

P.4 Reflection

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MINDSCAPES *& Healing Gardens*

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Transitional Territories Studio 2018-20
North Sea: Landscapes of Coexistence

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¹ 'Nature' is generally and falsely understood as merely plants and animals, though it as much includes other human beings and really anything that derives from it.

² The sequence proposes a (1) Forest Garden, (2) Wild Garden, (3) Flower Garden, (4) Water Garden, (5) Plane Garden. Please refer to P4 Report for detailed plans and descriptions.

The P.4 presentation is largely focussed on disclosing the architectural design as the final outcome of the research undertaken during the journey of my graduation project. At the same time, it is a moment of reflection. As such, this paper elaborates and reflects on the project proposal, its contextualisation within my master programme (Architecture) and the *Transitional Territories studio*, and my research and design approaches in consideration of both my mentor's feedback and issues encountered along the path. Relevance and transferability of my project results are elucidated with an eye to current discourses before concluding and positioning myself within the larger context of the architectural field.

Research and Design

Departing from the notion of 'health and well-being', my graduation project 'Mindscapes & Healing Gardens' explores how particularly mental health is affected by our immediate surroundings, that is the built and natural environment. Within the studio-specific framework of the North Sea territory, health functions as a broad term and is the overarching theme translated across various scales and fields of interest; environmental/ ecological health (*territorial*), socio-cultural health (*urban/ landscape*), human health (*body & mind*).

In the course of my research the subject was split into three sub-topics that derive or closely interrelate with this overall notion of health; (1) mental health and its interdependency with the natural environment, (2) bioremediation, the ability of nature to remediate itself and reverse man-made contamination characteristic for post-industrial landscapes, and (3) the garden as constructed nature, its history, typologies and social relevance. In reciprocity of my own research and the studio-specific territorial analysis, the design proposal comprises of an urban garden on the site of a decommissioned oil refinery in the coastal city of Dunkerque in northern France. Based on the hypothesis that exposure to green infrastructure is highly beneficial to human well-being, the project's primary endeavour is to create a place of healing that, at the same time, reconnects people and their territory through nature. In the light of nature's ability of self-remediation, the urban garden further forms a synthesis of the health of the place itself and its inhabitants. The extensive research of gardens on one hand and of bioremediation on the other hand forms the basis of the design.

The assignment is divided into two main steps; (1) a master plan on an urban and landscape scale that addresses the site's location and its specific in relationship to its context, and (2) an architectural intervention placed within this larger framework. *Connectivity* is a guiding notion across all scales and manifests on the landscape scale in form of a path transecting a fragment of the refinery grounds. This path leads through a sequence of five gardens that invites the visitor to reconnect to and explore the natural world present in a place so contrarious to nature¹ due to its anthropomorphic history and heritage, now abandoned and void. Though, it is precisely this atmosphere that grants a new perspective on the vegetative actors of the place and not only stimulates a re-joining with the territory but also with the inner self. At the same time, hitherto marginalised port areas and the North Sea foreshore of Dunkerque are reconnected with the city centre. As such, the site becomes a link between the land and the sea.

The landscape concept of sequential gardens is deduced from both existing structures and vegetation on-site and complemented by a variety of known biotechnologies that support the second notion, *remediation*. Again, acting across scales, plants remediate the contaminated ground as well as the visitor's body and mind. Motivated by my research, specific themes are given to each garden; from a wild grove to the healthcare-specific typology of a therapeutic garden². The path becomes the guiding element throughout, a journey and a transition; resembling the studio's guiding notion. This gradual shift through the site links various polarities; from wild to domesticated, from extrovert to introvert, refuge and prospect. Simultaneously, the path is an architectural intervention in itself, that ultimately crests in a building that accommodates supporting functions for the various gardens. In a spatial sense, the role of the architecture remains subtle and abstract, nevertheless of great significance for the comprehension of the site. At the same time, the building acts as the ultimate garden by forming an enclosure. The enclosed garden is the *ur*-form of the garden itself, in the deepest sense of the word³. The built form and architectural formulation of the design is therefore closely intertwined with the preceding and continuing research and its final form the result of an on-going dialectic between research and design.

³ A garden is an enclosed space outside, literally meaning 'enclosure'. Evolved from the Persian paradise gardens and the Roman peristyle, the *hortus conclusus* is considered the archetypal foundation of Western landscape and garden architecture.

⁴ Saskia de Wit, *Hidden Landscapes*, 2018, p. 382.

Finally, both path and building address the third notion of *temporality*. With the temporal dimension inherent to the bioremediation process of the territory and the mind likewise, the path is embracing the ephemerality of the place. The different scales relate to varying time frames, from a bare thirty second it requires for the human nervous system to experience the benefits of plants to a decade long remediation process of the contaminated territory the project is built on. A 5-year, 10-year and 30-year plan each suggests a new array of paths and trails exploring the potential transformation. Through time, the path transforms from a static architectural object into a dynamic network increasingly blurring the edge between the visitor and the territory itself; opening new spaces through time. As such it much rather discloses an already existing place than creating a new one.

