

AFTER THE FLOOD

SPECULATIVE ARCHITECTURE IN A POST-CLIMATE CRISIS WORLD

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AUTUMN 2025

CHALMERS SCHOOL OF ARCHITECTURE
DEPARTMENT OF ARCHITECTURE AND CIVIL ENGINEERING

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Cover page illustration:
Shot from the thesis movie, made by the author.

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ABSTRACT

"Climate change is not a crisis of technology—it is a crisis of the imagination." Addressing climate change requires more than technological advancements; it demands creative, systemic thinking and the ability to envision alternative futures. This master's thesis explores how speculative fiction can inspire architects to conceptualize new ways of living and dwelling. Through the lens of speculative architecture, it aims to contribute to a discourse that serves as a catalyst for making alternative futures possible.

The thesis investigates how climate fiction, media tools, and narrative storytelling can act as platforms for site-specific speculative visions. It focuses on coastal residential buildings in Gothenburg, Sweden, imagining their future under a global warming scenario exceeding 4°C, as projected by the IPCC under the current emissions trajectory. The study examines four major climate hazards associated with this scenario and their impact on the built environment at both macro and micro scales.

To explore responses to these extreme conditions, the thesis considers how speculative architectural scenarios might be presented in ways that shape public imagination toward coexistence with rising sea levels, rather than reinforcing narratives of retreat or defense. By reframing adaptation as an opportunity for flourishing, it seeks to highlight design approaches that move beyond survival toward thriving in altered environments.

The primary focus is on flooding and extreme rainfall events, analyzing their implications for urban infrastructure and daily life. The thesis culminates in the design of a speculative street section along the Göta River, conceptualized as an abstraction of a typical Gothenburg street. Through first-person narrative storytelling, it showcases possible architectural and urban adaptations to these climate challenges, offering an immersive perspective on future life in a waterlogged city.

KEYWORDS

speculative design; climate fiction; flooding; environmental futures



Figure 1.
Shot from the thesis movie, made by the author.

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INTRODUCTION

Not long ago, I came across a documentary about the world's fastest sinking city – Jakarta. The film detailed how thousands of citizens have been forced to become climate refugees due to the city's extreme flooding. However, what struck me most was the government's plan to relocate Indonesia's capital as a response to the worsening crisis. While this strategy may address administrative concerns, it does nothing to help the millions of people who will remain in the city.

My initial thought was: Is this how we will respond—by running away from the consequences of climate change? Though Jakarta's situation made me reflect on our role as architects, urban planners, and artists. What can we do to change the way we respond to these crises? Will we flee, or will we fight? Do we even consider alternative possibilities? Perhaps, relocating the capital is truly the only option left for Jakarta, but perhaps the inability to imagine another solution has also played a role in this dramatic decision.

Jakarta is far from the only city affected by climate change. In reality, no place on Earth will remain untouched. How we choose to respond will shape the future of humanity.



Figure 2.
Flooding submerges houses, people gather to seek shelter (Rinaldi, 2025).

THESIS QUESTIONS

How can speculative fiction inform architectural design to envision alternative ways of living in a post-climate crisis world?

How can speculative architectural scenarios shape public imagination toward possibilities of coexistence with rising sea levels?

TERMINOLOGY

SCIENCE-FICTION
Speculative genre concerned with possible futures, alternative presents or re-imagined pasts, which defamiliarizes or reorients our relationship to the everyday through an imaginative conceit, and which is grounded by a focus on what is generally seen to be scientifically possible (Yeates, 2021).

CLIMATE FICTION
Literary genre that explores the impacts of climate change. Generally speculative in nature but based on climate science.

WORLD-BUILDING
The creative process of constructing an imaginary setting or universe. It involves developing a detailed and coherent framework—including history, geography, culture, and ecology—that is essential for many science fiction and fantasy writers.

SPECULATIVE DESIGN
A design practice that uses design to explore, critique, and re-imagine future possibilities rather than to solve immediate problems.

CRITICAL DESIGN
A design approach that challenges societal norms and assumptions to provoke thought and discussion.

MEDIUM
The intervening substance through which sensory impressions are conveyed or physical forces are transmitted.

ABSTRACTION
The process of simplifying or reinterpreting architectural elements to convey conceptual ideas.

EXTRAPOLATION
The process of making an estimation or reaching a conclusion based on the presumption that prevailing trends will persist or that a current methodology will continue to be relevant.

DELIMITATIONS

Due to the scope of a master's thesis and the resource-intensive nature of film production, the project does not aim to deliver a complete short film at professional quality. Instead, it focuses on producing a selected excerpt of the proposed film as a demonstrative prototype. The emphasis lies on the research, conceptual development, and representational strategies rather than the completion of a full cinematic production.

Moreover, though the thesis incorporates architectural design, it is limited to a conceptual version. The aim is not to outline precise construction technologies or provide exhaustive technical solutions for inhabiting a flooded city. Rather, the focus lies on exploring the interplay between environmental forces and architectural or societal choices, highlighting how these dynamics might converge to produce spaces that both address flooding challenges and articulate an optimistic vision of future living.

RESEARCH PROCESS & METHODOLOGY

The thesis begins with a comprehensive background research, including an academic literature review, comparative media analysis, qualitative examination of case studies, and the site analysis of the chosen area. This phase disects the core tenets of science fiction, climate fiction, speculative design methodologies, media affordances, and contextual conditions.

Based on this foundation, the project identifies key design principles and parameters, as well as the medium through which these concepts will be tested. The design process then unfolds by disassembling, and selectively reassembling, spatial fragments of Gothenburg, forming a speculative spatial configuration. Onto this framework, the spatial consequences of selected climate hazards are gradually extrapolated.

Finally, the outcomes are synthesized and communicated through storytelling and motion picture. They serve as tools for immersively presenting the speculative design.

PROGRESSIVE NARROWING

The methodology is characterized by a process of progressive narrowing. The thesis begins with a wide scope - considering global climate impacts, a range of media, and multiple speculative design strategies - and gradually reduces this scope through deliberate acts of delimitation, prioritization, and refinement. This narrowing process ensures that the project remains feasible within the available time, while still demonstrating the potential of speculative architectural storytelling.

WORLD-BUILDING METHODS

To create a structurally coherent speculative scenario, the thesis draws on world-building methods commonly used in literature, video games, and other narrative media. Two main approaches to constructing such a speculative world are the following:

TOP - DOWN
This method begins with a broad overview - defining inhabitants, technology, geography, climate, and history. It ensures coherence and consistency, but can be time-intensive and slow to yield useful narrative elements ("Worldbuilding," 2025).

BOTTOM - UP
In the bottom-up approach, world-building starts with a specific location or detail relevant to the narrative. Broader context is added gradually as needed. This allows for faster development but can lead to inconsistencies if overarching structures are not clearly defined later (ibid.).

The thesis uses the bottom-up approach as it is faster.

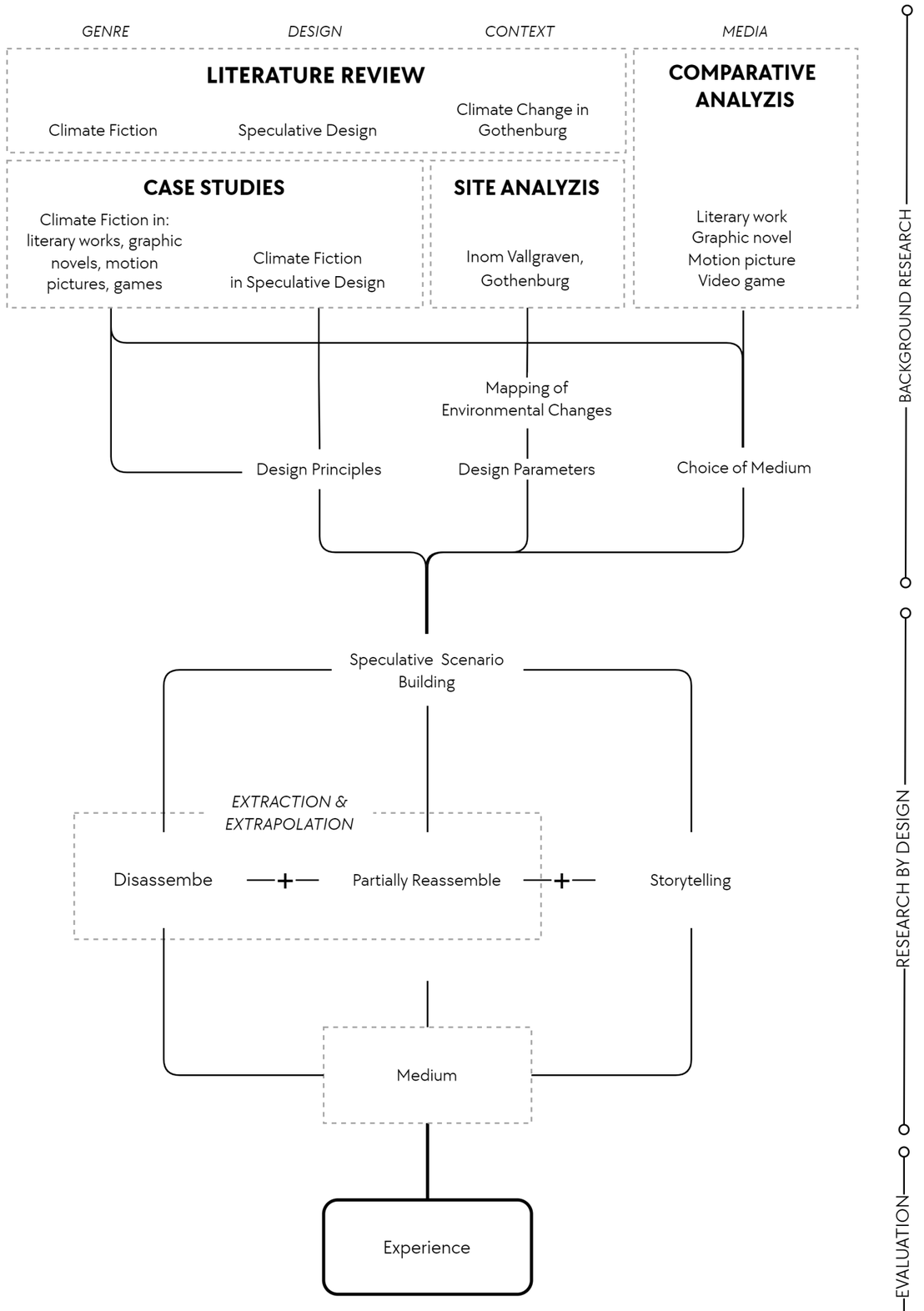


Figure 3.
Research process diagram. Made by the author.

THEORETICAL RESEARCH

THEORETICAL RESEARCH

Climate fiction emerged as a genre in response to anthropogenic climate change, translating abstract, global, and temporally vast phenomena into emotionally and cognitively accessible narratives. It enables audiences to pre-experience alternative futures. Yet, it faces challenges in representing incomprehensible scales, avoiding anthropocentric bias, and mitigating threat perceptions. Realist literature and cinema show that incremental, widespread, and varied depictions can convey climate change effectively. This thesis applies these insights to speculative architecture, using film with narrative storytelling to visualize a future Gothenburg and bridge the gap between scientific knowledge and lived experience.

While scientific agreement on anthropogenic climate change was reached as early as the 1970s (Intergovernmental Panel On Climate Change (Intergovernmental Panel On Climate Change (Ipcc), 2023, p. 44), climate change as a subject matter in fiction emerged only later. For instance, the term climate fiction has only entered academic discussions around 2010's. Dan Bloom, a journalist and self-described "public relations climate activist", was the first to use the term "cli-fi" in 2007 (Glass, 2013), labelling his novella *Polar City Red* as such. Though important to note, examples of environmental fiction that voice disastrous human interventions into global climatic conditions can be found as early as Jules Verne's novel *The Purchase of the North Pole* (1889) (Goodbody and Johns-Putra, 2019). Later, as Jim Clarke notes, the 1950's and 1960's saw an increase in 'proto-climate-change' fiction – see the works of J.G. Ballard or Margaret Atwood, for example (Goodbody and Johns-Putra, 2019). However, Trexler in his work *Anthropocene Fictions* notes that these earlier texts often focused on the general vulnerability of the global climate rather than on anthropogenic change itself. For instance, literature focusing on anthropogenic climate deterioration mainly emerged as the concept of the Anthropocene entered public consciousness around the time of the Intergovernmental Panel on Climate Change in 1988 (Trexler, 2015). Trexler argues that the emergence of the genre is marked by "the widespread collective anxiety around humanity's impact on its environment" (Trexler, 2015, p. 9. qt.in: Goodbody & Johns-Putra, 2019, 230–2). From the 1990s onward, public debate about political interventions against global warming intensified, and as a result, the number of fictional responses to climate change quickly grew into a rapidly expanding trend (Goodbody & Johns-Putra, 2019). In response, in the literary world, the majority of climate novels addressed "[the] historical tension between the existence of global warming and the [humanity's] failed obligation to act" (Trexler, 2015, p. 9). While the literary world was the field that originally established the definition of "cli-fi", other forms of fictional media also contributed.

