Unfamiliar Terrain:  
From The Paradox of Intervention to Paradoxical Intervention  

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Declaration

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This Thesis/Dissertation/Research Project entitled: Unfamiliar Terrain: From The Paradox of Intervention to Pragmatic Intervention
is submitted in partial fulfillment for the requirements for the Unitec degree of Master of Landscape Architecture.

CANDIDATE'S DECLARATION

I confirm that:

- This Thesis/Dissertation/Research Project represents my own work;
- The contribution of supervisors and others to this work was consistent with the Unitec Regulations and Policies;
- Research for this work has been conducted in accordance with the Unitec Research Ethics Committee Policy and Procedures, and has fulfilled any requirements set for this project by the Unitec Research Ethics Committee.
- Research Ethics Committee Approval Number: ________________________________

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Abstract

Landscape architects are attempting to become complicit or knowingly involved with the nonhuman and human processes which determine the formation of landscape. Because these processes are understood as being indeterminate, variable and more generally out of control the process-oriented landscape architect recognises the need to negotiate notions of control associated with design intervention. This negotiation has manifested itself primarily as a shift from designers privileging what they think the landscape should look like to privileging its physical operation. In contrast to this shift this area of landscape architecture has been discussed as a continuation from the ‘death of the author’ discourse as it appeared in fine art and architecture following on from its literary origins. In both accounts, for the process-oriented landscape architect unmediated conditions arise from his/her physical mediation of the landscape. Interconnectedness or complicity between the landscape architect and landscape process is therefore observed through the paradox of intervention.

This project investigates the agenda of the landscape architect becoming complicit with landscape process through a ‘research by design’ procedure. The investigation involves a series of installations conducted within the campus of Unitec in Auckland, New Zealand, and the briefs of two international design competitions situated in Hamburg, Germany and Chicago, US.
As a result of carrying out the installations it is proposed that the landscape architect becomes complicit with landscape process when they do not intervene. This proposition is paralleled with the economic practice of ‘positive noninterventionism’ and then contextualised through the two competition briefs and the work of other researchers. This procedure reveals that theorising or conceptualising landscape is an inescapable form of control. The paradox of intervention is therefore understood to be an image or conceptualisation of landscape process.

Accepting that a nonintervention is a form of mediation it is then employed to guide an investigation through the Hamburg competition brief that includes a physical intervention. This procedure demonstrates that counter-intuitively a contradictory connection to landscape process is more complicit than attempting to directly privilege its indeterminate and variable conditions.

This project therefore claims that we become complicit or interconnected with landscape process when we acknowledge that our connection with landscape is conceptual or theoretical. It is consequently recognised that inadvertently design approaches which privilege what the landscape looks like or evoke notions of the ‘death of the author’ exhibit a contradictory relation to landscape process. Such approaches are therefore positioned through this investigation as being more complicit with landscape process than approaches which privilege the landscape's physical operation.
Introduction

"Who can still be so naïve as to think of oneself as ‘outside’ nature?"¹

Alain Richert

"Our vision of nature is undergoing a radical change toward the multiple, the temporal, and the complex."²

Ilya Prigogine and Isabelle Stengers

This ‘research by design’ project investigates the connection between the landscape architect and the landscape which is here understood as a composite of temporal and complex human and nonhuman processes. In other words landscape is understood as nature. This is an area of inquiry that has become a core agenda in contemporary landscape architecture as well as the associated fields of urbanism and architecture.

The architect Rem Koolhaas describes the situation for the designer’s interaction with landscape, he says, “since it is out of control, the urban is about to become a major vector of the imagination. Redefined, urbanism will not only, or mostly, be a profession, but a way of thinking, an ideology: to accept what exists.”³ This quote entails the two main themes found in the following discussion. Firstly, understanding landscape as being ‘out of control’. Secondly the related agenda of designers attempting to ‘accept what exists’; to confront the complexity of landscape and to think in terms of being ‘inside’ nature as the landscape architect Richert encourages in the opening quote above.

Understanding the urban condition, or more generally landscape as ‘out of control’ can be attributed to the complex and indeterminate interactions of not only urban processes but all human and nonhuman processes. Examples of human processes include political, social and economic interventions while nonhuman processes entail hydrological, biological and geological operations to name a few. The instability and interconnectedness of these processes, referred to collectively in this research project as landscape process, renders the landscape out of control in the sense that we cannot physically determine its condition with any certainty. As the landscape architect Richard Weller has said in relation to the complexity of landscape “one thing seems certain: everything is uncertain.”⁴ Weller has also said that designers “need to better articulate and debate what is meant by complexity and self-organisation…the new paradigm of nature...(we) draw upon.”⁵ The debate on landscape as a complex and indeterminate process has largely taken the form of a shift away from designers privileging what they think the landscape should look like. A move from the concern for the visual and pictorial aspects of design, to a privileging of the landscape’s physical operation; how it works.⁶ This repositioning of the designer in relation to landscape can be understood as an attempt to accept the uncertainty of landscape and more generally of life itself.

The landscape architect Roel van Gerwen uses the analogy of making a sand castle in order to illustrate how contemporary landscape process-oriented landscape architecture has been redirected by this operational understanding of landscape. He says, “to make a sand pile on the beach, you can form a mound of sand with a bucket and a shovel, then the mound will disappear with wind over time.”\(^7\) This approach Gerwen calls ‘pattern design’ where the shape of the sand castle is determined by the form of the bucket used, thus a privileging of visual or pictorial sensibilities. “The alternative” Gerwen says “is to place a large stick in the ground where the wind will instantly form a pile, reshaping the pile every time the wind changes its direction...(compared to using a bucket) placing the stick is less exhausting, gives a less predictable result and is highly dynamic.”\(^8\) Gerwen calls this approach ‘process design’ because it acknowledges and permits the operation of landscape process within the design intervention.

The aim of my project is similarly to acknowledge and understand the operation of landscape process through design.

Within this research project, efforts at establishing a connection between the landscape architect and landscape process is understood as a desire to become complicit with landscape process. The term ‘complicit’ is employed because it acknowledges a willingness on the part of the designer to be involved with the operation of landscape process.

To become complicit with landscape process I argue that we need to foreground that our interaction with landscape involves a conceptualisation. Prigogine and Stengers acknowledge this when they say “our vision of nature” [my emphasis]\(^9\) while Koolhaas uses the expression “a major vector of the imagination” [my emphasis].\(^10\) To say that we should privilege our vision and imagination is not a statement motivated by a desire to be creative. Instead when I say vision and imagination I am referring to our inescapable mental imaging or conceptualisation of landscape and more generally of the world. To become interconnected with landscape process in a knowing way this project claims that the designer should privilege the condition that our interface with landscape is invariably a mediation, conceptualisation, abstraction, mental image or representation, frame or theoretical position projected onto the landscape.

Almost a decade before Gerwen offered his sand castle analogy on the shift in landscape architecture from pattern to process design Koolhaas presented a similar analogy. He says, “we were making sand castles. Now we swim in the sea that swept them away.”\(^11\) Through this project’s inquiry into how to become complicit with landscape process; how to swim in the sea as it were, I will present a position on whether contemporary process-oriented landscape architecture is swimming in the sea or still making sand castles.
What is Research by Design?

Perhaps unsurprisingly the content of this project, particularly the thesis position that our involvement with landscape is inseparable from a theoretical position, has affected my understanding of ‘research by design’. In this project ‘research by design’ equates to a mode of working that is motivated and regulated by attempts at both designing and theorising. Design and theory can be thought of as interconnected. This project utilises a reading of this connection that allows for a certain privileging of the personal knowing accumulated through designing. Such design encounters are framed as research through the personal knowing via observations, propositions, and discoveries being brought to bear on existing discussions. While this method of research recognises the place theoretical frameworks have both prior to and post the design work, more important here is the fortuitous contamination between design and theory, and how their continual interaction can regulate the direction of a project. Although reductive, another way of expressing this project’s employment of ‘research by design’ is to say that design is carried out in order to research, rather than design being an end in itself.

In the introduction to his book ‘Design Research’, the architect Peter Downton says, “design is a way of inquiring, a way of producing knowing and knowledge; this means it is a way of researching.” Downton is saying here that all design, for instance, a drawing or a constructed landscape, can be thought of as research or as contributing to a research project. However, Downton acknowledges that his proposition that design is a way of researching is somewhat polemical. For instance he comments that arguments against design being a form of research are hard to find for the reason that it is a proposition that is largely seen to be illegitimate because design and research are generally seen as separate activities. This project sees the coupling of design and research as profitable and attempts, as its primary focus, to make use of this ability of design to act as an investigative tool and inquire into contemporary theoretical issues relevant to landscape architecture. The rationale is that this deployment of design in relation to research may lead to addressing some of the questions and problems arising within the particular discussions that my design investigations traverse. Such intersections also inevitably provide opportunities to contextualise and evaluate the ideas that emerge through the work.


2. Ibid.
An effort has been made to project this understanding of ‘research by design’ into the presentation of this document. One way this manifests is seen in the relationship between the sequencing of the design projects and the discourses they work their way into. Instead of documenting the ‘research’ and the ‘design’ as two separate practices, or presenting each design or theoretical investigation as a linear narrative, an attempt is made to show and utilise the interrelatedness of design and research through this explanation document. It is hoped that through foregrounding some key collisions between personal knowing and existing disciplinary discussions opportunities may emerge to participate in the ongoing discursive construction of the discipline.

