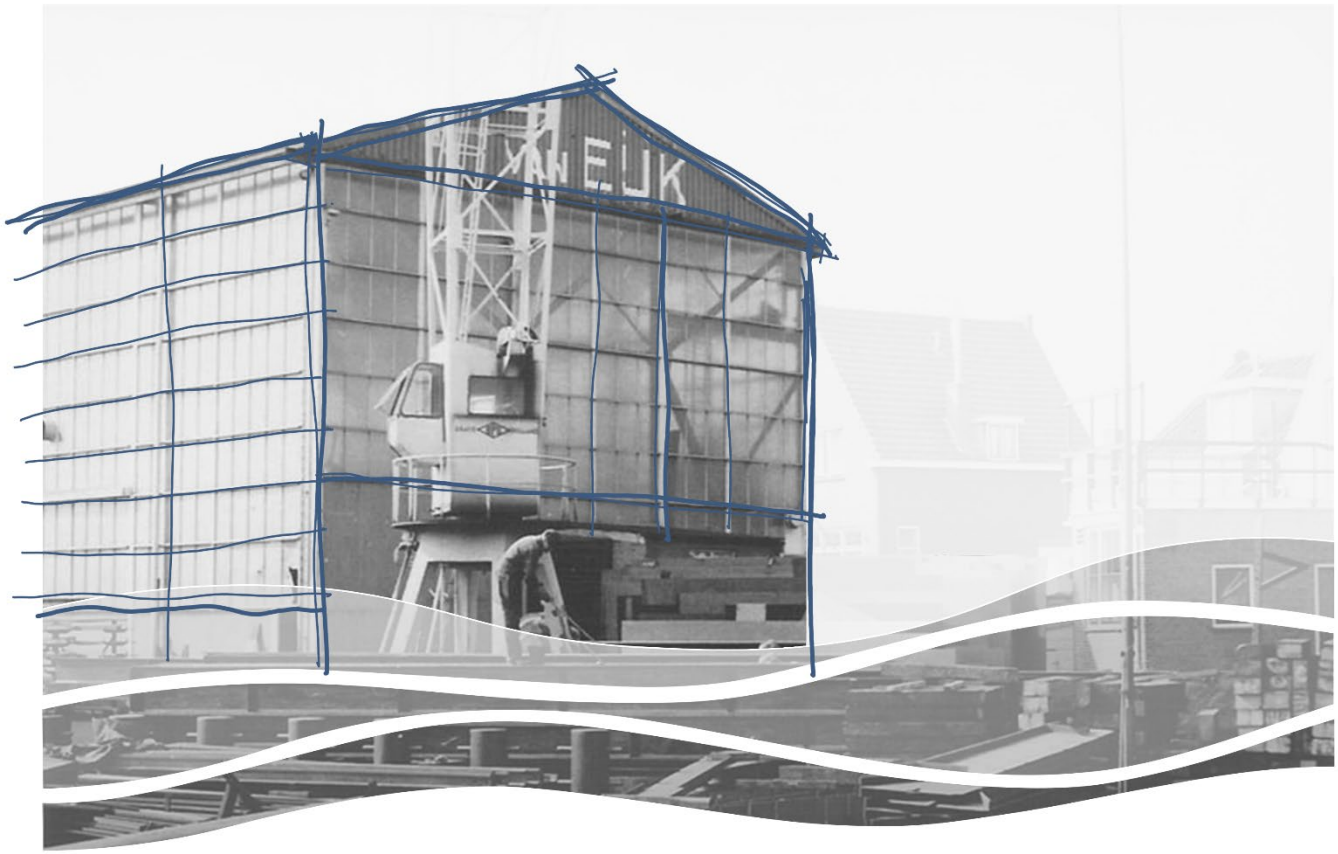
Transparent Water: water education through design

Erfgoedlijn Maritieme Industrie



AR3AH115 Research Paper
Sari Naito | 21 March 2025

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1. Introduction

1.1 The *Erfgoedlijn Maritieme Industrie* and the Van Eijk shipyard

In a country which prides itself on a rich history with its waterscape, the management of water and its quality is an inevitable aspect of society in the Netherlands. Yet with rapid industrialisation, scientific advancements, and other societal developments that helped the country soar economically in the past two centuries, there has been an apparent neglect of the environmental consequences. This trend is no exception in the design location in South Holland, and municipalities have been aiming to increase public attention on dealing with water by incorporating historical narratives and climate awareness through the collaborative 'Erfgoedlijn Maritieme Industrie' scheme (Rijksdienst voor het Cultureel Erfgoed, n.d.).

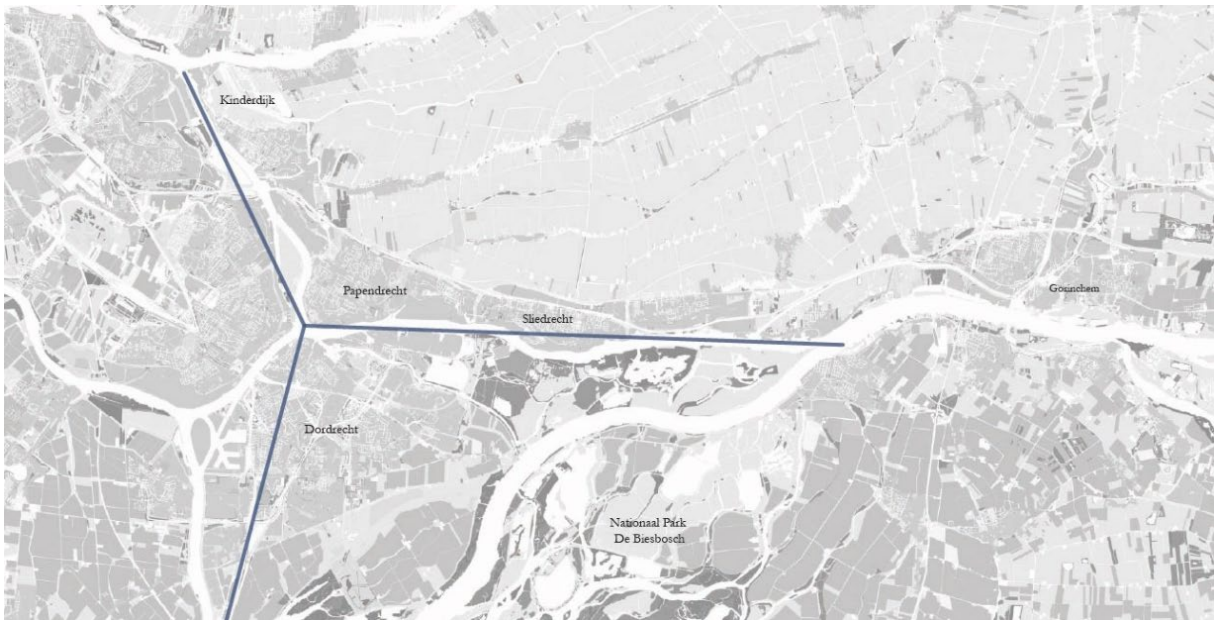

Figure 1: The 'Waterdriehoek' area and its surrounding area (adapted from: CADMapper)

This micro-level research on the water quality in the Waterdriehoek area and the social efforts by the municipalities has initiated the expansion of the idea to a larger scale of 'water education'. It explores the importance of raising public awareness of water and its subsequent spatial translations, with a cumulative synthesis of the research results in a design project.