There is a need for climate fiction to broaden the scope of possible futures. In order to make a certain future possible, someone must first give voice to that future – dream it into existence (Dunne & Raby, 2013). The imaginative representations of climate change – across literature, art, and architectonic – are essential for challenging and extending the constrained set of solutions typically envisioned in conventional climate discourse (Dobraszczyk, 2019). Liam Young argues that "climate change is not the crisis of technology, it's the crisis of imagination" (Liam Young, 2023). He explains that climate change is no longer a technological problem, but rather a political and cultural one (ibid.). These radical problems require equally radical solutions (Dobraszczyk, 2019). By expanding on the limitations of reality, fiction has the possibility to experiment with fundamentally different approaches to climate change. Thus, fiction and speculative works open up new possibilities for collective reflection and action, using future scenarios to challenge present thinking and shift current trajectories (Dunne & Raby, 2018; Dobraszczyk, 2019).

Furthermore, meticulously crafted narratives produce a deeper understanding of climate issues (Glass, 2015), since "humans need narrative to make sense of a whole range of possible outcomes that can never be predicted with any degree of certainty. The story-based approach to imagining the future encompasses the metaphorical, the ethical, the aesthetic and the speculative, each contributing to a vision not of a predicted future, but of one that is 'probable, preferred, or hoped for' (Kathryn Yusoff and Jennifer Gabrys, 2011 qt.in: Dobraszczyk, 2019, p. 21). In other words, imagination provides the vessel through which we 'pre-experience' alternative futures" (Dobraszczyk, 2019, p. 13).

Due to these qualities, climate fiction is "often assumed to have a positive ecopolitical influence (Schneider-Mayerson, 2018, p. 473)", by rendering the abstract phenomenon of climate change visible, and relate it to the audience's life by giving climate change an emotional force and credibility (Goodbody and Johns-Putra, 2019, p. 235). Nevertheless, several conceptual and perceptual barriers can hinder this effect. These challenges are largely rooted in climate change's extensive spatial and temporal scales, which make it difficult to reconcile scientific knowledge with lived experience.

Climate change functions as a global ecological process involving intricately interwoven causes and effects that unfold over millennia (Goodbody and Johns-Putra, 2019.). To comprehend it requires imagining human life at vastly expanded scales of space and time. This results in what Timothy Clark defines as 'Anthropocene disorder' (Clark, 2015, p. 140). Clark refers to the cognitive and ethical disorientation that humans experience as they think and act on multiple incompatible scales, ranging from the everyday to the planetary. Essentially, the 'knowledge' of climate change and the human experience do not match, since its effects are spatially fragmented and involve deep time. This dissonance between the scales of human life vis-à-vis environmental change creates a profound cognitive tension (Goodbody and Johns-Putra, 2019).

At the same time, the contemporary climate discourse has generated a pervasive threat perception, which can prompt ontological denial as a psychological response to an otherwise inconceivable risk. The roots of this denial lie similarly in the incompatible scales of climate change. Since its effects are often either geographically distant or projected into the future, denying its relevance or even its existence becomes a psychologically understandable reaction. For example, Kari Norgaard's ethnographic research in a Norwegian town shows that, although residents generally accepted the scientific reality of global warming and acknowledged its long-term consequences, many nevertheless avoided recognising any connection to their own daily behaviour or lifestyle (Norgaard, 2011). The power of climate fiction lies precisely in its potential to render this abstract phenomenon visible and relate it to the audience's life by giving climate change an emotional force and credibility (Goodbody and Johns-Putra, 2019), thereby substituting abstract knowledge with a form of lived or felt experience.

However, the very interventions required to address climate change can themselves appear existentially threatening, either because the psychological cost of adopting new knowledge is perceived as too high, or because the societal transformations needed to mitigate climate change seem unattainable. For example, Barbara Kingsolver's novel *Flight Behaviour* offers insight into forms of climate scepticism in the United States, particularly in poorer rural communities, where climate change is perceived as "an obsession of the middle classes which threatens their freedom and prosperity" (Goodbody and Johns-Putra, 2019, p. 239). These interlocking tensions lay the groundwork for the representative and narrative challenges that arise when attempting to portray climate change in fiction. For climate fiction to fulfil its potential in generating a positive ecopolitical influence, it not only has to render the phenomenon visible to human perception, but it also has to mitigate the threat component of climate change.

One of the first narrative challenges of climate fiction is attributed to the prevailing tendency of climate fiction to represent dystopian views. According to Goodbody and Johns-Putra, climate fiction generally has two major types: "...the first type tends to be set in a recognisable, realist present (or very near future) and the second in a futuristic climate-changed world, which one could characterise as apocalyptic, post-apocalyptic, or dystopian [...]" (Goodbody and Johns-Putra, 2019, p. 234). These approaches amplify the negative connotation to climate change, and while negative emotions "...have the potential to warn, they can also exploit and paralyse individuals' responses to climate change" (Bartha-Mitchell, 2023, p. 112). In other words, reinforce the threat perception of climate change. Though Bartha-Mitchell presumes that this type of fiction's paralysing effect potentially outweighs its benefits, Goodbody and Johns-Putra note that the drama that follows climate concerns has a way of "...grabbing attention in a way which non-fiction cannot replicate without fictionalization or personification" (Goodbody and Johns-Putra, 2019, p. 234.). A potential solution to negate the paralyzing effect of climate fiction is to present a hopeful picture of alternative futures. As Dan Bloom states, "cli-fi [...] does not have to be dystopian if the authors or screenwriters don't want to go down the doom and gloom road. A cli-fi novel could also be utopian, and present an optimistic and hopeful future for the readers" (Holmes, 2014). The thesis follows Dan Bloom's recommendation, and proposes an optimistic view of the future of flooded cities.

Another representative challenge is the issue of scale. And while climate fiction has the power to relate these incomprehensible scales to the human-scale, it often does so by 'scale-framing' the problem, that is, reframing the problem within a feasible scale (Clark, 2015, p. 71–96). But according to Clark, the framing of the issue from a human perspective is precisely the same "anthropocentric delusion" that has led to the problem at hand (ibid.). In other words, centering the human experience at the heart of the narrative can inevitably reduce the non-human scales of climate change, thus negotiating agency in favour of human interests over sacrifice (Goodbody & Johns-Putra, 2019). And while Clark and Goodbody originally discuss this issue in relation to literary climate fiction, Faeze Rezaii argues that multiple cinematic works also reproduce an ideology that naturalizes environmental collapse by downplaying the role of human actions (Rezaii, 2024). This might be due to the broader consumerization of catastrophe, as Carien Smith notes (Smith, 2022). Other productions not only naturalize climate catastrophe, but even idealize it: the alien-themed fiction *The Tomorrow War* (2021), for example, expresses a nostalgic longing for suburban fossil capitalism, ultimately expressing a preference for the Anthropocene through a cinematographic yearning for human hegemony on Earth (Mark Bould, 2023). On the other hand, Trexler admits that there is a new type of realist literary fiction about the Anthropocene, and that at least these works successfully deliver the reality of climate change to their readers without reinforcing an over-anthropocentric view (Trexler, 2015). These examples of realist fiction about the Anthropocene, in which the narrative shifts from the traditional depiction of climate change as a final disaster that could be endlessly delayed, instead convey its "incremental, widespread, and various" nature (Trexler, 2015). Similarly, despite these failures, cinematographic climate fiction can communicate and convince about climate change effectively, as argued by Kaplan (2020), even if it does not always succeed to do so at the wit of producers and directors. In order to test these arguments, this thesis uses static, as well as, moving-frame media to communicate an architectural narrative of a future after the flood that is both ontologically acceptable and existentially safe.

As Dobraszczyk (2019) observes, the mental images of imagined cities that we encounter in films, novels, and video games have the power to shape public perceptions of future urban life. For example, he mentions a 2013 phenomenon when a "photograph of a projected image on a smog-enshrouded high-rise building in Beijing became an Internet sensation because it seemed uncannily reminiscent of the urban landscape seen in the 1982 film *Blade Runner*" (Dobraszczyk, 2019, p. 7). "[T]ours are now being offered to tourists to cash in on this unexpected coming together of life and art, of the real and the imagined" (Dobraszczyk, 2019, p. 7). Yet, contemporary architectural representations often fail to reach the same effect as other media. As Dobraszczyk mentions, contemporary architectural visualization – particularly in digital contexts – often struggle to elicit an emotional response to the potential urban futures they depict (Dobraszczyk (2019). Robert Yeates explains that science fiction – including climate fiction – is deeply shaped by the media technologies used to produce and consume it (Yeates, 2021). As general architectural representation heavily relies on distant perspectives, technological drawings and a lack of narrative, it fails to create a deeper connection to its audience. Similarly, Dobraszczyk argues that alternative media are necessary to effectively communicate the ideas behind speculative architectural projects (Dobraszczyk, 2019). Following this line of reasoning, this thesis tests their argument by employing motion-picture media combined with personal narration to convey a speculative vision of Gothenburg's future cityscape.

Additionally, the thesis focuses on climate change induced flooding in urban environments. Flooding is already a recurring representational motif in climate change narratives, yet these representations often fall into the same traps previously discussed in literary and cinematic climate fiction. Visual depictions of flooded cities tend to adopt two dominant perspectives: from above and from below the water (Dobraszczyk, 2019). Aerial views, including predictive flood maps - similarly to typical architectural visualizations - distance viewers from the human and material impacts on the ground (ibid.). They present emptied cities as staged, apocalyptic sets, which can amplify the threat component of climate change rather than mediate it (ibid.). Fictional treatments similarly fall into two main approaches: post-diluvian catastrophic cityscapes, which dramatize sudden disaster, and narratives that trace gradual urban inundation. As Goodell notes, slow-rising waters along coastal regions allow time for adaptive measures such as elevated roads or seawalls (Goodell, 2018), thus rendering the dramatic image of sudden catastrophes unrealistic. Depicting the speed of flooding realistically a crucial factor in reducing its perceived threat (ibid.). Thus the more realistic approach, reflects the slow, cumulative nature of climate change and allows for a grounded depiction of its effects (Dobraszczyk, 2019), which is why this thesis employs gradual inundation as its central representational motif.



Figure 4.
Top: Photograph of a projected image on a high-rise building in Beijing in 2013 (Spector, 2013). Bottom: Movie still from Blade Runner (Scott, 1982).

MEDIA ANALYSIS

Media analysis establishes why examining speculative representations across motion pictures, video games, graphic novels, and architectural projects is essential for this thesis. Because science fiction is inseparable from the media technologies through which it is produced and consumed, its imaginaries – and particularly its climate imaginaries – are shaped by the visual, narrative, and experiential capacities of each medium. Understanding these conventions is necessary in order to identify how different media construct, distort, or mediate climate futures.

The analysis concentrates on works where flooding is central to the plot. To provide a comphrehensive image of how different media depicts these events, the thesis aims to collect multiple examples of literary works, graphic novels, motion pictures and architectrual imageries.

Certain works were not articulated in depth in the analysis, but they have nevertheless served as inspiration in their approaches to climate change. For example, the plans for *Tokyo Bay* by Kenzo Tange emphasize the importance of radically restructuring infrastructure networks to suit new urban conditions (Cho, 2018). This idea inspired the thesis project to rethink the logistical structures of a future Gothenburg, as well as to integrate the public transport system with future sewage and water systems, new public spaces, and renewed electrical infrastructure.

The Great Endeavor by Liam Young utilizes imagination to motivate people to invest in the technology necessary to tackle climate change – a technology that already exists (Young, 2023). Similarly, the thesis only utilizes already existing technological solutions – reconfigured into new spatial and infrastructural arrangements – to present alternative solutions to climate change.

Meanwhile, the *New City* project by Liam Young is an excellent example of how overlaying documentary footage with speculative images can link the imagined environment to the present. This is a key strategy to enhance relatability in speculative projects (Dunne & Raby, 2013). In a similar manner, the speculative project of the thesis overlays a collage of existing spaces in Gothenburg to enhance its connection to the present.

Moreover, the *Floating City 2030* master thesis project by Anthony Lau (Lau, 2008) inspired the project to emphasize the use of abundant materials resulting from shifts in the cargo shipping industry.