Research Question and Document Outline

My research question is how can the landscape architect become complicit with landscape process through design? This question is investigated over two sections followed by a conclusion. Part One consists of a series of local installations which lead to the construction of a proposition on how the designer becomes complicit with landscape. This proposition is discussed in connection to two international competition briefs and related to the work of relevant researchers. In Part Two the position formulated in Part One is employed to guide a design investigation through one of the competition briefs. The outcome of this procedure shows a development in the project. This progression is used to further contextualise this research project within the discipline of landscape architecture. The conclusion brings together key events from the two parts of this ‘research by design’ project in order to show how they may contribute to the discourse on landscape process in landscape architecture. Avenues for future research that could both draw on and further develop the findings presented here are also outlined.
Part One: Becoming Complicit with Landscape Process

The landscape architect Julian Raxworthy at the 4th European Landscape Architectural Biennial in 2006 presented a paper in which he said, “by working in representation, (a) project is absent of (landscape) processes occurring in real time.”\(^1\) Raxworthy who is currently undertaking a PhD on the topic of change in landscape architecture is here critiquing the “very visible representational discourse on change”\(^2\) and proposing that landscape architects interested in landscape process should work in a way that prioritises “demonstrable change in the landscape and its elements.”\(^3\) To follow Raxworthy and attempt to work with landscape process in a physical and tangible way I decided to initiate my investigation into the connection between the landscape architecture and landscape process through a series of installations within the grounds of Unitec in New Zealand.

To structure my tangible involvement with the landscape I employed a framework which consisted of four categories which in simple terms explained the way change occurs. They are change in position, quantity, substance and quality.\(^4\) Each category was investigated through at least one installation as outlined below.

Change in Position

A change in position occurs through an object moving from one location to another. This instance of change was investigated in the installation ‘Dig’ in which sods of soil were dug and moved from their existing location to a new position (figures 2, 3).

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2. Ibid.
3. Ibid.
Change in position was also investigated through two installations involving leaves. In 'Leaf-Path' (figure 4) and 'Leaf-Bumps' (figure 5) leaves were placed on a path and in a car park.

In 'Leaf-Path' the leaves were repositioned by one of the grounds keepers at Unitec (figure 6). In 'Leaf-Bumps' the leaves were physically displaced by a combination of both human actions; cars driving over the leaves, and nonhuman operations; wind and rain (figure 7).
Change in Quantity

A change in quantity is when the amount of something changes. This form of change was explored in the installation 'Water-Hole'. Here water was poured into one of the holes from the 'Dig' installation. The amount of visible water was observed as it changed over time (figures 8, 9, 10).

Change in Substance

A substance change occurs when a material transforms from one state to another, for example transitions from solid to liquid to gas. This kind of change was encountered through the installation 'Water-Wall' where a concrete wall was wet with water which then evaporated through interacting with the sun (figures 11, 12).
Change in Quantity

The fourth kind of change looked at through the installations is quality change. Examples include a change in the density of a material, such as wax which becomes soft through exposure to a flame. Vegetation changing colour through interacting with sunlight is also an example of a quality change. The installation 'Paint-Scape' investigated quality change through changing the colour of an area of grass by spraying it with dye (figure 13). Overtime the grass became green through the weathering of the dye (figures 14, 15).

After constructing these installations I reflected upon them and the category of change they related to (figures 16, 17, 18, 19).
It was observed that the category of change being demonstrated in each of the installations was occurring twice. The individual kinds of change were demonstrated through the installations and then nonhuman and human processes existing within the landscape enacted these forms of change. For example in the installations ‘Leaf-Path’ and ‘Leaf-Bumps’ I moved leaves from one location to another; a change in position, and then the existing landscape processes changed the position of the leaves. Similarly in the ‘Paint-Scape’ installation, I changed the colour of the grass then the climatic processes, primarily rain and sunlight, changed the colour of the grass.

Raxworthy makes a similar observation, he says, “natural processes are already happening, and they are just being affected by designers.”\textsuperscript{5} By combining this fairly obvious consideration that landscape processes are already operating with Raxworthy’s previous statement that “by working in representation, (a) project is absent of (landscape) processes occurring in real time” could we go further and suggest that by working through intervention a project is absent of landscape process occurring in real time?

\textsuperscript{5} Julian Raxworthy, “Transgressing Edges and Doing Time.”
A Proposition

Landscape is constructed by the instability and interconnectedness of human and nonhuman processes. The landscape architect becomes complicit or knowingly involved with the operation of these processes and thus with the production of landscape when he/she becomes a nonphysical participant in this formation process.

Reflecting on the Research Question through the Proposition

The proposition presented above is an idea formulated while contemplating the series of installations in the context of investigating the interface between the designer and the landscape. The proposition claims that a landscape architect becomes complicit with landscape process through leaving landscape processes to change and for the designer to do nothing. The research question however asks how the designer becomes involved with landscape process through design? The question therefore arises as to whether the designer not intervening in the landscape qualifies as ‘design’?

Due to the abstract nature of such questions, and of the proposition itself, two design competition briefs were selected to act as specific frameworks through which this idea of connectedness or complicity arising out of the designer’s noninvolvement can be further investigated. However before doing this I will compare the notion of the landscape architect’s nonphysical participation to the practice of ‘positive noninterventionism’ in economics as a way of offering a kind of precedent for this approach to interacting with landscape process.
Positive Noninterventionism

During the time that Hong Kong was under British rule it was observed that the economy was flourishing in the absence of government intervention (figure 20). In 1971 John James Cowperthwaite who was the Financial Secretary of Hong Kong at the time took advantage of this situation and officially implemented this kind of noninvolvement as ‘positive noninterventionism’.6 The economist Milton Friedman has compared the practice of positive noninterventionism to laissez-faire economics.7 The French phase ‘laissez faire’ translates to ‘let do’.8

There are palpable connections between my interpretation of how the landscape architect becomes complicit with landscape process and the laissez-faire economic practice of positive noninterventionism. But is a positive nonintervention beneficial in a landscape architectural context? Perhaps a narrower although more helpful question at this stage of the project is how is noninterventionism useful for investigating the interface between the landscape architect and landscape process? The competition briefs and their associated landscapes will now be introduced so that these kinds of questions can begin to be addressed.

The Competitions

The two competitions are the Otto Linne Award based in Hamburg, Germany in 2009 (figure 21), and the Mine the Gap competition held in Chicago, US, in 2010 (figure 22). They were selected primarily because they are both ‘ideas’ based competitions9 and for this reason are useful for investigating the idea of the landscape architect ’s nonphysical involvement or noninterventionism. Furthermore the specific themes and topics raised in the two competition briefs are appropriate to this ‘research by design’ project as will be discussed below and in Part Two of this document. The Hamburg competition brief will firstly be discussed in relation to the idea of noninterventionism; the same treatment will then be given to the Chicago competition brief.

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The theme of the Otto Linne Competition is ‘water terrace’. I related the idea of noninterventionism to the landscape situation associated with this competition by equating human and nonhuman processes operating in this landscape with the competition’s theme. Specifically, the land-form of the competition study area has been formed by a process called ‘river terracing’. Adjacent to the study area is the Elbe River, one of the largest rivers in Central Europe. The indeterminacy of the hydrological systems that the Elbe River is connected to have caused the river to flood and produce the terraced topography that is the context of competition terrain (figures 23, 24). As a response to these hydrological processes a polder and dike configuration has been constructed on the edge of the Elbe River across the road from the competition area to reduce the chances of the river flooding in the future. We can therefore say that this landscape has been constructed through a water terrace formation process. Noninterventionism is employed here to attempt to become complicit with landscape through connecting the processes embedded within this landscape with the theme of the competition.
Investigating the Chicago Brief Through Noninterventionism

The Mine the Gap competition is located in the US city of Chicago. The study area is the stalled construction site for the Spire Tower designed by the Spanish architect Santiago Calatrava (figures 25, 26, 27, 28). The brief does not have a theme or any programmatic requirements, however it is presented in the context of the processes or events that led to the halting of the Spire project; the economic recession of the late 2000s. The brief states,

“The bursting of the real-estate bubble has left many architects without work, and a number of building sites within the city sit incomplete or abandoned. Yet there is opportunity in this collapse...we detect a newfound freedom for architects to speculate, to propose, to instigate and to agitate for a different city.”

Could a similar opportunism emerge from the redundancy of the landscape architect outlined in the proposition of noninterventionism? The Mine the Gap competition brief also poses a question pertinent to my proposition of how the designer may become complicit with landscape process. It asks, “how can this site leverage what is already present?” If we consider this question in direct relation to the notion of the landscape architect’s nonintervention we can focus on the notable absence of a designer within the form of this question. That is, it is not ‘how can the designer’, but ‘how can the site’ leverage what is already present? This question from the brief (along with the possibility that opportunities may emerge from the ‘recession’ of the designer entailed in the notion of a nonintervention) led me to investigate the landscape adjacent to the competition study area, which is called DuSable Park (figure 29).
While all landscapes could be talked about as arising from a series of human and nonhuman operations the geomorphology or formation process of DuSable Park explicitly shows this interactivity. Importantly it also shows how these operations can be thought of as intercepting or substituting for the landscape architect’s intervention.

The Formation of DuSable Park

The landscape that is known as DuSable Park although is yet to be ‘designed’ as a park in itself has come into being through a series of human interventions intersecting with the indeterminacy of other human and nonhuman processes. Moving chronologically from the construction of a jetty for a lighthouse in the 19th century to the imminent construction of the proposed design for DuSable Park as part of the Spire development, the emergence of this landscape will be outlined.

