P1 RESEARCH PLAN

AR3EX155 | Explore Lab
AR3A010 | Research Plan

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MOVING ATMOSPHERES

INTRODUCTION

The way we move, behave, and express in space are acts everybody does in daily life, without actively noticing. The reason why we do so, is for most people something which is never noticed nor questioned. Nonetheless, asking the question why we move and behave the way we do can teach us a lot about why we respond the way we do and how the environment we are situated in influences that process.

The reason for this specific research and the questions asked accordingly do have a deep personal embodied foundation. After an intensive and tough period going through the recovery of burn-out, I was forced to seek connection again between the body and cognition, after which acting upon that information to recover was necessary. This period gave me the gift of awareness; awareness about my body through sensing, listening to the signs my body gave me and how I react in different (spatial) settings. Sensing is an important part of this process, a phenomenon that sparked my interests as it has great relation to spatial design.

This relationship, between sensing and space, is in my opinion very valuable and can give designers and architects insights in how to design space according to perception and experience. Speaking from my own experience, the architectural way of designing is very much based on a pragmatic focused approach. Architects dissociate from the body; rather viewing it as a moving entity, it is seen as a quantified volume and defined by its' measurements and thus, the space needed. By doing so, architects limit themselves in the opportunity to gather and translate information our body is providing us. This research seeks to go beyond the pragmatic knowledge and way of designing for the human body, giving attention to sensing and intuition. To engage with the body.

A great example where one can practice the expression of intuition, is improvisation dance. As will be discussed later in this paper, intuitive movement will be used as a research method to analyse the relation between atmosphere, sensing, intuition and the movement that follows from this reaction. In this research, the following question is asked to be able to conclude how and in which manner atmosphere and movement relate:

"How does intuitive dance and movement inform architects about the atmosphere in and of architectural space?"

To be able to provide an answer to this question, another questions need to be asked which is linked to the chosen method to research the relation between movement and atmosphere:

"How can sensitivity for space and atmosphere be developed using intuitive dance as an interactive research tool?"

These questions are asked, as will be expected that intuitive dance, as a focused medium, is a representation of how the body reacts in everyday-life; reacting to the environment with our body. This conclusion might connect this research to the real world and open possibilities for designers and architects to design accordingly.

To be able to understand the links between space, atmosphere and movement, an understanding of these themes is necessary first. Therefore, relevant theory discussed in literature will be presented in the next section of this paper to set the literary framework for this research. Second, the chosen methods for researching these theories and themes will be discussed, with specifications as limitations and restrictions of the chosen methods. This will be accompanied with reasoning for choosing these specific methods. In the last chapter, expected results will be presented which will lead to expected design outcomes/ambitions.

THEORETICAL FRAMEWORK

When trying to understand atmosphere as a phenomenon, the question rises what atmosphere is and how this can be studied. To be able to understand the relationship between atmosphere and movement, it is important to explain the individual components in the sequence of spatial perception and its relation to intuition. When understood individually, the connection and reaction of each individual component can be explained in the reactive process of space perception.

Havik, Teerds and Tielens discuss in the Editorial of *OASE* issue 91 'Building Atmosphere' (2013) the difficulty when working with this theme, quoting architecture theorist Mark Wigley: "the discussion of atmosphere in architecture entails, by definition, a certain ambiguity. After all, atmosphere is something personal, vague, ephemeral and difficult to capture in text or design, impossible to define or analyse. Atmosphere is precisely that which evades analysis. Although atmosphere can perhaps be seen as the essence of architecture, it is not easily defined, let alone constructed or controlled." (Wigley, 1998). They state in the issue that atmosphere as a phenomenon, though difficult to pin down, at least can be identified *intuitively*. Using the notion of intuition inherently suggests that atmosphere is part of what can be called common sense: knowledge and experience embedded in a larger community, able to be shared and exchanged. Atmosphere exists where architecture, beyond its autonomous trajectory, its technical apparatus, and its programmatic approach, is connected with the surpassing of daily use. And by doing so it bridges the gap between professionals and layman, since it affects both. Atmosphere delivers, moreover, a conscious experience of room, place, space – an experience that lasts (Havik et al., 2013).