- → ***Threat management***
  Does the work reduce or amplify the "threat component" of climate change?
- → ***Scale-framing***
  How does the work negotiate the problem of scale?
- → ***Representation***
  What representational strategies does the work use to depict flooding or climate-driven transformation?
- → ***Agency***
  Does the work offer agency, or does it naturalize/idealize collapse?
- → ***Cinematic and/or narrative techniques***
  Which cinematic or narrative devices does the work employ to emphasise its climate message?

EXTRAPOLATIONS
Scott Z. Burns, 2023

The TV series Extrapolation amplifies the threat component of climate change though it still avoids over-exaggeration or scientifically inaccurate climate catastrophes. Instead, it uses a slow-burn psychological dread: persistent rain, rising water inside daily spaces, and an atmosphere of creeping inevitability. This dreamlike flooding aesthetic emphasizes a sense of disorientation and loss of control, heightening existential threat. Meanwhile, the series mitigates the scale issue of climate change by presenting domestic scenes, and focuses on human experience. Though this inevitably leads to an anthropocentric view. Similarly, political conflict is shown as petty or opportunistic, reducing collective agency and implying a culture resigned to environmental decline. This reinforces a notion of systematic failure.

Flooding is visualized through mostly interior scenes, favouring close-ups, waterlogged textures, and sensory detail over wide, aerial disaster views that typically depersonalize catastrophe. The built environment is still inhabited, though showing signs of a gradual evacuation. This gradual inundation supports Dobraszczyk (2019) argument on realistic representation of flooding.

The series apply only short macro shots to establish the broader setting, while longer micro shots focus on personal stories, drawing attention to human-scale experiences. Symbolic attention to objects and actions, such as boots in a synagogue, conveys emotional stakes and personal engagement with climate change.

The thesis implements the Extrapolation's focus on symbolic representations of personal stories in the environment. These objects hint at a vital life in the submerged city.

BEASTS OF THE SOUTHERN WILD
Benh Zeitlin, 2012

The film reduces the threat component of climate change by portraying the changing environment through a child's perspective. This perspective allows to depict otherwise alarming events through the lens of wonder and curiosity. Flooding is not portrayed as apocalyptic – thus paralyzing – but rather as a natural condition of life.

The movie resolves the scale dilemma by radically downscaling the events to a child's scale. Moreover, global forces are translated into local mythologies and personal stories. Agency is framed as emotional courage, community loyalty, and instinctive survival. Though it undoubtedly places the human experience in its centre, it is a great piece of art to pre-experience environmental transformation.

The film uses extreme close-ups, handheld camerawork to create an almost first-person, game-like immediacy. Micro-scale environmental details, such as mud, debris, and waterlogged textures create an intimate connection to the environment. These detailed pictures showcase a world where the boundary between the built environment and the natural environment is blurred.

The Beast of the Southern Wild highlights the importance of micro scale details. These details deepen the audience's connection to the environment as well as counterbalance the enormous scale of climate change itself. Originally, the thesis aimed to implement a series of micro details to show the far-reaching effect of climate change, but most of these elements were emitted at the end due to the time limitations of the work.





Figure 5.
Top: Movie still from Extrapolations (Burns, 2023). Bottom: Movie still from Beasts of the Southern Wild (Zeitlin, 2012).

BLADE RUNNER
Ridley Scott, 1998

Blade Runner emphasises the hazardous effects of climate change. The movie displays an environment and society already at the brink of collapse, where ecological decline is inevitable and irreversible. This view reinforces a dystopian view rather than offering mitigation or any hope.

The monumental, vertically endless urban forms highlight the gap between human experience and planetary degradation. Wide aerial shots emphasize overwhelming infrastructural vastness without any nature present, while cramped street-level scenes reduce individuals to insignificant figures. This mismatch mirrors Clark's "Anthropocene disorder," (Clark, 2015).

Characters navigate the degraded world in unique ways. The class-segregated circulation of people (top-down for elites, ground-level for the marginalized) reinforces the idea that environmental catastrophe has simply become part of a fixed social order. Additionally, vertical cinematography, looking up or down, further visually encodes hierarchy.

The movie uses grand aerial shots that frame the city as a vast, polluted organism, while low-key lighting, neon lights, and dense atmosphere embody environmental decay – cinematic tools familiar to cyberpunk style.

The Blade Runner served as an example to investigate the hierarchical changes in the built environment caused by climate change. Ridley Scott's work inspired to emphasize how these changes might lead to an appropriation of heights, as wealthy people avoid the infected, dirty streel level – or in case of the thesis the flooded floors.

ELECTRIC DREAMS, EPISODE 7
Marc Munden, 2017

Episode 7 of the TV series Electric Dreams depicts a world where most societal problems were solved by technological inventions, but the already at-play effects of climate change are inevitable. The characters struggle with the gradual erosion of their environment that results in a loss of belonging.

The show displays fragmented agency: some characters adapt while others resist. The main focus is on the personal psychological struggles of everyday people to adapt to constantly changing conditions. The slow narrative focuses on close ups of personal spaces.

The episode often juxtaposes environmental degradation with sleek, futuristic technology. Meanwhile, the degrading environment is often only visible in the background – accentuating the personal, lived experiences of people. Though the series centers the narrative around the human, it also successfully exposes the myth of human exceptionalism by showcasing that human-made technology is not superior to the forces of nature.

The Electric Dreames by Marc Munden inspired the thesis process to heavily focus on the psychological effects of a slowly degrading environment. While in the TV series this psychological distress is never resolved, the thesis aimed to serve architectural or organizational elements that reduce the impact of flood on the psyche.



Figure 6.
Top: Movie still from Blade Runner (Yeates, 2021). Bottom: Movie still from Electric Dreams—Crazy Diamond (Grisoni & Dick, 2017).

THE DROWNED WORLD
J.G. Ballard, 1962

The Drowned World depicts a fully submerged, decaying landscape that signals a past societal collapse and the overwhelming power of environmental change. The urban spaces appear as old memory sites reclaimed by nature. These elements emphasize the threat of climate change, and the disorientation of characters while traversing the strange scene resembles the cognitive dissonance experienced by the readers when dealing with climate change.

The flooded environment is represented through sweeping, atmospheric depictions of submerged cities and overgrown, decaying urban landscapes. Sensory language evokes tactile impressions of dampness and rot, as well as ambient sounds like murmuring streams helps to immerse the reader in the new environment. While the scale of flooding is over exaggerated compared to current scientific trajectories, the novel is a great example of how different people react to such a psychologically straining event. While some characters aim to reclaim the architecture from the water, by adapting to the flooded structures, others hopelessly wander the world in order to find a sense of home and belonging.

While The Drowned World's characters constantly seek their places in the estranged environment, the thesis project focused on utilizing architectural elements that can inspire belonging.

NEW YORK 2140
Kim Stanley, 2017

New York 2140 shows an optimistic view on a flooded world, where humanity learnt to coexist with rising sea levels and the gradual but constant transformation of the built environment. The high water levels become a catalyst for innovation. This approach is closer to that recommended by Dan Bloom (Holmes, 2014) to avoid the paralyzing effects of climate change (Bartha-Mitchell, 2023).

The narrative balances scales by pairing expansive depictions of a transformed New York with highly detailed interior spaces, textures, and personal routines. The book does not downplay the significance of climate change but rather show that society may be capable of the necessary adoptions to live in coexistence with the forces of nature.

The event of flooding itself is represented as a stable, long-term condition that reshapes – rather than destroys – urban life. Rich descriptions of amphibious infrastructure, repurposed skyscrapers, and intertidal mobility systems showcase a multitude of adaptive strategies. The novel also highly emphasizes that with the changing environment a societal transformation is imminent. Thus highlights that political action and human ingenuity are central forces in shaping the future of the city. This approach doesn't neutralize human agency but rather emphasizes it while admitting to its limits.

Kim Stanley's work served as inspiration in the general approach to a flooded city. As the novel depicts a society adapting and in certain cases even thriving in new conditions, the thesis aims to reach a similar atmosphere depicted in the novel.

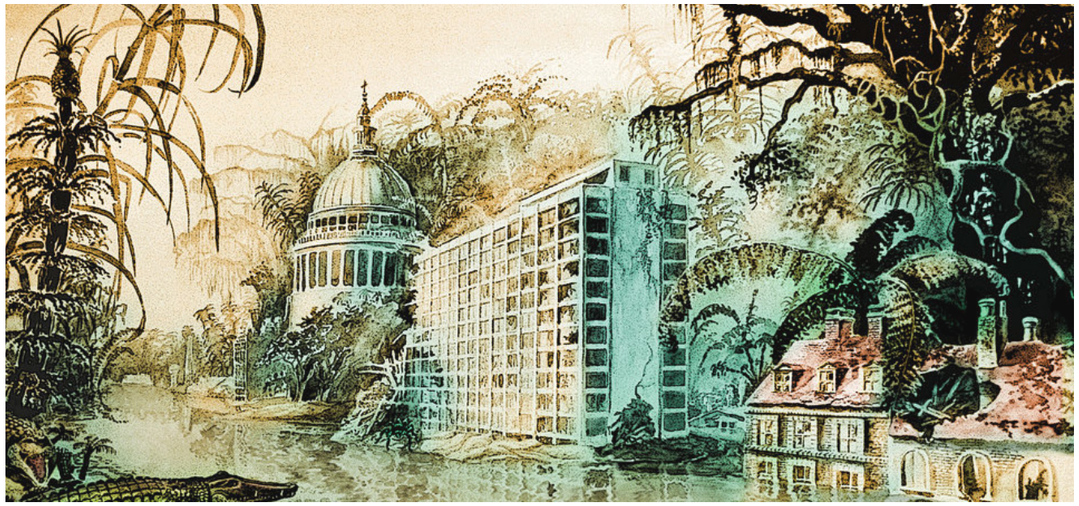




Figure 7.
Top: Illustration for The Drowned World (Marks, 2021). Bottom: Illustration for New York 2140 (Mahé, 2017).

LAST OF US II
Naughty Dog, 2020

The Last of Us II video game's scenes playing in Seattle offer an insight into a flooded, abandoned city. The game depicts the atmosphere in a strongly post-apocalyptic manner. Though the root cause of the chane induced on the environment can be traced back to climate change, this motif is not central to its plot. Yet the scenes in Seattle can serve as inspiration on how people traverse, explore and survive in a compromised environment.

Characters navigate leaning buildings, collapsed skybridges, and water-logged streets – using the ruins themselves as unique circulation routes. Flooding becomes both a spatial obstacle and a narrative element.

The game naturalizes collapse. While characters exert agency in moment-to-moment survival, the larger world remains forever lost, with no path toward collective adaptation or societal reconstruction. Instead, the individual survival of the characters and their stories helps the player situate themselves in the landscape. While the game doesn't provide a resolution to the environmental challenges, it showcases how life goes on even after a collapse. Though the historical cities are lost, further scenes of the game show possibilities for rebuilding and reorganizing society in a different location.

Similarly to the Last of Us II, the project invested heavily in depicting the unique ways people may traverse in an environment. The game also served as inspiration to reconsider the temporary use of decaying buildings. These buildings might eventually disappear, but while still there they can stil serve as important resources to society.

FLOODLAND
Vile Monarch, 2022

Compared to the Last of Us II, Floodland provides an optimistic, hopeful almost utopistic view on a future flooded environment. Although flooding initiates the collapse, the bright visual palette and optimistic tone frame the post-diluvian world as a space of possibility rather than despair. Players are encouraged to embrace the situation, as flooding becomes the catalyst for renewal, both socially and environmentally. As a result, the game threats flood similar to that of Noah's Ark.

Reappropriated ruins serve as raw material for reconstruction. Meanwhile the use of bright, stylized visuals softens the harshness of inundation.

The game strongly offers agency. Players reshape, reclaim, and terraform the flooded landscape, effectively "taming" the environment. It also highlights the hidden possibilities of a transformed landscape, and also educates the importance of resource management and societal organization – both a significant issue in current climate change strategies.

Both Floodland and The Last of Us are a great example of how video games have the power to give agency to players. The players have the power to interact with their environment in a way that is impossible with other media. Due to the possibility of games to immerse the layers in the new conditions of life arising from climate change, it is a fantastic tool to pre-experience alternative futures. Unfortunately, a game design falls out of the scope of the thesis, but it will be considered in future projects.





Figure 8.
Top: Screenshot from The Last of Us Part II Remastered (Naughty Dog, 2020). Bottom: Screenshot from Floodland (Vile Monarch, 2022).

PLANET CITY
Liam Young, 2025-

Planet City reframes climate change not as an existential threat but as a radical design challenge. Although the premise emerges from alarming scientific data, the project does not dwell on catastrophe. The future it presents is extreme, but not dystopian. The threat becomes a catalyst for collective reorganization rather than a narrative of collapse. Moreover, the project focuses on utilizing existing technologies, instead of displaying futuristic technological solutions that cater only to the rich. The project embraces the cultural diversity that would arise if humanity would relocate to one megacity in order to let nature organically heal itself.