The Lighthouse Jetty

Following the construction of a lighthouse jetty in 1868, which extended into Michigan Lake from the northern bank of the Chicago River mouth, several sand bars appeared\(^{17}\) (figure 30). Along with the jetty’s intended function as a platform for a lighthouse, its structure also intervened in the hydrological processes operating at the confluence of Chicago River and Michigan Lake. The jetty initiated a disturbance within the underwater currents, which materialised in the production of sand bars at the present location of DuSable Park.\(^{18}\)


18. Ibid.
Ogden Slip

Twenty-five years later these sand bars were transformed into one large mound of soil. This occurred when Ogden Slip, a shipping basin, was constructed parallel to the Chicago River and in close proximity to the emerging piles of sand (figures 31, 32). The slip was dug to facilitate an efficient flow of goods in and out of the city. The soil excavated in the digging of the shipping dock was deposited onto and around the piles of sand that appeared after the lighthouse jetty was built.\[19\] This step in the formation of DuSable Park is different to the previous one. Where the indeterminate formation of the sand piles through the presence of the jetty explicitly shows the interconnected relation between human and nonhuman processes, in the instance of constructing Ogden Slip the movement of the soil is purposeful. However, there is an important equivalence between the emergence of the sand mounds due to the existence of the jetty, and the material situation that arises at DuSable Park from the digging of the slip. In both cases the material conditions that emerge from these interventions do not contribute to the program of the initial intervention. Therefore there is a disconnection between physical intervention and physical outcome. This instability between intervention and its effects allowed this landscape to remain open to subsequent interactions with the city that a ‘design’ landscape would not have facilitated. This is explicitly seen in the next step in DuSable Park’s geomorphology.
The Thorium Factory

In 1936 the Lindsay Light Company located in Chicago’s inner city closed (figure 33). In the years leading up to its closure the company was primarily in the business of refining the radioactive material thorium. The factory produced thorium predominantly for the fabrication of gas mantles for city streetlights. After the factory closed, left over thorium contaminated soil was deposited at a number of locations within Chicago’s inner city (figure 34). One of these locations was DuSable Park where three mounds of contaminated soil were placed on top of the soil excavated from the digging of the shipping slip21 (figures 35, 36).


33 The former premises for the Lindsay Light Company.

34 Aerial view of locations where thorium contaminated soil was deposited following the closure of Lindsay Light Company.

35 View of DuSable Park with the three mounds of thorium contaminated soil.

36 Close-up view of DuSable Park with the three mounds of thorium contaminated soil.
Proposed design for DuSable Park

The next step in the formation of DuSable Park is the proposed design for this landscape by the same designer of the Spire project (figure 37). Two key differences from the previous interventions; the lighthouse jetty, Ogden Slip and the closing of the Lindsay Light Company of thorium, mark the next phase of the landscape’s formation. Firstly, the new park has not yet been constructed. Secondly, unlike the other interventions, which took place around the location of DuSable Park, the proposed design occurs directly within or more precisely on top of this landscape.

However, in light of the previous interactions between intervention and outcome we could suggest that after this design for DuSable Park has been constructed unknown events and material effects would emerge as was the case with the jetty, the slip and the thorium factory.

Returning to the Proposition

Referring back to the proposition of the landscape architect becoming complicit with landscape process through not intervening we can begin to see that in the above two contexts this idea can be explored in different ways. In relation to the Hamburg brief it manifests through equating processes already operating in the landscape with the theme of the competition. In the context of the Chicago brief the pertinent question of the site leveraging what is already present was used to foreground the operation of human and nonhuman processes as a means to intercept or step in for the landscape architect’s intervention.
Contextualising the Proposition

The landscape architect James Corner expresses a somewhat similar sentiment to the idea of noninterventionism when he says in his essay ‘Not Unlike Life Itself’ that

“landscape architects tend to view the specificity of a given site - its environment, culture, politics, and economies - as a program unto itself, a program that has an innate tendency or propensity with regard to future potentials.”

However Corner takes the idea of landscape process as program in a different direction; he intervenes. Corner becomes interconnected with landscape process through the paradox that the landscape cannot be designed, or more precisely, cannot be controlled through design. That is, in Corner’s view because landscape is “a thick living mat of accumulated patches and layered systems, with no singular authority of control...it escapes design.”

In relation to the formation of DuSable Park the ‘layered systems’ or interconnectedness between the intervening jetty and the hydrological processes that gave rise to the sand bars is illustrative of this indeterminate, unstable or escapable relation between design intervention and landscape process. Landscape is not determined by design because the conditions of landscapes are not controllable by the conditions of a design intervention. Design intervention becomes a paradox because no matter how well planned, pragmatic or anticipatory the intervention is it will have unintended effects due to the complex and indeterminate operation of landscape process. Corner characterises this paradoxical relation between intervention and the production of indeterminacy as a positive situation for the designer.

He says that the process-oriented contemporary landscape architect aims to “simply engage the dynamics of the city on their own terms” and empathetically put them to work. In other words the intention here is to become complicit with landscape process.

Ultimately Corner suggests that the very notion of ‘design’ is up for revision when landscape is understood in terms of process. Specifically the act of design shifts from attempting to control landscape process to “stirring” processes through design. Within this formulation he says, “the emphasis shifts from what things look like to how they work.”

One critical aspect driving this shift towards how landscape works is the understanding that design intervention cannot control landscape process.

Corner’s formulation of the landscape architect stirring processes and my position of noninterventionism arise from a similar understanding of landscape. However we arrive at a fundamentally different articulation of how the designer becomes complicit or interconnected with landscape process. For Corner the operation of landscape escapes design because the designer cannot physically manipulate the landscape with any certainty.

For me the noninterventionism proposition describes a situation in which landscape literally escapes my intervention because the uncertainty and indeterminacy of landscape is thought of as a design process unto itself.
Christopher Hight has also challenged Corner’s attempt at revising the relationship between the designer and landscape in which notions such as control and hierarchy and concern for ‘what things look like’ are dissipated by the indeterminate operation of landscape process. Hight’s position is that the agenda of becoming interconnected with landscape should be understood as a “recovery of landscape as an image of design practice” [my emphasis].\(^{31}\) We can understand from this statement that any and all attempts at connecting with landscape are conceptualisations of its condition as opposed to an understanding of how landscape process operates.

Other designers, for example, Roel van Gerwen,\(^ {32}\) Adrian Geuze,\(^ {33}\) Chris Reed,\(^ {34}\) Martin Prominski,\(^ {35}\) Alex Wall,\(^ {36}\) Stan Allen\(^ {37}\) and Alejandro Zaera-Polo\(^ {38}\) have joined Corner to argue that it is the complexity and instability of landscape that has motivated this shift in priority from a pictorial or visual to a process or operational relation to landscape. Hight however through claiming that this revised understanding of landscape is “perceptible and conceptualised as such only because of a reconfiguration in our formal schema of existence”\(^ {39}\) questions the very rationale for this shift. From Hight’s perspective we can say that Corner’s notion that landscape escapes design is itself a form of design because it is a conceptualisation or theorisation of landscape, or more precisely a representation of the connection between the landscape architecture and landscape process. Furthermore the act of conceptualisation is inescapable because landscape is always mediation by a “specific configuration of concepts”\(^ {40}\) or as the architect Mark Wigley has said “design is always a matter of theory...It’s a theoretical reading of the world”\(^ {41}\) and thus different to its physical operation.

Following this line of thinking we could refer to the evolutionary biologist J. B. S. Haldane who stated,

“I have no doubt that in reality the future will be vastly more surprising than anything I can imagine. Now my own suspicion is that the Universe is not only queerer than we suppose, but queerer than we can suppose.”\(^ {42}\)

We can take from this statement that humans are fundamentally limited in becoming knowledgeable about the processes that comprise the landscape. This is because our interface with these processes is theoretical. We can use this idea to further emphasise the difference between Corner and Hight’s positions on becoming complicit with landscape process.

Corner employs the notion of an indeterminate future to establish the theoretical conditions through which the activity of design shifts from a representational and hierarchical to an operational and non-hierarchical procedure.\(^ {43}\) For instance Corner says that within an operational understanding of landscape “the emphasis shifts

\(\text{31. Christopher Hight, “Portraying the Urban Landscape: Landscape Architecture}\

\text{Jessica Blood (Melbourne: RMIT Press, 2004), 233.}\)

\text{Jessica Blood (Melbourne: RMIT Press, 2004), 68.}\)

\(\text{34. StossLU (Seoul: C3 Publishing Co., 2007), 13.}\)


\(\text{39. Hight, “Portraying the Urban Landscape,” 29.}\)

\(\text{40. Ibid.}\)


\(\text{42. John Burdon Sanderson Haldane, Possible Worlds and Other Papers (London: Harper and Brothers, 1927), 286.}\)

\(\text{43. Corner, “Landscape Urbanism,” 59.}\)
from the one to the many, from objects to fields, from singularities to open-ended networks.”

This is the move that permits the notion that landscape escapes design to be formulated. Hight however says that “being human...is to be identified (and) portrayed on the vertical axis.” Hight’s use of the phrase ‘vertical axis’ can be understood here as a mode of operation in which representational and hierarchical events take place such as the “depiction, mimesis and resemblance” of landscape process. Thus we can say that Corner’s privileging of the ‘many’, the ‘fields’ or ‘open-ended networks’ does not enable a shift from a pictorial to an operational interface with landscape as he suggests. Instead like all other conceptualisations of landscape the shift from a pictorial to a process understanding and engagement with landscape is a theorisation of the world; an image of operation.

Significantly Corner does not knowingly incorporate this unavoidable condition of mentally framing landscape within his attempts at connecting with landscape process. For example, in his essay ‘Eidetic Operations and New Landscapes’ Corner says “I use the term eidetic here to refer to a mental conception that may be picturable but may equally be acoustic, tactile, cognitive, or intuitive” [emphasis in the original]. However, the crucial point that I understand Hight to be making is that we cannot escape a mental conception of landscape because it is a built-in human operation. Thus when Corner says that a mental conceptualisation may be visualised or experienced through another sense organ such as hearing or touch, for Hight conceptualisations should not be reduced to a visual or other sense. This is seen when Hight asks Corner, is there “something else that allows our recovery of landscape as an image of design practice?” besides a visual or other sensory image. In this respect Hight and Corner’s positions on becoming complicit with landscape process are opposed to each other.

Researchers who have discussed Hight and Corner in relation to each other have done so in a manner that presents their positions as being compatible. For example Christopher Gray interprets Hight’s critique (as it is understood here) of process-oriented landscape architecture as a critique of pictorial design approaches. Gray then uses Hight’s position to promote process design strategies. He says directly after quoting Hight, “by stripping landscape of its associations with representation and shifting the sensibility towards an operative mode, landscape regains once more the possibility of dialogue across disciplines.” Whether we are establishing a dialogue with landscape across disciplines or between the designer and the landscape my interpretation of Hight’s position is that access to such a dialogue is not made through escaping notions of representation. Instead I interpret Hight as proposing that we accept our mode of operation as one of conceptualisation and representation. Ned Dodington in his online project with Jonathon LaRocca called ‘Animal Architecture’ says that “Christopher Hight...suggests an even more dispersed image of the landscape
However in describing the image of landscape with the adjective ‘dispersed’ signals that Dodington does not appreciate that the distinguishing and radical nature of Hight’s position and critique of Corner is that our involvement with landscape is mediated by our conceptualisation of its condition.