What this phrase indicates, is the spatial relation of atmosphere and architecture, as well as a sensitive need when studying atmospheres; through intuition. Intuition can provide information about space as it shows an emphasis on material, texture and tactility, as well as on light, shadow and aging, or to put it differently, 'experiences', evoking sensory perceptions, and stirring the mind (Havik et al., 2013). Thus, dealing with atmospheres means dealing with experience, perceived though and with intuition – through the act of sensing of space. Or as Böhme argues, atmosphere may be a conjunction of personal and emotional impressions of space, but this conjunction is reproduced by the objective assembly

of materials, spatial proportions, the aging of the materials, the connections of the materials and the connection to the place or other buildings, rhythms, light, etcetera. Atmospheres, Böhme continues, are 'characteristic manifestations of the co-presence of subject and object'. The way we experience atmosphere is determined by many aspects, and as such scarcely definable, but what can be concluded is that atmosphere is first and foremost a total experience, not a mere accumulation of constituent aspects." (Böhme, 1998).

This overall experience, using sensitivity to spatial setting, can be used to judge spatial quality. Finnish architect Juhani Pallasmaa argues the relation of atmospheric experience to spatial quality: 'The quality of a space or place is not merely a visual perceptual quality as is usually assumed. The judgement of environmental character is a complex multi-sensory fusion of countless factors, which are immediately and synthetically grasped as an overall atmosphere, feeling, mood or ambiance.' (Pallasmaa, 2012). Atmosphere is immediately experienced as a unity, in which all senses are simultaneously at work. The experience of atmospheric quality in architecture, then, is by definition an *embodied experience* as Böhme (2006) argues.

As Böhme states, experience of architectural atmosphere is something that involves the body. Spatz (2017) discusses different ways of embodied research and puts emphasis on the relation between embodied research and space: "While the focus of embodied research is on the possibilities of the embodiment, these possibilities may be profoundly informed and enabled by particular spaces. To carry out research in a majestic church, a clean classroom, or an abandoned hospital is to bring one's embodied practice into contact with the atmospheric qualities of that particular space." (Spatz, 2017). As Spatz notes, a relation between atmosphere of space and bodily response is present, where Spatz mentions dance as a possible option for embodied research.

LaMothe (2015) offers a visionary account of what dance has the potential to become for us in the twenty-first century that is based on but not determined by what "it" has been. She provides a vision *for* dance and *of* dance, informed by equal parts empirical evidence, scholarly research, kinetic imagination and personal experience. She quotes: "Dance, as an activity that animates every dimension of our bodily selves, is one whose secrets we discover slowly as we allow our dancing to guide us deep into the vortex of our endlessly creative bodily selves and back out again." (LaMothe, 2015). LaMothe defines three reasons for why we dance and what dance research can offer when related to spatial research, comprising a dance-enabled, dance-friendly philosophy of bodily becoming.

First, dance is to create and become patterns of sensation and response. Dance is movement, bodily movement, and every bodily movement that happens appears as a patterns that unfolds in time and space. They exist only within the multidimensional sensory space of a bodily self as a potential to move. They appear only as "images" in the moment of mobilization. So, every movement pattern made by a bodily self involves both sensing and responding. Not only does every movement made register within as a sensation, it also provides the occasion for sensory experiences. To dance, whether improvising in silence or disciplining oneself to a codified form, is to exercise the capacity of a human bodily self in creating and becoming patterns of sensation and response.

Second, to dance is to move in ways that cultivate a sensory awareness in the participation of rhythm of bodily becoming. As we become new patterns of sensation and response, these movements gather in us not only as habit and ability but also as forms of emerging self-consciousness. The kinetic images we create and become influence what we can perceive and how we choose to respond to the world around us as well as the sensations arising within ourselves. This awareness is sensory, not conceptual. It hums within us as an ability to receive and follow through with impulses to move. To dance is to cultivate this sensory awareness of ourselves as movement-in-the-making. To dance is to yield to this development as it happens in us and to us by virtue of the movements we are making. To dance is to allow oneself to become a living stream of sensory, kinetic creativity – a conscious flow of erupting impulses – banked by the movement patterns one is making.