Young directly confronts multi-scalar complexity – the planetary scale of climate breakdown, the infrastructural scale of megastructural planning, and the intimate scale of human experience. Motion-picture sequences and VR environments capture macro-ecological and infrastructural vastness, while the upcoming graphic novel introduces micro-narratives, giving personal, lived perspectives within the megastructure. Scale becomes layered – planetary processes shape the city, while individual stories anchor it emotionally.

The use of multiple media creates a design universe that calls to the viewers differently, each complementing the other. Together, these media create a multisensory narrative that renders the speculative architecture emotionally legible and experientially accessible.

Planet City served as an example of how one project can significantly benefit from utilizing multiple media to create a universe whose elements each provide a different perspective on a possible future. The graphic novel of Planet City shows one of the most feasible methods of storytelling within an architectural project. While movies, VR, and games all have the power to add the narrative element to climate change that is desired, they are also extremely resource-intensive. For these reasons, the thesis only considered graphic novels and movies as potential media to represent the project. While creating graphic novels usually necessitates similar skills to those most architects already have, my previous experience in movie-making led me to choose the latter.

FLOODED LONDON
Squint/Opera, 2019

Flooded London by Squint/Opera reduces the immediate threat component by presenting a future flood scenario not as chaotic disaster, but as a tranquil utopia ("Flooded London," n.d.). The imagery suggests that, in 2090, sea-level rise has become a new normal – people go about their lives calmly, fishing from submerged buildings, living in adapted homes, and moving with ease in a changed city (ibid.). This speculative vision softens fear by imagining a stable, long-term adaptation rather than constant crisis.

Squint/Opera negotiates scale by focusing on familiar architectural landmarks – St Paul's Cathedral, Victorian terraces, Canary Wharf – to show how much of London could be underwater. The work hints at planetary-level climate change while anchoring its vision in sites that Londoners know intimately, making the future both vast and locally meaningful.

Rather than showing panic or failed systems, Squint/Opera imagines a future where humans actively adapt, redesigning how they live in waterlogged London. This re-imagining grants agency in the sense of adaptation and resilience, but it sidesteps the politics of failure or resistance by presenting a harmonious, long-term equilibrium.

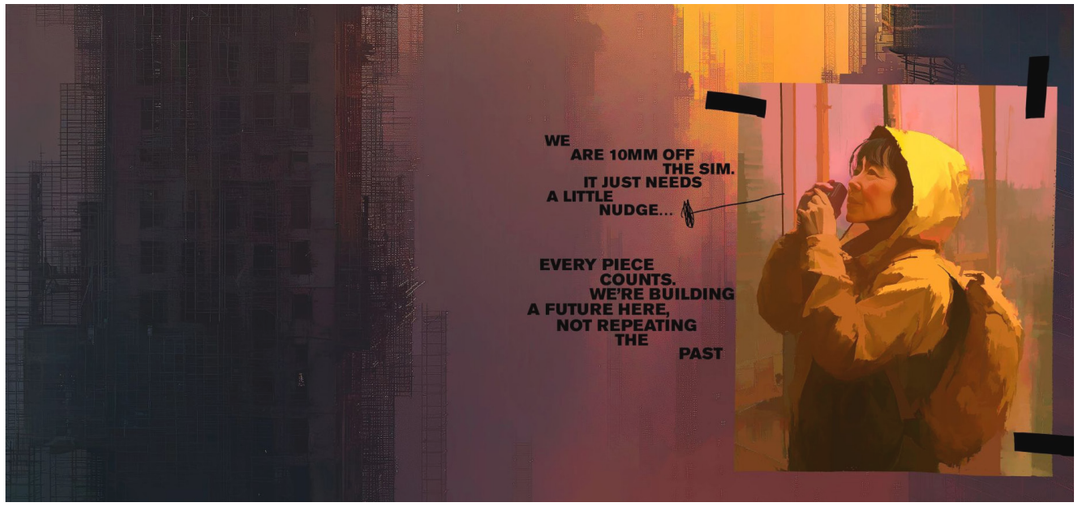




Figure 9.
Top: Illustration from the Planet City graphic novel (Young, 2025). Bottom: Image from Flooded London (n.d.).

ECOLOGICAL CONTEXT

This thesis is grounded in empirical scientific data and climate research, using these facts as the non-negotiable framework guiding every design decision. Because climate change unfolds across scales that exceed human perception, fiction and visual media become essential tools for translating abstract scientific knowledge into experientially meaningful, emotionally resonant architectural visions. By combining scientifically informed predictions with narrative and aesthetic modes of representation, the thesis bridges the gap between data and lived imagination, ensuring that its speculative future remains both scientifically credible and culturally relatable.

CLIMATE SCENARIO

Representative Concentration Pathways (RCPs) are scenarios outlining the time series of greenhouse gas emissions, defined by the radiative forcing (W/m^2) expected by 2100 ("Representative Concentration Pathway," 2025). According to the Climate Change Knowledge Portal (CCKP, n.d.), the high-end emissions scenario (RCP8.5) represents the extreme end of plausible climate change, projecting an estimated global average temperature increase of approximately 5–6°C by 2100, relative to pre-industrial levels (ibid.). RCP8.5 is commonly recognized as the "business as usual" scenario (ibid.). This scenarios provides the scientific framework to the thesis.

To determine the specific climate hazards affecting the design area, the thesis analysed current projections for Sweden. These sources identify the large-scale (macro) effects on the built environment. Meanwhile, to assess the small-scale (micro) effects, various global source – such as literary works, interviews, and personal documentaries are used – which more effectively extrapolate potential micro-scale outcomes for Gothenburg.

The following main climate hazard pose a threat to the urban fabric of Gothenburg based on the RPC 8.5 scenario:

- → Blue groundwater drought
- → Green water risks for agriculture
- → Pests in agriculture and forestry
- → Groundwater contamination
- → Salt water intrusion
- → Health risks due to rising temperature
- → Risks to terrestrial ecosystems
- → Risks in aquatic and marine ecosystems
- → Extreme rain events
- → Sea-level rise and related flooding
- → Landslides
- → Forest fires
- → Coastal erosion
- → Heatwaves

These hazards are compiled into a map of macro effects that will likely transform the city as we know it. Meanwhile interviews, documentaries and literary works provide reference for the macro scale transformations. The interplay of the macro and micro effects will form the final picture of Gothenburg in the year c.a. 2100.



Figure 10.
Jökulsárlón, Iceland (Elias, 2025).

CLIMATE HAZARD MAPPING

The map shows the interconnectedness of sudden and slow-onset climate hazards, as well as their consequences. Certain consequences are experiencing a compound effect, as multiple hazards lead to the same outcome.

SEA LEVEL RISE

"Early humans had no problem adapting to rising seas—they just moved to higher ground. But in the modern world, that's not so easy. There's a terrible irony in the fact that it's the very infrastructure of the Fossil Fuel Age—the housing and office developments on the coasts, the roads, the railroads, the tunnels, the airports —that makes us most vulnerable." (Goodell, 2018, p. 11).

In order to gain a broader perspective on the social, psychological, environmental, and political consequences of flooding, I analyzed real-world case studies in Jakarta (Indonesia) and Miami (USA).

Miami is facing almost 2 meters of sea-level rise by 2100 (Ariza, 2020). "An inundation of this magnitude would physically displace some 800,000 residents of Miami-Dade County — nearly a third of the current population — and render a large portion of the city uninhabitable (ibid.)." Additionally, according to Mario Alejandro Ariza, rising sea levels further exacerbate the city's social divide (ibid.). While affluent communities can implement advanced adaptation measures, lower-income neighborhoods receive considerably less support (ibid.). Moreover, as prime beachfront locations lose real estate value, well-off residents and investors are shifting their focus to higher ground (ibid.). Unfortunately, this relocation trend displaces lower-income residents from elevated areas, forcing them to settle in undervalued, flood-prone seaside neighborhoods (ibid.).

Flood-prone Jakarta is the world's fastest sinking city – sinking as rapidly as 20 centimeters per year. In parts of North Jakarta, which are particularly vulnerable to flooding, the ground has subsided by 2.5 meters over the past 10 years (Ng & Rivai, 2022). While Jakarta's challenges are partially due to excessive groundwater extraction, rising sea levels further exacerbate the situation (ibid.). The city's seawall is also facing significant issues, as it requires an annual elevation increase of 20 centimeters to keep pace with the rising water (ibid.). Even with the seawall improvements and plans to relocate the capital to alleviate urban stress, these measures might not sufficiently protect those residing in coastal areas. These regions are predominantly inhabited by fishermen, who depend on their proximity to the coast for their livelihoods and are largely unable to relocate (Vox, 2021). Additionally, another 10 million residents living inland are at considerable risk (ibid.).

These case studies underscore the importance of addressing flooding in situ, as relocation may not be a viable option for many communities, whether in developed or developing countries.

Gothenburg, Sweden, faces significant flood risk due to its coastal location and the accelerating impacts of climate change. Current projections indicate that the city may experience approximately a 1-meter sea level rise by 2100 (Jaramillo et al., 2021). However, emerging research suggests that under the high-emissions RCP 8.5 scenario, sudden ice sheet collapse events could drive sea levels to rise by as much as 2 meters by 2100 (Intergovernmental Panel on Climate Change (IPCC), 2023). In this thesis, a 2-meter sea level rise scenario is adopted to better account for the potential rapid, non-linear increase in sea level that could critically affect Gothenburg's built environment.

HEATWAVES

Sweden is expected to experience a significant increase in extreme heatwaves due to climate change. Recent studies applying the UNSEEN (UNprecedented Simulated Extremes using ENsembles) approach have identified a rising trend in heatwave intensity across Northern Europe, with a notable increase in the annual maximum intensity of these events (Berghald et al., 2024). Extreme heat events, defined as three-day heatwaves with high daily maximum temperatures, are projected to become more frequent and severe, with the probability of 100-year return period heatwaves rising since 1981. This suggests an escalating risk of extreme heat events, particularly in central Scandinavia, including parts of Sweden (ibid.).

The intensification of heatwaves will have widespread consequences. In agriculture, prolonged heat combined with drought conditions is likely to reduce crop yields and quality, as seen during the 2018 heatwave, which led to an estimated 6 billion SEK in economic losses for Sweden alone (Jaramillo et al., 2021). Additionally, higher temperatures will place significant stress on Sweden's forests, increasing the frequency of pest outbreaks and raising the risk of wildfires.