My project attempts however to observe the differences between Corner and Hight’s positions. In doing so the condition of unfamiliarity between humans and the universe outlined above by Haldane can be understood as an unfamiliarity between the landscape architect and landscape process. To become complicit with landscape process we would then be inclined to take an alternative approach to Raxworthy’s suggestion of becoming physically involved with the indeterminacy of the landscape. Similarly we would depart from Corner and understanding design in terms of a paradox of intervention in which physical intervention gives rise to emergent and unmediated conditions. Instead we could accept as an unavoidable constraint the presence of the designer and their continuous forming and manipulating of landscape on a conceptual level as an alternative place from which to initiate a complicit interface between landscape process and landscape architect. From this position, instead of attempting to divest the representational and abstract notions embedded within the act of design we become mindful that the way we work is conceptual and can attempt to utilise this operation within our efforts at becoming complicit with landscape process.

Returning to the Proposition

In light of the above the proposition of noninterventionism needs to be readdressed. We can now see that a nonintervention is itself a form of intervention and therefore a mode of becoming complicit with landscape through the paradox of intervention. That is, the proposition of noninterventionism is not a literal redundancy or noninvolvement of the designer because it too is an image or concept of landscape that involves the designer on a conceptual level. Could this theorisation of noninterventionism be the ‘something else’ (or more likely one of many alternatives) besides a visual or sensory image that Hight suggests may allow for “our recovery of landscape as an image of design practice”? If so a surprising question emerges, which is, how can this conceptualisation of the physically redundant designer, within the notion of noninterventionism, be employed to guide the landscape architect’s physical intervention? This question will be addressed more fully in Part Two of the document. However at this stage we can refer to other researchers who have come to the predicament of noninterventionism when attempting to form an interconnected or complicit relation between design intervention and landscape process.
The landscape architect Bridget Keane, in an early description of her PhD project at the time entitled ‘Instability and Landscape’\(^\text{56}\) (figure 38) presents a similar position, on the relation between the landscape architect’s physical intervention and landscape process, to the proposition of noninterventionism. For example, Keane proposes to investigate “the possibility of form as something that is integrated within and expressed through the medium of landscape rather than a programmatic...overlay.”\(^\text{57}\) While the term ‘form’ can be understood as the shape of the landscape which continually changes due to its interconnection with landscape processes, I understand Keane’s use of the term ‘form’ here as referring to physical design intervention or as she puts it ‘programmatic overlay’. Thus it would appear that she is promoting an engagement with landscape process through the absence of her physical intervention. This approach to landscape process is seen again when she says she aims “to hypothesis a situation where the instability of the landscape itself could be a means to producing ‘form’ or the ‘formation of order’.”\(^\text{58}\) Imperative here is Keane’s insistence on the ‘landscape itself’ as a formation of order rather than landscape being physically produced by both landscape process and the designer. It is clear that Keane’s position on relating to landscape process is equivalent to my proposition of noninterventionism.

There is, however, an important difference between my proposition and Keane’s description of her project. Keane’s understanding of form emerging through landscape process also escapes a conceptual intervention.\(^\text{59}\) That is, for Keane the operation of landscape not only negates a physical design intervention but also a “theoretical overlay.”\(^\text{60}\) My view however is that the redundancy of the designer that Keane and myself are proposing is a conceptualisation; a theoretical position.

If we forget Keane’s asserted escape from a theoretical proposition, it would then appear that she is implicitly asking the same question as myself. Which is, how can a conceptualisation of landscape inform physical intervention when it excludes the designer’s physical intervention? Could the acceptance of the inseparable connection between the designer and a theoretical position, that is, the inability to escape a representation of landscape, provide the parameters through which this noninterventionist conceptualisation of landscape evolves to physically include the landscape architect?
A reading of the composer John Cage, particularly his composition 4'33", offers an answer to this question on how the initial redundancy or exclusion of the designer can be employed to approach a physical design intervention.

In 1952 Cage composed 4'33", a piece of music in which the musician(s) are directed to hold their instrument(s) on stage in front of the audience for 4 minutes and 33 seconds but physically play nothing. As seen in figure 39 the pianist sits at his instrument with his hands on his legs instead of on the piano keys. Figure 40 shows the ‘blank’ sheet music for 4'33" that informs the musician to play nothing. Instead the music for the composition consists of the ambient sounds produced inside and outside the performance room. Cage considered these sounds; people sniffing, coughing, laughing, booing, walking in and out of the theatre, wind, traffic, birds or whatever, as the music for 4'33.

We could easily talk about 4'33"s emphasis on sound as arising from Cage attempting to privilege human senses; primarily hearing, and nonhuman operations related to hearing; the sound of rain and wind coming from outside. Alternatively we could present this focus on these indeterminate processes as emerging from Cage’s attempt, albeit futile, at divesting control over the composition by not writing the music. My interpretation is that Cage does this through proposing that this particular composition is best listened to, or in fact only heard, when the musician(s) play nothing on their instrument(s).

We could say that this prolonged muting of the conventional musical instrument(s) allows the composer to equate noise with music and through this strategy potentially produce any sound through playing nothing. In this interpretation, the motivation for 4'33" stems from an engagement with human and nonhuman processes that is structured by the acceptance that an intervention cannot be avoided. If we are complicit with landscape process when we do nothing and doing nothing is a form of intervention and therefore contradictory to doing nothing, then perhaps we become complicit with landscape process through a contradictory complicity.61

This paradoxical relation between nonintervention and intervention is expressed in Cage’s statement “I have nothing to say, and I am saying it.”\(^{62}\) I interpret this statement as being illustrative of the situation the landscape architect can find him or herself in when attempting to privilege or become complicit with landscape process. The situation is that first we arrive at our own redundancy, then realise it this is a form of intervention. If we break Cage’s statement ‘I have nothing to say, and I am saying it’ into its two parts we can see how the first part of the sentence is contradicted by the second part. The paradox of intervention is acknowledged and then incorporated into the intervention; the paradox is put to use.

Firstly, ‘I have nothing to say’ can be understood as an answer given for how an interconnected or complicit relation with the world can be established. The redundancy of the designer formulated from the installation series echoes this position, as does Keane’s hypothesis of substituting physical design intervention with landscape process. Secondly, ‘and I am saying it’ shows the movement from the initial position on complicity to a conflicted or contradictory position the moment the theoretical position is expressed through a physical intervention. In 4’33”, we can therefore see that Cage employs his initial redundancy (‘I have nothing to say’) by materialising the conceptualised absence of physical intervention (‘and I am saying it’).

This reading of 4’33” provides a framework through which an understanding on how the concept of noninterventionism can be utilised to inform the designer’s approach to physical intervention. What is of most importance is the realisation that the most complicit or connected relation between the landscape architect and landscape process could be, counter-intuitively, one of contradictory complicity.

In Part Two we will further investigate this idea of a conflicted or contradictory connection to landscape process by inquiring into how to physically employ the proposition of a nonphysical intervention. In doing so I hope to provide an answer to the question of how the landscape architect becomes complicit with landscape process through design.
Part Two: 
Contradictory Complicity

In Part One the interconnectedness of the landscape architect and landscape process was investigated through the series of local installations. This research by design process produced the proposition that complicity between the designer and landscape process is established through his/her nonphysical intervention. It was then concluded that any physical investigation (the designer proposing physical manipulation of the landscape) of this theoretical position could be described as a contradiction between the landscape architect’s intervention and the operation of landscape. Rather than this conflict being presented in a negative light, it is understood as an inescapable occurrence and therefore something to be acknowledged in order to situate landscape design in relation to landscape process.

The brief for the Otto Linne design competition based in Hamburg, Germany introduced in Part One in the context of the nonphysical intervention proposition, will be drawn upon here to act as specific situation through which this proposition can be investigated physically. Through this an attempt is made to enable landscape architecture to be complicit with landscape process. Charles Waldheim’s paper ‘Indeterminate Emergence: Problematised Authorship in Contemporary Landscape Practice’\(^1\) will then be utilised to further contextualise evaluate the design work associated with the competition brief and the ideas informing this work from Part One. Waldheim’s discussion of landscape architecture in relation to landscape process is drawn upon here because he offers a different account to that of the shift from pictorial to operational design priorities discussed in Part One and promoted by Corner, Gerwen and others. Instead Waldheim sees contemporary landscape architecture’s investment in relating to landscape process as a continuation of certain art and architecture practices related to the notion of the ‘death of the author’. A core difference in how this project is attempting to become interconnected with landscape process and Waldheim’s account of this agenda will be highlighted. This will provide an opportunity through which the research project can be brought back to the area of contemporary landscape architecture which was critiqued in Part One and in doing so evaluate the project as a whole.

Hamburg Investigation

In Part One a response to the Otto Linne competition brief was proposed through connecting the core condition of the brief, the theme ‘water terrace’, with an understanding of the processes that have informed the existing land-form of the competition landscape. As shown in figures 41 and 42 the water terrace thematic can be discussed in terms of the fluctuations of the Elbe River that over time produced the terraced land-form of the competition study area. Physical intervention was therefore neutralised through eclipsing or matching a reading of the water terrace theme with processes that have regulated the formation of this landscape. In other words the landscape was conceptualised as participating within the context of the theme without the landscape architect’s physical intervention.

Alternatively, through a more lateral interpretation of the theme, we could propose a cloud raining as a water terrace; an intermittent water terrace dependent on the unpredictability of the weather as demonstrated in figures 43 and 44. Where the river terrace account of the landscape’s morphology is suggested through a historic reading of the competition theme, the cloud terrace can be discussed irrespective of time. In fact, the cloud terrace could almost be discussed irrespective of place, in the sense that almost all landscapes experience rain, and therefore are potential ‘water terraces’. What is important here is that thinking of landscape as self-regulating and autonomous is a conceptualisation that can cancel out a physical intervention from the designer.