The design location of the former Van Eijk shipyard in the town of Sliedrecht is an iconic representation of the history of water in the area. Recognised as the origin of the dredging industry (Nationaal Bagger Museum, 2020), the development of the riverside town can be traced back to the growth of dredging as a social and economic asset in the early 20th century. The later closing and relocation of these industries has left a ribbon of abandoned shipyards along the river, including the Van Eijk's. Located next to the National Dredging Museum, which celebrates the historical legacy of the area, it aims to reconnect the area with water to keep the narratives alive. There is thus an opportunity to re-strengthen this interrelationship and enhance the cultural and educational value of water through a new forward-looking intervention. Through this research, we explore why, if at all, the revitalisation of a maritime heritage building is needed to reinitiate this connection, or if an identical effect can be achieved through a newly-designed complex.

Figures 2 & 3: A comparison between the former and current views of the Van Eijk shipyard (Foto Archief Sliedrecht, 1960-70 and image by author, 2024)

1.2 The water-education nexus

With growing research on water contamination and its environmental and health implications, there is a proportionate need to increase public awareness. Kitamura et al. (2014) refer to this as the 'Water-education nexus' – the need to improve water literacy, in reference not only to sustainable water management but also to water safety, accessibility and disaster management. In 2018, UNESCO's International Hydrological Programme (IHP) similarly stressed the need for more educational activities in promoting sustainable water usage, mentioning the lack of future-orientated tools that are derived from historical heritages and practices (Eulisse, 2023b). The integration of education in water research will help respond to water-related sustainability challenges and ensure a healthy future relationship with the resource.

The responsibility of bridging the gap between scientific knowledge and commonly understandable messages for the public falls in the hands of educators and designers, who must connect the target audience to the remote topic of water issues. The Global Network of Water Museums (WAMU-NET) hence identifies the potential of design in regaining the relationship between people and water (Eulisse, 2021); specifically mentioning the design of museums and visitor centres, they argue that designs can help inspire people and encourage them to modify their behaviours by re-establishing a connection between past values and forward-looking goals (Eulisse, 2023a). This raises the question of how architecture and landscape design can physically and intellectually (re)connect people to water, thereby shaping a new 'culture of water' that extends beyond a traditional classroom setting.

1.3 Scope of the research

Extracting WAMU-NET's principles of 'foster[ing] key and fresh approached to reconnect us with ancient practices and values of farsighted water management' (Eulisse, 2023a, p.45), we explore two contrasting case studies – a heritage revitalisation project and a new build. By analysing and comparing the architecture and urban/natural landscape design of Willemsoord and Solrødgård, we can understand how design can be used to raise public awareness of water issues. In particular, it focuses on the strengths and limitations of repurposing a historical maritime building in presenting water-related themes, compared to instilling a new water identity to an untouched site through the creative freedom of a contemporary building. The analysis will lead to the extraction of design techniques to be applied to the area of the Waterdriehoek and set guidelines for the redesign of a historical maritime building into a water education centre.

For each case study, a single characteristic building relating the site to the topic of water education will be analysed for its successes in employing a heritage or new-build approach. Zooming in from the site scale to a single building, allows for the understanding of the impacts a building has in enhancing the location's physical or narrative relationship with water, and in reaching out to the public audience regarding this topic. It will further connect the research findings to the design project, which aims to make water a more transparent and accessible topic through both urban and building-scale design.

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2. Willemsoord (Den Helder, the Netherlands)

2.1 Background

Located in Den Helder, at the northern tip of the Netherlands, Willemsoord is a former naval base. It was created by Napoleon Bonaparte in 1811, who was impressed with the site's strategic location, and ordered engineers to build the country's largest fortified shipyard (Willemsoord, n.d.). Despite its turbulences through WWII, from the completion of its first phase in 1827 until 1993, the site was used by the Royal Dutch Navy as a shipbuilding and repair dock, after which it was handed over to the local government.

Figure 4: Aerial view of Willemsoord during its use as a naval base (Stelling Den Helder, n.d.)

When the Royal Navy was relocated to the Nieuwe Haven at the end of the century, there were many discussions about what to do with the abandoned site. The proposed masterplan, *Nederland Overzee,* was praised by the municipality as a unique cultural-heritage preservation project that preserved the nautical atmosphere with added financial benefits, and was realised in collaboration with the Cultural Historical Tourism Foundation (Emstede, 2015). After several draft designs, Willemsoord finally reopened in 2004, branded as the theme park 'Cape Holland'. It offered several water-related museums, creative offices and entertainment such as a theatre and arcade. Yet contrary to expectations, the park never gained popularity, and ended up in financial difficulties, forcing it to close its doors in 2009 (Emstede, 2008). In the years following, a new development plan opened up the area as a public quarter with a focus on entertainment and maritime tourism, with the goal of enhancing its historical-cultural identity (Emstede, 2015). Twenty years after the shipyard's closure, the current design is Willemsoord's answer to the complex demands of historical storytelling, architectural values and cultural needs.

Figure 5: Current aerial view of Willemsoord (Vermuelen, 2015)

Figure 6: View towards the Rescue Museum and de Kampanje (Helderse Binnenstad, n.d.)

The complex strives to preserve the maritime character of the former shipyard and simultaneously make the it tangible again (West 8, 2012). Understanding its accessibility, functional spread, intermediate spaces and relationships to water, the masterplan can be analysed in relation to the idea of water education, and evaluated for its successes and potential improvements in reaching out to the public regarding this topic.