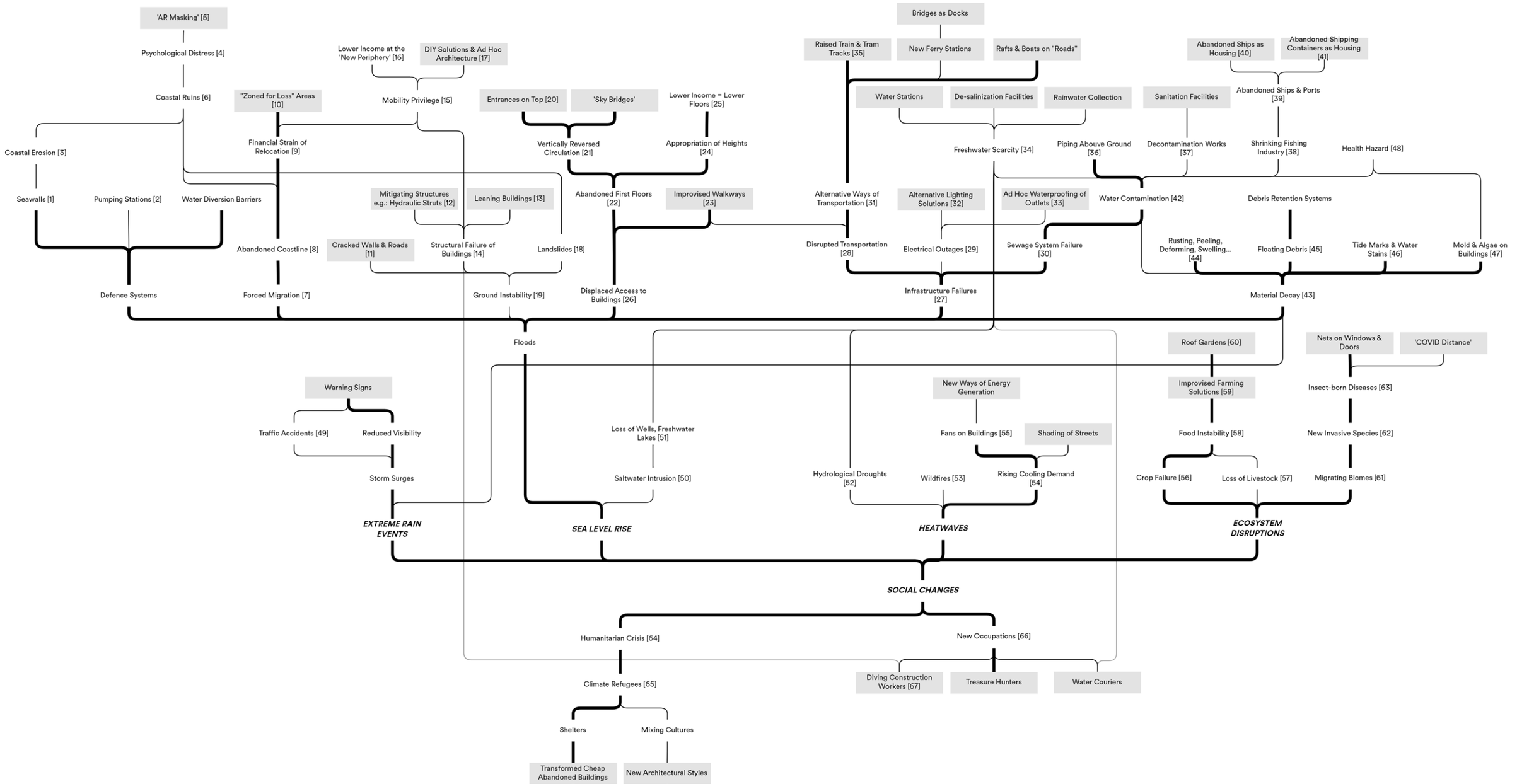
The consequences for human health and infrastructure are also substantial. Rising temperatures pose serious health risks, particularly for elderly populations and urban residents, who are more susceptible to heat stress and dehydration (Jaramillo et al., 2021). Cities are expected to experience the urban heat island effect, further amplifying extreme temperatures. Additionally, energy demand for cooling systems is projected to increase, placing additional strain on Sweden's energy infrastructure (ibid.).

ECOSYSTEM DISRUPTIONS

Climate change is expected to significantly disrupt Sweden's ecosystems, particularly through rising temperatures, altered precipitation patterns, and more frequent extreme weather events (Jaramillo et al., 2021). One of the most vulnerable sectors is forestry, where increasing temperatures and prolonged dry periods will place greater stress on trees, leading to higher rates of pest outbreaks and tree mortality (ibid.). As a result, the composition of Swedish forests may need to shift toward more drought-resistant species to maintain ecological balance (ibid.). Additionally, wildfire risks are expected to rise dramatically, as demonstrated by the extreme 2018 wildfires, which burned large areas of boreal forest (Forest Fires Sweden, n.d.).

Sweden's aquatic and marine ecosystems are also at risk (Jaramillo et al., 2021). Rising sea levels and increased salinity threaten coastal and marine biodiversity, while warmer waters are expected to lead to harmful algal blooms, which could negatively impact fish populations (ibid.). Freshwater ecosystems will experience higher evaporation rates, reducing habitat availability for aquatic species and altering the ecological balance of lakes and rivers (ibid.).

Agricultural systems will face increasing challenges due to shifts in precipitation patterns (Jaramillo et al., 2021). Frequent summer droughts and waterlogged soils in winter will disrupt traditional farming cycles, making it more difficult for farmers to maintain stable production levels (ibid.). Additionally, rising temperatures will enable the spread of invasive pests and diseases, further threatening both native biodiversity and crop yields (ibid.).



The in-depth analysis of climate hazards creates an intricately interwoven cause–effect network. This network depicts how certain climate forces lead to compound effects. The majority of the depicted forces eventually culminate in a physical embodiment in the built environment. Subsequently, the analysis is used as a blueprint for future modifications to the built environment as we know it.

The effects of the climate forces (hazard) are expressed in the final design project.

Physical changes of the built environment.

Figure 11.
Climate hazard map. Made by the author.

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DESIGN

EXTRACTION & PROJECTION

The effects of climate change are depicted within a speculative location in Gothenburg. This location is constructed as a collage of well-known parts of Inom Vallgraven. These effects are subsequently projected onto the site, articulating a speculative response to the climate challenges Gothenburg faces.

The project focuses on the areas of Gothenburg most at risk from climate-related hazards, focusing in particular on locations where the past and future intersect - namingly; Inom Vallgrawen. These sites offer the potential to create a deeper emotional connection between the work and its audience, as people tend to relate more strongly to the familiar. Moreover, as Dunne and Raby discusses, for speculative fiction to be relatable, it must have a connection to the here and now (Dunne & Raby, 2013).

The fictional environment merges recognizable architectural and morphological elements from the city's historical core with a deliberately artificial layout. The goal is to create a composite streetscape – one that brings together multiple coping strategies within a single, speculative scenario. While the configuration itself is invented, the architectural language remains familiar enough to prompt the viewer to think: *this could exist here.*

1 House of Emigrants



3 Stora Badhusgatan 28-37



2 Skeppsborn & Stenpiren



4 Esperantoplatsen 7-9



→ ***1-4*** *Reference to the building morphology and architetcural elements.*

→ ***5*** *References to the spatial layout after flooding becomes secluded islands of building blocks.*

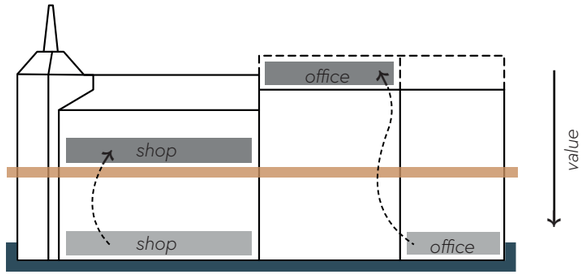
Figure 12.
Top left: The House of Emigrants, Gothenburg (Casino Cosmopol, n.d.). Top right: Stora Badhusgatan 28–37 (Stora Badhusgatan 30, n.d.). Bottom left: Stenpiren, Gothenburg (Henry & Sjödén, 2019). Bottom right: Photograph of Esperantoplatsen, Gothenburg (Otrębski, 2014).



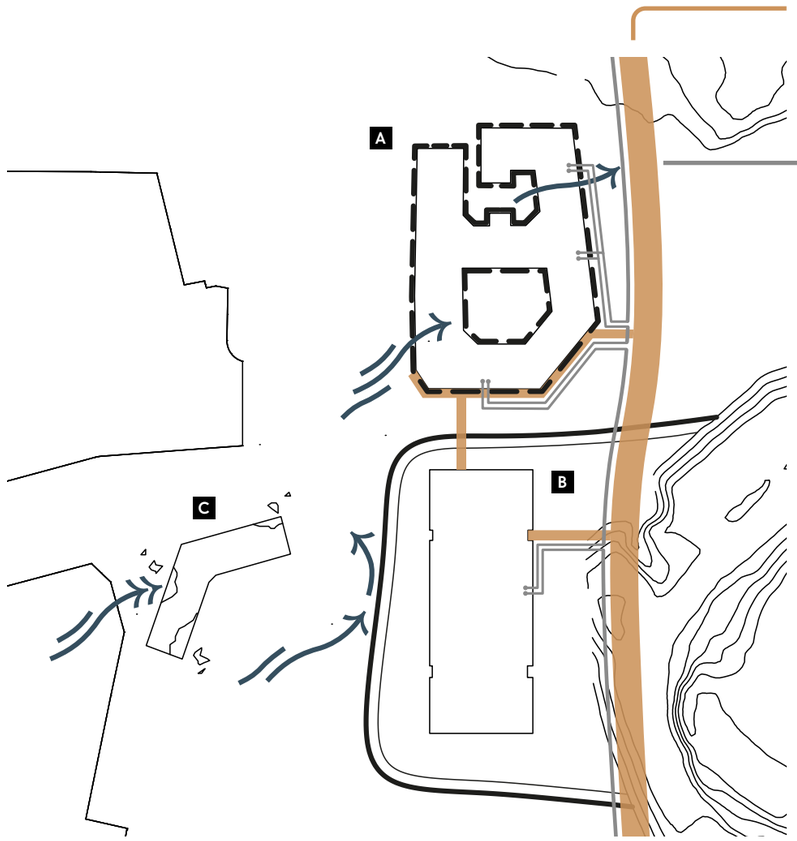
Figure 13.
Gothenburg after a 2 m sea-level rise. Made by the author.

DESIGN PRINCIPLES

The design reorganizes the flooded city as a new spatial system. Rising waters fragment the existing fabric into island-like units, demanding new connections, new ways of inhabiting existing structures, and new strategies for deciding what is preserved, adapted, or abandoned. The following principles illustrate how the city adapts to the altered conditions caused by the previously identified climate hazards.



→ ***New spatial hierarchy***
Functions migrate upwards; creating a vertical socio-economic segregation.



→ ***Main infrastructure***
The structure of the tramline carries people, goods, and ***utilities****.*

ADAPTIVE ZONING
The buildings

→ ***'A' Wet-proofing***
Valuable buildings

→ ***'B' Dry-proofing***
Most valuable buildings (heritage, public buildings etc.)

→ ***'C' Zoned-for-loss***
Least valuable buildings, (coastline buildings with few occupants)

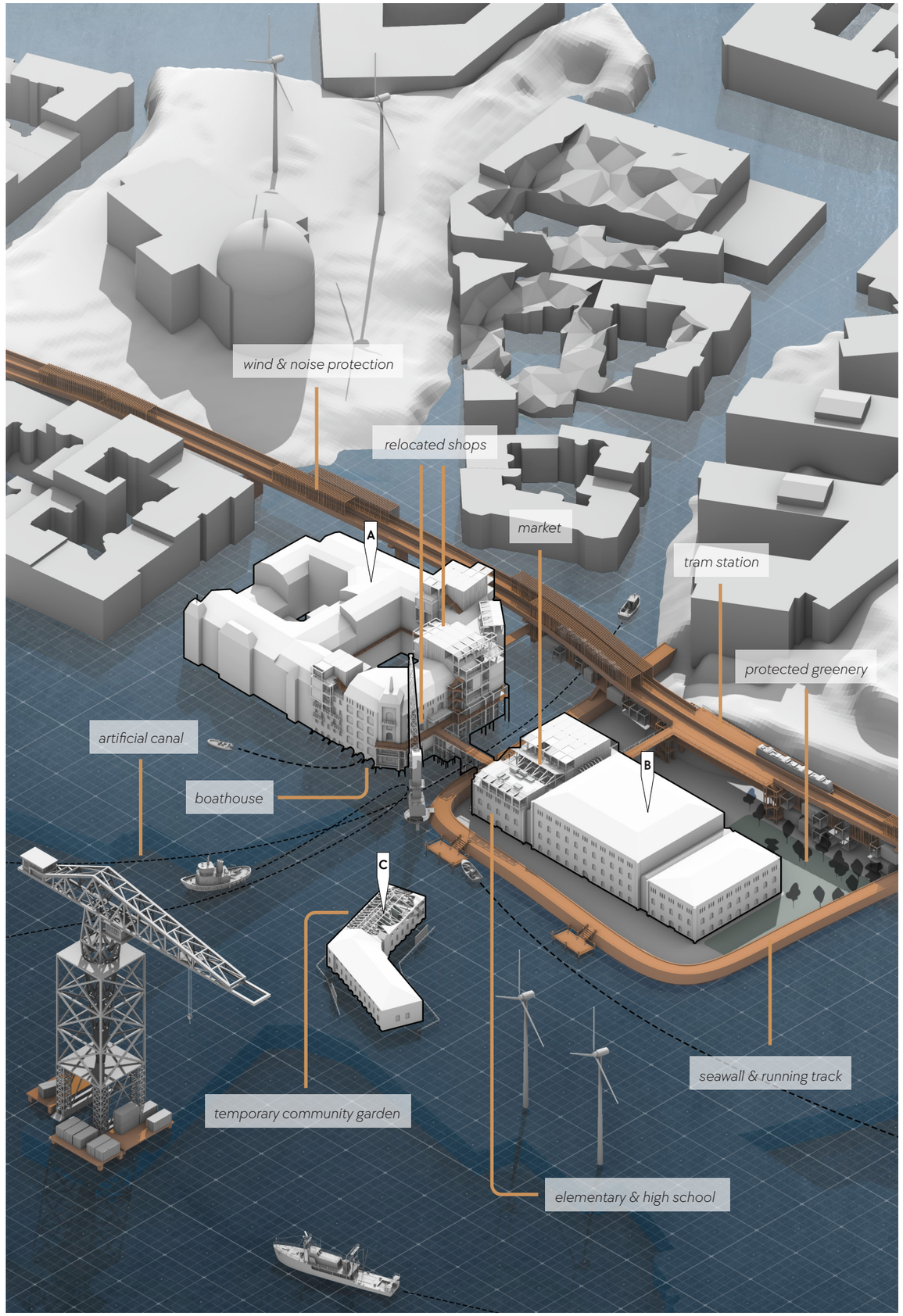
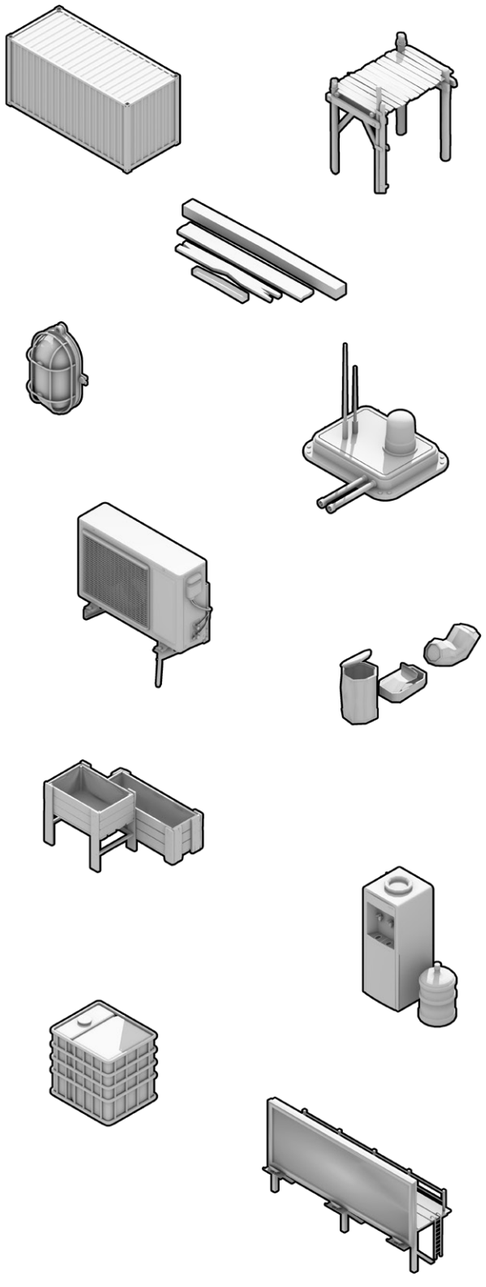