Arbitrary?

This activity of proposing equalities between the competition theme and its associated landscape may appear arbitrary. This could be because the above interpretations of the theme (river and cloud water terraces) through the processes already embedded in the given landscape rely on a conceptual manipulation of the conditions of the brief and the landscape. In terms of the brief I am detaching the theme from the other conditions it asks participants to address, for example social and environmental parameters (which will be introduced below).
Similarly in terms of the landscape, I am aware that I am privileging hydrological and meteorological processes over others in order to pair the existing landscape situation with the theme of the competition. In this sense the procedure is arbitrary.

However, through the lens of Part One we would propose that the social and environmental conditions of the brief (whatever they are) be addressed through a nonphysical intervention. And in terms of the landscape we could suggest that the designer can never foreground or take into account all that exists unless, of course, we opt for a nonphysical intervention. For example, Cage’s 4’33” was discussed in Part One as taking everything into account through playing nothing. In this sense, any superficiality that undergirds this stance may not be peculiar to the notion of a nonphysical intervention but built into the practice of landscape architecture. That is, we cannot help but edit and therefore submit to a hierarchy the information within a design brief and the processes within the landscape. In short, we cannot avoid control. Or more positively, whatever we do is control. Again rather than this observation being a problem, if we accept this situation then it can become an opportunity for informing a complicit interface between the landscape designer and landscape process.

Perhaps the contradiction encased in the transition from Part One to Part Two, that is, physically employing the notion of a nonphysical intervention, is a shift from the arbitrary to the rational. The anthropologist Stephen Muecke’s work on the notion of contingency appears relevant here. Muecke says, “the contingent is that which is not necessary for function, yet seems to broadcast all the potential for future thought.” Could the practice of proposing potentially spurious alignments between the thematic of the brief and the existing landscape conditions become a productive framework that takes us past demonstrating the physical redundancy of the designer? Could, for example, this strategy of equating the competition’s theme with the conditions of the landscape result in ‘broken’ or contradictory equations? That is, are there correlations between the theme and the landscape that cannot explain away physical intervention, as was the case with the river and cloud terraces? Instead are there examples of water terraces that collide with the landscape situation, associated with the competition, that evoke and prompt physical intervention due to the differences within the coupling of the theme and the landscape? What kinds of water terraces would create such a situation? They could be water terraces that have formation processes that are not already operating in this landscape.

At this stage we could tentatively describe this as a somewhat de-contextualised approach to landscape design. That is, the situation developing here to guide physical intervention requires water terrace morphologies that cannot be assimilated by the processes operating in the competition landscape. In order to propose the kinds of water terraces that are foreign to the particular landscape situation related to the

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competition we will now introduce the specifics of this landscape in more detail. From this description of the landscape, primarily through the lens of the brief, a collection of water terraces whose formation processes do not match these conditions will be introduced. Through this procedure we will investigate an approach to physical intervention informed by the concept of a nonphysical intervention.

The Landscape Situation

The study area for the Otto Linne design competition is located in Ottensen, one of the urban quarters that make up the Hamburg district of Altona. Figure 45 shows that the site lies between the local Rose Gardens to the north and Neumuhlen Road on its southern perimeter. From the opposite side of Neumuhlen Road pedestrian access to Elbe River walkway is possible. To the east and west of the study area a green corridor traverses the riverbank. Within this vegetated corridor is a series of parks; directly east of the competition study area is Donners Park and to the west Heine Park.

The brief divides the competition area into two zones; the relatively flat terrain which connects with Neumuhlen Road and the adjacent steeply sloped section of the river bank, which rises 30 meters from the lower area and intersects with the green corridor and levels out at the Rose Gardens (figure 46). These two zones; the lower flatter area and the river bank, can be thought of as the ‘tread’ and ‘rise’ of a river terrace. The tread of the terrace is the focus area for the competition however aspects of the brief make it possible for candidates to also physically intervene in the rise area of the terrace.
The Rise

The sloped area of the terrace, which the Rose Gardens sit above, is part of an extensive green corridor that runs along the Elbe River bank. The gradient of this slope varies; within Donners Park the rise is relatively gentle, permitting people to sunbathe on the south facing slope, while within the competition area it is rather steep. Negotiating this slope is the Elbtreppe; or the Elbe staircase, which is a narrow pedestrian system linking the Rose Gardens with Donners Park (figure 47). One of the requirements of the brief is that design propositions include additional pedestrian routes through the landscape connecting Neumühlken Road with Donners Park, Heine Park and the Rose Gardens.

Uncharacteristically for the steep sections of the river bank the rise within the competition zone is devoid of substantial vegetation. The sub-surface composition of the slope is therefore lacking the stabilisation provided by the roots of trees. As a result this section of the riverbank is unstable and likely to encounter slips. The brief requires that design submissions address the instability of the slope through either planting or other soil retaining structures. 3 In addition to the absence of an underground root structure is a network of aquifers (underground rivers) within Altona’s wider landscape which are contributing to the slope’s instability (figures 48, 49).

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47 Shows the contours of the tread and rise of the terraced landscape. The green corridor that traverses the slope is disconnected in the rise of the competition area. The Elbtreppe is highlighted.

48 Cross-section of the network of aquifers underlying the Altona District.

49 Detail of the aquifer the intersects with the competition study area.
To make matters more unsettled the particular aquifer underlying the competition study zone is unconfined. This means that water leaks from the aquifer and flows onto the surface of the landscape. Traces of iron are visible in the water that seeps from the fractured aquifer. The iron in the water has accumulated by coursing through the subterranean minerals that compose this landscape. In addition to the iron, the seeping water is polluted by chlorinated hydrocarbons (presumably from the site’s industrial past, discussed below) and although the level of contamination does not present an ecological hazard, the brief asks that the competition entrants clean the water.\(^4\)

The forces acting on the slope; gravity, unstable soil due to the absence of consolidating roots, and water oozing from an underlying unconfined aquifer, intersect in the sloped zone within the green corridor making the it unstable (figure 50). Conversely, on the firm and flat ground of the Rose Gardens above is a scenic lookout point. The gap in the green corridor, contributing to the instability of the slope, is required to form this view of the Elbe River and across to the Hamburg port through the green corridor (figure 51).

\(^4\) Ibid., 15.
The Tread

The tread area of the landscape has historically been utilised for agricultural, industrial, and commercial programs. In the 17th century the landscape was used for agricultural purposes, while during the 18th century a powder mill occupied the site. In the year 1738 an explosion destroyed the mill. Two years later an oil mill was established within the tread zone. In 1912 the construction of the ‘Lower Elbe Power Station’ began within this area. The location was chosen for its proximity to the Elbe River and the un-confined aquifer; it drew water from both sources to cool its turbines (figure 55). The power station was subsequently demolished in 1945, the landscape was then used as a storage space for fishing crates into the 1980’s and today functions as a car park for a senior citizen’s home and tug boat operators (figure 56). However the brief explains that like the previous land uses the car parking facility is no longer required. Thus we have a relatively flat terrain enclosed by trees in directions east and west, the riverbank to the north and Neumuhlen Road to the south. The seepage plume of the unconfined aquifer also partially intersects with the tread zone. Currently the water that flows from the ground is directed into a trench at the north end of the tread zone, it then runs through the east of this area and is then conveyed into the civic water system which connects with the Elbe River (figures 52, 53, 54).
Returning to the Theme

Within the above description of the landscape a number of typical landscape analysis categories; hydrology, geology, history, and ecology, were described. For instance, the geological and hydrological processes occurring on the slope were discussed along with the agricultural and industrial history of the tread space. These landscape categories, which are here discussed as landscape processes because they are not static and are all interconnected, can be used to steer the investigation back to the water terrace theme. We can now follow the procedure that led to proposing the cloud and river terraces, but in doing this we will encounter water terraces that in some part conflict rather than wholly corroborate with the processes acting within this landscape and thereby work towards an approach to physical intervention.

The geological and hydrological forces intersecting on the slope, particularly the seeping water, evokes thoughts of the water terraces produced through mineral solidification, such as the Pink and White terraces once located on the edges of Lake Rotomahana, in New Zealand (figure 57). The existing pedestrian pathway traversing the slope; the Elbetreppe, conjures up comparative thoughts of the terrace forms created by slope dwelling animals such as goats and sheep, through their repetitive movements across a landscape. This instance of the theme is commonly referred to as cattle terraces, and can be seen through the New Zealand countryside (figure 58). The discussion of the tread area particularly the historic agricultural and industrial land uses induced thoughts of terraces produced through mining activity and rice terraces found throughout the hillsides of Asian countries (figures 59, 60).

If the river terrace is produced by hydrological processes and the cloud terrace by meteorological systems, then the mineral terrace could be described primarily through geological processes, and similarly the cattle terrace as biological, the mining terrace as industrial and the rice terrace as produced through agricultural processes. Importantly, unlike the hydrological and meteorological terraces these other water terrace processes require the designer’s physical intervention.

For instance, to produce a physical proposition for the landscape through the biological terrace formation process, as a manifestation of the competition’s theme, the designer would be required to physically intervene. Unlike the cloud terrace, the combination of processes dependent on the morphology of the terrace are not present within the existing conditions of the landscape. An intervention would then consist of introducing appropriate animals into the landscape whose traversing movements could over time produce a terraced landscape (figure 61).
In the case of the geological or mineral terraces the formation process is more complicated. Here water saturated with calcium carbonate (limestone) and iron carbonate (a combination of iron and carbon dioxide) is required to flow from below to above ground. At the land/air interface carbon dioxide is expelled into the atmosphere and through this process the mineral rich water solidifies forming the rise of the terrace, which is a slowly emerging rim or tip (figure 62). The rising terrace rim allows water to accumulate behind it which over geological time goes through the same depositing process making the terrace wall more substantial. Water that issues from other parts of the slope, or water that flows over the edge of an already formed terrace goes through the same formation process which leads to the production of clusters of mineral terraces (figure 63).

