FLUCTUATING GROUNDS

Adaptation through ambiguity in architecture

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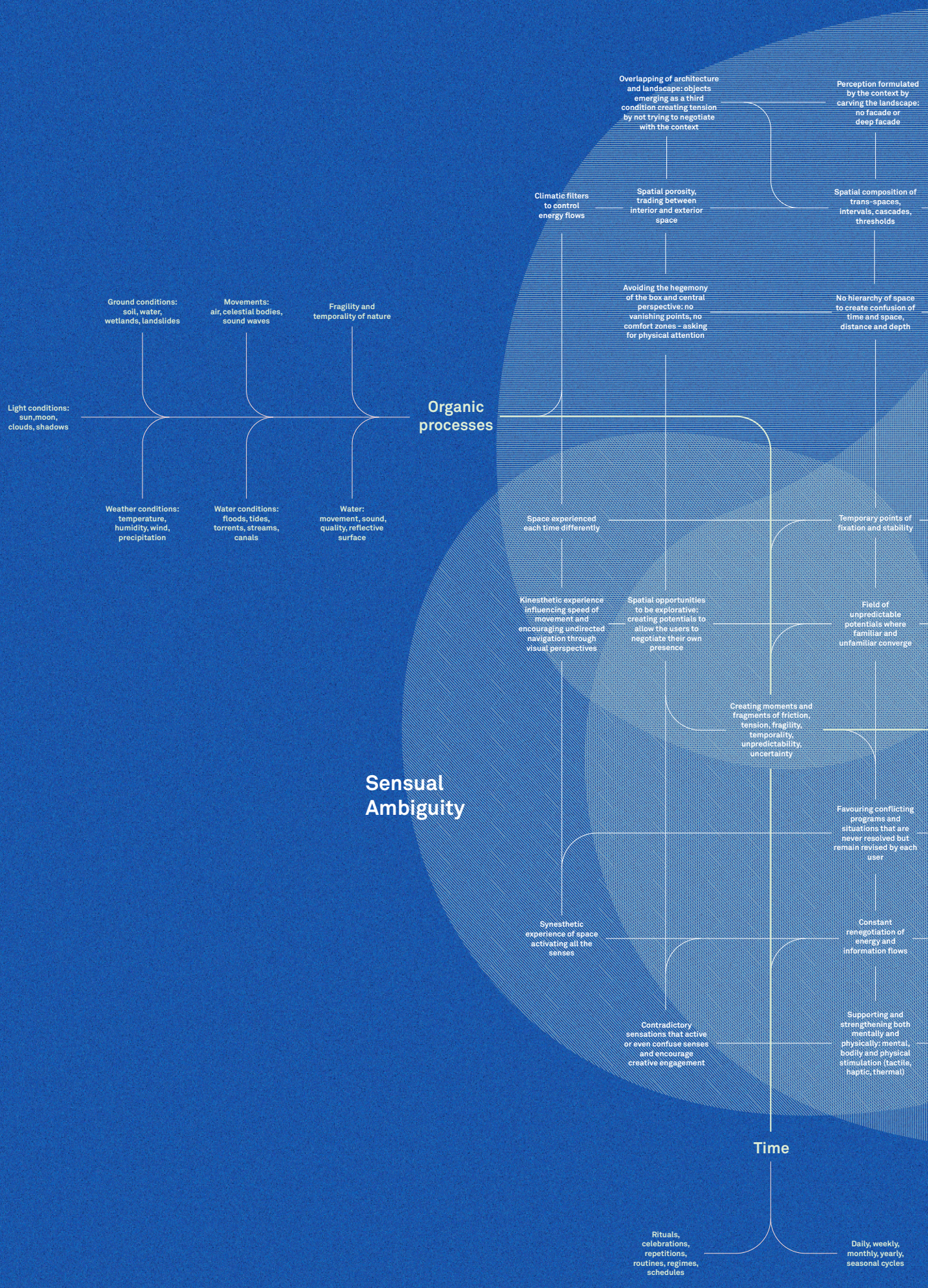
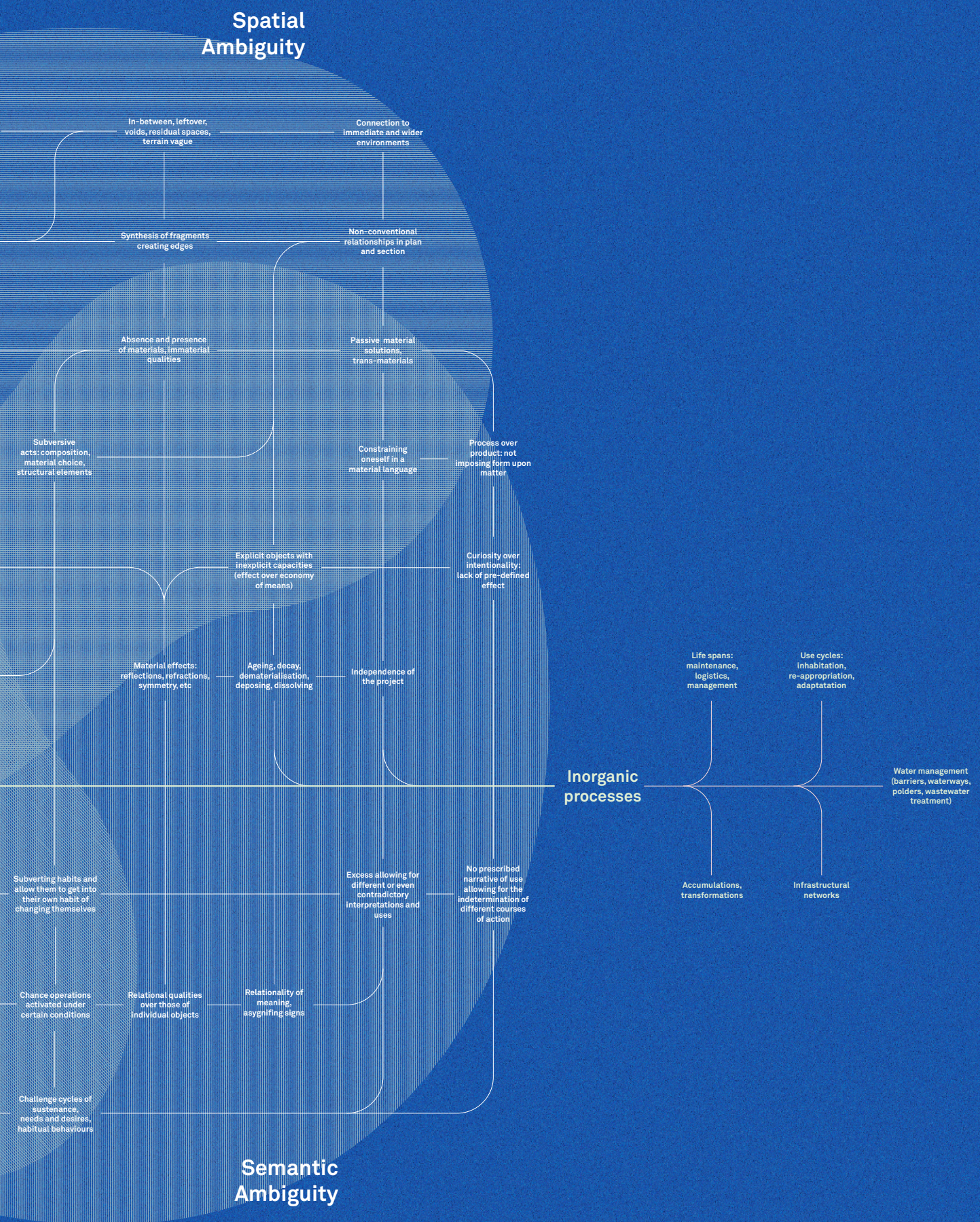

Overlapping of architecture and landscape: objects emerging as a third condition creating tension by not trying to negotiate with the context
Perception formulated by the context by carving the landscape: no facade or deep facade
Climatic filters to control energy flows
Spatial porosity, trading between interior and exterior space
Spatial composition of trans-spaces, intervals, cascades, thresholds
Avoiding the hegemony of the box and central perspective: no vanishing points, no comfort zones - asking for physical attention
No hierarchy of space to create confusion of time and space, distance and depth
Ground conditions: soil, water, wetlands, landslides
Movements: air, celestial bodies, sound waves
Fragility and temporality of nature
Light conditions: sun,moon, clouds, shadows
Organic processes
Weather conditions: temperature, humidity, wind, precipitation
Water conditions: floods, tides, torrents, streams, canals
Water: movement, sound, quality, reflective surface
Space experienced each time differently
Temporary points of fixation and stability
Kinesthetic experience influencing speed of movement and encouraging undirected navigation through visual perspectives
Spatial opportunities to be explorative: creating potentials to allow the users to negotiate their own presence
Field of unpredictable potentials where familiar and unfamiliar converge
Creating moments and fragments of friction, tension, fragility, temporality, unpredictability, uncertainty
Sensual Ambiguity
Favouring conflicting programs and situations that are never resolved but remain revised by each user
Synesthetic experience of space activating all the senses
Constant renegotiation of energy and information flows
Contradictory sensations that active or even confuse senses and encourage creative engagement
Supporting and strengthening both mentally and physically: mental, bodily and physical stimulation (tactile, haptic, thermal)
Time
Rituals, celebrations, repetitions, routines, regimes, schedules
Daily, weekly, monthly, yearly, seasonal cycles


Spatial Ambiguity
In-between, leftover, voids, residual spaces, terrain vague
Connection to immediate and wider environments
Synthesis of fragments creating edges
Non-conventional relationships in plan and section
Absence and presence of materials, immaterial qualities
Passive material solutions, trans-materials
Subversive acts: composition, material choice, structural elements
Constraining oneself in a material language
Process over product: not imposing form upon matter
Explicit objects with inexplicit capacities (effect over economy of means)
Curiosity over intentionality: lack of pre-defined effect
Material effects: reflections, refractions, symmetry, etc
Ageing, decay, dematerialisation, deposing, dissolving
Independence of the project
Life spans: maintenance, logistics, management
Use cycles: inhabitation, re-appropriation, adaptatation
Inorganic processes
Water management (barriers, waterways, polders, wastewater treatment)
Accumulations, transformations
Infrastructural networks
Subverting habits and allow them to get into their own habit of changing themselves
Excess allowing for different or even contradictory interpretations and uses
No prescribed narrative of use allowing for the indetermination of different courses of action
Chance operations activated under certain conditions
Relational qualities over those of individual objects
Relationality of meaning, asygnifing signs
Challenge cycles of sustenance, needs and desires, habitual behaviours
Semantic Ambiguity