Figure 14.
Left: Design principle diagrams.
Right: Axonometric site view. All images are made by the author.

The influx of climate migrants, combined with inner migration within the city, increases the demand for density in preserved urban buildings and blocks. This pressure gives rise to creative expansion strategies, such as repurposing infrastructure as additional space, transforming rooftops, and extending balconies.



→ ***Excess materials***
Abandoned ports and decline in shipping leads to surplus of shipping containers. While migrating biomes results in increased forestry, thus a surplus of wood.

→ ***New material cycles***
Buildings zoned for loss act as extra material sources.

→ ***Vertical expansion***
Roofs provide sites for new housing and public programs.

→ ***Warning beacons***
Industrial warning lights are used to signal sudden heavy storms and high waves.

→ ***Rising cooling demand***
Facades became populated with visible air-conditioning units due to the extreme heatwaves.

→ ***New greenery***
Hydrological droughts lead to severe crop losses, while flooding causes the decline of urban green areas. Rooftop and temporary community gardens help counteract these impacts.

→ ***Excessive marine debris***
Protective nets are used to catch the debris from flooded structures enter unwanted places.

→ ***Freshwater scarcity***
Retention tanks and public dispensers are placed around to tackle freshwater scarcity due to saltwater intrusion.

→ ***New urban signs***
E.g.: water-level markers, storm forecasts, roadblocks.

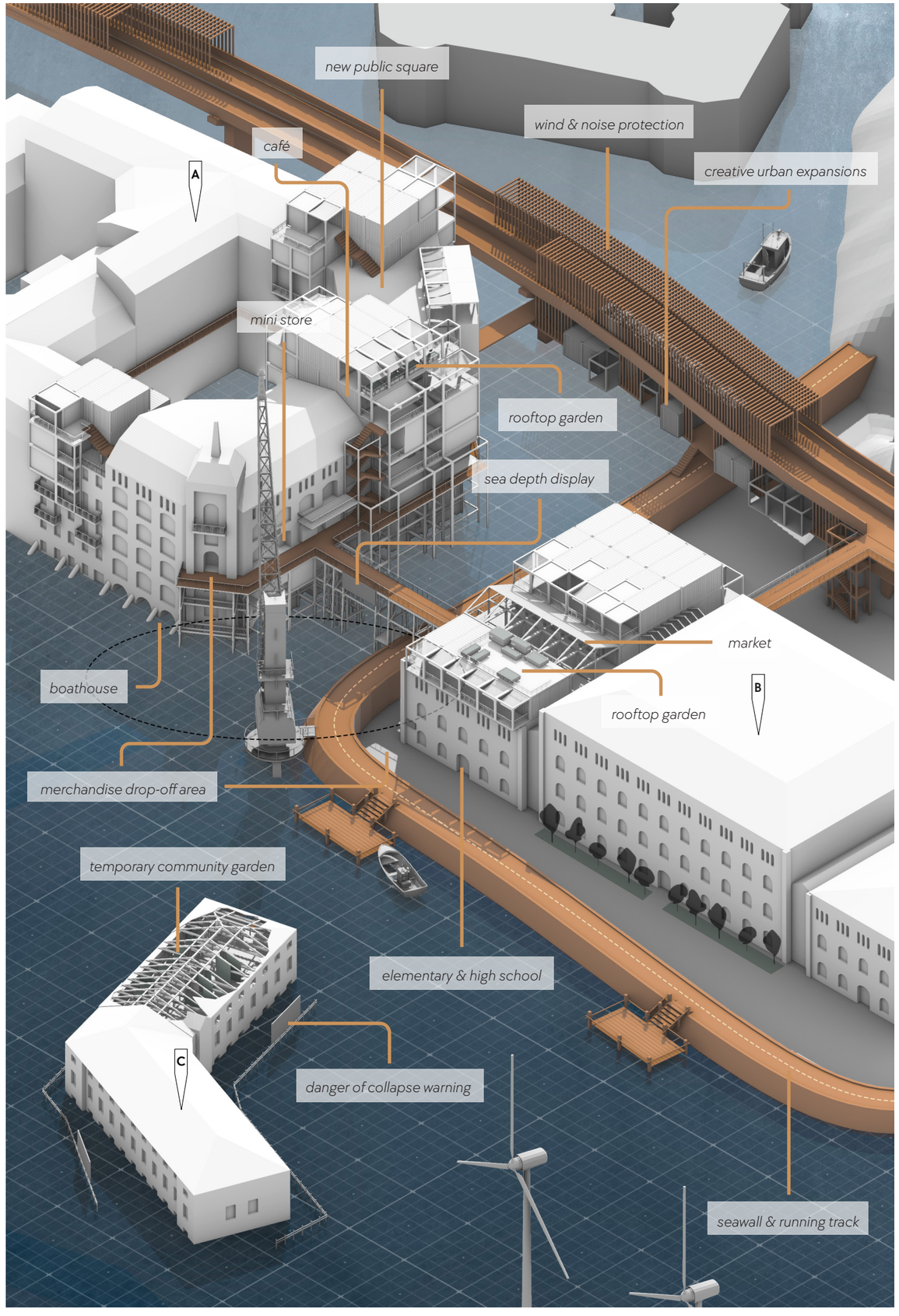


Figure 15.
Left: Micro design details. Right: Axonometric site view. All images are made by the author.

SCREENPLAY & NARRATIVE

Narrative storytelling allows audiences to connect with presented ideas on a deeper, more emotional level. The project places the built environment at its centre by showing images of a speculative future city, while the audience hears a phone conversation between a couple. The conversation refers to the environment depicted in the images, yet conveys the everyday lived experience of the citizens.

WIFE (V.O.)
Hey love. You okay? It sounds a little windy over there…

HUSBAND (V.O.)
Yeah… probably the storm leaning in early. The air's been restless all morning. Anyway — what's up?

WIFE (V.O.)
I was thinking… when you go pick up Emma, could you swing by the shop? The pipes are acting up again, and I don't trust the tap. It'd be good to have bottled water, just in case.

HUSBAND (V.O.)
Mm. I would if I could — what time were you thinking?

WIFE (V.O.)
Before school lets out. If we don't grab it now, it'll all vanish by evening. You know how everyone rushes when the filters hiccup.
Oh — and don't forget the cake for Grandpa. He'll ask about it the moment you walk through the door.

HUSBAND (V.O.)
Sure. Should I go to the market over the school, or that new place on the third floor?

WIFE (V.O.)
The market. If we're lucky, they're still open…

HUSBAND (V.O.)
Ahhh… there it is. They've just cancelled the trams. The tide chart was right again — the storm front's pushing harder than they hoped. Everything's down for safety.

WIFE (V.O.)
Of course. These days… everything rises and falls with the tide.

HUSBAND (V.O.)
I could try hitching a boat, but with this wind… not the smartest idea.

WIFE (V.O.)
I'll take care of it then. But if I have to run to school and back, I won't have time to cover the cucumbers in the garden.

HUSBAND (V.O.)
Let them float.
Really. I was already thinking we could move everything to that plot in the centre — the one with the steadier walls.

WIFE (V.O.)
All right then. Maybe this time our vegetables won't grow sea legs.

HUSBAND (V.O.)
…God, I can't wait for the weekend. The sailing competition's going to be gorgeous after the storm — all that light breaking across the water again.

WIFE (V.O.)
All right. I'll go pick up Emma. Stay dry, my love.

HUSBAND (V.O.)
You too. Love you.

WIFE (V.O.)
Love you.

Scan to see the full movie



→ ***Blurred boundaries between industrial spaces and urban life***
Smaller cargo ships enter the city as they deliver goods to the blocks.



→ ***New access points***
The groundfloors are repurposed as boathouses. Shops relocate to higher floors.

→ ***Protective nets***
Protective nets are used to prevent the marine debri from entering unwanted spaces.



→ ***Alternative methods of transportation***
The seawalls serve as boat docks, recreational area as a bycicle route and fishing pier.

→ ***New urban signs***
Signs warn of the water depth, fishing restrictions, tide news.

→ ***Alternative connections between urban blocks***
New passageways connect the urban blocks and create meeting points.



→ ***Businesses relocate to higher floors***
Cafés, shops, markets utilize the rooftops and new passageways.

→ ***New protection against heatwaves***
The passages and rooftops are covered with retractable fabric shaders, while houses are equipped with air-conditioners.



→ ***Weather events effect public transport***
New warning signs are placed around the city to warn of suddent weather events.



→ ***Constructions from repurposed materials***
The decline in shipping industry free up containers that are used as building material.



→ ***New green areas are created***
The decline in green urban spaces and issues with food production necessisate a creation of new spaces.

→ ***Temporary architecture***
Structures of lower value are not equipped with protective measures against the tides. They are utilized for temporary functions until their structure is intact.



→ ***Storm warning signs***
The streetlights now serve also as weather warning signs in case of sudden storms, and higher tides.

DISCUSSION

As scholars have discussed, climate fiction as a genre has the potential to exert a positive ecopolitical influence (Goodbody and Johns-Putra, 2019). It may do so by broadening the scope of possible futures (Dunne & Raby, 2013). Though climate fiction works do not act as prescriptions for the future, they can inspire discussions that may lead to tangible action (Dunne & Raby, 2018). Following this line of reasoning, the thesis sheds the practical limitations of reality and envisions a future where society invests in saving cities from loss due to sea-level rise. The project shows how a collage of already existing technological solutions, paired with a reasonably flexible society, has the potential to create an environment and atmosphere that is both liveable and enjoyable, with its own quirks and uniqueness. The thesis also demonstrates that, while climate change comes with a sense of urgency, a gradual transition of the urban environment toward flooding is plausible. However, it is important to acknowledge that while the thesis showcases a variety of technological supports for maintaining a lively urban environment in flooded areas, the actual feasibility of all of the represented solutions was not analysed in depth. Thus, although they appear plausible from a conceptual standpoint, further technical investigation is required.