Academic Integration

The self-imposed assignment, the remediation of a brownfield into an urban garden providing health-related and recreational functions, corresponds to the framework of my master programme at the Faculty of Architecture, Urbanism and Building Sciences. The Transitional Territories studio accommodated an open learning environment that acknowledges how various knowledge fields are closely intertwined and the subsequent significance of collaboration across disciplines in practice and academia alike. This position was effectively translated into the studio's structure uniting architecture and urbanism students into interdisciplinary groups. Collective work promoted discourse and exchange, and fostered thinking and designing beyond one's familiar scales. As such, the studio offered an exploration beyond the architectural track; in urbanism and landscape architecture although unfortunately no students from the latter track participated in the course. The concept of the multidisciplinary studio to embrace the intersection of different fields of design (and beyond) is translated into my project. It combines the scale of the territory with that of body and mind, and through design investigates the interface of architecture and

⁵ Being subject to deconstruction in the course of its recent decommissioning, the site was locked up and highly secured and as such inaccessible for on-site investigation.

⁶ Case studiesw include but are not limited to: Landschaftspark Duisburg-Nord, Latz + Partner; High Line, New York, James Corner Field Operations; Glenorchy Art and Sculpture Park, Glenorchy, Australia, Room11 / McGregor Coxall; Matisse Park, Lille, France, Gilles Clément.

⁷ 'The Landscape is a Detail of the Garden' conversation with Gilles Clément in: Alessandro Rocca (ed.), *Planetary Gardens – The Landscape Architecture of Gilles Clément*, 2007, p 54–77.

landscape. The design of an urban garden ties into this investigation. Being both 'a dwelling place and a representation of natural space' the garden understands itself as 'a synthesis of architecture and nature'⁴, thus integrates the territorial scale as much as the human scale.

Methodology and Scientific Relevance

In line with the studio-specific curriculum, the research phase made up the larger, first part of my project design and continuously informed the subsequent design phase. A literature review provided a broad knowledge and specific insights on the history and theory of the main subjects of investigation (mental health, gardens, and bioremediation) and formed the basis for a heuristic 'research by design' approach. A large body of literature discussing the relationship of health and the environment (including the ground-laying theory of the 'biophilia' phenomenon) can be borrowed from social sciences, environmentalism and emerging field such as eco-psychology. Simultaneously, a literary inquiry of garden theory and history as well as plants and more closely bioremediation techniques was undertaken. From the broader context of these knowledge fields, a catalogue of biotechnologies and green-blue infrastructures was made and applied to the specifics of the site. This ongoing technical investigation was of great significance as it not only formed the basis for the design proposal but moreover provides the scientific counterpart to the poetic narrative.

The data collection about Dunkerque and the project site, the former ground of the *Société de la Raffinerie de Dunkerque* was predominantly informed by online research and on-site inquiry. The site analysis relied on different means and methods with varying scales of investigation including mapping, drawing and collage, text and photography. In practice, a large area of interest often exceeds the research capabilities proposing the means of the 'transect', a composition of multiple techniques depicting one's findings along a selected path and very useful method for a large site. Revisiting this path enables the gathering of ephemeral attributes, temporal dynamics and atmospheres, and is therefore a valuable means for the phenomenological inquiry. The inaccessibility of the site⁵ limited my abilities to closely explore the selected path along my fragment. The inquiry was thus constrained to an investigation through the camera lens from a distance. A useful and complementary research method was therefore provided by case-study analysis. Multiple examples⁶ illustrate the various ways of dealing with industrial heritage and brownfield regeneration and remediation in a functional, ecological and poetic manner, some of which were visited and investigated as part of the research process. This research method was immediately linked to the coincident and complementary course *Aspects of Water Related Design*. The respective project analysis exercise focussed on the understanding of a site and how this translates into the key elements of the design and its relationship with the surrounding landscape.

Finally, as a way of organising all research results and bridge them towards the design process I chose the method of literary reflection. The findings are illustrated in the form of the imagined project; through writing one cannot only describe the project with all its technicalities but also reveal sensations and emotions that are imagined to be encountered upon a visit, as put forward by French landscape architect Gilles Clément⁷ who with his literary and design works acted

as an instrumental reference throughout the different stages of my project development. At the same time, contradictions may become evident and design decisions can be re-evaluated in order to eliminate what is not needed and refocus on things worth retaining. The words are part of the design process and are continuously revisited and distilled. Thus, they are not only complementary to the architectural and landscape plan but a kind of guide that reconnects back to the project's narrative and poetic dimension. Informed by the wealth of health-related findings, they propose a sensory experience of the path itself tying closely into the body and mind scale and exploring the essence of the project.