Robert Smithson at Dia Beacon

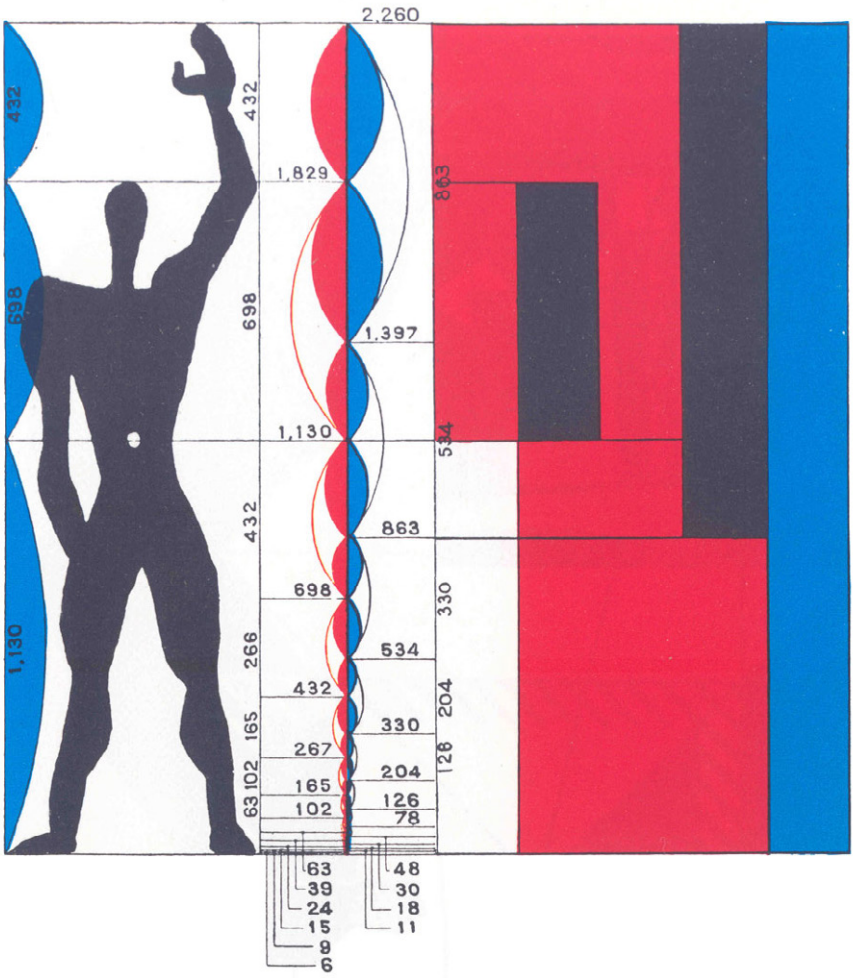
Map of Broken Glass (Atlantis), 1969

Engaging with ambiguity

Being governed by explicit expectations, crisp lines, and strict guidelines, architecture is in danger of stagnating and becoming limited. It might be due to the lingering aftermath of functionalism that the field has become confined by spatial dogmas and established criteria that do not tolerate unresolved situations. Focusing on the consequences of spatial experiences, we leave no space for ambiguity. In fact, It is an undesired architectural quality that has a negative connotation of vagueness and insecurity. Subsequently, what we fail to acknowledge is that ambiguity can equally provide liberty and be seen as an antidote to over-control and predictability in a field, which to a great extent, deals with the unknown and erratic.

After all, architects, landscape designers, and urbanists engage in processes involving numerous actors, actions, and timelines. Balancing decision making and releasing of control, they perform between the familiar present and the unknown future - the future of which the socio-cultural, political, ecological, and economic context is indeterminate. In this regard we should not be afraid to admit that as spatial designers we have a limited understanding of the complex operations in which our projects engage and thus, we should perceive ambiguity as an alternative approach in design that challenges the issues of adaptability as well as resiliency and accepts the open-ended nature of organic and inorganic processes. Additionally, it is also an approach that embraces individuality in perception and engagement of its users by actively anticipating new experiences.

As such, engaging with indeterminacy in architecture implies working in multiple dimensions and acknowledging the dichotomy between the ambiguity of practice and experience. While the essay's primary focus is the former, the two are inseparable. For this reason, the text discusses the experience of perceiving ambiguity on an individual level to have a better understanding of how we shape our intentions and consciousness as architects. Intentionality is an important focal point of the discourse and hence the first chapter explains why we should desire indeterminacy in architectural practice to begin with. The chapters that follow examine ambiguity in three dimensions: the *Territory*, the *Body*, and the *Expressive Surplus*, and while they will be discussed individually, there are certainly no clear-cut boundaries between them.



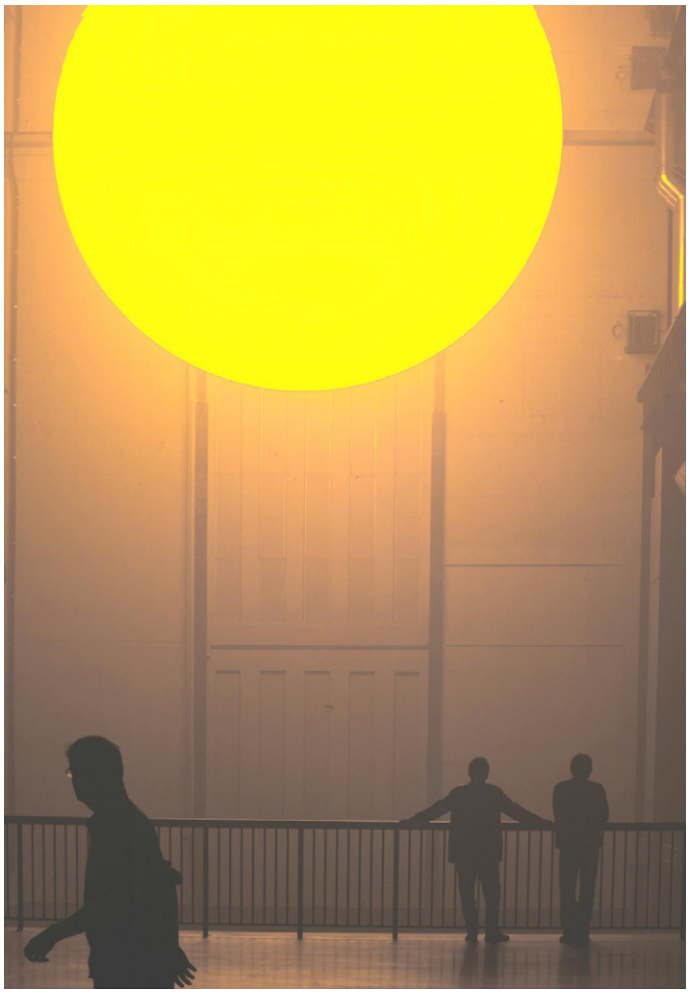
Corbusier's Modulor

1946

Desiring ambiguity

Commonly in architecture we fixate on first finding a problem and subsequently the perfect solution for it. Whether it is the case of an urban masterplan or an apartment layout, all elements of the design are expected to collectively create a flawless system of preferably *ultimate* resistance. Problems are not welcomed in the architectural practice, which in itself is an issue requiring a paradigm shift. After all, any solution that seeks the finalisation of a problem, ultimately only conceals it. Already at the outset, a defined problem dictates a certain mode of thought that automatically limits the solution. As an alternative, Savransky suggests that "rather than treating problems as obstacles to be overcome, the question itself must change, and we must ask in what way one may come to desire one's problems" (Savransky 2012: 14). He claims that problems should be posed generatively and "the best that any solution can do is not to contain or exhaust but to develop a problem" (16).Essentially, since the one constant in life is that it is ever-changing, we should be in a perpetual mode of problematic thinking, not looking after solutions because they are not permanent, but reopening problems instead of closing them. The question then arises how architecture can intend not to solve problems but instead challenge them?

Any problematic situation involves some sort of excess and in fact, ambiguity as a state holds such surplus that is open to interpretation and adaptation. While solutions might be limited to a thought or a discipline of knowledge, problems never are. This certainly applies to architecture, which operates in the expanded field of fluid boundaries where problems transcend the present and demand solutions from the future which, in fact, might never come. Moreover, ecologies are never set in place and hence there are no default rules for practices to follow. In order to avoid generic characterisations, as Frichot remarks, "we should never believe we have arrived at an answer once and for all, but must maintain an affirmative and not a negative, not even a deconstructive, demeanour in relation to our circumscribed problems". As she continues: "an ecology of practices operates in action, on the go, testing, venturing and feeling out possible sites of investigation" (Frichot 2018: 59). As creative practitioners, we should therefore always attempt to maintain our curiosity in pursuit to escape the established conventions. Instead of defining typologies, styles, and limits, we should actively seek hybrid conditions and interconnections of ecologies that accommodate a constant state of flux, to consequently transcend the comfortable yet already outdated present and seek potentials of the unfamiliar and ambiguous future.



Olafur Eliasson

The Weather Project

2003

Constant negotation

The *Weather Project* by Olafur Eliasson can serve as an example of how a mediated encounter can create an experience of indefinite potential and raise one's sense of self-awareness through means of ambiguity. The immersive installation at Tate Modern explored the ubiquitous subject of weather and its relationship with time expressed by an artificial sun that transformed the Turbine Hall into a radiating landscape of warmth. While the yellowish glow and hazy horizon gave a sense of familiarity, the collision of these atmospheric qualities with the museum setting created an ambiguous environment.

Even though the issues of rising temperatures and climate change were inherently embedded in the installation, at the core of Eliasson's work was not the phenomenon of weather as such, but the subjective experience of it. At large, perception is a central element in the artist's oeuvre and this particular piece included monofrequency lamps that emitted light of frequency low enough that colours other than yellow and black present in the room became invisible. The resulting duotone field together with the reflective ceiling encouraged people to actively interact with the space by wandering around and laying down on the floor to contemplate their experience. In his work, Eliasson insisted on exposing the construction of the artificial sun by uncovering its cables, lamps, and pipes to demystify what might have otherwise remained an unknown object to its audience. The gesture was intended to guide their attention to their own act of perceiving and as he explains, "the benefit in disclosing the means with which I am working is that it enables the viewer to understand the experience itself as a construction and so, to a higher extent, allow them to question and evaluate the impact this experience has on them" (Eliasson 2003).

Notably, it was not the actual installation that was ambiguous in character since its execution was straightforward, but rather it acted as a framework for an enigmatic experience. As a temporal refuge from daily affairs, the installation prompted awareness and sharpened the senses of its users. The glow and mist pervading the space staged discrepancy between the exterior and interior of the museum and confused the body's sensation of temperature and humidity. Though an active proprioceptive and synesthetic stimulation, the work came into being only through the presence of the spectators and its spatial narrative was completely dependent upon the individual perception and movement in space.