During the process, the thesis also aims to address the challenges of representing climate change in a way that avoids producing a paralysing effect on the audience. As mentioned in the primary research, climate fiction often falls into the pitfalls of dystopian representations, wherein overwhelmingly negative depictions of the future produce paralysis rather than action (Bartha-Mitchell, 2023). Yet climate fiction must remain grounded in scientific knowledge in order not to be dismissed as mere artistic speculation (Dunne & Raby, 2013). This dual need for scientific grounding and emotional accessibility calls for a form of realistic optimism. In the project, scientific grounding is provided by an in-depth analysis of the effects of climate change on Gothenburg, which are subsequently represented through the architectural gestures. Meanwhile, the project depicts the possibilities that emerge within the transformed environment—such as fishing from seawalls or having coffee in a second-floor café with a waterside view. At the same time, the narration hints at everyday complications that may still arise. And while these complications suggest ongoing struggles, the characters also indicate that with flexibility and continual adaptation it is possible to maintain a comfortable life in this altered environment.

Naturally, this result may not be attainable for many real-world cities facing similar threats, and the thesis does not seek to undermine the struggles of communities endangered by climate change. Rather, it aims to explore how imagination, when grounded in scientific plausibility, can broaden the realm of conceivable responses.

The speculative nature of the project ensured that emphasis was placed on experimenting with multiple design solutions, rather than striving for an outcome that could be immediately constructed. The very knowledge that the project aimed not to be built, but to explore alternative design worlds, opened up greater creative freedom in imagining responses to climate change.

Moreover, the speculative framing meant that the project became not only an architectural design task but also a world-building exercise. This shift in approach prompted consideration of broader societal effects, as well as a reassessment of existing urban structures. The design perspective expanded – from buildings and functions toward imagining the everyday narratives that might unfold within a transformed urban environment, and then adjusting the architecture to mirror those narratives. As Robert Yeates (2021) notes, climate fiction is deeply shaped by the media through which it is produced. This insight resonated with the project, as the aim to tell a narrative through cinematic means further directed the focus toward depicting stories *with* the architecture, rather than simply placing a story *within* the built environment.

The use of non-conventional media for architectural representation, combined with the nature of climate fiction, highlighted the importance of experimenting with the role of the architect. Throughout the thesis, the author navigated multiple roles – architect, filmmaker, urbanist, storyteller – and this multiplicity resulted in a more organic approach to representing and designing a future city. This interdisciplinary positioning suggests that speculative practice may demand new hybrid competencies from architects working in the climate crisis era.

In conclusion, while it is naturally impossible for all architectural projects to invest the time, energy, and expertise needed to depict their visions through alternative media, it remains a valuable tool when addressing radical transformations of the environment. Moreover, climate fiction and storytelling possess the capacity to render the abstract and cognitively distant nature of climate change visible, inspiring people to consider bolder, more imaginative solutions. In other words, speculative fiction offers architecture a methodological toolset by enabling the suspension of present-day constraints – economic, political, or material – so that alternative patterns of living can be prototyped at an imaginative scale. This thesis demonstrates that when architecture engages speculation not merely as visualisation but as narrative world-building, it becomes possible to articulate forms of social organisation, mobility, material use, and spatial occupation that exceed what is currently considered feasible.

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AI APPENDIX

AI has been used to translate texts from Swedish to English and in order to understand its content using prompts like ,,translate to English". AI was also used to tackle technical issues while using the softwares Blender and Unreal Engine, specifically when data exchange between the two softwares were challenging. Additionally, grammar check was executed by using Grammarly (https://app.grammarly.com/).

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APPENDIX

AFTER THE FLOOD - EXTENDED

Written by

Aletta Zsuzsanna Tóth

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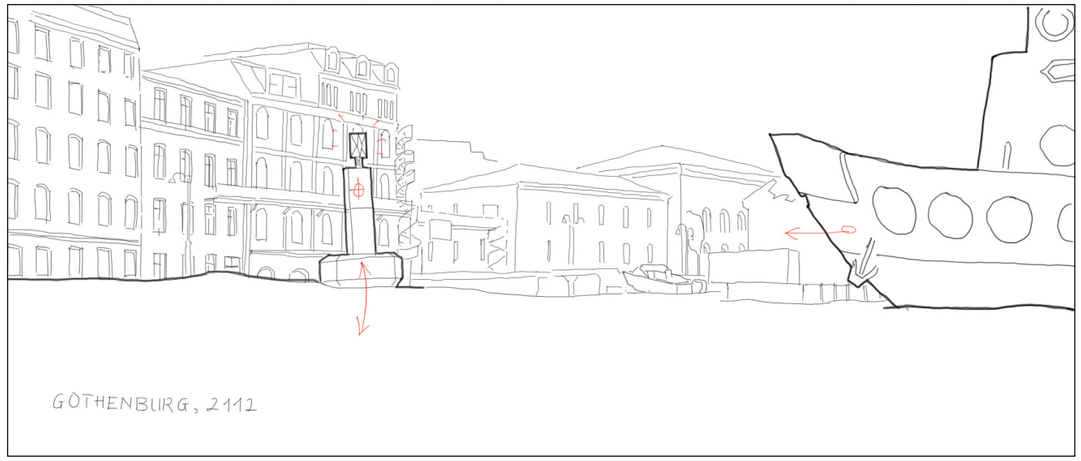
EXTENDED VERSION

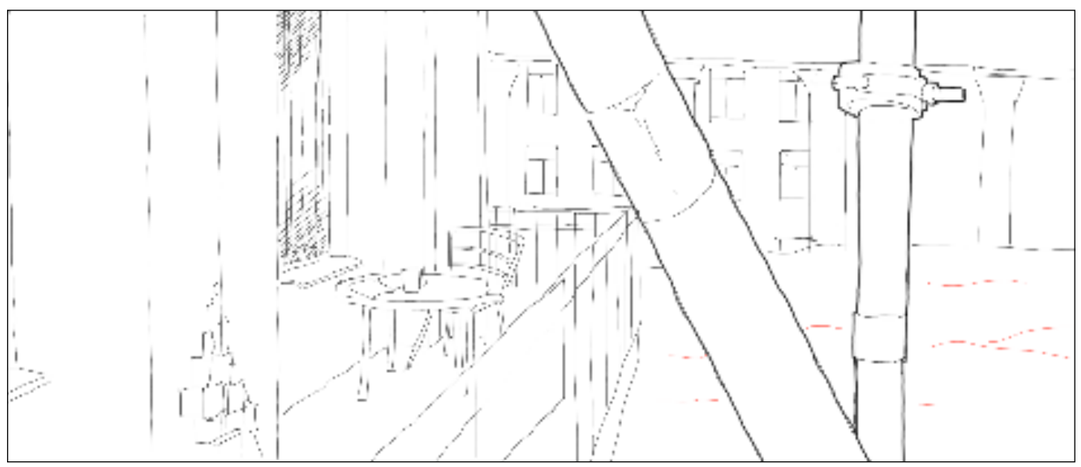


TITLE SCREEN

Black screen with title appearing “After the Flood”.

SCENE 01 - EXT. ESTABLISHING SHOT, STREET - EARLY MORNING

Location text fading in and out: “Gothenburg, 2112”. Wide street view. Camera tracking and focusing on a buoy slowly rocking on the water. Morning fog lingers over still water. A larger ship enters from the right and camera focus slowly changes to background where a row of buildings stands partly submerged. (WS/LOW ANGLE)



SCENE 02 — EXT. APARTMENT BLOCK — EARLY MORNING

Balcony of the first floor, where an empty coffee mug sits forgotten on a small table. Clothes sway slightly on a line above. (MS/HIP LEVEL)

EMILY (V.O.)
Mom!

GIULIA (V.O.)
Yes, dear? Everything all right?

EMILY (V.O.)
I forgot my model at home. Can you bring it in?



The camera glides toward a window. Inside, through the misted pane, a small architectural model sits untouched on a table near the door. The faint buzz of a phone vibrates the silence. (MCU/HIP LEVEL)

GIULIA (V.O.)
Can’t you show it tomorrow?

EMILY (V.O.)
Moooom! Nooo! Everybody presents today!

GIULIA (V.O.)
Okay, okay. I’ll bring it. And don't forget that Nonno will pick you up from school today!

EMILY (V.O.)
Okay. Thanks, Mom!

SHARP CUT.



SCENE 03 — EXT. BALCONY — MID MORNING

Camera pans out from the balcony, showing a passing tram on a corroded tramline rising above the street, elevated on steel legs. A digital sign blinks from green to red: “ TIDE DELAY — ALL TRAMS POSTPONED.” (FS/HIP LEVEL)

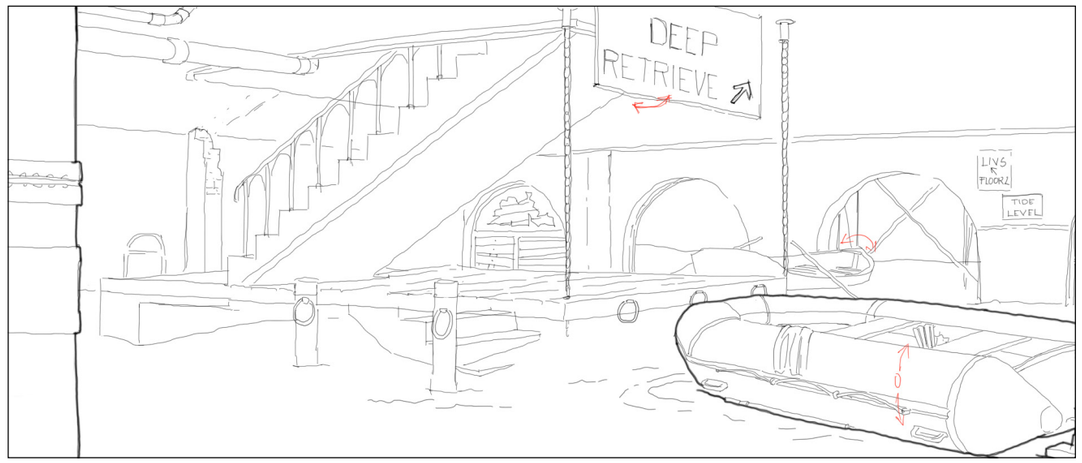
GIULIA (V.O.)
Gabriel? Emily forgot her model at home. I promised to bring it, but the trams are postponed again.

GABRIEL (V.O.)
(sighs)
Yeah, sure. I was going to cancel today’s appointment anyway.

GIULIA (V.O.)
I can’t wait to move to the outskirts.

GABRIEL (V.O.)
Me neither. But at this rate, we’ll be watching moldy walls a while longer.

GIULIA (V.O.)
Thanks, amore. See you at home.



SCENE 04 — INT. SUBMERGED BASEMENT — LATE MORNING

Slightly disintegrating brick walls surround a concrete stairwell that disappears into black water. Boats are anchored to the newly-built dock around the stairwell. A diver's west casually draped over one of them. A small sign with an arrow pointing up the stairs hang from the ceiling: “DeepRetrieve / Personal Item Recovery” and "LIVS / FLOOR 2" (MFS/KNEE LEVEL)

Waves slap faintly. A muffled ringtone echoes.

GABRIEL (V.O.)
Hi, Mrs. Johansson. This is Gabriel from DeepRetrieve. I'm calling because, unfortunately, I have some bad news. We’ll need to postpone today’s expedition—there’s a storm warning, and it’s not safe to dive.

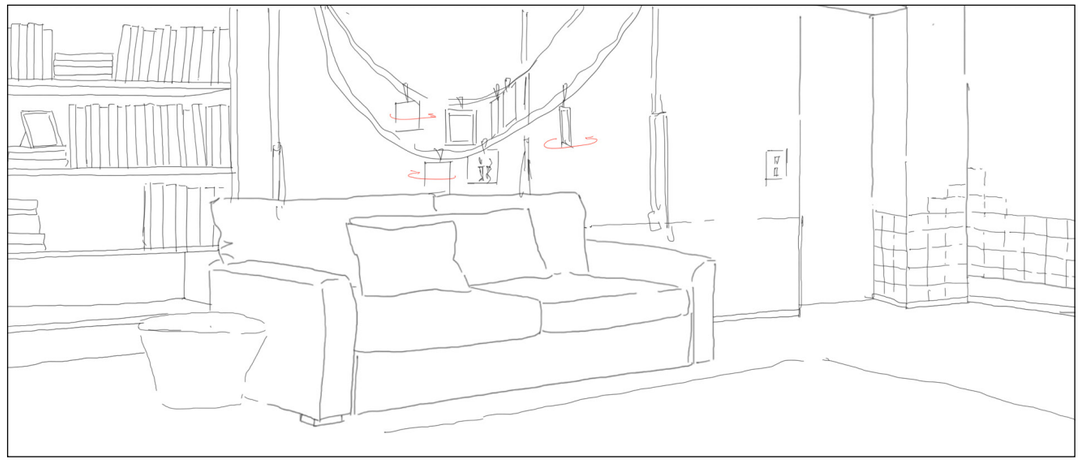
MRS. JOHANSSON (V.O.)
What? No! I’ve been on the list for months!
(MORE)

MRS. JOHANSSON (V.O.) (cont'd)
I paid your outrageous price and my grandmother’s photo album is still rotting underwater!