2.2 Masterplan design and water education

2.2.1 Accessibility

In the landscape architect West 8's urban development analysis in 2012, they identify the strong potential of Willemsoord being the attractive 'heart' of the city of Den Helder (West 8, 2012). Despite its clear independence from the city centre, the former shipyard is located just over a ten-minute walk from the main station (Figure 7). The pedestrian route through the shopping quarters allows it to act as an extension of the rest of the city, and although there are few signs announcing its presence, the gradual introduction of the canal along Westgracht and the cranes in the distance creates a seamless transition to the naval base.

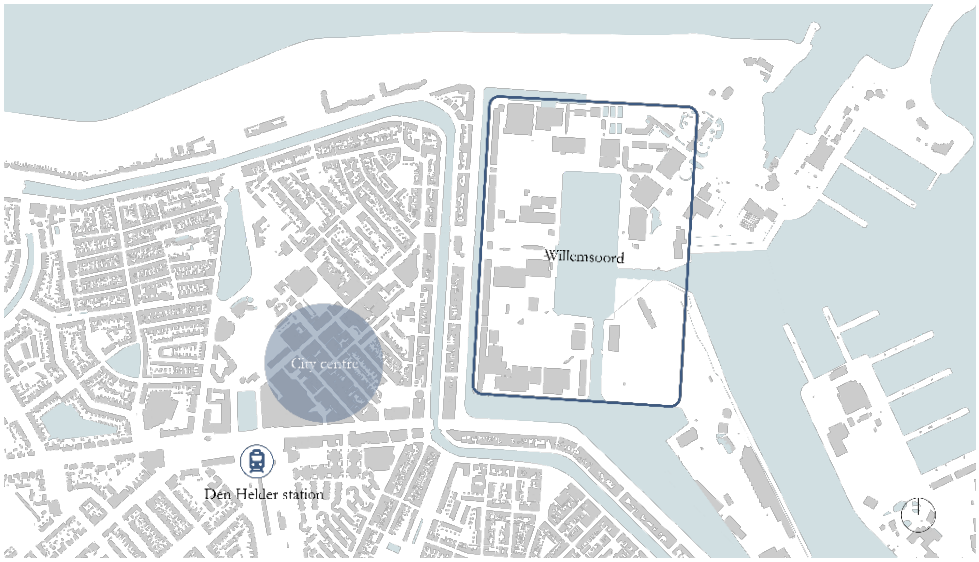

Figure 7: Location of Willemsoord in relation to the city centre and Den Helder train station (adapted from: CADMapper)

Several narrow footbridges connect the site to the rest of the city, which maintain the secluded nature of the site's history (Figure 9). For vehicle users, the straight view of the former pumping station signals the start of the Willemsoord complex, hinting at its water-related history from afar (Figure 10). Apart from the regular traffic signs, very few banners indicate the existence of the site at any of the entrances; instead, boats docked along the canal bordering it give a subtle gesture towards the maritime function hidden behind the

long building facades. This lack of signage is on par with the municipality's vision to make Willemsoord a part of the city centre, as it creates no hard boundary between the city and what was a once privately owned leisure complex. At the same time, for those not seeking a particular visit, it is an easy sight to miss, and along with its inward-facing buildings, is an almost unwelcoming border that leaves visitors hesitant to cross.

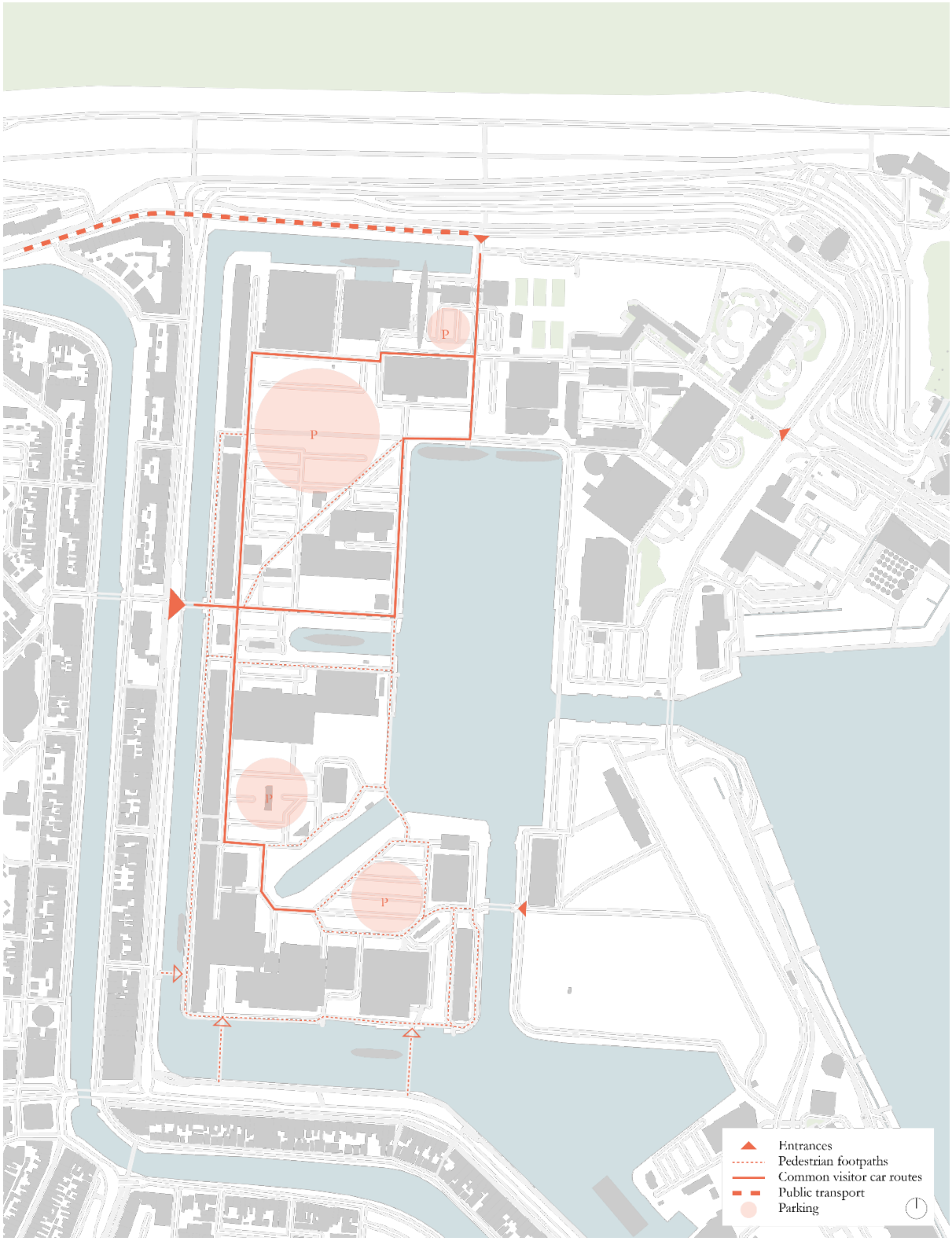

Figure 8: Routes through the site (adapted from: CADMapper)