The installation of Eliasson illustrates three dimensions of ambiguity: the territorial ambiguity of the immediate museum context and its far-reaching climate change

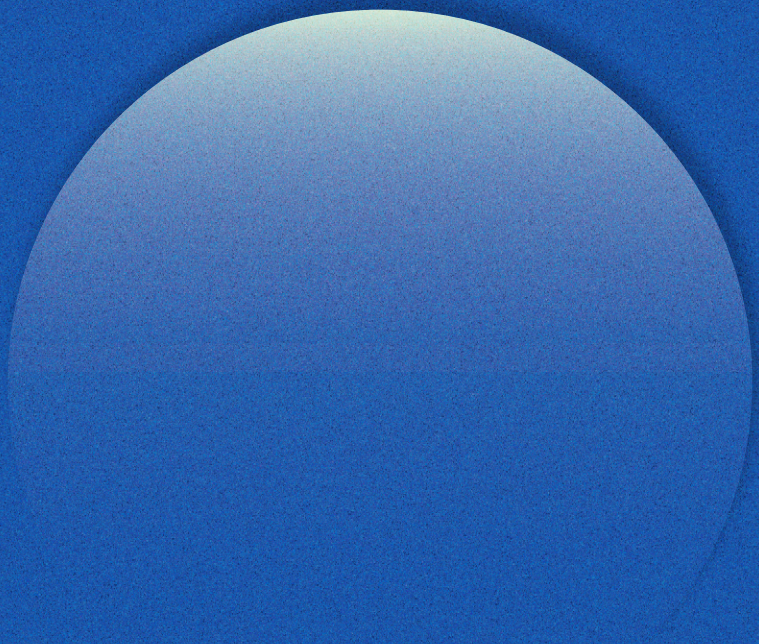
reference, the perceptual ambiguity experienced through the active engagement of its audience, and finally the ambiguity of the artist's expression and his creative means. The following chapters *Territory*, *Body*, and *Expressive Surplus* will expand on how ambiguity can be employed as a design resource and an operational tool in architecture in response to the mentioned dimensions. This will be explained in a trifold manner: firstly defining the theoretical premise of the notion, secondly introducing its architectural lens, and finally focusing on the site-specific case of the project.

Research question

How to challenge intentionality in architecture by employing ambiguity as a design resource?

Subquestions

How to seek potentiality instead of signification?
How to subvert habits and allow them to get into their own habit of changing themselves?



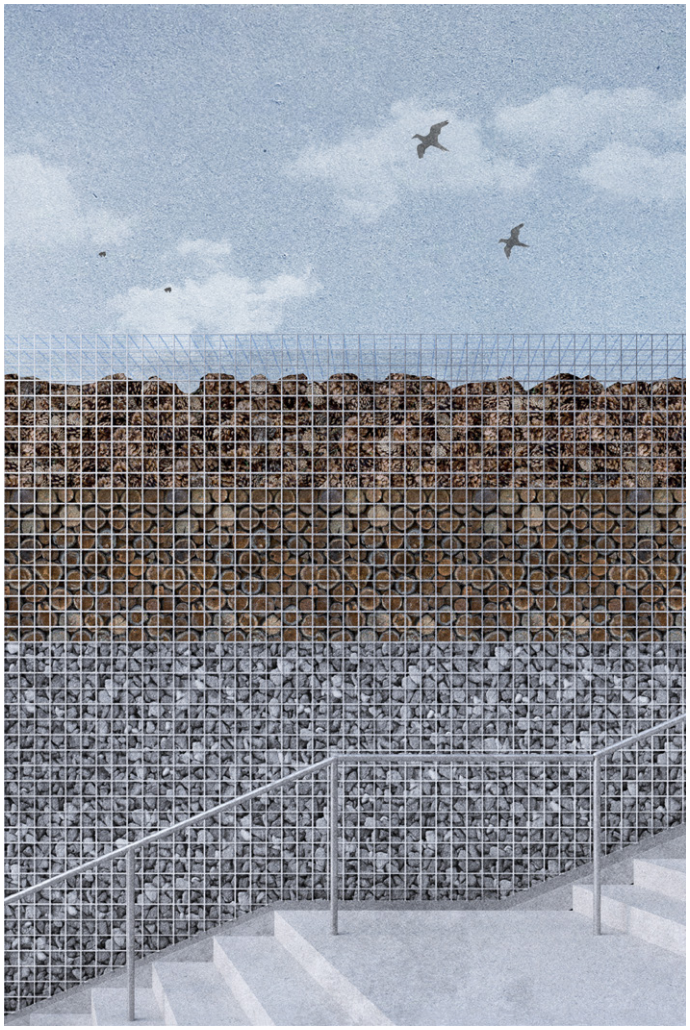
Shifting viewpoints

One of the main issues of problematisation in the design practice is a narrow angle of view on the world around us. Undeniably, even though reality cannot be reduced to a singular perspective, subjects are formed in relation to a specific positioning. Radical perspectivism holds the account that perception and knowledge are bound to a specific point of view defined by the relationality, temporality, and locality of a certain positioning. In this regard, Frichot points out the issue of power relations established by a perspectival cone of vision in which one side remains stationary: "the subject does not arrive pre-formed at a constructed point of view, but is rather a subject who is formed in relation to a point of view" (42). Fortunately, we are not completely oblivious to other points of view and our standpoint is in constant discussion with other people, objects, flows of information, and experiences. These influences serve not simply as external forces, but they undergo a process of individual interpretation. And their impact depends on the level of sensitivity of a specific point of view since external information is never given to us and only through resonance one can be attuned to find meaning in something and engage in communication (Buchanan 2008: 33).

The actions of *de-* and *re- territorialising* bring new insights to our subjectively established milieu and allow for its renegotiation and reorganisation. As Bogue points out: "territorialization, then, is a complex process of decoding and recoding (deterritorialization and reterritorialization), which transforms milieus and rhythms by creating expressive qualities and autonomous rhythms (both territorial motifs and territorial counterpoints) that induce a reorganization of functions and a regrouping of forces" (Bogue 2013: 23). The process of establishing perspectives is constant and can be encouraged by active subjects, which allow us to open to the world through an active becoming, as phrased by Maillassoux. What he notes is that "to the active body, capable of an innovative, inventive becoming, something always happens: its increase of force does not come from an autonomous decision of a constitutive subject, but from an experience that is always undergone, an affective test in which a radical exteriority gives itself, an exteriority never before felt as such" (Maillassoux 2007: 101).

As such, Maillassoux suggests that situations that broaden discontinuities open subjects to external fluxes (101). One could say that ambiguity can facilitate such openings by getting us out of our comfort zones and creating moments of experimentation that call for an action, which can be conscious or not. Unforeseen experiences deriving from a range of possibilities that an indeterminate state can provide allow for adopting different points of stability with expressive and possessive capacities. Thus, engaging with

ambiguity instigates a formative process of creating or at least reshaping our identity through the acts of expression and possession. By providing temporary points of fixation, alternative lines of flight can contribute to the active process of moving between planes of perspectives resulting in the widening and multiplying of points of view. This, when acknowledged in design practice, can cultivate awareness and a sense of empathy for other actors, actions, and cycles involved in the process.



Gabion support

May, 8am

Beyond the site

While our act of marking a territory might determine the space, architecture transcends the confined lines of the site and its contextualities to enter the complex urban, ecological, and technological systems that are delimited by natural, geopolitical, and cultural agencies, to name a few. In this regard, it is evident that the architect no longer operates only within the given site and equally the building is no longer a finite entity. In this open field, the designer's role expands and becomes fluid to encompass areas of knowledge, social practices, and economic powers that exceed the confines of theorising and practising architecture. With this overwhelming responsibility in mind, utilising indeterminacy as a design resource can release us from the burden of attempting to fully grasp and structure the world around us. However, this does not imply completely surrendering to the external forces, but rather the opposite, productively employing ambiguity as means of unlimited opportunities. This entails actively engaging in the expanded field of architecture and exploring the grounds beyond the disciplinary boundaries, in which our profession is so often contained.

The notion of the *expanded field* was first introduced by Rosalind Krauss in her essay "Sculpture in the Expanded Field" in 1979. The text reveals how the categorisation and terminology concerning sculpture have become no longer sufficient to explain its actual scope (Krauss 1979). The author mentions contemporary artists such as Richard Long and Robert Smithson, who escaped the disciplinary enclosure and marked a shift in the understanding of art, architectural, and landscape theories. With the emergence of land art and site-specific installations, concepts from art appeared in architecture and landscape design, and vice versa. As a continuation, Angeli and Klingeman in their essay *Hybrid Morphologies* propose an alternative version of Krause's seminal diagram which fuses architecture, infrastructure, and landscape to suggest that we can no longer speak of autonomy or dominancy of one of the disciplines since they are extensions of one another (Angélil and Klingmann 1999). As the authors argue, the overlapping realms result in a hybridisation of entities that demands a new understanding of traditional definitions. Unable to find clear delimitations we should acknowledge the uncertainty of the compounds that reach far beyond our specific fields of expertise.

Indeed, we now speak of a dynamic system of heterogenous yet connected entities, a space of coexistence characterised by "multiplicities, lines, strata and segmentarities, lines of flight and intensities" as phrased by Deleuze and Guattari (Deleuze and Guattari 1987: 4). And as we engage with this fluid continuum, we encounter ambiguous situations and conditions which find a source in the superimposition of layers and their

interdependencies. It is these situations of disruption, according to Maillassoux, that open subjects to potential progression and evolution. From this perspective, the new urbanism will not be based on order, permanency, or accuracy, but rather "it will be the staging of uncertainty; [...] it will no longer be about meticulous definition, the imposition of limits, but about expanding notions, denying boundaries, not about separating and defining entities, but about discovering unnameable hybrids" to quote Koolhaas (Koolhaas 1995: 29).

Shepard supports this claim with her understanding of the site not as an immediate context but rather as a territory with flexible boundaries that resides at different scales. As she argues, "territory has become the necessary scale required to register and engage the complexity of networks and information at play in a given physical environment. For architecture to think at the scale of territory does not require an amplification in size, but rather, a conceptual shift; it demands that architecture, regardless of its actual scale or extents, engage its extrinsic environment" (Sheppard 2011: 179). To explain this shift she presents two models of understanding the territory: the *layered territory* and the *networked territory*. The first one focuses on the physical and natural elements that dissect the site vertically into separate systems. The second model operates horizontally to find linkages and dependencies between those material and immaterial structures. This approach attempts to mitigate both human and non-human ecologies whose, as Sheppard points out, "source and destination are often far from the site itself" (182). The outlined fluid network of territories works at different scales to create, as described by Sheppard, an *epigenetic territory* that is never static, but which undergoes constant transformation under external fluxes of forces and information.

Within this framework, if we refer again to Bogue, we can think of the process of *deterritorialization* as the superimposition of global networks which is followed by *reterritorialization* at the local scale of a specific physical environment. In this regard, the reading and interpretation of the status quo directly influence the design decisions that in turn impact and redefine the limits and thresholds of the epigenetic territory. Consequently, any design intervention becomes a negotiation and critique of the existing conditions. As spatial designers, we thus engage with a territory in which our decisions simultaneously define and expand limits. We both intentionally and unintentionally interrupt accumulations and fluctuations of the existing processes, which can alarmingly instigate accelerations, disruptions, and disequilibrium within specific habitats and ecologies that can produce lasting changes.