Third, to dance is to participate consciously in this rhythm of bodily becoming by using this sensory awareness as a guide in creating and becoming patterns of sensation and response that realize our potential to move. Said otherwise, to dance is not only to invite movement impulses, it is to play with the movements that appear so as to discern the best moves to make. Attending consciously to the sensations that our movements are making and allow our bodily selves to finds ways to move in response that align our health and well-being with the challenges of movement.

In short, any movement opportunity can offer a chance to create and become our bodily selves, shift our sensory experience, and do so attentive to what we are creating and becoming. Rietveld & Kiverstein (2014) arguments are, when related to those or LaMothe, interesting when asking the question how our environment influences why and how we move and behave. They relate and explain bodily response to environment using the *Affordances* theory, based on definition of Gibson (1979/1986) and Ingold (2000/2011). Their approach is valuable, as they relate the Theory of Affordances to the realm of designers and architects: "Having a better conceptual understanding of the relational nature of affordances is important for creative professions because it suggests new ways of increasing our openness to these available resources." (Rietveld & Kiverstein, 2014).

They define affordance as not simply properties of an animal's environment conceived of as a material or physical environment. It is the ecological niche (a set of affordances, the way of *how* an animal lives) of a particular form of life that is made up of affordances. Each affordance must be understood in relation to the abilities available in a form of life. In the case of humans these abilities are generally acquired through training and experience in sociocultural practices (Rietveld & Kiverstein, 2014). This approach is interesting when considering movement based on spatial characteristics and setting: "Solicitation by an affordance is manifest in a state of bodily "action readiness" (Frijda, 1986, 2007). The detection of an affordance that is relevant to what the individual cares about in the particular situation gives rise to an embodied readiness for action (Rietveld, 2012a, 2014). In many real-life situations multiple states of action readiness interact in generating action tendencies and action. The distinction between affordances and solicitations is important because from the multitude of affordances available to a member of a form of life located in a particular place at a particular moment, most will be irrelevant to the individual. The affordances we are normally drawn to act upon are the ones that are relevant to our concerns. Without this distinction, it is natural to wonder why our gaze should be drawn to one particular relevant affordance out of the whole landscape of affordances. Moreover, without this distinction architects and human movement scientists (such as Withagen et al., 2012) interested in designing healthier living environments will not be able to understand why some affordances invite movement and others do not solicit that. We suggest that is our current abilities and concerns that make it the case that we are solicited by one affordance rather than another. Moreover, once we have available the notion of a solicitation, we can also recognize how sometimes the world can motivate us to act in certain ways. When we experience a particular tendency to act in a certain way, this is because we have been solicited by one of the many possibilities for action available in our situation." (Rietveld & Kiverstein, 2014).

To summarise, perception of space is an act of sensing, the experience of space through all the senses, or when interpreter differently, sensing with the whole body. Thus, it is clear that there is strong relationship present between three entities that could be used individually when studying atmospheres: space, sensing and the body. When the arguments or the authors discussed in this section are combined, they make an argument to use dance and embodied research as a research medium to study atmosphere.

METHOD

To be able to find answers to the raised questions, a sequence of steps will be taken to formulate these answers. The first step is to experiment and observe, after which the obtained material from the experiment will be analysed and interpretations will be made, resulting in expression, comparison, conclusion and reflection. These findings will later be translated to be implemented in design. The body will be given a central role in this research, as it will be used as the main source of information during this experiment and is thus used as experimental research medium. As shown in the previous section of this paper, studying atmospheres is an embodied act for which movement can be used to create a greater sensitivity for space and, by doing so, to study atmosphere.