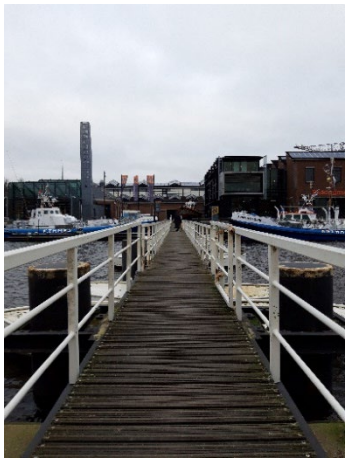

Figure 9: A pedestrian bridge at the south end of the site (by author)

Figure 10: The pumping station at the vehicular entrance (by author)

2.2.2 Dispersion of functions

The masterplan is divided into several programmatic clusters (Asselbergs, 2010), arranged around a central harbour and two wet docks. The public functions are located towards the west side, closer to the city, whereas educational and research facilities, as well as private buildings by the Royal Navy, are found away from the leisure buildings, closer to the waterfront. Here again, there is a diagonal gradient from public to private; the cultural sector with catering facilities transitions the visitor from the liveliness of the Den Helder centre, through the tranquillity of the museums, to the private grounds of the Royal Naval College. An effort is made to spread out the water-educational facilities across the two ends of the site so that the whole complex maintains this character, rather than a single corner (Figure 11). In between, cultural and entertainment facilities are woven through, such as a theatre, a cinema, shops and event facilities, which keep the average visitor entertained.

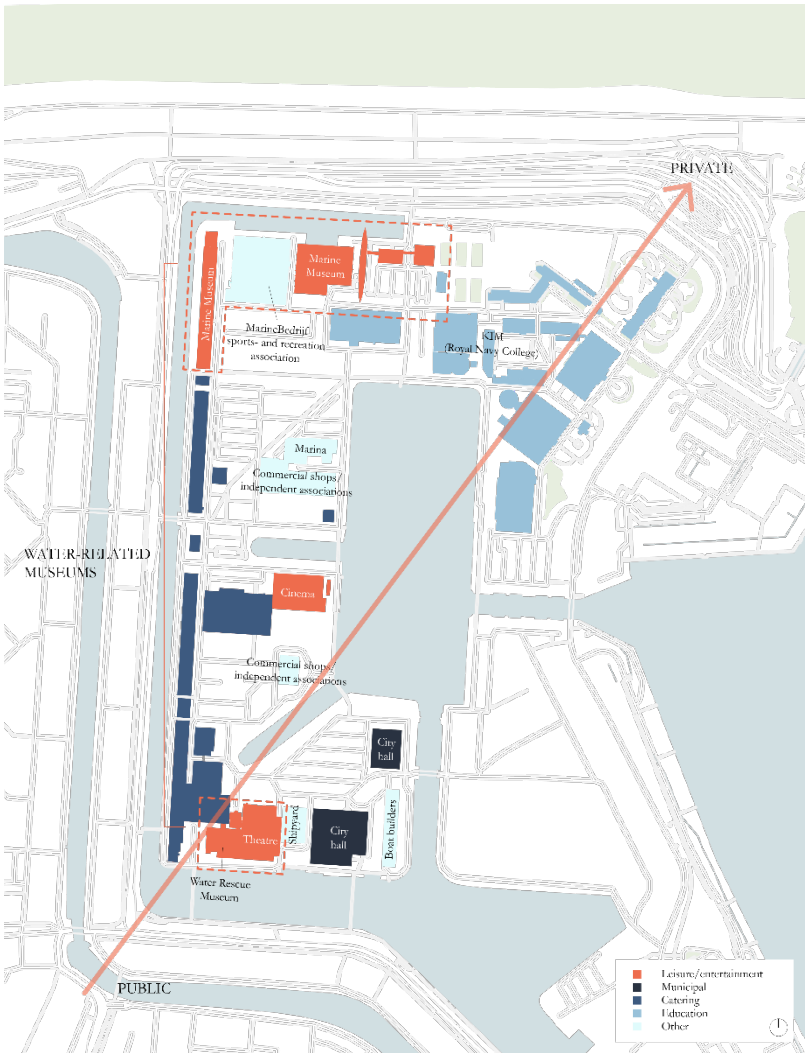

Figure 11: Dispersion of functions (adapted from: CADMapper)

Although some buildings were newly constructed, the nature of the site as a maritime heritage area with more than a dozen monuments leaves limitations in the spread of functions. The programmatic assignments were firstly determined based on the needs of each building, such as the the Schouwburg theatre in the former boiler shop, which had the architectural capacity to meet the technical requirements of such a function. The Navy Museum occupies the former gunboat sheds and storage for flammable substances, a logical choice for the museum's theme. The open floor plan of the former workshops along the western edge of the site allows for flexible separations (Asselbergs, 2010), ideal for the many smaller businesses that can be housed under one roof. Its lack of a clear front or back allows for a dual-aspect use, where restaurants can have their tables spill onto the docks and create direct connections to the water (Figures 12 and 13).

Figure 12: Cultural facilities facing the waterfront (Willemsoord, n.d.)

Figure 13: The other side of the buildings in Figure 12, facing the inner side of the site (by author)

Despite the restrictions associated with building in a historically sensitive site, Willemsoord separates leisure, educational and cultural functions strategically, taking into account both the visitors' needs and architectural suitability. It strikes a balance between clustering similar functions but also dispersing them to stimulate movement, while the backbone of cultural establishments ensures public interest all through the complex. Since West 8's plan in 2012, several new interventions have been realised, such as the most recent completion of the Den Helder city hall in the 19th-century mast shed and the post-WWII sail-making facility by Office Winhov (Office Winhov, 2023). It presents a successful approach in integrating the isolated function of a municipality building into a cultural-leisure complex through its visible maritime references and integration into the comprehensive urban landscape.

2.2.3 The National Rescue Museum

The National Rescue Museum, previously located in the city centre of Den Helder, expressed its interest in relocating to the Rijkswerf in 1994. With the museum layout entrusted to the architectural firm Van der Molen and De Jong from Sneek, it was decided to occupy the former engine workshop of the navy, finally finishing its long relocation process in 2002 (Van Deelen, 2021).