From this perspective, it cannot be denied that the mediation of spatial and operational systems within the epigenetic territory requires an awareness of larger environments. And while as designers we face the difficult task of resisting the constraints of the disciplinary interiority, we are equally confronted by the confinement of human subjectivity. Thus,

understanding the impact and scale of our actions implies not only working across disciplines but also engaging with non-human actors and agencies to gain other points of view as means to venture into the post-human landscape. By placing other species on equal footing as humans we emphasise the interconnection of ecologies and subsequently increase the potential for a productive resonance of the spatial and temporal interventions at diverse scales and in multiple dimensions.

Birdwatching pavilion

July, 5pm

Changing landscapes

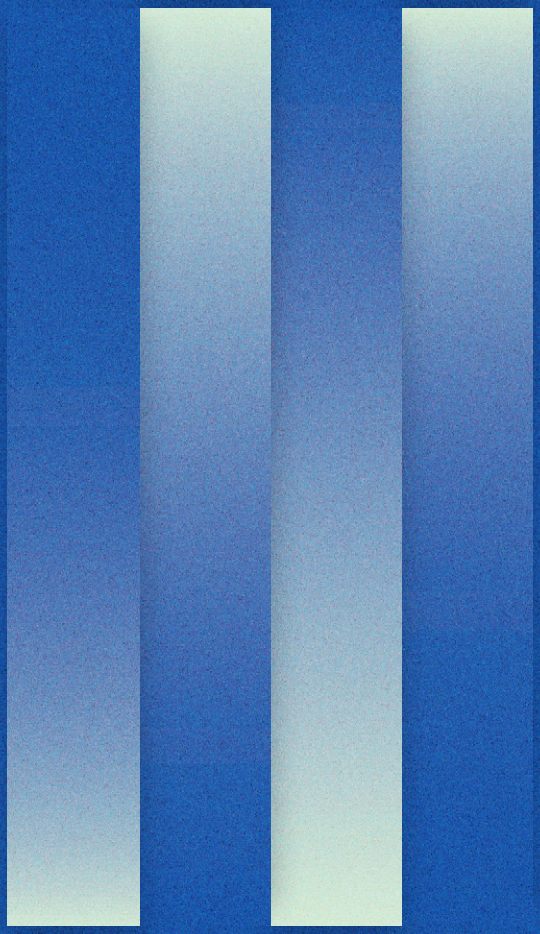
If spatial ambiguity could be applied to a scale of a country, the Netherlands would serve as a perfect example with its fusion of natural and artificial landscapes. Highly controlled and compact, the country could be described as a territory of overlapping systems of land, water, and build forms that result in a variety of ambiguous in-between situations. Historically the state has made immense efforts to protect its land from water, since two-thirds of its area is vulnerable to flooding, however, these defence systems have also created some harsh, sealed boundaries with no space for uncertainty. In this context, it is particularly interesting to look at the Dutch port city of Rotterdam and its relationship between the urban and water environments. Compared to other European delta cities, Rotterdam has the largest flooding area in case of lacking dike infrastructure and together with Hamburg as the only ones they provide considerable land for urban development outside the dike (Hermans and Meyer 2009).

While Rotterdam has an extensive dike system, there is certainly a difference between the protected North and the exposed South living in the delta outside the dike. With the move of the port industries in the eighties, the south riverbank became one of the most problematic regions in terms of high unemployment rates, racial tension, and crime. However, the recent urban regeneration initiatives have resulted in population growth and a rise in property prices that indicate a growing interest in areas such as Kop van Zuid or Feijenoord, which are mostly located outside the dike. Clearly, as the outer-dike areas become more economically valuable, there will be an increase in losses in case of any natural hazards. In addition to the increasing pressure on the compact city centre and the neighbouring urban districts, the city will experience extreme weather conditions in the coming future including heavy rainstorms, long periods of droughts, frequent heatwaves, as well as rising water levels (Rotterdam Climate Initiative 2013). Nevertheless, the urgent issues of climate change, water management, and flood defence can be seen as an opportunity for urban regeneration to embrace the delta city identity. The question that follows then is how the outer-dike area can become more in tune with its vulnerable location so that the city can actively experience and live with the delta dynamics?

Instead of fighting against forces of nature by keeping the water back, an alternative approach for the city's development would be to facilitate controlled flooding through the transformation of the dike from one single line into a buffer zone with different types of reinforcements and additional programs. A hybrid approach of integrating measures with urban spatial development could include multi-functional dikes, floating buildings, as well as adaptive design for infrastructure and nature areas. Programs such as "Building

with Nature" already explore the potentials of natural systems as an alternative for solid construction against flooding (Rotterdam Climate Initiative 2013). By welcoming estuary ecology, the outer-dike area could accommodate tidal parks facilitating contact with water and providing spaces for recreation much as improving water quality and biodiversity. The achieved special fluidity could strengthen the river as a continuous green buffer zone while also cultivating the relationship between the inner and outer-dike areas. As such, Rotterdam could manifest itself as a dynamic territory of coexisting ecologies, which will never remain static but adaptable and thus resilient. Such approach, however, demands a paradigmatic shift "from hard engineering-driven urbanism to a soft engineering-steered water urbanism" (Girot et al. 2012: 80), as described by Shannon and De Meulder, who also perceive the process of designing in delta regions as a dialogue "between engineering and bricolage, such as dialogue between existing and new, between challenge and opportunities, between acceptance and subversion, creates a new landscape logic" (80).

In essence, the fluid future of urbanism implies typologies liberated from the ground that work in-between scapes and disregard the harsh distinction between ground and water, and that is why the proposed design for the Mallegatpark considers its *layered* and *networked territory*, to use Sheppard's terminology, to emerge as a fluid zone of no harsh boundaries that negotiates its immediate and immaterial conditions. By attaching to the existing systems, the series of thresholds acknowledges different ecologies and aims to transform the embankment from one harsh line into a buffer zone spanning between the rigid urban context and fluid amphibious zone of the river. The change from a steep to a sloped embankment and the creation of the breakwater island together establish an intertidal zone that welcomes the amphibious habitat. The accompanying ensemble of structures borrows qualities from architecture, infrastructure, landscape, maritime structures, and land art to collectively work at different scopes and in multiple dimensions, disregarding the harsh distinction between ground and water offering a range of in-between spatial and temporal situations.



Perceiving ambiguity

While the discussion so far has focused on the disciplinary ambiguity of architectural practice, this chapter will examine how indeterminacy is perceived on an individual level. It was Freud who said that the most uncanny experiences happen in the most familiar environments and the concept of familiarity is crucial in the discussion on ambiguity. As Heynen argues in his reading of Freud: "the uncanny is experienced when something familiar is repressed but returns as unexpected and unfamiliar. The uncanny operates where the *heimlich* (homely) and *unheimlich* (unhomely) converge. One is at home but out of place" (Heynen 1999: 21). This implies that ambiguity does not exist by default as an independent thing-in-itself but instead, it is a relational phenomenon, and we perceive something as obscure because of the relationship it enters with us. This dual process depends on both the indeterminacy of the context and the user who perceives this ambiguity subjectively.

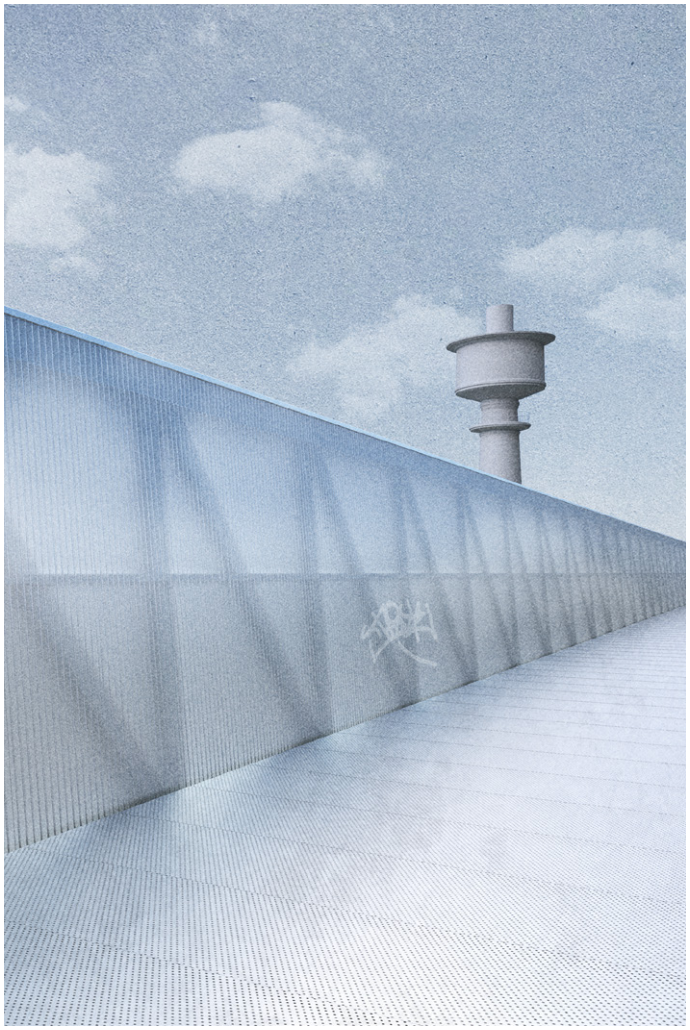
By virtue, there is no such thing as an objective reality, and it is our perception that constructs a meaningful world around us and recognises something as ambiguous. Every subject determines its own environment, an *Umwelt*, and while those microcosms might impose limits, they are not isolating (Buchanan 22). By filtering the infinite and actively interacting with our surroundings, we engage in the creation of an environment and respond to signs that resonate with us and complement our *Umwelts*. Thus, what we perceive is simultaneously created by us because, as Bergson points out, perception is based on both conscious and subconscious selection. According to him, while perception subtracts and simplifies, memory enriches our experiences and the two cannot be distinguished from each other. Retroactively through memory, the future helps us to understand our becoming actions so in fact pure memory, as defined by Bergson, is not related to the past but deals with the future. It attunes with reality to help us approach and react to the present moment through recollection and perceptual recognition: "memory in these two forms, covering as it does with a cloak of recollections a core of immediate perception, and also contracting a multiplicity of external moments into a single internal moment, constitutes the principal share of individual consciousness in perception, the subjective side of the knowledge of things" (Maillassoux 76).

