. 2022. Gypsum. Student project articulating spiritual quality of light. Image: Nkohla, A. 2022.

ies to move around the artefact in close and intimate ways, allowing them to fully perceive it in the round.

As inevitably happens with making, a self-identification with the artefact emerges, allowing it to become an extension of the body, similar in ways to how a hammer becomes an extension of a craftsman's body (Gallagher 2021). In combination, the processes described above create a sense that the material, the artefact and its qualities become embodied, in the sense of being alive within the body.

Due to the emotive nature of atmospheres and the difficulty of describing their qualities, other formats for explicating the experience of atmospheres (e.g., text or drawings) can become highly abstract and esoteric. Through the surrogacy of the artefacts, the pedagogic practice described here maintains some fidelity to the felt sensations of spaces, and manages to illuminate the qualities responsible for them through the medium in which they are experienced. This makes a useful contrast with the inevitable flattening and abstraction that occurs in translation into the traditional architectural mediums.

Although the embodied experience remains in a sense ineffable, the exacting way in which qualities are exposed in the artefact facilitates the recognition of a nonlinear, nonverbal feeling as a form of knowing. According to the example of the constructivist sculptors, the Stenberg brothers (Stenberg et al. 1919), the artefacts can be understood as a spatial apparatus, an experiential measuring tool to evaluate spatial experiences, qualities and affect, and evolve a language of felt perceptions, an experiential dictionary of architectonic phrases. This can later serve as a foundational experience in the design of spaces, places and buildings.

The artefact develops understanding from two perspectives that reveal knowing in different ways: looking from the inside out, and looking from the outside in.

From the inside out, at the start of the project, students are attempting to articulate their own intangible experiences and give them form through the artefact. This happens within a nonverbal, interior psychic space that consists of bodily encounters, in dialogue "with a world of active and entangled materials" (Ingold 2013, 34), and can be described as the "writing" phase. The making of the artefacts plays the role of a "double," providing a conduit through which students can externalise their inner sensations. The making of the artefact is an ongoing process of synthesis, negotiation and distillation that mediates between the chapel (the source of the imagery responsible for the sense of atmosphere), the feelings themselves and the artefact (Cross 2006; Ingold 2013). Because of the indeterminacy of the brief, students cannot default to existing tropes of architectural style and form, but have to seek an authentic expression, developing their own architectural syntax based on their reading (Ingold 2013).

Once a cycle of making an artefact is completed, it is presented to the class for critical discussion. The vantage point of "seeing" the artefact changes now to a process of looking from the outside in, a process of "reading." Even though the artefact has evocative capabilities, it does require elaboration from the author to unlock it (Mäkelä 2007). Thereafter, however, it becomes a facilitating aid that assists students to articulate ephemeral internal experiences and a window through which others can glimpse these experiences (Cross 2006). By looking back through the artefact, as it were, and having previously been involved in its making and realisation, the maker experiences an access of atmospheric feelings.

By reading the embedded architectural language of space and form, through and with the artefact, students become aware of an affective architectural syntax that they perceive through the primary knowledge of their own selves. When making the artefact students are embedded and entangled in the psychological space of their thinking, the making process, and the chapel. Nigel Cross, the design researcher,

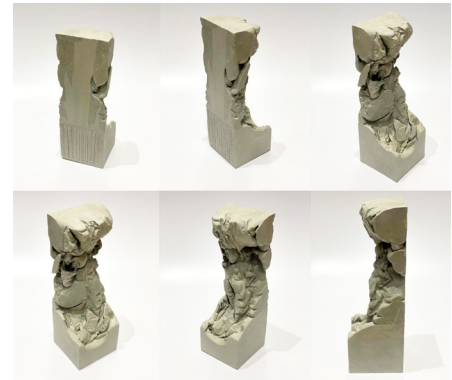


Figure 4. Jassat, T. 2022. Gypsum . Student project articulating the juxtaposition of textural qualities understood in the round. Image: Jassat, T. 2022

proposes that designers think and know in a manner that is intrinsically tacit. Once completed, the externalisation process of the artefact – being able to see it in tangible form – allows students to step back from the entanglements and reflect through the artefact, becoming more self-aware of their own internal responses to architecture, atmospheres and their translation into form. Making is then an explicit means of grappling with the implicit realm of architectural experience and the design process. The resultant awareness forms an essential part of students' design education (Cross 2006).

Importantly, this form of knowing emerged from the students' own lived experiences, interpretations and observations, developed through a careful listening to the responses of their own bodies. It establishes an authentic and grounded understanding of architectural space rooted in the felt sensibilities of a particular place.

The aim of the exercise was not to replicate established discourse on the chapel, nor for students to accurately describe or document experiences within the chapel. Rather, the chapel served as a point of departure for students to look, listen, feel and become aware of what their own being – their own responses and their own engagements with the flux of the world and its materials – has to offer them. The aim was to develop architects who have the sensitivity to be aware of, and follow, their internal responses to space, instead of replicating tropes of architectural style already prevalent in the profession.

In this project, an artistic practice is used as a methodology with which to explore the unique qualities of atmospheres. The tools of making and the artefact enable a first-hand, nonverbal understanding of the language of materials, form, space and ultimately atmospheres. An ongoing dialectic that provokes, probes, guides, questions, denies and validates, allows one to understand from the "inside" (Ingold 2013). The process serves as a means of revealing the intangible aspects of spatial experiences that form a meaningful and valuable part of human experience and how we are in-the-world. The research depends on bodily encounters with the expressive and auratic qualities that are intrinsic to or embedded within objects and materials. The resultant knowledge is not intellectual but inhabits feelings and sensations inherent in the expressive qualities of architectural space.

The process serves two purposes for architectural pedagogy and practice. First, it reveals qualities of feeling inherent in space, bringing to light a syntax and vocabulary of architectural affects. Secondly, it seeks to redress the ocularcentric and intellectualised nature of architectural practice. This was established during the Renaissance, to elevate the architectural profession as an intellectual elite, operating in the prestige of distal offices away from the mess and noise of site. This disconnected architects from the process of making, from lived relationships with material and site that were previously entangled in the practice and role of the master mason during the medieval period (Hill 2003b).

In conclusion, the outside in and inside out modes of working, the making and the artefacts themselves, become tools for thinking with, by and through, so as both to undergo and witness the process. They become a means to grapple with the ephemeral and intangible experience of space. The methodology described above allows forms of knowing that would otherwise remain entirely tacit to enter into design pedagogy and practice in more tangible ways, but without deforming their nature in translation.

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