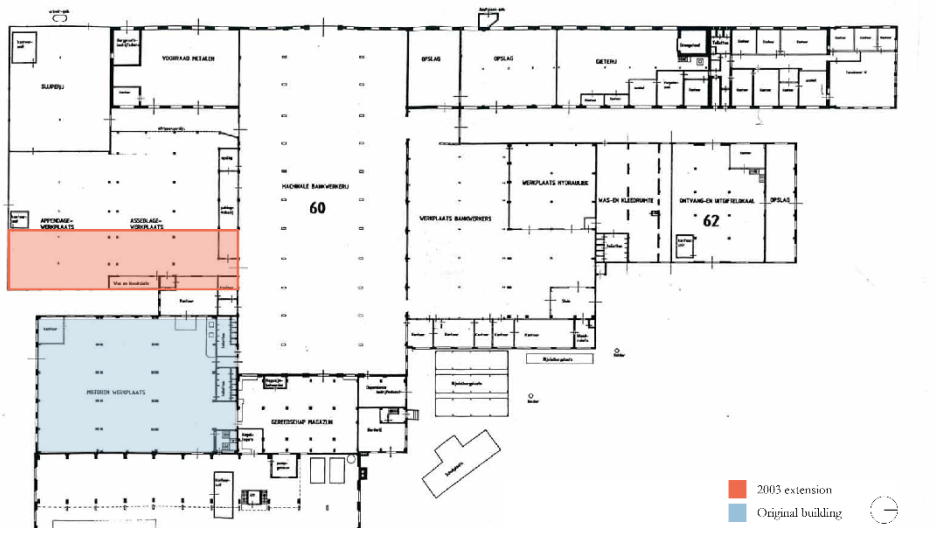

Figure 14: Ground floor plan of the entire *Gebouw 60* from 1986, with the location of the current museum in the *Motoren Werkplaats* shown (adapted from: Archief Rijkswerf, 1968)

Although renovated and extended with an addition by architect Erik Knippers in 2003, the museum consciously makes use of the heritage characteristics of the building. Thick concrete columns that were necessary for the function of the building create indicative separations between different sections without additional walls (Figure 15). This aids the journey and storytelling for visitors, the visual transparency foreshadowing the proceeding themes. Taking advantage of the large expanse of the former machine hall, a large boat is displayed in the centre of the double-height space, as if it is currently in repair in the old workshop. Up above, old crane tracks are still present, further creating a visual link to the former function (Figure 16).

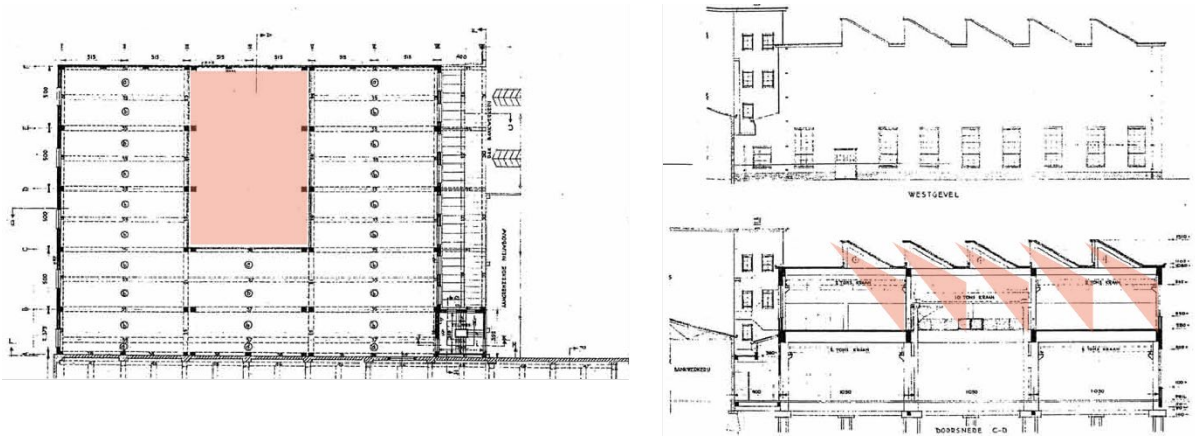

Figure 15: Plan of the motor workshop, with the double-height space indicated (left) and the elevation and section of the space, showing the saw-toothed roof and penetration of light (adapted from: Gemeente Den Helder, Archief Bouwen en Wonen, 1951)

Figure 16: Central hall of the museum today, with its exposed concrete structure and overhead cranes (image by author)

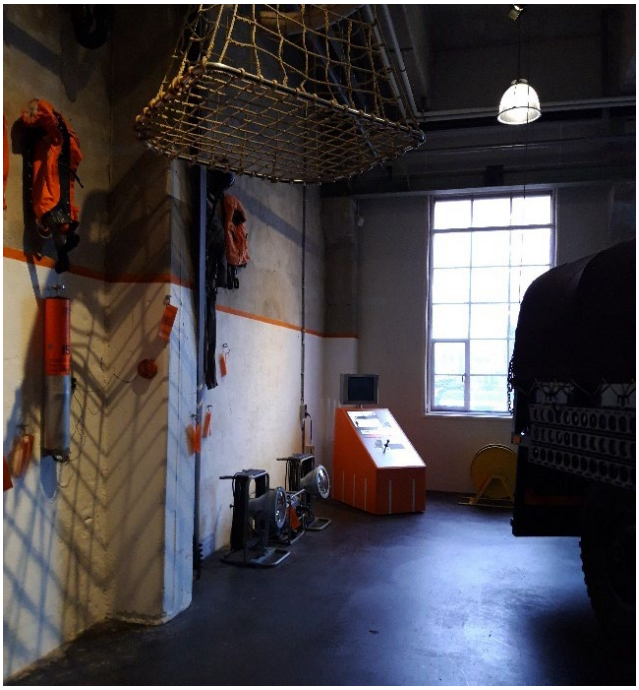

Figure 17: Traditional windows create moments of historical connection to the water outside (image by author)

Juxtaposing the lightness of the central space thanks to the saw-toothed rooflights – another nod to the industrial character – the solid exterior walls allow little daylight to seep in through the traditional sash windows (Figure 17). It is not only a reminder of the past, but also a means of directing visitors' focus outside onto the water, where important rescue ships are docked. The former industrial building therefore brings about a new dimension of water education that cannot be achieved by the museum contents alone. With Knippers' elongated steel-constructed addition that evokes the form of a ship (Figure 18), the museum connects the past and future narratives of water within the larger site context of Willemsoord.