GABRIEL (V.O.)
I understand, and I’m truly sorry, but diving today would be dangerous. We’ll try again early next week.

MRS. JOHANSSON (V.O.)
Un-fucking-believable!

A sea bird shrieks as the line clicks off.



SCENE 05 — INT. LIVING ROOM — AFTERNOON

Living room of the family. Ropes connect the ceiling and the furniture. Laminated photographs—faded family images from Italy, beach scenes, and a torn drawing of a lemon tree are clipped on the ropes. The photos gently move in the breeze. (MCU/LOW ANGLE)

A faint click as a call connects.

GABRIEL (V.O.)
Hey, you headed home yet?

GIULIA (V.O.)
Just leaving now.

GABRIEL (V.O.)
Could you run up to the shop first? We’re low on rice, and the pipes are acting up again.

SHARP CUT.



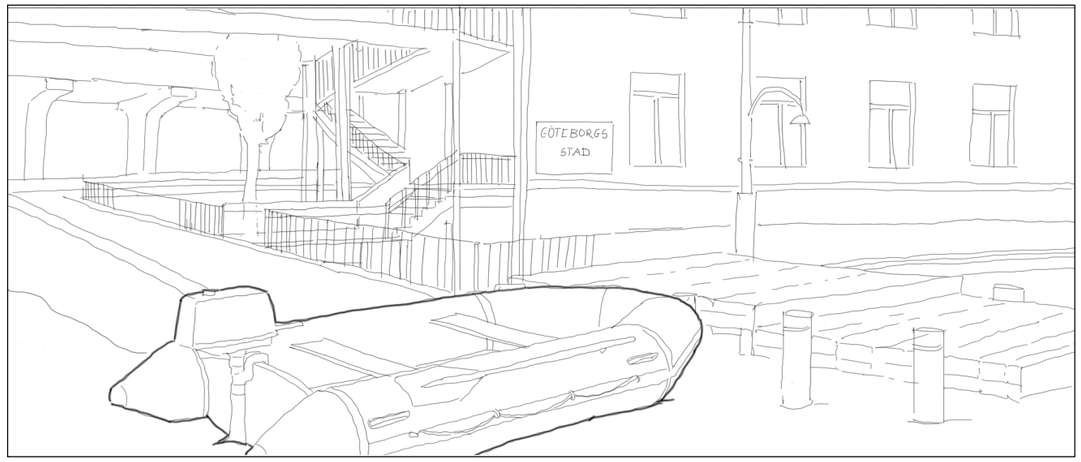
SHARP CUT.

Golden light filters through storm clouds. On the second floor, an originally apartment window is now filled with goods displayed. A soft orange neon sign glows: “LIVS — FLOOR 2.” A crane slowly lifts up a pallet with goods from a boat (off screen). (MCU/KNEE LEVEL)

GIULIA (V.O.)
(sighs, soft chuckle)
Again?

GABRIEL (V.O.)
Yeah. The neighbors said the filter tank’s flooding from the backflow.

GIULIA (V.O.)
Alright. I’ll go. Hopefully they still have bottled water left.



SCENE 06 — EXT. SCHOOL COURTYARD — LATE AFTERNOON

The heritage building of the school is surrounded by a seawall. Old bricks meet new. A boat dock is connected to the wall, and a couple of electric boats swing on the water. The school is connected to the apartment building. "GÖTEBORGS STAD" sign on the building. (FS/FLOOR LEVEL)

EMILY (V.O.)
Mamma? Can I go to the garden with Nonno? Just for a bit? I'll wear the waterproofs!

GIULIA (V.O.)
Not now, dolcezza. The wind's picking up. Tell your pa to come home directly!

EMILY (V.O.)
But I wanted to see his onion flowers before they close…

GIULIA (V.O.)
Tomorrow, if it's calm. We can play… I don't know… [game]? Or that [game] you love.

EMILY (V.O.)
(sighs) Okay.

Birdsong echoes briefly, cut by the faint creak of boats.



SCENE 07 — INT. COMMUNITY GARDEN ROOFTOP — EARLY EVENING

A building with a missing rooftop, timber pieces sticking out. Makeshift planters stretch across the now-open top floor. "ZONED FOR LOSS / Evacuate by 2114" billboard attached to the ruins. The old windows have been removed, leaving raw frames open to the wind. Small vegetable plantations in raised garden beds lightly swing in the wind. (MS/LOW ANGLE)

A ringtone buzzes.

NONNO (V.O.)
You forgot your tarp again, Gustav.

GUSTAV (V.O.)
Ah, I know. I was rushing. Might not be back till next week.

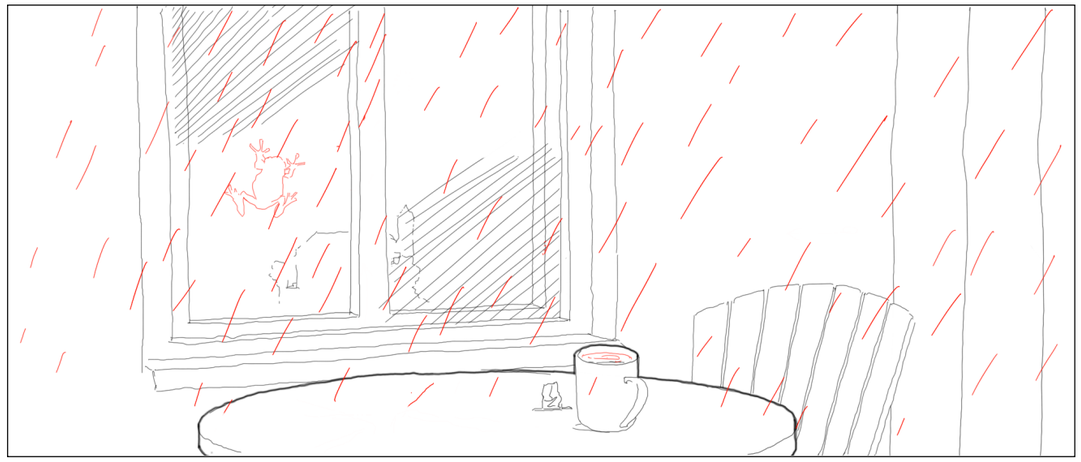
NONNO (V.O.)
Storm's coming. Your cucumbers are gonna take a swim.

GUSTAV (V.O.)
Let 'em. Got a spot on Kungsgatan now. Some developer cleared an old clinic. Stable foundation and ~~sun all day.~~ This plot's nearly up anyway, right?

NONNO (V.O.)
Two years, give or take. If it doesn't drop sooner.

GUSTAV (V.O.)
Well... let the storm have it, then.

The building creaks subtly, as if breathing.



SCENE 08 — EXT. BALCONY (ID. SCENE 03) — EVENING

The mug on the balcony is getting slowly filled up with rainwater, a two frogs creep up on the insect net of the window.Plastic chairs are stacked and tied with ropes. Laundry has been pulled in. A torn awning slaps against its hooks. The storm is coming, and everything seems to lean in anticipation.(ECU/HIP LEVEL)

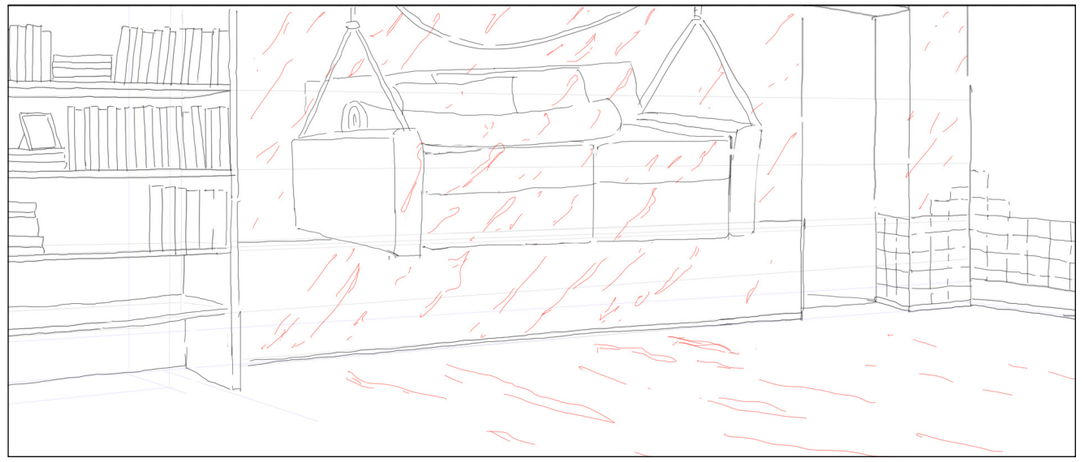
SOUNDS: Wind whistling through railings and wind bells. Frogs creaking. Rain tapping on metal. Distant thunder. Occasional gull call.

GIULIA (V.O.)
Em! Come inside now, the wind’s picking up.

EMILY (V.O.)
One second!

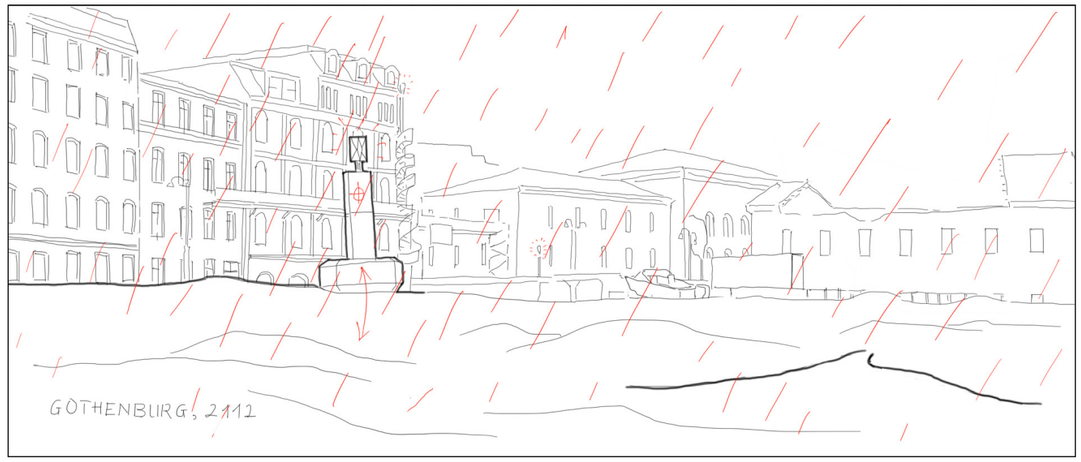
GIULIA (V.O.)
Help me move the photos. I need the ropes for the furniture.

EMILY (V.O.)
But I just hung them this morning…



SCENE 09 — INT. LIVING ROOM (ID. SCENE 05) — EARLY NIGHT

The furniture has been raised by the ropes, the photos have been taken down and the empty clips left on the ropes. A child’s rubber boots are stacked on a crate above the floor. Shadows from rainwater reflections dance across the back wall of the room.(MCU/LOW ANGLE)



SCENE 10 — EXT. STREET (ID. SCENE 01) — NIGHT

Main street facade. Tides is lapping up the walls. Storm lights calmly signaling on the corners of buildings in pink hue. A TV screen glows in an apartment window. (FS/LOW ANGLE)

SOUNDS: Wind howling. Water sloshing.

TV BROADCASTER (V.O.)
And that's your storm update for tonight, folks! The worst should pass before morning, and it looks like the skies might just clear in time for this year’s Stena Match Cup!

TV BROADCASTER (V.O.) (CONT'D)
Don’t forget—last-minute tickets are still available for the best waterfront viewing spots. It’s going to be a windy one!

Camera pan out to wide street view. Buoy slowly entering the frame. Tides are higher. The buoy rapidly moves with the wilder waves. The larger ship is anchored down further away. Storm lights calmly signaling on the corners of buildings in pink hue. A street lamp in front of the school gradually blinks out. Dark clouds moving faster in the sky. (WS/LOW ANGLE)

TV BROADCASTER (V.O.)
From all of us here at Channel 9—goodnight, Sweden. Stay dry out there.

Click. The TV screen goes black. Rain/sea water blurs the camera lens.

FADE TO BLACK.

Just the sound of dripping water and the faint howling of the wind.

ALETTA ZSUZSANNA TÓTH
AUTUMN, 2025

CHALMERS SCHOOL OF ARCHITECTURE
DEPARTMENT OF ARCHITECTURE AND CIVIL ENGINEERING
ARCHITECTURE AND URBAN DESIGN, MPARC


ZONED FOR LOSS