If we compare this terrace forming process with the combination of geological and hydrological processes functioning within and through the slope of the Elbe riverbank we can see that there are both similarities and differences. For instance, the unconfined aquifer provides a source of water moving from below to above ground and it contains iron, two conditions underlying the composition of a geological terrace. However, the landscape is lacking in terms of a supply of calcium carbonate, for example limestone, and the iron (as far as we know) is not impregnated with carbon dioxide, that is, it is not carbonated. Therefore in this instance the physical design intervention would be motivated and regulated by implementing these absent materials. Comparatively, the industrial mining terrace forming processes would be simpler. It would involve extracting soil, rock, and water from the landscape using a digger in order to initiate the theme of the brief.

The agricultural terrace would entail constructing terrace walls that follow the contours of a slope. The built forms both reduce erosion and create a cavity into which water is directed to accumulate. And of course, rice is grown in the water. Similarly to the geological terrace instance, here we have material commonalities and differences between the existing landscape conditions within the competition study area and the properties of the particular water terrace. For instance, the agricultural terrace requires a water supply which the unconfined aquifer could provide. But would, for example, rice grow in polluted water? Could the physical intervention involve cleaning the chlorinated hydrocarbons from the water, as the brief directs candidates to do, and possibly also the iron content in order the set the conditions through which rice could be grown? Before addressing such questions on the parameters that will guide the physical intervention, we will now inquire more generally into the water terrace collection itself to select which manifestation of the theme to investigate in more detail. In order to do this we need some form of rationale to inform this selection process. The notion of contradictory complicity will be invoked for this task.

Organising the water terrace collection

The agricultural and geological terrace examples are more reflective of the theme of the competition, than the biological or the industrial terraces, for they explicitly involve the materiality of water. Using this observation we could suggest that an involvement with the theme that enlists one of the non-water terraces (biological or industrial) to guide the physical intervention. This decision could be supported by the concept of contradictory complicity, where the paradox is directed toward the presence of water in the theme. However, all the terraces would technically become water terraces through their interaction with the water seeping from the unconfined aquifer. Also both the industrial and biological terracing processes do involve water in their formation; its role is just not as obvious as in the geological and agricultural situations. Another more acute difference within the collection of water terraces is the presence of human intervention within their production. The geological and biological instances emerge through nonhuman processes while the agricultural and industrial terraces are composed by people. This human/nonhuman distinction was dissolved in order to hypothesise the landscape architect’s physical non-intervention through the Paint-Scape installation in Part One. Therefore the division of the theme here into human and nonhuman water terrace morphologies could be an important step towards physical intervention because it is precisely oppositional. That is, it is contradictory to a specific component of the nonintervention proposition; the inseparability of human and nonhuman processes.
So now we have two categories of water terrace, those produced through human operations and those formed through nonhuman operations. This division of the theme sets the scene for two potential physical design investigations of the competition study area. While all physical intervention is situated within this research project as contradictory to landscape process, what about the conditions of the brief (besides the theme) that have been mentioned above; stabilise the slope, provide a pedestrian axis, interact with water, clean the water? The differences between the human and nonhuman water terraces could be utilised to establish two distinct approaches to these aspects of the brief and thereby extend the scope of this investigation into the strategy of contradictory complicity.

The geological water terrace, as an example of a nonhuman formation process, could address these elements of the brief by connecting them with the formation process of the water terrace. That is, the initiation of the geological terrace would involve, among other things, physically embedding limestone within the slope of the landscape. Over time this initial intervention could lead to the slope stabilising and a pedestrian network could emerge through the evolution of the geological terrace (figure 64). In other words, these aspects of the brief are treated with a contradictory complicity. These conditions of the brief are therefore not being repressed nor neglected but attached to the continual construction of the water terrace. The agricultural terrace, as an example of a human driven formation process, could on the other hand intentionally address the above mentioned facets of the brief; pedestrian structure, slope stabilisation, interact with water. Unlike the hydrological (river) and meteorological (cloud) terraces which conformed with the processes functioning in the landscape, the agricultural terrace conversely appears to match the conditions of the brief. For example, the terrace walls could both stabilise the slope and contain seeping water, and also contribute to a pedestrian structure (figure 65). The anomaly is the relation between the iron and chlorinated hydrocarbon content of the water and the rice component of the agricultural terrace. Putting this difference to the side for the time being, in contrast to the contradictory involvement with the brief described through the nonhuman water terrace we could characterise the human water terrace as exhibiting a consistent complicity with the brief.
Both of the physical intervention strategies emerging above appear to hold value for investigating how the operation of landscape process could inform a physical landscape intervention. The nonhuman strategy is appropriate to the premise of the larger research because it embeds indeterminacy between the formation of the water terrace and the realisation of the requirements of the brief. On the other hand it would be tempting to assume that within the human approach the inescapable conflict between the designer and the landscape is somehow elevated by forming a consistent involvement with the brief.

However the two strategies are not homogeneous in their relation to the brief as I have explained above. For instance, the nonhuman geological strategy would inevitably involve interacting with water which is one of the cited conditions of the brief. This aspect of the brief would therefore be directly or consistently approached through the geological terrace. Similarly the human approach is intermixed with the nonhuman strategy. Specifically this manifests itself in the agricultural terrace as a deviation from a consistent to a conflicted approach to the brief in terms of its request for the polluted water to be cleaned. Therefore both strategies have oppositions within their configurations with respect to their relation to the conditions of the brief. The difference existing within the agricultural terrace appears more loaded with potential than that within the geological terrace. The agricultural terrace will therefore be utilised to approach a physical intervention for the Otto Linne competition. Because both a consistent and a contradictory relation to the conditions of the brief are present in both strategies there will be opportunities to draw insights from both a consistent and a contradictory design approach through the one physical design investigation.
Before moving on however, this might be a good time to recap the ways in which the concept of contradictory complicity has so far presented itself.

Firstly, it was established that in general terms that Part Two of this project exists in contradiction to Part One. This is because Part Two is attempting to physically use the concept formulated in Part One of a nonphysical intervention.

Secondly, and more specific to the Hamburg investigation, the physical intervention agenda of Part Two was developed by transitioning from foregrounding water terraces that could be assimilated within the given landscape to those that could not. In this situation the mismatch between the theme and the landscape provided an opportunity to approach physical intervention. For instance shifting from a river or cloud terrace to a cattle or mineral terrace.

Following this a human/nonhuman division of the water terrace collection was proposed. This reverses the interrelatedness of human and nonhuman processes which is a core aspect of the nonphysical intervention proposition

The division of the water terraces into categories of human and nonhuman formation processes then allowed for two different approaches to the conditions of the competition brief to emerge; a consistent or a contradictory complicity.

Each of the above steps is important and relevant to the agenda of this project because each brings us closer to an approach to physical intervention informed by the notion of a nonphysical intervention. The intention is that this shift from nonphysical to physical action will result in a design strategy through which the landscape architect becomes complicity interconnected with landscape process through design.
Agricultural Terrace Physical Design Intervention

The alignment between the agricultural water terrace and three of the four core conditions of the brief formed the basis through which the physical intervention was undertaken (figure 66). These aspects of the brief will be discussed, after which the contamination of the seeping water (the contradictory or unassimilated condition of the brief) will be addressed.

Consistent or Direct Relation to the Brief

The Rise

In the proposed design shown in figure 67, the agricultural water terrace informs the configuration of the sloped section of the study area. For example, the terrace walls, which follow the contours of the river bank, act as retaining walls. They therefore address the requirement to stabilise the slope. The terraces also allow for the seeping aquifer water to pond in the cavity formed by the rise of the terrace and the slope of the bank. It was initially envisaged that the terracing of the slope would provide a pedestrian network through the landscape. However this would entail human movement across the slope rather than up and down it as the brief requests. Therefore a pedestrian route that bisects the terraces at right angles is proposed. In the same way that the terraces running across the slope follow the contours of the bank, the location of the proposed walkway was determined by following the less steep terrain. This pedestrian structure provides access from the Rose Gardens to Donners Park and into the tread area of the landscape.
The Tread

Within the tread area two pathways are proposed that extend from Neumuhlen Road to form pedestrian connections to Donners Park and Hernie Park. The design of the two pathways is informed by the way both rice growers and tourists walk along the edge of agricultural terraces in Asia. Within the walkway connecting Neumuhlen Road and Hernie Park some of the cavities in the terrace units are grassed and some contain trees. The connection between Neumuhlen Road and Donners Park overlays the seeping area of the unconfined aquifer. Here the base of the terrace units are perforated so that the oozing water can move up and into the cavity, then overflow through notches in the side of the unit. The water then discharges into a channel which connects with the detention basin at the north end of the tread zone. This interaction between the seeping water and people using the walkway relates to the aspect of the brief that asks candidates to engage with water.

Contradictory or Distanced Relation to the Brief

The general hypothesis of this investigation is that a contradictory positioning of elements of the brief is in some ways a reversal from establishing a consistent or direct relation with them. If this is the case, we may investigate the contaminated water by means of an approach that opposes the way that the other conditions within the brief were negotiated. For example, the interaction between the agricultural terrace and the processes acting on the terrain (its steepness, its lack of a supporting root network, the underlying unconfined aquifer, and the scenic look-out point from the Rose Gardens) were mapped onto each other to address these requirements of the brief. This form of interaction with the competition programme takes into account a combination of processes and assimilates them through the structure of the water terrace. To reverse this procedure we could foreground the processes of interaction between the iron and the chlorinated hydrocarbon-contaminated water that the physical intervention sets in motion. For example, the polluted condition of the water comes into contact with people, most explicitly, in the tread zone where the walkway intersects with the seeping water. In the sloped area on the other hand the water becomes the dominant surface material, and therefore interacts with different processes than it would in an underground location.
In the tread zone where people come into close contact with the polluted water there is a combination of processes (pedestrian movement and contaminated water). Is this contamination a problem for humans in terms of toxicity? The brief asks candidates to remove the chlorinated hydrocarbons from the water through some form of remediation.