For Bergson affect enables perception and memory through indetermination of different courses of action. This implies that instead of an automatic response to a predictable sequence, the future action is interrupted by an affective state. Bergson describes two consequences of this process. First of all, the delay in the immediate response requires the body to perceive an object with more attention to examine its aspects and possible

interactions. Secondly, in this process of inquiry the body is withdrawn from acting and takes time to remember: "while perception delimits the universe from my body's perspective and renders it representationally, the virtual image opens onto this universe affectively and renders it in intensive and memorial terms. The virtual image participates in the unconscious vision of matter, but it does not repeat the material universe indifferently. This world-memory is coloured by the affectivity of my body" (Al-Saji 2004: 222).

Perception, memory, and action are thus inherently intertwined with each other and create the foundation of any experience. In our actions, we follow the information that the situation might carry as well as the knowledge we possess including internalised temporalities and past experiences. Through a succession of infinite experiences, we develop perspectives, habits, and intentions which give a sense of purpose and security to our lives, but also leave us passive and at times even oblivious. Nevertheless, an ambiguous situation can take us out of such an *autopilot* mode of functioning and put us into an experimentation mode, in which we can tune into our level of pure memory to shape future developments.

Essentially, we need external forces to be taken out of our thoughts and obscure situations can have a clarifying effect on us because they necessitate a response, as noted by Bergson, who holds the belief that clear ideas leave us passive (Bergson 1911). According to Ruyer, our consciousness builds upon itself via our actions and it could be argued that when our intentions meet an indeterminate situation, we are invited to react and revaluate our objectives as well as capabilities (Ruyer et al. 2016). This is the nature of the continuous process of individuation, which has a transformative effect and allows each subject to reinvent itself. In the process of active interpretation, our metastable system responds, as described by Simondon, to a stimulus that charges forward our potentials. As he elaborates, "what characterizes the individual is limitation, which comes of the capacity of the limit to be displaced. The individual is not finished but limited, that is, capable of indefinite growth" (Combes 2012: 20). Architecture has the power to facilitate such growth with its capacity to be ambiguous. By going beyond what we are capable of and what is familiar to us, we enter a transitory zone of ambiguity that allows us to experiment with the unanticipated limits and potentials. In this manner, ambiguity productively challenges us to regain ownership of our experience and verify our very own presence.



Sky bridge

November, 2pm

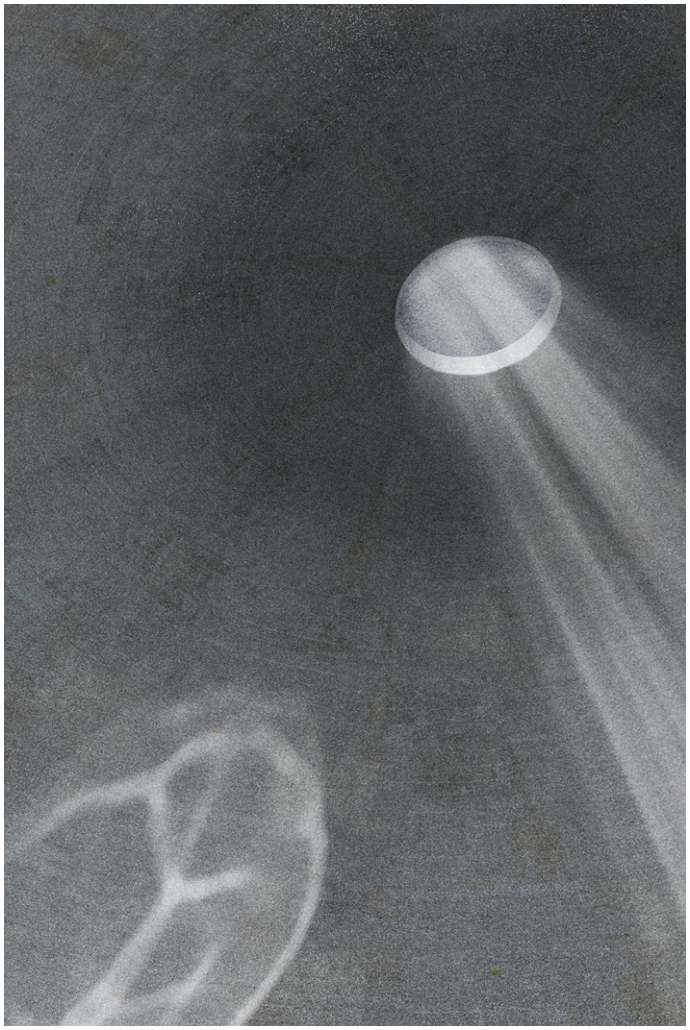
Affording change

While the immaterial state of ambiguity is a subjective phenomenon, it is dependent on the material conditions established by the architect. In broad terms, it could be said that designing is a process of selection in which the architect manipulates the membrane to influence energy and information flows. With its selective porosity, the membrane controls the scale and speed of movements offering opportunities and constraints. Ambiguity in this context blurs the membrane that mediates the interior and exterior relationships, which are not separate but relative, to create brief moments of experimentation that call for action, conscious or not. As a result, the familiar and unfamiliar aspects of space and time, matter and memory converge to anticipate generative situations of tension, temporality, and unpredictability.

Being characterised by subjectivity and intangibility, such situations are commonly overlooked in architectural practices. However, while architecture can be understood as a solid, physical matter, as Hill advocates, its immaterial qualities are equally important. For him "to accommodate evolving conceptions of the individual and society, architecture must engage the material and the immaterial, the static and the fluid, the solid and the porous. An architecture that is immaterial and spatially porous, as well as solid and stable where necessary, will not change established habits. Rather it may offer those habits greater flexibility" (Hill 2006: 28). Indeed, instead of imposing habits, ambiguous spatial situations give them some mobility by instigating affective relations and shifts of power. Layers of indeterminacy, which can be implied by different grades of affects, give an opportunity to the user to react and find his or her range of determination. The concept of affects held by Deleuze insists that the body is not a self-sustained entity and has to be considered in the context of its complex relationships driven by affordances. Affections are both the basis and products of experience, and as Spinoza claims, "whether a human, an animal, an artwork or a building, does not reside in a vacuum as a selfcontained body, but is always coupled, multiplied, and penetrated by a myriad of affections coming from other bodies and underlying forces. Every individual modality harbours both the agentive capacity to affect and make a difference, and the receptive capacity to be affected and undergo change" (Kodalak 2018:29). Each architectural object is an aggregate of relations and each spatial experience is based on an intimate connection with the body supervised by the sense of self. What we perceive is not just things, as stated by Gibson, but actions that can be defined as subjective, relational, and situational (Gibson 1979). And how we perceive is fundamentally conditioned by our movement in space, changes in time, light, temperature and humidity as well as processes of dwelling and inhabiting, to name just a few.

As we move through space our proprioceptive and synesthetic systems of reference work together to clarify the complexity of the relations around and create a unique experience. But since no experience can be based on a stable point of reference, affects in the context of design practices should be explored not only with regards to ergonomics and material semiotics, but also immaterial, temporal, habitual, and accidental conditions. More than that, architects should think in terms of capacities and not properties, considering the dynamic movement of bodies, sound and light behaviour, repeating cycles, and spontaneous events. It is important to investigate those relations in the context of time rather than space in order to acknowledge different dimensions of organic and inorganic processes. This includes the long-term macroscale operations, but also the brief and specific ones happening on a microscale. Ultimately, relational qualities should be prioritised over those of individual objects to accommodate the possible hybrids and conflicts. While traditionally architecture has been perceived as a static and controlled form of resistance to the external forces, there is a lot of potential in moments of vulnerability, temporality, and fragility that welcome human and non-human flows. After all, while the building might appear to be the subject of a dialogue between the architect and user, there are other agencies and non-human actors who also participate in its evolution. Architecture is an ever-evolving process to which architects only contribute and weather, for example, seen as a resource in architecture, provides inherent unpredictability. Designs that actively engage with the changing weather conditions continually reconnect with their environment providing each time with a new experience by subverting habits and disrupting routines.

In the long term the building's timeline dictates the shifting active and passive roles of heterogeneous influences and although its construction might indicate a termination of the design process, what follows is the afterlife of appropriating and experiencing. As Massumi points out, *accidents* are an inherent part of architecture and "the building would not be considered an end-form so much as a beginning of a new process. Stable forms can be designed to interact dynamically as bodies move past or through them singly or in crowds, or as sounds mute or reverberate, or as relations of surface and volume change with the time of day or season, or as materials change state with levels of moisture or temperature" (Massumi 1998: 18). While for both modernism and existential phenomenology experience is formally prefigured, Massumi critiques such overcharged experiences prevalent in spatial design and suggests that there are inevitable moments in which architecture extends beyond the solid limits established by the architect. Such freedom of governance, however, can be only achieved once we move beyond phenomenological interests, as advocated by Deleuze (Buchanan 151), to understand ontological processes and thus, let go of overcontrol as designers and allow for projects to gain their independence.



Water pavilion

August, 12pm

Fluid resilience

Being part of the city's waterfront, the chosen site could be understood as a sample fragment of a larger interface where the biotic and abiotic processes related to the industry, recreation, and biodiversity meet and interact. From this perspective, the project is a systemic exploration in the wider context of the city, which is already taking steps to improve the public spaces along the Nieuwe Maas River through initiatives such as the Seven City projects or Resilient Delta. Nonetheless, the present water infrastructure repeatedly disconnects public spaces from the water rather than connects them and the chosen locations along the river showcase the problematic urban and geomorphological conditions. Located outside the dike, these vacant spaces are limited by strong infrastructure boundaries restricting access to the river and at the same time, they maintain an appropriate water depth that offers an opportunity for a tidal environment that does not interfere with the marine traffic flow.

Each of those locations has its own set of conditions, however, the chosen Mallegatpark can be considered as a testing ground since it encompasses all the physical, historical, and socio-cultural complexities. With strong correlations to the larger environments, the project also has its specificities deriving from its direct context rich in inherent physical, historical, and socio-cultural ambiguous conditions. Until 1968 the site was occupied by a gas factory and after its demolition became a park which to this day holds artefacts of its previous use. In addition, this was the location of Rotterdam's last public swimming pool that floated on the river, but which was closed in the sixties due to water contamination. Presently, the park is at the cross-section of five districts and directly connects the residential Feijenoord and the stadium zone in the south, which will be soon drastically gentrified in line with the Feyenoord City Masterplan. This adds another layer of complexity to the site, which mediates between what is predominantly a migrant population of residents and the new urban development with a social program that will be limited to its plot boundaries.