Figure 18: Extension to the museum, constructed with a series of steel portals (image by author)

2.2.4. Intermediate spaces and access to water

Between these clusters of buildings, which are mostly located along the outer edges of the site, are open spaces facing the inner harbour (Figure 19). While some celebrate the maritime history of the complex, such as around the two docks, most are unused and dedicated to excessive amounts of parking space. West 8 also describes them as creating an ‘atmosphere of coldness and desolation’ (2012), while the Cultural Historical Valuation mentions the desire to turn the current 'stony' character into green recreational areas during the site's active period as a naval base (West 8, 2012).

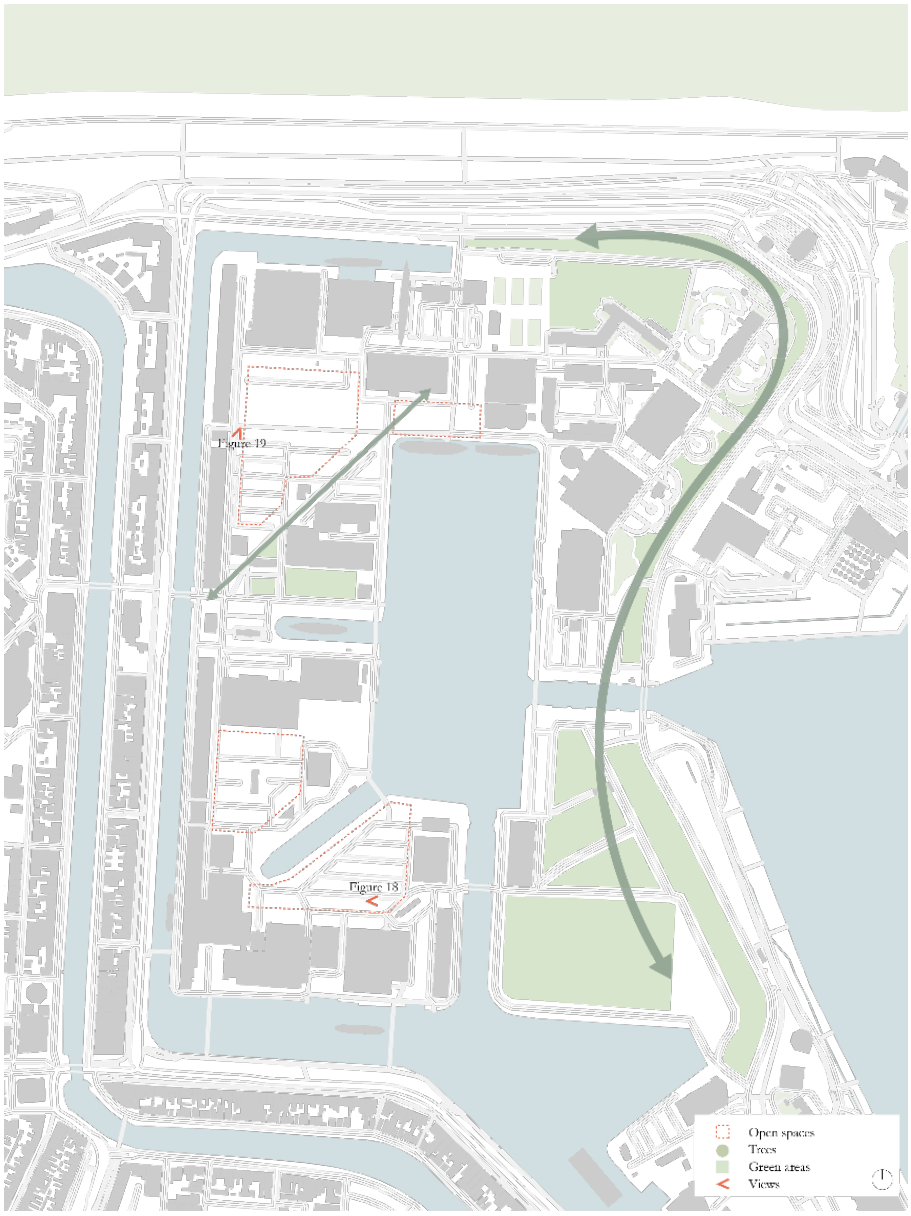

Figure 19: Intermediate spaces, green connections and major open spaces (adapted from: CADMapper)

Figure 20: Current use of space outside the municipality buildings as parking – marked on Figure 17 (by author)

Figure 21: Outdoor space dedicated to Marine Museum visitor parking – marked on Figure 17 (by author)

These negative interpretations of the intermediate spaces lie in the lack of functional separation between the different areas, as similar spaces with the same materials, paving, and types of greenery thoughtlessly flow into each other (Figures 20 and 21). The vast parking areas add to this effect, and it is unclear where they start, or if it is a designated parking spot at all. This absence of human-scale open spaces is reminiscent of the industrial nature of the site's history. However, its relevance today as a cultural and educational institution is unclear. Outdoor spaces that knit together the isolated buildings will not only be valued by its visitors as an attractive recreational space, but will also create pedagogical interest beyond the walls of a building, and hence stimulate more movement and flow throughout the entire Willemsoord complex.

For a site so deeply rooted in its naval history, the connection to water is a crucial aspect of the masterplan. The elongated shape of the area and the enclosure of water on all sides make sure that there is a constant visual connection, no matter where one stands. This is assisted by the lack of buildings around the central harbour, as the view to the yachts and at least one of the old docks is maintained (Figure 22). Walking along one of the footbridges or along the canal, one is exposed to the physicality of water, making the learning from the water-related museums real. This constant physical and visual connection to water is successful in reminding visitors about the area's ambitions of water recreation and education.

Figure 22: Immediate visual connections to water before entering the site (by author)

Figure 23: The hard edges between land and water (by author)

The edges between water and land are emphasised by the absence of any barriers such as railings, maintaining the industrial impression of water as a resource (Figure 23). By appealing mainly to the visual sense and detached from any other bodily experiences, it creates a barrier between people and water, reminiscent of a traditional educational setting where teaching and learning are one-directional.

2.3 Conclusion – Willemsoord and water education

In relationship to the wider context, the importance of water is evident in the way Willemsoord acts as an extension of the city of Den Helder, weaving its maritime past into the people's everyday lives. Throughout the former naval base, the presence of water is enhanced by creating visual associations with water-related themes such as boats and dockyards. Thus water is constantly present but never physically tangible, which leaves a deliberate distance between it and the visitors. It extends the industrial and militaristic associations the site historically had with water.