However, it also says the level of contamination is not a health hazard. Current scientific literature on iron-contaminated water reveals that unless the iron content is extremely high the presence of iron is classed as an aesthetic issue rather than a health concern. This suggests that the condition of the water, with respect to both its iron and chlorinated hydrocarbon content, is not an environmental problem. Muecke’s reading of the term contingency referred to earlier as being something that is “not necessary for function” can be used to think about the iron and chlorinated hydrocarbons existing within the water. For example, within the design investigation the chemical composition of the water occupies a conflicted relation to the brief’s stipulation to remediate the water. And as discussed above these substances are not problematic in environmental terms. In both of these senses, then, cleaning the water is not necessary.

This investigation through the Otto Linne competition brief began by proposing water terraces that could be mapped onto the conditions of the landscape without recourse to physical intervention. This strategy could be used as a frame through which to investigate the contaminated water. For example, the processes operating in the landscape were discussed in terms of a river and cloud terrace. So what formation processes could match the combination of water, iron, and chlorinated hydrocarbons?


These core materials were investigated and it was discovered that they could be connected to the morphology of the phytoplankton alga. The formation process of algae is made possible by the specifics of this landscape situation. For example, sunlight streaming onto this south facing landscape through the gap in the green corridor, interacts with the iron content of the water and through this intersection stimulates the growth of algae (figures 68, 70, 71). This interaction triggers the process of photosynthesis. As algae grow they absorb carbon dioxide from the atmosphere and expel oxygen thus performing productively in general ecological terms. The growth of algae on the terraced slope would therefore connect with the invisible operation of the green corridor; absorbing carbon dioxide and releasing oxygen (figure 69). Thus in terms of photosynthetic operation the gap in the green corridor becomes connected within this design investigation. More specifically with respect to the terms of the brief, and fundamental to this project’s inquiry, is that algae have the potential to absorb chlorinated hydrocarbons from the water they grow in. Therefore the water could very likely become decontaminated precisely through the strategy of conflicting with the brief’s requirement to remediate the water.

69 Diagram indicating the photosynthetic connectivity within the green corridor as a result of the proposed design.


This interrelatedness between water, iron and algae relates to ‘iron fertilisation’, a scientific experiment connected to mitigating climate change. Scientists are investigating a correlation between the iron content of bodies of water and the presence of algae life. As was mentioned above, when algae grow they absorb carbon dioxide from the atmosphere and expel oxygen through the mechanism of photosynthesis. The growth of algae potentially mitigates the effects of global warming, which could range from small rises in sea level to mass extinction. Through capturing carbon dioxide algae has the potential to reduce the quantity of this gas in the atmosphere. According to the majority of the science community this will slow down global warming.

While plants and trees also carry out the same photosynthesis operation it has been revealed that algae (not technically classified a plant due to not having roots) perform this process ten to fifty times more efficiently than plants. Climate scientists found low levels of iron at areas of ocean that exhibit low growth rates of algae. They are fertilising such water bodies with iron and monitoring the effect this has on algae growth and corresponding on local carbon dioxide levels and sea levels over time (figure 72).

In relation to chlorinated hydrocarbons, scientists at the Algae Program at the University of Kentucky are investigating the ability of algae to absorb and remove chlorinated hydrocarbons from water.
Accounting for Complicity

We could observe the emergence of algae and its correlation to the remediation of the pollutant in the water as an outcome of the physical assimilation of the three conditions of the brief through the employment of the agricultural terrace. That is, the remediation of the chlorinated hydrocarbons from the water could be thought of as a condition embedded in the agricultural terrace as was the case with the other facets of the brief. The agricultural terrace could therefore be seen as aligning with the requirement to remediate the water. Not previously knowing this, we would therefore be accounting for the complicity between the physical intervention and the ecological dimension of the brief through a consistent complicity which is the same as the paradox of physical intervention. That is, the physical mediation of landscape inevitably produces unexpected events beyond the designer’s intention. The emergence of algae in this design investigation and their relation to cleaning the water could be seen as an example of this paradox. This reading of a complicit connection to the brief arising from a consistent, as opposed to a contradictory, relation would also align us with Corner’s description of the process-orientated designer as being involved in the “active stirring of ecologies.” In this interpretation, physical intervention paradoxically “escapes design” because interconnected processes are perversely indeterminate and at a base level uncontrollable.

Alternatively we could, and I argue we should, understand this involvement with the brief’s requirement to remediate the water as arising from the attempt to consciously establish a contradictory connection to this condition of the brief. The fundamental difference is that in this interpretation the indeterminacy and instability of landscape process are not thought of as ‘escaping’ design. Landscape, as proposed in Part One, is always designed through an inescapable operation of abstraction. This is always the case even within a conceptualisation of landscape in which physical intervention is ultimately uncertain. In light of this we could align the agricultural terrace design interventions conflicted approach to the brief with a visual approach to landscape architecture. That is, designing landscape through a privileging of what things look like could be understood as a conflicted connection to how landscape works and therefore an approach to becoming interconnected with landscape process. In fact a visual approach to design could be understood here as an approach that is motivated by a shift from a nonphysical intervention to a physical intervention.

The Otto Linne investigation can also be seen as a demonstration of Hight’s encouragement “To understand...complexity in the image of landscape and to avoid reducing it either to a natural phenomenon or a sensorial representation.” This statement can be seen as promoting an engagement with nonhuman and human processes that recognises our inability to become physically complicit with these

21. Ibid., 59.
processes through a direct or consistent approach. For Hight, the designer who attempts to connect with the complexity of landscape process should shift her/his focus away from landscape process and toward our conceptualisation or imaging of landscape.

The agricultural terrace design illustrates this strategy by providing an opportunity for the contamination of the water to occupy a contradictory and thus distanced relation to the physical intervention. Paradoxically, this avoidance of physical intervention in relation to the contamination of the water became the procedure through which complicity between the designer and the competition brief emerged. Importantly, underlying this connection with the brief is the premise that complicity between the landscape architect and landscape process is best investigated through the frame or image of landscape as process rather than privileging the physical reality of landscape as process.

A connection between the landscape architect and landscape process has therefore been demonstrated as emerging from the designer’s contradictory relation to landscape process. From this connection I am proposing a shift away from an approach to landscape architecture that employs the paradox of physical intervention in order to become interconnected and non-hierarchical, or in the language of this project ‘complicit’ with landscape process. Instead I am proposing a move towards employing the paradox of physical intervention for what it is, a representation. Using this image to guide physical intervention we realise that to become complicit with landscape process we need to intervene paradoxically. This is different from the paradox of intervention because it uses paradox as a concept rather than a condition. I believe that this distinction is pivotal when we are attempting to establish an operational alliance with landscape process.

This key difference between discussing the paradox of intervention as a concept or theory as opposed to a physical condition is encountered, yet not accounted for, by Charles Waldheim. This occurs in his paper ‘Indeterminate Emergence: Problematised Authorship in Contemporary Landscape Practice,’ 14-17.


25. Ibid., 2.
The connection between the ‘death of the author’ and architecture is not new. The architect Branko Mitrovic has recently consolidated this discussion in his book ‘Philosophy for Architects’. He says that in architecture we “will recognise Barthes’ position in (the architect’s) attitude toward clients and users of architectural works” and that “if authorial intention does not control the meaning of a text, this will also be the case with the architectural brief.” Thus the designer’s interpretation of a design brief is not determined by the author(s) of the brief. This kind of instability between a design brief and a designer was seen in Part One of this document. For example where the two competition briefs were interpreted as demonstrating the nonintervention proposition, which we could quite safely say was not the intention of the authors of these briefs.

Mitrovic also says that “the ‘death of the author’ in architecture is...best observed as the rejection (or suppression) of functional concerns in design.” The significance of Waldheim’s paper is that it further appropriates ideas associated with the ‘death of the author’ into the discourse on landscape process in landscape architecture. This intersection produces a number of questions. If as Mitrovic says, the ‘death of the author’ in architecture is about negating functional concerns, what is its status for landscape process oriented designers? How is the ‘death of the author’ best observed in a context of landscape process?

The answer to these questions for Waldheim is based on the compatibility he sees between an author and a designer when interventions from each; a text and a design, produce indeterminate conditions. In other words Waldheim connects the ‘death of the author’ discourse in literature and architecture with landscape architecture through the paradox of intervention. Waldheim’s argument is made through discussing work by designers who were discussed or mentioned in Part One of this research project such as James Corner, Stan Allen, Adriaan Geuze and Alejandro Zaera-Polo. However Waldheim concludes that,

“the critical or negational dimensions of distanced authorship...have largely given way in favour of a putatively post-critical assumption of laissez-faire urbanisation and autonomous ecological emergence as the pretexts for this new indeterminacy.”

27. Ibid., 152.
28. Ibid.
29. Ibid., 152-53.
31. Ibid., 17.
Waldheim’s use of the words ‘putatively’ and ‘pretext’ in relation to the landscape oriented designers he discusses have to be interpreted as a critique of the these designers and it can be understood as a critique of the paradox of intervention as a mode of becoming complicit with landscape process. Waldheim’s intention to outline a connection between the ‘death of the author’ and landscape architecture leads to a shift in design approach. This shift can be accounted for by looking at how Waldheim interprets “a rejection (or suppression) of functional concerns in design”\(^{32}\) in a discourse of landscape process. On this aspect Waldheim refers to Peter Eisenman who is strongly associated with notions of the ‘death of the author’.\(^{33}\) Waldheim says, “on Eisenman’s account (displaced authorship will) allow the discipline to abandon its obsession with motivating form functionally.”\(^{34}\) We can see where Waldheim is coming from in his attempt at forging a connection between the ‘death of the author’ and landscape architecture when we consider Corner’s notion that landscape escapes design\(^{35}\) in relation to Eisenman’s abandoning of function. However, saying that landscape process determines a design intervention as opposed to the designer is the same as saying that form is motivated by function. Corner’s position, which Waldheim draws upon, is thus antithetical to this aspect of the ‘death of the author’. However this contradiction should not be interpreted as a form of complicity because it is not acknowledged as oppositional.