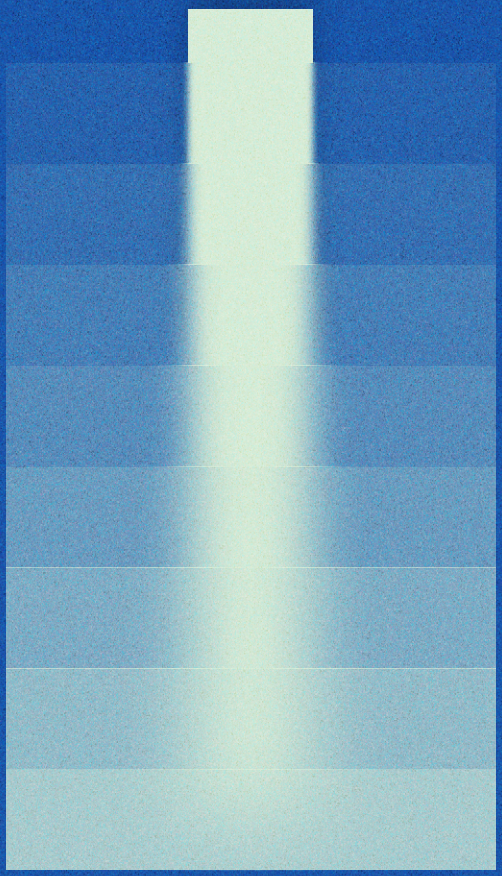
As such, the site could be considered as *terrain vague*, to use the term of Sola Morales - a territory abandoned by the industry, earlier occupied by trade, which now became a commodity of the post-industrial economy (Solà-Morales 1997). It is common practice to take these leftover spaces and through new investments reintegrate them into the productive urban fabric. However, such operations are insensitive to the city's identity which is actually maintained by these places. And the Mallegatpark is an example of a space that holds a strong identity that should be preserved instead of being turned into yet another romanticised waterfront development. Since the site constantly oscillates

between social, infrastructural, economical, and natural forces, a true challenge is to resist human subjectivity and avoid the duality of nature versus culture in the design decisions. The given conditions demand a holistic approach that acknowledges the continually changing biotic and abiotic processes with their shifting thresholds and ambiguous dependencies. After all, the site is located in the flood zone outside the dike and there are no permanent solutions to fully protect it. As suggested by the port of Rotterdam, the sea level is foreseen to rise between 35 and 85 centimetres by 2100 as compared to 1990 and while these numbers might be subject to change, they only account for the near future and already indicate an alarming trajectory for the delta city (Port of Rotterdam 2021).

Following these predictions emerges the concept of resiliency which, as noted by Dawson, became one of the buzzwords across a variety of sectors (Dawson 2017: 112). Described as „an ability to recover from or adjust easily to adversity or change" (Merriam-Webster Dictionary), resiliency implies a capacity of the city to endure crises. However, the concept of urban resilience has its limitations since, as suggested by Dawson, "cities are heterogeneous and unequal, which is why it makes little sense to talk about building urban resilience in general" (115). For this reason, the site-specific intervention renders the Mallegatpark into a dynamic system of simple gestures that welcome both the reoccurring natural cycles and exceptional events. The design liberates the ground from any solid construction, a decision that reduces the economic damage in case of flooding and allows for land re-naturalisation. The resiliency of the ensemble is defined by its ability to manage natural catastrophes, adapt to them, or ultimately, surrender to their untamed forces. The project could be potentially integrated into a dike if an extension of the system takes place and in the most disastrous case of flooding, the design allows for disassembly or a reconfiguration of the formative elements.

The proposed series of thresholds in the Mallegatpark, however, is not limited to the site, but rather extends beyond it and, as such, could be seen as a design approach for Rotterdam's riverbank. At the same time, it should be acknowledged that it is not a universal concept, and its implementation is specific to time and place. While the Dutch landscape architects emphasise the importance of the robustness of water defence systems, such harsh guiding principles often lead to one-dimensional solutions offering little spatial quality (Rossano 2021). After all, the concept of urban resilience has its limitations since there are neither univocal nor permanent solutions to fully protect flood zones. This is precisely why interventions of smaller scale with sensitivity to local conditions, such as the proposal for the Mallegatpark, could be seen as an alternative to large scale schemes.

Expressive surplus



Disrupting habits

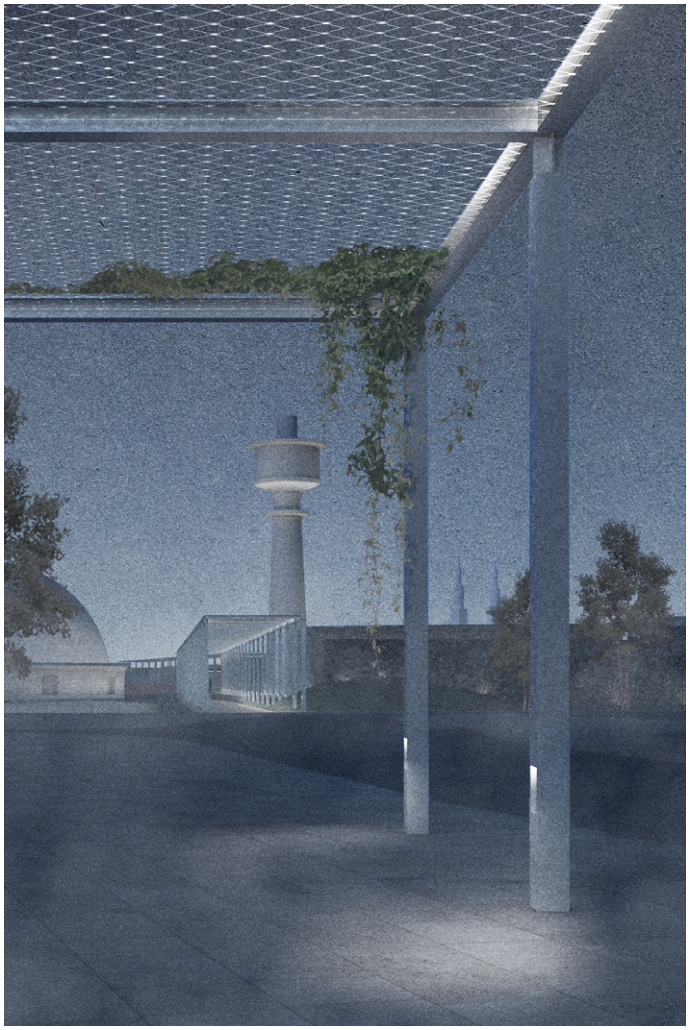
It could be argued that exploring architecture's capacity to be ambiguous in the design practice is not about working with the known and familiar, but rather the opposite. Instead of imposing form upon matter with an objective of achieving a certain result, indeterminacy seeks unprecedented conditions and experiences. This implies an attitude of actively challenging preconceptions and habitual patterns, which commences on an individual level of the designer.

Broadly speaking, we are all in a perpetual state of formation and becoming, to use Deleuze's language, and it is the tendencies of processes that we go through that create habits (O'Keeffe 2016: 74). A habit can be understood as an interiorised approach of how we negotiate and define our limits which involves, as Ricoeur puts it, "an acquired and relatively stable way of sensing, perceiving, acting, and thinking. It affects all the intentions of consciousness without being itself an intention" (Ricoeur cited by O'Keeffe18). Those established routines give us a sense of stability without which life would require an endless improvisation. But while habits allow us to manage our daily affairs and prepare us for the uncertainty of the coming future, they also leave us to some degree passive. As Spinoza states "we do not know what a body can do" (Deleuze and Guattari 1987: 283), and only through negotiation of our limits, we can explore our capacities and resistance. Since we are a synthesis of our habits (we develop them and simultaneously we are defined by them), the question is how to evolve them to reveal our potentials as both individuals and creative practitioners.

Parallel to our shifting needs, desires, and satisfactions, our habits are provisional and subject to change. However, it requires more than just an effort or intention for a habit to become second nature to us and the same applies to breaking a habit: "in order to think differently, you need to act differently" (Bateson 1987). These self-reproducing tendencies and patterns are contracted not only by our conscious self but also by all contemplative powers within us. We create them both voluntarily and involuntarily hence as Deleuze notes, "these thousands of habits of which we are composed—these contractions, contemplations, pretensions, presumptions, satisfactions, fatigues; these variable presents—thus form the basic domain of passive syntheses. The passive self is not defined simply by receptivity—that is, by means of the capacity to experience sensations—but by virtue of the contractile contemplation which constitutes the organism itself before it constitutes the sensations" (Deleuze cited by O'Keeffe 83). Partially subconsciously, our routines develop through continuous repetition of how we have dealt with different thresholds of intensity in the past. Based on this experimentation in

reasoning, we habitualise the productive effects, not the actual actions, which implies that habits reveal themselves over time through repetition and are verified each time by reality. What is more, since they are focused in the future, in the next moment of their fulfilment, only new experiences can disrupt our habitual and preconceived ideas.

This entails that in order to disrupt preconceived routines of theorising and practising architecture, as designers we should seek indeterminacy in our creative process in order to be taken out of our comfort zones and placed in unknown territory. Such displacement demands the attentive recognition to take charge as an effort to respond to the automatic recognition. Under such circumstances, unprecedented limits, unknown to us at first, become subjects of our inquiry. Such encounter challenges our understanding, memory, imagination, and language and as a result, we are invited to react and redefine our habituated limits and consequently create new meanings, ideas, and eventually also habits. In this manner, ambiguity through provocation and encouragement can facilitate moments to be affected and subsequently help us in shaping our identity as architects by questioning the conventional paradigms of the creative process.



Performative frame

April, 8pm

Expressing not imposing

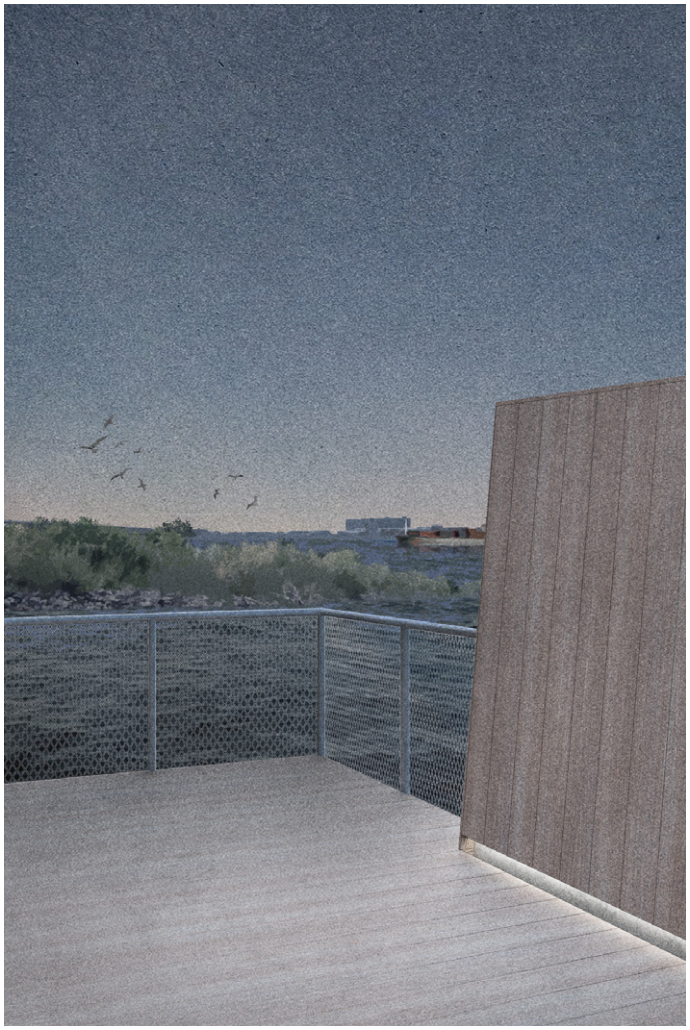
Although we have certainly surpassed the era of functionalism and the belief that the user is manageable and predictable, architects often struggle with avoiding generic narratives. With the aids of design manuals and block libraries, it is easy to fall back on the habitual patterns and guidelines of designing. Throughout our educational and professional careers, we develop habits of thinking and working which give a sense of architectural fluency, but also frequently leave our ideas dogmatic and inflexible. After all, there are no permanent problems or solutions in spatial design, neither default rules nor tools to follow.