Willemsoord displays a successful use of maritime heritage in encouraging visitors to learn about the past, but perhaps only on an architectural and cultural level and does not fully connect with it – effort was put in maintaining the *image* of the original dockyard without consideration for the social expectations of the contemporary community. Improved use of intermediate spaces catered for community use, and a deliberate 'celebration' of maritime elements would simultaneously attract visitors and raise awareness of the lessons from its rich maritime history.

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3. Solrødgård Climate and Environment Park (Hillerød, Denmark)

3.1 Background

Encompassing an area of over 500,000 m², the Solrødgård Climate and Environment Park allows visitors to explore the cycles of water and energy through an immersive natural landscape. Located near Hillerød, a historical city known for its lakes and woodlands just north of the Danish capital Copenhagen, it fuses the facilities for energy production, water purification, recycling, and climate adaptation strategies into one unique public recreational landscape (Nel, 2022).

Figure 24: Aerial view of the park, with the water treatment plant (Kredsløbet Hillerød, n.d.)

Figure 25: Aerial view from the north, with the climate centre (foreground) and the recycling station (background left) (Hillerød Forsyning, 2022)

The site has a historical connection with water, where excavations in 2014 found the remains of water mills from five centuries ago. The oldest wooden one dates back to 1551 and is believed to have been in use until 1572 when it was replaced by a new stone mill (Hillerød Forsyning, 2015). In the past, these mills, along with a forge, manor houses, and barns were all connected into one building complex. This ancient idea of an integrated system was an inspiration for commissioning the utility company Hillerød Forsyning to move

away from the city and gather the supply facilities in one area (Underlin, 2023). Although catering to the basic needs of locals, it is simultaneously a recreational area where people are encouraged to connect with the landscape and understand the various facilities first-hand. With more than 350,000 visitors annually (Nel, 2022), it prides itself as a successful example of 'industrial symbiosis' (Hillerød Forsyning, n.d.), where the seemingly antithetical notions of industry and nature come together.

Figure 26: Access routes to and within the site by modes of transport (adapted from: CADMapper)

Valuing the collaboration between engineers, (landscape) architects, biologists, the municipality and the utility company (Landezine, 2025), this interdisciplinary approach to the masterplan emphasises the key understanding of water in its context – the water nexus and lifecycle in relationship to environmental sustainability and human use. Unlike Willemsoord, where the topics of accessibility, functions, intermediate spaces and water connections were analysed in isolation, these categories are interconnected. The landscape *is* in many ways the building, and the intermediate spaces are defined by the presence of water. Within the same guiding points as a backbone for analysis, the next sections will attempt to provide a comprehensive view of the masterplan in terms of design and water education.

3.2 Masterplan design and water education

3.2.1 Accessibility

The 2015 local planning document states that ensuring a high public accessibility is a priority (Hillerød Kommune, 2015), thus vehicular and pedestrian accesses to and within the area is a crucial factor in measuring the success of the development. The site is bordered by two highways, but the main entrances are located on the third edge of the triangular-shaped site, secluding it from the busy streets (Figure 26). Located only 300m from each other, the two entrances lead to a two-way street that forms a loop around the water treatment plant, so that all buildings on site are accessible through one single circuit of traffic.

The public enters the site through these two entrances (Figure 27), whether by car, public transport, bike or on foot. Intentionally sharing the same paths as the services creates an immediate visual opportunity for learning, as it creates a more intimate connection with the vehicles for the maintenance of the facilities. In a typical masterplan, these service accesses are located at the back, hidden away from the public routes, but the joining of the public and private demonstrates the education-orientated outlook of the site.

Figure 27: One of the vehicular entrances (Google Maps, 2024)

Figure 28: Footpath entrance at the south corner (Google Maps, 2024)

Some smaller pathways line the eastern edge of the site as well, ranging from *Fællessti* (shared bike and pedestrian paths) to *Gangsti* (unpaved footpaths) that take visitors through greenery (Figure 28). However, their minimalistic signage and curved pathways suggest that these are for recreation and not necessarily for reaching the central facilities. Although the masterplan places its importance on integrating learning and leisure, there are separations between the two, which makes the area more attractive for a wider audience.

3.2.2 Dispersion of functions

The park is organised around the water treatment plant, which is surrounded by the vehicular route (Figure 29). Its central placement, alongside a large body of water, announces its leading role in the complex and immediately connects visitors to the theme of water. The visitor centre and recycling station sandwich the road to the north, while a future geothermal plant is planned towards the south (Nel, 2022). As the park firstly serves the purpose of a utility facility for the city's most important resources, the buildings are clustered in one zone for functionality and accessibility. To avoid being an overbearing presence in nature, however, they are lowered into the landscape and seem to integrate into the flat terrain (Figure 30).

Figure 29: Current and potential dispersion of functions (adapted from: CADMapper)

Figure 30: The water treatment plant embedded in the landscape (Hillerød Forsyning, 2023)

This unification of nature and architecture is a key aspect in the design of the central water treatment plant in particular, which strives to minimise the gap between the public and water. A pair of rectangular volumes are embedded into the landscape, only recognisable as buildings when walking along the outdoor corridor running between them (Figure 31). This central pathway follows the route of a natural creek, which passes through a narrow garden with foliage that cleans and filters groundwater (Nel, 2022). The deliberate contrast between this display of the natural water cycle and the industrial process of the treatment plant seen behind the floor-to-ceiling glazing allows the public to connect with their own use of resources, and move away from the negative image of sewage associated with these facilities. The roof areas of the two volumes are completely landscaped, with paths leading visitors towards the pop-up rooflights (Figure 32), allowing them to directly see the filtration process and understand them as part of the larger water cycle (Underlin, 2023).

Figure 31: Natural corridor between the treatment plant volumes (Due, 2019)

Figure 32: Pop-up skylights on the landscape roof (Due, 2019)

The importance of water is hence taught through architectural design choices, however, the site's integrated landscaping approach suggests that these narratives cannot simply be told by a single building, but is the amalgamation of different functions and enveloping spaces that truly intensify this understanding of water.

3.2.3 Intermediate spaces and access to water

The structures in the climate park strike a balance between functionality and nature-consciousness, making the boundary between building and interstitial spaces indistinguishable. This raises the question of what 'intermediate space' should be defined in this context. If the buildings are deliberately submerged into the landscape – should there not be any 'remaining' spaces at all? Contrary to how the urban context of Willemsoord was organised around clearly defined functions, the spaces in Solrødgård, although also separated by function, flow into each other without any boundaries.