Relevance and Transferability

Typically, my project identifies itself with the overall studio theme and specific topic 'North Sea – Landscapes of Coexistence'. On one hand it departs from the territorial context of the North Sea, and on the other hand, it addresses a subject very specific yet separate from place; my personal fascination health. Mental health-related issues are increasingly escalating throughout global society, not least caused by the immense impacts of globalisation, the current climate crisis and the changing dynamics on land and sea. Being one of the most urbanised waterbodies in the world, the North Sea and its surrounding coastal area are precedent to alarming ecological issues caused by human action throughout our industrial past and present. These include sea level rise, pollution, excessive resource extraction and subsequent loss of habitat for flora and fauna. Awareness has increased significantly during recent years and instigated a shift in politics and industry that goes in line with the present days' rapid technological advances. This shift manifests for instance in the commencing energy transition, changing urban dynamics of growth and shrinkage caused by shifts in economic sectors, and a general reconsideration of ecological values and the importance of our (increasingly depleted) natural environment. On a territorial, urban and architectural level, this becomes evident among others in an accumulation of post-industrial left-over spaces, abandoned and deprived of their original use and meaning; voids within the metropolitan landscape. It will be a task of utmost importance to a generation of future architects and planners to address these realms and find new purpose and meaning for them.

My graduation project is directed at a number of those highly topical subjects that have gained great significance in the current time of transition. Foremost, public health and more specifically mental health having grown to be a major concern in contemporary cities and societies. The close relationship between our well-being and our immediate environment is undeniable and has in recent years become subject to countless scientific studies and research within various fields including architecture and the built environment as well as social sciences, medicine, psychology, environmentalism and others. It is above all the measures⁸ connected to the current corona-pandemic that demonstrate the significance of available green space in order to maintain mental and physical well-being of the wider public. The impacts of the lack thereof may have repercussions on the national health systems that exceed and outlast the latest struggles.

⁸ The measures refer to recent lock-downs and contact restrictions across the globe in order to confine the spreading of the Novel Coronavirus (SARS-CoV-2).

⁹ The population of Dunkerque decreased by some 12.5 per cent in less than 45 years, from 99,776 in 1975 to an estimated 87,353 in 2017. Dunkerque in *citypopulation.de*, 2020.

¹⁰ Benefits are likely to result from reduced costs for public health care and nature conservation, abandonment of costly mechanical land remediation techniques, stimulation of local economies through new functions with more sustainable business models, as well as improved satisfaction of population through increased health, productivity and general happiness to name only a few.

As such, the topic of green infrastructure touches upon a current scientific and societal discourse and the project results anticipate to be of great relevance to potential future developments within both architectural research and practice. On the other hand, climate change and resulting transitions within the energy sector, industry and a growing awareness of pressing environmental issues call for a careful re-evaluation of the existing spatial order. The North Sea territory and in this context the city of Dunkerque are exemplary for these ongoing transitions. The industrial activities of the past have greatly shaped the place with the city centre and the port once forming a unified whole; socially, economically and spatially. Though, the vast expansions of the 20th century shifted the industrial centre westwards and drove a wedge between port and centre. Today a shrinking city⁹, Dunkerque is increasingly confronted with the voids of the old port many of which are afflicted with industrial leftovers both structural and in form of contamination. This phenomenon appears more and more across Europe and many other places in the world. With over fifty per cent of the global population living in cities, it is above all these metropolitan spaces that need to be addressed and become testing ground for new forms of living and for a healthier environment and city.

Conclusion and Positioning

With the synergy between environmental and human health at its core, the project points at a subject of immense actuality that deserves evermore attention as mental health problems become a common condition in western individualistic societies. Ecological and so-called 'biophilic design' are gradually establishing themselves in common architectural practice albeit often arguably owed to the inherent marketing value as developments remain highly reliant on market-driven demand through growth. Being located on a post-industrial site, my graduation project moreover acts as a case study – a laboratory – for bioremediation for the territory and its inhabitants alike. The shared concern for health has the ability to reunite and reidentify humans with flora and fauna; let them realise that they are really part of nature rather than being isolated from it. Economic benefits¹⁰ may only be evident through a long-term perspective. However, particularly in the case of Dunkerque, the anticipated coexistence attempts to heal more than just that lost connection; it rather strives to bring new life in a dwindling city.

Despite being a student of architecture, I largely position myself at the intersection between architecture and landscape. The integration of different knowledge fields and professions has become ever more important in times when the vast wealth of research exceeds the comprehension of a single mind. Likewise, architecture cannot be seen strictly as an isolated element but as an interaction between everyday needs and its natural environment. From an experiential point of view, different layers of meaning provide room for interpretation for a broader audience of potential users. In the case of my project, one visitor may just see a public green space for leisure; someone else might enjoy the sensual experience along the path while others understand the place as a reinterpretation of a post-industrial landscape, and again others appreciate the biotechnical component of remediation. As the environment becomes an active agent, the complexity of meaning makes the poetry of the project visible and accessible to a much larger public, the underlying concept of rehabilitation of the body and mind is inherent in

either experience as an automated body-response to the exposure to nature. This notion ties back to my most pressing concern as an architectural designer, to ultimately arrive back at the human scale

The extensive period of research and the subsequent design has taught me a great deal of where I would like to position myself in the professional field but has also opened up insights and knowledge that inspired my life beyond the architectural realm. I truly believe that research is an intrinsic and invaluable part of a successful and meaningful design and of great merit for the respective project and many more to come.