In my view the landscape architect committed to observing notions of the ‘death of the author’ is best to interpret an abandoning of function as translating into an understanding that she or he conceptualises landscape and are therefore distanced from the operation of landscape. It is this condition that should be utilised when approaching landscape process. Crucially this is the same position that Hight encourages when he says we should “avoid reducing (notions of complexity) to either a natural or a sensorial representation.”\(^{36}\) Important here is that this intentional slippage or displacement between design intervention and landscape process is a strategy for becoming interconnected or complicit with the indeterminacy of landscape.

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32. Mitrovic, Philosophy for Architects, 153.
33. Ibid.
34. Waldheim, “Indeterminate Emergence,” 15.
Barthes says “it is language which speaks, not the author”. Mitrovic paraphrases this as “language writes itself, not the author” [emphasis in the original]. We can interpret this idea central to the ‘death of the author’ in at least two ways in landscape architecture. As an example of the paradox of intervention or as a paradoxical intervention. If we take Mitrovic paraphrase ‘language writes itself, not the author’ and present it in a context of landscape architecture we could say ‘landscape designs itself, not the designer’. In Waldheim’s attempt at connecting the ‘death of the author’ with landscape architecture through Corner we can say that he is interpreting this idea of landscape designing itself as relating to Corner’s notion of landscape escaping design. And thus connecting the ‘death of the author’ with landscape architecture through the paradox that the physical mediation of landscape produces unmediated conditions. However as mentioned Waldheim becomes critical of this connection. I suggest we understand the idea that landscape designs itself as a situation that leads to the designer intervening paradoxically. Firstly we encounter the paradox of intervention through the designer’s noninvolvement being a form of intervention. Then we use this paradox to guide our physical involvement with landscape process as has been attempted through the Otto Linne competition brief. Another way to describe my design position on becoming knowingly connected with landscape process can be expressed through referring to Nobel Prize winning chemist Illya Prigogine and his description of landscape processes as irreversible. If landscape processes are irreversible, which Prigogine says is a condition that leads to self-organisation, then I suggest we become interconnected with landscape through intervening with a reverse psychology for irreversible processes.

38. Mitrovic, Philosophy for Architects, 151.
40. Ibid.
Conclusion

The question this 'research by design' project has addressed is 'how can the landscape architect become complicit with landscape process through design?' I have attempted to show that this question is relevant to landscape architects and other designers who are committed to understanding landscape as a composite of complex and indeterminate human and nonhuman processes. The position I have taken is that we become interconnected or complicit with landscape when we acknowledge that our interface with it is invariably conceptual and representational.

In the Introduction I referred to Richard Weller's statement that landscape architects need to become better at articulating and debating what the implications are when the landscape is understood in terms of instability and complexity.1 I believe that understanding our relation to landscape as conceptual is a path that will lead to a greater disciplinary understanding of the connections between landscape process and landscape architect.

However, if there is a particular contribution to be made from my project to this area of landscape architecture it is not simply related to the position that representation is inescapable. Instead what is of more consequence is how I arrived at this position in Part One of the project and how it was then investigated in Part Two. I will therefore revisit aspects of the design investigations from these two parts in order to show how this position has been nuanced through my procedure of 'research by design'.

The Paradox of Intervention

In Part One the most significant moment was the three-way intersection between Corner, Hight and my own version on how the designer becomes complicit with landscape process. For me, at this stage of the project, a designer became complicit with landscape when he/she did not intervene. This position was directly informed by the series of local installations from which it was proposed that landscape process could be thought of as acting in place of the designer's intervention. For Corner, complicity arises out of the impossibility of physically controlling landscape process, which I characterised as the paradox of intervention. For Hight the designer becomes complicit through privileging the notion that our involvement with landscape is an image projected by the designer.

The implication of this interaction was that it enabled me to use Hight’s critique of Corner to in turn critique my position of noninterventionism. This procedure led to the realisation that I was also operating through the paradox of intervention. In my case however the paradox was working in reverse. For me a nonintervention came to be understood as an intervention. This was an important collision between personal knowing and existing knowledge because it revealed that Corner’s notion of landscape escaping design is itself a design move, as is my proposition of not intervening.

As a result of acknowledging that we cannot escape notions of conceptualisation, representation or mediation, it was then proposed that a nonphysical intervention could be employed to guide the landscape architect’s physical intervention. Thus my connection or complicity with landscape shifted from the paradox of intervention to a paradoxical intervention. This move was driven by the hunch that complicity between the landscape architect and landscape process may arise out of the designer’s contradictory relation to landscape process.

**Paradoxical Intervention**

In Part Two the notion of becoming complicit with landscape process by intervening paradoxically was investigated through the Otto Linne competition through the theme of the ‘water terrace.’ This inquiry drew on the work from Part One where a water terrace that aligned with the nonintervention position was discussed. This noninterventionist form of complicity transitioned into a contradictory complicity or a paradoxical intervention when I started investigating water terraces that conflicted with the noninterventionist position, such as the mineral and agricultural water terraces.

My personal encounter with the paradox of intervention was experienced through the proposition of not intervening. This meant that the very act of a physical intervention could be interpreted as a paradoxical intervention. However, we saw through the agricultural terrace design investigation that one aspect of the intervention was explicitly paradoxical. This was the design intervention’s conflicted approach to the brief’s requirement to clean the contaminated water. It was precisely this conflicted or contradictory stance that led to an arguably more ecologically productive outcome than the brief anticipated. This interconnectedness between the designer and design brief was attributed to the premise that complicity between the landscape architect and landscape process was investigated through the frame or concept of landscape as process rather than the physical reality of landscape as process.
I acknowledge that the difference between conceptualising and literalising the paradox of intervention is to some degree tenuous. For example I explained how my conflicted approach to the contaminated water could have been equally discussed as arising from a direct or consistent approach to the ecological aspect of the brief. That is, the emergence of the algae and its correlation to absorbing the contaminant from the water could be accounted for through Corner’s notion of the designer ‘stirring’ landscape process.² In my opinion this interchangeability in the manner in which the agricultural terrace intervention can be interpreted does not suggest that my design position of intervening paradoxically is compatible with those who subscribe to a direct privileging of how landscape works.

I suggested that intervening paradoxically is more comparable to designers who privilege what the landscape looks like. This is because they too exhibit a contradictory relation to landscape process. I see my project as potentially adding nuance and complexity to how pictorial or visual design approaches are understood in the discourse of process-oriented landscape architecture. In my project privileging what the landscape should look like can be reinterpreted as a contradictory involvement with the indeterminacy of landscape. It can therefore be seen as a form of complicity between designer and landscape process.

I claim that the connection Waldheim intended to make between notions of the ‘death of the author’ and process-oriented landscape architecture resulted in a shift because the ‘death of the author’ discourse exhibits a contradictory relation to landscape process. Process-oriented landscape architecture as I have attempted to show throughout this project approaches landscape process directly.

What this ‘research by design’ project has specifically attempted to show is that a contradictory relation to landscape process is more complicit than a direct privileging of how the landscape works. Therefore the conflicted connection with landscape process that is implicit to notions of the pictorial and the ‘death of the author’ can be understood through my project as a strategy of becoming complicit with landscape process.

² Corner, “Landscape Urbanism,” 63.
In reference to both Koolhaas' and Gerwen’s sand castle analogies discussed in the Introduction, my project proposes that designers are ‘swimming in the sea’, that is, interconnected with landscape process when they are making sand castles. With respect to the bucket versus stick approach to the design of a sand castle, that Gerwen described, through the frame of my project the bucket approach can be seen as more complicit with landscape process. This is because it can be understood as a shift from nonintervention to intervention as opposed to simply a privileging of visual priorities. In Gerwen’s language I suggest that ‘pattern design’ can be more complicit with landscape process than ‘process design’.3

The aim of this project was to find a way of understanding the operation of landscape process through design. I believe this aim has been achieved through the construction of the proposition that intentionally establishing a contradictory relation to landscape process is more complicit than an intentional privileging of landscape process. However this idea needs to be further refined.

**Future Work**

Further research could take a number of forms. For example, the idea that a visual approach to landscape architecture is a valid way for the designer to become interconnected with landscape process could be investigated through further design interventions. Unlike the Hamburg project, from which this idea emerged, future investigations into this premise would be able to intentionally investigate the relationship between pictorial agendas and their complicity with the indeterminacy and instability of landscape.

Alternatively a more conventional or scholarly approach to research could be taken in which the connection that I have proposed between pictorial design and the ‘death of the author’ and their non-hierarchical relation to landscape process could be further developed. Perhaps such an investigation would discredit my position.

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Thirdly and most tentatively we could encourage the interconnectedness between design and research, a subject that was discussed in the ‘What is Research by Design?’ section of this document. That is, we could take the core finding from this project, which is, we become complicit with landscape process when we shift from the paradox of intervention to paradoxical interventions, and use it to blur the boundaries between design and research even further.

For example throughout this project I have explained how intervention is a paradox because it produces unmediated conditions. In a comparable way a design investigation, such as the series of installations in Part One, similarly generates unexpected and indeterminate conditions. Examples of such conditions in my project have included the proposition of becoming complicit with landscape process through not intervening and the use of this position to physically intervene. We could say that an investigation within a research project is like a design intervention within the landscape. They both produce instability and unfamiliarity. If we accept this as the case then we could feed the position that this project takes on the paradox of intervention into the realm of research itself. That is, we could use this project’s finding that we become complicit with landscape process through intervening paradoxically to explore how we might become complicit or knowingly involved with research process through paradoxical investigations. Or as Hight might say a ‘recovery of research as an image of design practice.’

The first two suggestions for future work are directly linked to this ‘research by design’ project’s investigation into the connection between the designer and landscape process. With this specifically in mind, a final question with respect to the third idea for future research seems appropriate. By using the outcome of this project to move away from investigating landscape process would we not be forming a contradictory relation to landscape process and could this therefore be another path through which the landscape architect could become complicit with landscape process?

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