Yet this homogenisation of spaces is what makes the entire climate park successful in terms of water education. Small connections to water are made throughout, such as the constant presence of streams and lakes (Figure 33), which encourages visitors to appreciate water in its whole environmental nexus. In the wetlands, visitors experience how treated water from the plant returns to the environment, and understand how nature and recycling are interconnected. The geometric shape of the recycling station roof (Figure 34) further demonstrates how rainwater can be harvested and used to clean utility vehicles (O'Dwyer, n.d.).

Figure 33: Constant connections to water are made throughout (Landezine, 2025)

Figure 34: The geometric roof of the recycling centre (CF Moller, 2019)

In this way, although physical connections to water may be limited on site, visitors are enclosed by a constant visual and psychological reminder of it. Experiencing water at its different lifecycle stages as isolated spurts of knowledge encourages people to actively think and form their own interpretations of water and its cycles, rather than a direct teaching of its values. Nonetheless, a future potential for more active experiential connections to water leaves possibilities to expand the learning beyond the explicit realm.

3.3 Conclusion – Solrødgård and water education

The integration of the entire masterplan is a metaphor for the complex processes of water, flowing through both the natural and man-made stages of its life. The lack of boundary between architecture and nature allows visitors to absorb the landscape and its embodying environmental messages through a process of osmosis, where a recreational visit to the site is a sensory learning opportunity.

It succeeds in not compromising any educational opportunity for its functionality, thereby promoting a future-orientated outlook on the topic of water. Each landscaped area knits together the seemingly contrasting elements of current scientific advancements and our innate connection to the environment, encouraging visitors to appreciate water in the context of our everyday lives. The site is an absolute example of using design to bridge the gap between scientific knowledge and public understanding – a response to the crucial need identified by the WAMU-NET in water education (Eulisse, 2023a).

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4. Conclusion – learning from heritage or the future?

As the need for more outreaching approaches to water education grows, we must turn to design-centred means of creating awareness. The former naval base of Willemsoord in Den Helder takes advantage of its historical maritime connections to create visual cues that actively teach visitors about water. The functional grouping of museums and cultural facilities ensures that past narratives around water are passed on in an entertaining way, which is translated spatially in the combination of water-related facilities throughout the area. In contrast, the landscaped masterplan of the Solrødgård Climate Park forms sensory connections between the visitors and water, subtly conveying the interrelatedness of technology, man and water. The comprehensive experience of the site can be interpreted as a foreshadowing of the future of water – the need for new sustainable innovations, which can only be achieved through independent critical thinking

and understanding the entire water nexus. UNESCO identifies the need to promote more forward-looking ideas concerning water while 'drawing inspiration from inherited historical heritages' (Eulisse, 2023b, p.113). In many ways, the case studies of Willemsoord and Solrødgård address the two opposite ends of this vision; the heritage values highlighted by the shipyard, and the display of contemporary technology in Denmark.

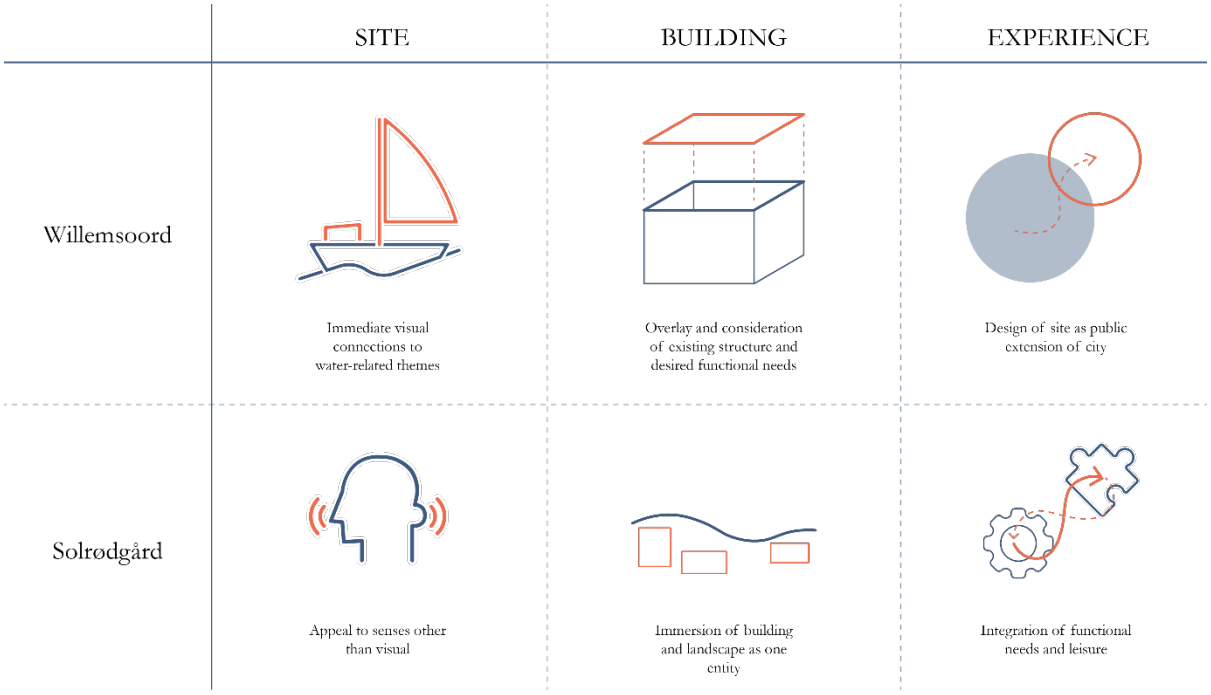

Figure 35: Concluding diagram on the extraction of design strategies to implement in the Van Eijk shipyard

In the design area of the Erfgoedlijn Maritieme Industrie, bearing the aftermaths of water pollution and the declining maritime industry, there is an evident need to continue the historical character of the site and translate these lessons into something tangible. The heritage building of the former Van Eijk shipyard evokes a sense of constant activity and noise, reflecting the industrial values of the site that a new-build cannot achieve. It is an icon for the identity of Sliedrecht recognised by its dredging past, and a new intervention will be a physical metaphor for the flourishing of the town by valuing its maritime history, and foreshadowing the town's desired future growths rooted in the shared theme of water, innovation and research (Gemeente Sliedrecht, 2021).

The challenge thus lies in stringing these opposite ends together – a design that values its historical 'watery past' and uses this to promote future sustainable practices of the resource. A juxtaposition of the programmes of a future-orientated water research centre and the historical maritime location in the Waterdriehoek, the design project strives for a new forward-thinking culture of water rooted in the past.

*Word count: 4,359 (excluding citations and captions)

5. Works cited

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