EXPERIMENT

PROCEDURE

For the exploration of how intuitive movement is influenced by atmosphere, several experiments in different spatial settings will be executed. During this laboratory, the *Movement Lab,* a procedure will be followed to be able to test and compare bodily response to its environments. Four different stages are used to sense the studied space; *arrival*, *observation*, *translation* and *reflection*. These stages are introduced to get into a mental and physical space to respond the to environment without restrictions or mental blocking, to create spatial awareness and sensitivity for the space and to be able to reflect on the relation between movement and spatial setting.

The first step, to *arrive,* is to enter in the space and to ground in the moment. To do so, meditation and automatic writing can be used to shift the focus on the present moment, focus on sensations present in the body and become aware of the environment; to arrive in the moment and shift attention to the senses. In this phase, the current mental state of that moment will be captured with writing to be used in reflection later.

The second step is to *observe*; to use the activated senses during step one to sense and observe the space. Attention will be focused on spatial characteristics like spatial dimension, light, sounds, materials, smell, aging/state, etc. Step one and two are very closely linked and can be interchanged depending on the present mental state (i.e. when the body and mind are already calm and intuitively start with step two, after which meditation and writing can be used as a second step to embody the space).

The third step is to engage with the senses through the body: *translation*. In this phase, the in step one and two developed feeling and awareness for the space will be translated into a character using metaphors, imagery and movement landscapes to embody the feeling evoked in response to atmosphere. These techniques are taken for existing dance practices, for example Gaga (2018a & 2018b) and THE PULSĖ. These practices and used techniques are chosen as they are familiar to me and are thus familiar to my own body. As a result, the responsive movement studied in this research will not be limited by inexperience and therefore enable me to have an open gaze and approach, allowing unbiased and unrestricted embodied translation of atmosphere through movement. Besides, principles of Flow State (Csikszentmihalyi, 1990) will be used to come in a state of being that allows uninhibited movement and creative flow. During this phase of the procedure, there will be no introduction of music, only unless already present in the space. Music can create different atmospheres, so using music to stimulate movement might cause a bias when studying the reaction to the existing spatial atmosphere. The will be no hard time limitation set for this process, as coming in Flow State and translating feeling into embodiment might take a while. Roughly, this step should take around an hour to perform.

The fourth and last step op the process is *reflection*. During this step, mental state and embodied and sensory experience will be captured using, again, automatic writing. This phase is meant to reflect on the experience, giving special attention to how the space and atmosphere influenced movement and how the space changed the mental state (expressed in step one) during the experiment.

LOCATION

The physical spaces that will be studied according to the above described process must be varied, to create a palette of around five different kinds of atmospheres. These places will be found and chosen while exploring different spaces during several excursions. Criteria for choosing locations include it being a defined space, either by interior or exterior walls or space defining/architectural objects as this allows conclusions to relate to spatial factors and thus allow the possibility to relate to design. Besides, a clear atmosphere must be definable to be able to research one specific setting per location. The moment of the day can influence the atmosphere and setting of locations due to for example light conditions or the amount of other people in the space, so this must be chosen carefully but may vary between the different locations.

Possible locations (in and around Rotterdam) that comply with these criteria could be: Laurenskerk, Stadspodium, Van Nelle Fabriek, Merwe-Vierhaven, Dakpark and the Depot. These examples show a wide range of atmospheric qualities due to its different spatial setting, materiality, light conditions and character. The examples mentioned fulfil the functions of: a church, public pavilion, industrial building, mix-used harbour area, repurposed train station to city park and museum. In addition, a dance studio setting could be a valuable location to research atmospheres. It being a neutral space, a studio could be interesting to explore how bodily response differs from the examined other locations. This space also allows to explore influencing the atmosphere by changing light conditions or introducing objects in the space.

DOCUMENTATION

During the experiments of the Movement Lab, the play between movement and spatial atmospheric qualities will be captured using photo and video. Doing so, movement in relation to for examples spatial dimension, materiality and light can be shown. In this process, definition of camera positions, angles and shots is necessary. These settings need to be chosen based on intuition as each laboratory is site specific, but considering the intention to define the most important or influential spatial for the space, focussing on dimensions/guiding boundaries or elements of the space (walls, doors, railing, stairs, elements in the room, etc.), materials and lightning. As definition of these elements might differ based on the characteristics of each space, allowing to play with these elements might lead to interesting results; framing the shots by tilting the camera upwards or downwards, playing with reflection of material, the position of the camera in the room being close up or far away, etc.