Certainly, architecture is expressed not only through design but equally importantly through its use. While the designer operates from a distance, it is the user who actually appropriates and inhabits the space. For as Lefebvre argues, "the user's space is lived – not represented (or conceived). Compared with the abstract space of the experts (architects, urbanists, planners), the space of the everyday activities of users is a concrete one, which is to say subjective" (Lefebvre 1991: 362). Although the creative process might demand anticipating situations, no situation is constant nor predictable and that is why Hill questions the authority of the architect to claim that the creative user should be placed at the centre of architectural practice. As he explains, "the creative user either creates a new space or gives an existing one new meanings and uses. Creative use can either be a reaction to habit, result from the knowledge learned through habit, or be based on habit, as a conscious, evolving deviation from established behaviour" (Hill 2003: 71). Creative interactions involve interrupting routines and according to Hill, imposing constraints encourages bodily and mental engagement of the user more so than offering a selection of options. Critical of the neutrality of flexibility, Hill mentions Hertzberger, who believes that inflexible elements can stimulate creativity and act as an invitation for response: "although a flexible set-up admittedly adapts itself to each change as it presents itself, it can never be the best and most suitable solution to any one problem; it can at any given moment provide any solution but the most appropriate one. Flexibility therefore represents the set of all unsuitable solutions of a problem" (Hertzberger cited by Hill 2003: 42). As an alternative Hertzberger proposes polyvalence and defines it as "a form that without changing itself, can be used for every purpose and which, with minimal flexibility, allows an optimal solution" (42). Which is to say that explicit objects with implicit capacities preclude passive use and allow for indetermination of different courses of action.

On this note, intentionality in design decisions has its limitations and it could be argued that in order to create a *framework* for the user to truly explore his or her potentials, the architect is also required to challenge the habitual tendencies of his or her design actions.

Even though designing is a process of selection in which the architect makes decisions based on rational thinking, it is also an act of expression and this is precisely the tangential point where the architectural practice approaches the field of art. Bogue, in his reading of Deleuze, argues that in art "functions, however, extend over such a wide range that the concept of function as pragmatic purpose is undermined, in that there is no longer any clear criterion for distinguishing pragmatic and nonpragmatic ends" (Bogue 2013: 70). And as he further elaborates, "only that which is not produced in the same way as it functions has a meaning, and also a purpose, an intention. Desiring-machines on the contrary represent nothing, signify nothing, mean nothing, and are exactly what one makes of them, what one makes with them, what they make in themselves" (71).

Let us not forget that architects conceptualise buildings as opposed to building them and while "the work of art leaves the domain of representation in order to become experience" (Deleuze cited by Sauvagnargues 2016: 67), as noted by Deleuze, architecture remains challenged by the discrepancy between the perceived and conceived space. The *production* of most architectural objects is preceded by drawings and other means of representation which often fail to encompass the relational qualities over those of individual objects. The dominance of linear perspective and hegemony of the box is prevalent across current design practices, which impose an immobile point of view and fail to express multiple viewpoints, fragments, and situations that develop over the passage of time. To challenge that, architects should seek unconventional methods and techniques providing richness and complexities that can trigger unanticipated situations and further ideas. As such, the act of expression performed by the architect should be understood not in the context of representation or one-directional communication, but rather as a multidimensional surplus allowing for different or even contradictory interpretations, appropriations, and uses. Such ambiguity of no consciousness given in advance allows for the design actions to be themselves inexhaustible and indeterminate, which in turn can result in spatial experiences of indefinite potential.



Sheltering jetty

September, 7pm

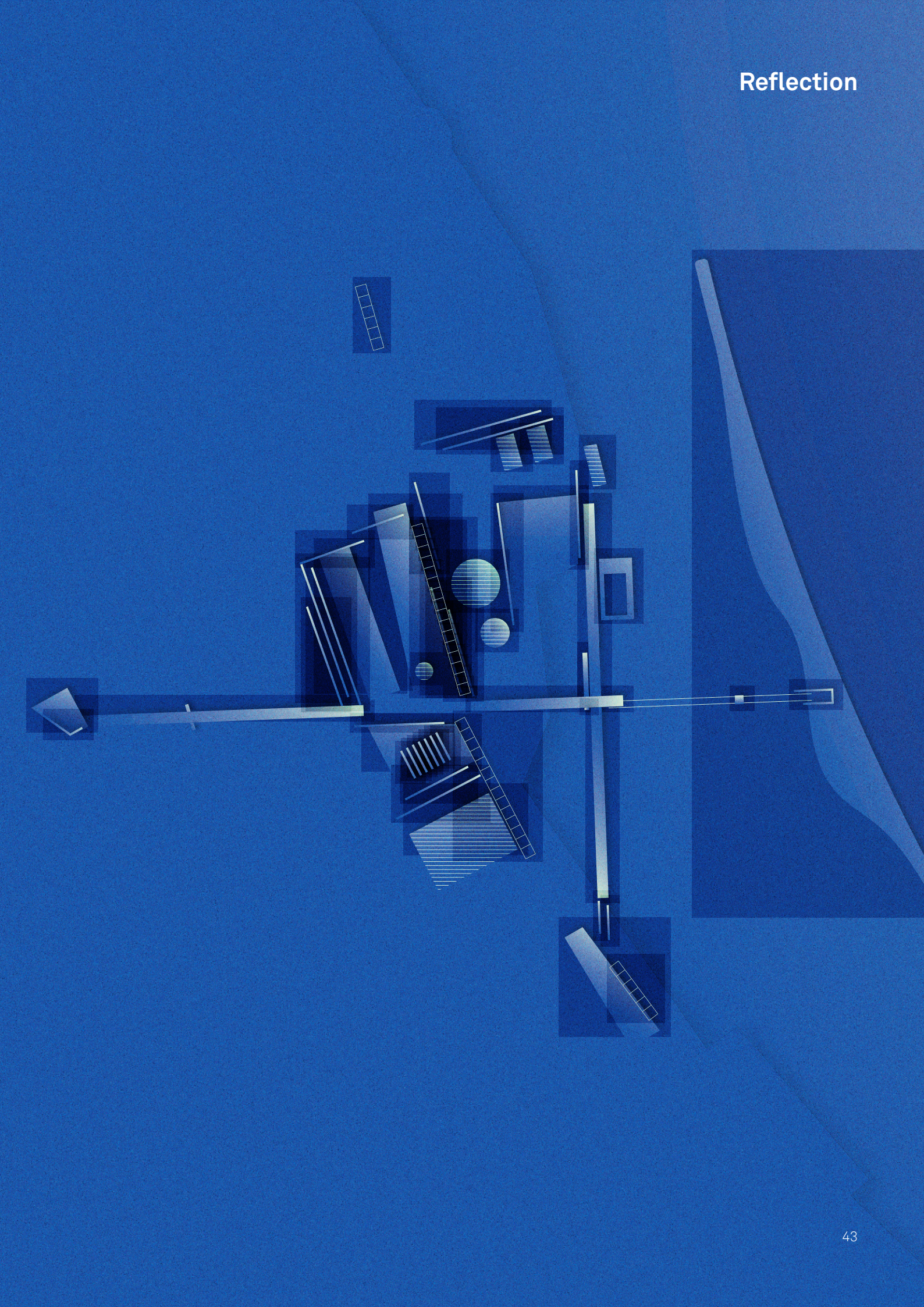
Fluctuating thresholds

Not surprisingly, the fluctuant delta is a challenging territory for spatial design, but as the authors of Delta Dialogues affirm, working with aquatic conditions holds "immense compositional potential, for flows flow in the present to shape the future. Reading and expressing flows fosters imagination and demands intuition – when understood as a moment of creativity or allowing ideas to evolve" (Ahn et al. 2017: 9). Indeed, there is a level of poetry and ambiguity in designing for water environments, which mitigate between engineered landscapes and dynamic tidal ecosystems. The fluctuating body of water provides no sense of permanency and as noted by Mathur and Da Cunha, who have closely studied Mumbai's fluid relationship between land and sea, "an estuary demands gradients not walls, fluid occupancies not defined land uses, negotiated moments not hard edges. In short, it demands the accommodation of the sea not a war against it, which continues to be fought by engineers and administrators as they carry sea walls inland in a bid to both, channel monsoon runoff and keep the sea out" (Mathur and Cunha 2009: 4)

Such inherent uncertainty of the amphibious environments forces spatial designers to question the paradigms of the design process and established dogmas. Accordingly, the proposal for the Mallegatpark is freed of any conventional architectural typologies and yet supports a public program for local residents, commuters, and visitors while respecting the tidal environment. While the sloping embankment is intended as a zone of re-naturalisation, the linear objects connect the critical points and allow the users for different means of engaging with the water. From walking above, floating on it, or directly accessing it, the in-between zones rely on relationality rather than the individuality of objects and surfaces. Having no prescribed narrative of use, the ensemble of simple linear gestures has a minimal footprint and comprises only the essential structural elements. Despite their explicitness, the formative elements hold implicit qualities that encourage movement and embrace the individuality of perception and experience. The resulting appearing and disappearing dependencies, hybrid conditions, transitions, and processes generate activities and simultaneously anticipate different courses of action, where both chance and planned encounters can take place. The new Mallegatpark is a podium for activities such as resting, contemplating, playing, and creating, but it is also a place challenging cycles of sustenance, needs, and desires that supports and strengthen bodies both mentally and physically. As such, the site emerges as a place facilitating otium, allowing to break away from the daily routine, to withdraw from habitual tendencies. However, the premise of the design is not to impose experiences but rather give them some mobility by creating situations where one can explore new potentials.

Ultimately, the space changes meaning with different ecologies taking over, and its experience varies depending on the user, weather, season, and time of the day. The proposed territorial intervention blurs the boundaries within the expanded field of architecture between architecture, art, landscape, and infrastructure to generate moments of surplus anticipating human and non-human flows and cycles. By its nature, the design has its independence and accommodates flexibility of the potential situations and conditions. Such ambiguity allows for an ever-evolving process of appropriation and inhabitation that is vulnerable to external flows, rendering it adaptable and thus resilient.