It is important to mention the possible influence of the camera on the movements studied in this research. As the camera can feel like a watching audience, self-objectification might occur. Further, handling the camera can also be seen as a physical disturbance of flow. Principles and guides of Flow State might be helpful tools to maintain creative flow of body and mind.

ANALYSIS

To be able to come to conclusion that relate the obtained material to spatial intervention, synthesis and interpretation of material is necessary. With the observation of movement, distillation of patterns and links between movement and atmospheric characteristics can be made using several methods. There will lay a focus on the three aforementioned elements in each analysis: space, feeling and body.

The first step, concerning both the bodily and spatial elements, is the creation of a short film for each location. For the creation of these films, storylines need to be created based on the writing during the experiments. Character description, metaphors, imagery and textures can be used as guides to tell a story specified for each atmosphere and space. This method will show bodily reaction in space, visually showing the present atmosphere.

Second, movement patterns can be distilled from stills in the film. Single movement shots can be translated into line drawings, showing posture and position in space. When multiple shots are combined, movement through space can be expressed showing sequence of movement patterns. This step is to grasp the spatial aspect of the experiment and show

the relation of atmosphere and responsive movement through space. This can be done with observations in different camera shots and angles, in example frames in elevation, top view or detail shots.

Lastly, the automatic writing will be used in two ways. It can both be used in its' raw form as well as in altered version when translated to narrative and/or poetry. This method is used to express feeling, sensation and experience during the bodily translation of space.

When these three methods are combined, a layered representation of atmosphere and its influence on movement can be made through film, photo-drawing and writing. Each expressions is a layered representation of the atmospheric qualities of space and the influence of this on senses, experience and eventually movement. When done for every location/atmosphere, the multiple situations can be compared, showing what characteristics influences movement and why.

RESULTS & DESIGN AMBITIONS

When ordering and interpreting the collected data in the Movement Lab, in this case layered representation of atmosphere and its influence on movement can be made through film, photo-drawing and writing, conclusions can be drawn that can lead to directions and guides which can be used in the design phase. There are several possibilities for types of outcomes to be expected from the analysis phase.

The first outcome, as described earlier, could be the translation of movement pattern to atmospheric qualities. Sequences of movement landscapes are subtracted and used in the formation of choreographies. These choreographies can be used as guideline or framework, both in literal or in interpreted abstracted way, as physical design guides.

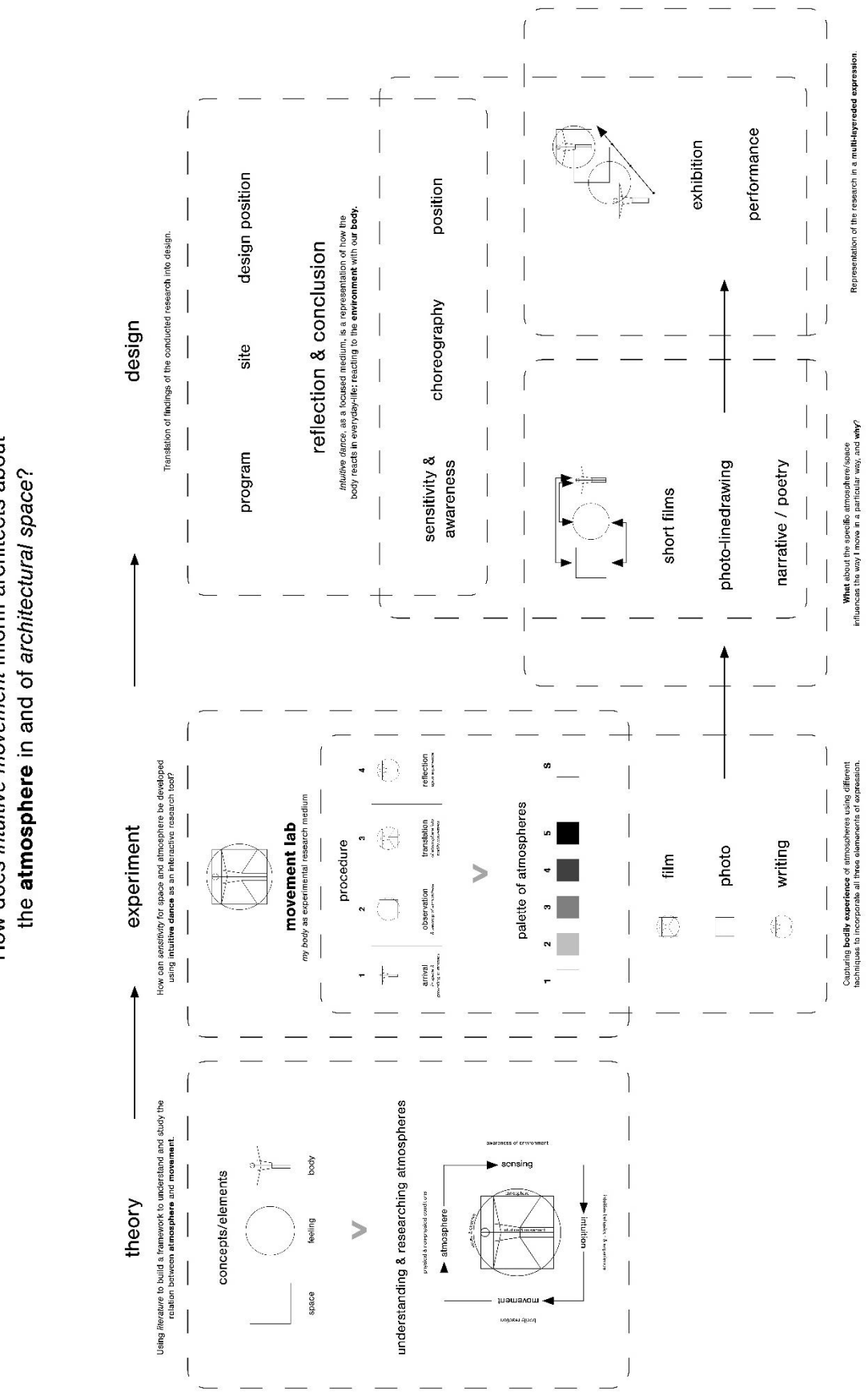
Next, the other outcomes of the research will not be physical and material, but rather a viewpoint and positions for designing. Examples of such principles are the approach of designing with focus on the senses and how this leads to intuitive motion. Within this approach, bodily awareness for atmosphere is a focal point. Choreography could also be a principle, as it can be used as a framework to turn around the process of designing for feeling and movement. In this way, presumed feeling can be achieved by steering the way we move in architectural space, using the systemic way of moving linked to this feeling as a guideline to design to evoke this feeling.

The last outcome of this research is a narrative, describing the link of atmosphere to emotion. Poetry and narrative can be used in design relating to desired evoking emotion, and used as a guideline when related to atmospheric conditions.

These outcomes will be best presented during an exhibition. By doing so, the collection of material can be shown, which allows the possibility to showcase the connection of the outcomes of the research as a coherent collection. As this research has also a very bodily approach, findings could also be presented during a performance incorporating the films, writing and choreography/bodily movement to express the relation of atmosphere and movement.

As this research is about exploring senses, space and bodily movement in relation to space, and thus the creating of bodily awareness, there might be an underlaying didactic purpose of this research. For this reason, a possible aim for the design outcome of this research could be to transfer this gained knowledge to other designers and architects. Hence, a spatial design with public program could be a logical approach. An example of such could be the design of an installation, in which the participant is challenged to be aware of senses, stimulated to move according to intuition and how this relates to changing atmospheric conditions.

RESEARCH DIAGRAM



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