Reflection



Process

Starting with an abstract notion of ambiguity in architecture, in the past months, I have consistently worked on clarifying my initial intention and its design expression. The preliminary research part of the project has focused on spatial, sensual, as well as semantic ambiguity and consequently explored architecture's capacity to challenge perspectives, habits, and intentions. In the subsequent design process, I have attempted to employ ambiguity as a design resource to address the water-related issues of industry, recreation, and biodiversity in the delta city of Rotterdam.

Through the theoretical research consisting of extensive literature review and precedent studies, I have defined ambiguity in my own terms as a state of indefinite potentials in which familiar and unfamiliar converge to create moments of temporality and tension that allow bodies (both human and non-human) to negotiate their own presence. This understanding has sparked my interest in problematic situations that remain unresolved and motivated an investigation of dynamic delta landscapes, a decision that compelled me to eventually escape the disciplinary interiority of architecture. The inherent uncertainty of the amphibious environments forced me to question the paradigms of my design process and familiar dogmas. As a result, I embraced the expanded field of fluid boundaries and broadened my project's scope to a systemic level and while addressing the large-scale issues, I focused on small-scale interventions.

Design

In the process of choosing the site, I studied the Rhine–Meuse–Scheldt delta, which is the largest in Europe and decided on Rotterdam because of its complex urban environment. Situated in the Feyenoord district the chosen location of the Mallegatpark is characterised by inherent physical, historical, and socio-cultural ambiguous conditions. Being part of Rotterdam's waterfront, the site could be understood as a prototype for a larger network where biotic and abiotic processes meet and interact. This system is characterised by a constant renegotiation between the productive and recreational uses of the river as well as its tidal ecosystems. In such context, the site constantly oscillates between social, infrastructural, economical, and natural forces, which given the conditions, demands a holistic approach that acknowledges the shifting thresholds and ambiguous dependencies.

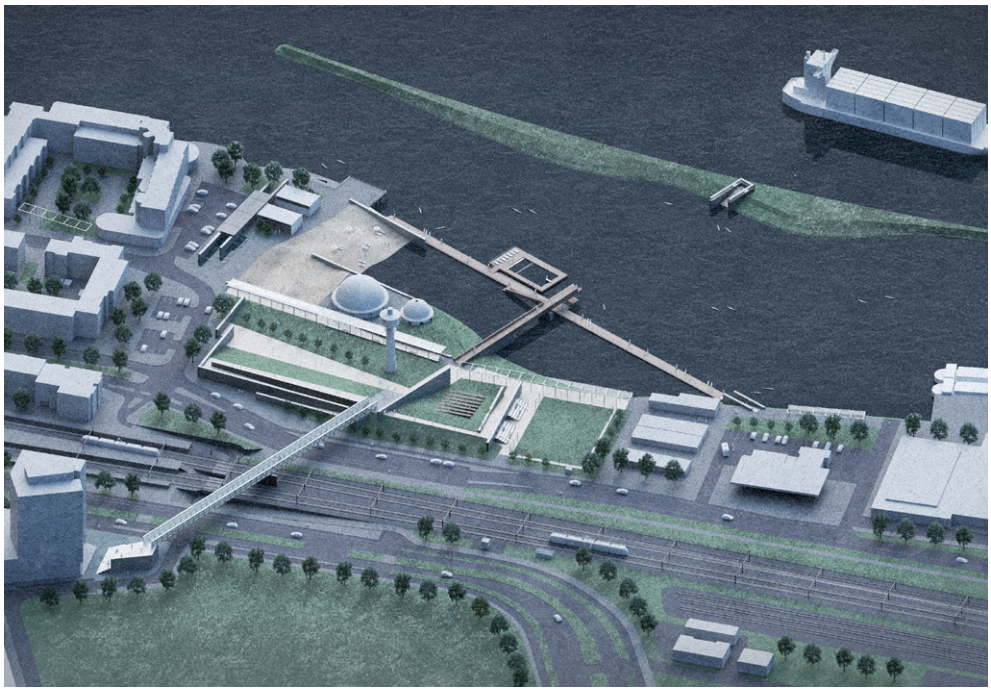
For this reason, the proposal for the Mallegatpark is freed of any conventional architectural typologies and refrains from becoming another kind of glamorous waterfront development. Instead, the project consists of a series of thresholds that attach to the existing systems and span between the rigid urban context and the fluid amphibious zone of the river. As such, the design embraces its delta identity and acknowledges different ecologies by transforming the embankment from one harsh line into a buffer zone. Typically, such line between ground and water is conceived as the most optimal and calibrated boundary serving one purpose, but the project challenges the idea of separation and exclusion by articulating the line as a series of in-between structures that connect to the existing continuous system of the river. As such, the project lacks a definitive ending or beginning as well as the front or back sides. The resulting unfolded edge accommodates spaces that encourage recreation, social activation, and restoration of the tidal ecosystem.

Because of the project's nature, I spent an extended period of time studying delta landscapes and water management strategies on local and national scales. This impacted several decisions in the design process such as a change from a steep to a sloped embankment, which allows for an establishment of intertidal zone. Additionally, the new breakwater island creates separation and protection from the main navigation channel. The rubble mound allows for sedimentation to take place and the creation of a new habitat for aquatic, riparian and terrestrial vegetation, as well as fish, insects and birds. Together, the island and the soft riverbanks, create a secluded yet accessible ecosystem with its own ecology. Such tidal environment a are characterised by a variety of flora and fauna that require gradual transitions from wet to dry, periodically flooded to always underwater, salty to fresh, and sunny to pitch dark. The beauty of tidal environments stems from the fact that it constantly changes both daily and seasonally, and the new proposal for the Mallegatpark anticipates such ambiguous forces of nature.

In addition to the newly established tidal park, the accompanying ensemble of structures borrows qualities from architecture, infrastructure, landscape, maritime engineering, and land art. During the design process, I focused not on the objectness of the structures but rather on their affordances. For instance, the bridge that opens to the sky connects the Mallegatpark with an area that is otherwise disconnected from the river because of the train rails. The sheltering jetty protects from the strong winds and provides a scenographic overview of the river. The floating deck runs parallel to the embankment and affords the experience of walking on water and directly accessing it. The attached swimming pool filters the water and travels around several locations at the river. The large gas factory dome accommodates a gathering space for local communities and the small provides a space for reflection. The frames that run parallel to the embankment can be considered as performative objects allowing for a variety of appropriations and uses such as an exhibition display, an outdoor cinema screen, a backdrop for the outdoor amphitheatre, a fence for the football field, and eventually a lighting device.

In addition, one of the fundamental entities of the project is the gabion wall that holds a variety of affordances for both human and non-human actors. Filled with recycled aggerate and perishable materials such as pines and wood, the gabions baskets offer habitats for insects, small animals, and plants. The ambiguity of the gabion wall stems from the fact that the wall never appears to be the same and is specific to the local conditions. It always enters into a dialogue with other spatial elements and this negotiation allows for the gabions to perform as retaining walls, partitions, framing devices, foundation plinths, as well as seating elements. Furthermore, gabions are also used as façade elements in the football field pavilion as well as the kayak pavilion, where the walls are accompanied by the steel frame, and finally, they reappear in the breakwater island as a birdwatching pavilion.

Together the ensemble works at different scopes and in multiple dimensions, disregarding the harsh distinction between ground and water. Maintained as seemingly simple linear gestures, the designed strips of different affordances work together and the experience of the site is dictated by the relationality of elements rather than their individuality. Therefore, the design is not dictated by an imposed, fixed composition but rather works as a relational system that is open to changes.



Mallegatpark

Buffer zone of thresholds

Strategy

The proposed design for the Mallegatpark engages in affective relations and transitions of power to emerge as a territorial intervention with a spatial porosity that is adaptable and ever-changing depending on the use and time cycles. For this reason, the series of thresholds is not limited to the site, but rather extends beyond it and, as such, could be seen as a design approach for Rotterdam's riverbank. At the same time, it should be acknowledged that this is not a universal concept, and its implementation is specific to time and place. After all, the concept of urban resilience has its limitations since there are neither univocal nor permanent solutions to fully protect flood zones. While the Dutch landscape architects emphasise the importance of the robustness of water defence systems, such harsh guiding principles often lead to one-dimensional solutions offering little spatial quality. This is precisely why interventions of smaller scale, such as the Mallegatpark, could be seen as an alternative to large scale schemes that often prove insensible to specific local conditions. Such an approach, however, demands a paradigmatic shift from hard to soft engineering, which implies the integration of design tools from other disciplines.

Certainly, the multidisciplinary character of the project has been challenging during the design process and required expertise from a variety of disciplines. While I attempted to make informed decisions at each stage, I eventually focused on the execution of more manageable small-scale interventions. Throughout the process, I confirmed the claim that while intentionality cannot be fully avoided in architectural practice, actively challenging the preconceived ideas and notions helps to escape the disciplinary enclosure and the established systems of references. Being confronted with the initially unfamiliar topics of delta environments and tidal ecosystems, I found consolation in engaging with the notion of ambiguity and seeking potentials in the unfamiliar. While designing for moments of temporality and negotiation, I deepened my appreciation for the power of nature and the humbling experience that it provides. After all, no one has authority over its forces and such inevitability provides a sense of freedom and relief. For this reason, one of the main objectives of the design is to actively engage with the changing temporal and weather conditions to allow the project to continually reconnect with its environment and exhibit the sublime beauty of nature.

The process has also proven to me that because the river landscapes constantly oscillate between social, infrastructural, economical, and natural forces, a true challenge is to resist human subjectivity and avoid the duality of nature versus culture in the design decisions. Consequently, integrating issues of sustainability, functionality, aesthetics, and durability

is a crucial concern for the future of delta landscape design. In times when robustness has become one of the guiding principles of design, it is also clear that instant problem-solving solutions prove not to be sufficient as long-term resilience strategies. In this context, ambiguity can be seen as an alternative approach to answering the issues of adaptability and flexibility of delta conditions that accepts the open-ended nature of its complex issues and processes. Ultimately, instead of fighting against forces of nature by keeping the water back, an alternative approach for the city's development would be to facilitate controlled flooding through the transformation of the dike from one single line into a buffer zone with different types of reinforcements and additional programs. A hybrid approach of integrating measures with urban spatial development could include multi-functional dikes, floating buildings, as well as adaptive design for infrastructure and nature areas. By welcoming estuary ecology, the outer-dike area could accommodate tidal parks facilitating contact with water and providing spaces for recreation much as improving water quality and biodiversity. The achieved special fluidity could strengthen the river as a continuous green buffer zone while also cultivating the relationship between the inner and outer-dike areas. As such, Rotterdam could manifest itself as a dynamic territory of coexisting ecologies, which will never remain static but adaptable and thus resilient.

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