

Tidal dynamics

The hydro-biography as a guide for future water management in the Lauwersmeer

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Cover: ANP, 1969

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I hereby declare that this thesis is an original piece of work, written by myself alone. Any information and ideas from other sources are acknowledged fully in the text and notes.

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Ballade van de Lauwerszee

Van Nieuwe Zijlen tot Zoutkamp, van Oostmahorn tot aan kim, Waar de eb steeds weer vloed werd, stroomde 't water uit en in. Waar het wad langzaam droog valt naast de vaargeul van vandaag, Blijft de toekomst morgen een vraag.

> De zeewinden nemen een lied met zich mee: Vergeet het verleden, vaarwel, Lauwerszee.

Waar de vissers van Zoutkamp varen op het oud kompas, Waar voor veel generaties de koers steeds zeewaarts was, Wordt een thuishaven zinloos, sterft een vissershaven uit: Geen garnaal komt de haven meer uit.

> De zeewinden nemen een lied met zich mee: Vergeet het verleden, vaarwel, Lauwerszee.

Waar duizenden vogels voedsel vinden in de zon, Waar de lucht hun gebied is tussen nest en voedingsbron, Vliegen straks and're vogels pijlsnel duikend uit de lucht In hun gierende straaljagervlucht.

> De zeewinden nemen een lied met zich mee: Vergeet het verleden, vaarwel, Lauwerszee.

Waar de herfststorm het water hoog omhoog joeg naar de dijk, Gaf een poollandschap 's winters ijzig van haar schoonheid blijk, Waar de badgasten voeren naar het eiland in de zon, Rijdt met straks door het land dat men won.

> De zeewinden nemen een lied met zich mee: Vergeet het verleden, vaarwel, Lauwerszee.

Lauwerszee, jij bent geen zee meer, Lauwerszee, het is voorbij En een landelijke toekomst daagt er straks voor jou en mij. 't Afscheid maakt me weemoedig, ook al meent de toekomst 't goed, Want dit afscheid van jou is voorgoed.

> De zeewinden nemen een lied met zich mee: Vergeet het verleden, vaarwel, Lauwerszee.

> > (David Hartsema, 1969)

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Summary

After its closure in 1969, the Lauwerszee turned into a 2,100 ha catchwater basin for the provinces of Friesland and Groningen. Due to the delayed land use plan, the area became multifunctionally destined in the 1980's. However, ecological motives prevailed. Around the end of the 20th century, the Lauwersmeer acquired the European status of Natura-2000 area, due to its important climate for many migratory and breeding birds. Afterward, different options were discussed for maintaining the open water landscape, varying from a fluctuation fresh water level to the inlet of (small amounts) of salt water. In January 2017 a permit was granted to the province of Groningen for experimenting with fluctuating fresh water levels, by the water board of Noorderzijlvest. This decision led to a wide front of resistance, among the local inhabitants, entrepreneurs, and the agricultural industry. Around the beginning of 2018, two courts will state their verdict on the 'rietproef'.

Commissioned by the Wadden Academy, this thesis explores the cultural-historical principles that can guide the future restoration of tidal dynamics in the area. Due to its operationality in relation to water management issues, the hydro-biography was chosen as a research approach. The concept has been derived from the 'biography of landscape' concept and was first coined by Prof ir. Eric Luiten in 2014, in preparations of improving the primary flood defense work within Marken. A hydro-biography needs to include at least the following five characteristics: individual perspectives, a long-term dimension, a sense of historical layeredness, an interdisciplinary scope and the relation to a current water management issue. Accordingly, a mix of research methods were conducted: interviews, survey, and on-site observations.

When writing the hydro-biography of the Lauwersmeer, its' closure in 1969 has been chosen as a focus point, due to its large impact on the landscape and availability of first-hand testimonies. Although there was a large willingness to cooperate, no statues or exhibitions could be found, that referred to the event. This is due to various reasons, including the provincial border between Groningen and Friesland, and the many conflicting interests over the past hundred years, between local communities and government stakeholders. In 2019 it will be 50 years since the event took place. According to some of the interviews and the survey, there is a majority of people, who are in favor of commemorating the event. However, the survey demonstrated a larger preference for organizing a memorial event. Such an event would allow differing opinions and translating historical knowledge to current issues. The Waddenvereniging already seems to have taken a leading position in this, by organizing a story night in 2017.

Following the 'rietproef', the next challenge for the Lauwersmeer area will most likely be rising sea levels. Currently, discharge on the Wadden Sea is impossible for 70 days per year. It is predicted that in the future this might even become completely impossible. Therefore, the water board of Noorderzijlvest has announced to reconsider the installation of a new pumping station. For the environmental movement, a new pumping station would allow the inlet of salt water and the development of estuarine nature. Something that has almost completely disappeared in the Netherlands, since the completion of the Delta Works. Yet, local farmers will fear the salination and drowning of agricultural lands. Furthermore, the storage of fresh water will become more important, due largely to weather extremes. Hence, the need for freshwater reservoirs, such as the Lauwersmeer, is likely to increase. In this sense, a fluctuating fresh water level seems less historically accurate, but the most climate-proof.

Preface

At a fairly early stage, I knew that I wanted to write my master thesis about the Wadden Sea region. Both the nature and culture of the area appealed to me. Furthermore, I also wanted to know more about the oldest cultural landscape in the Netherlands and during the summer, I started looking for an interesting research topic. I found one during the conference 'Ditching the Dikes', organized by the Young Wadden Academy in Leeuwarden. One of the sessions from the Waddenvereniging was about the future of the Lauwersmeer. A subject that Meindert Schroor (Wadden Academy) was also looking for someone to research further. He gave me the opportunity and for that I am grateful.

After our first contact, I started off enthusiastically, unsure of where the Lauwersmeer was, and more importantly how to get there. That turned out to be quite a challenge. Fortunately, I was able to make use of the hospitality and generosity of a number of people whom I would like to thank: Gonnie Kamper, Eppo and Marga Ludolphie, Marc Hoenderboom, and Ria Posthuma and Koos Rozema. It was a very pleasant experience to explore the area from your residence. Thanks to both of my supervisors, Linde Egberts and Jos Bazelmans, I was able to make the most out of these visits. I always enjoyed collaborating with them and receiving their critical notes has immensely helped me improve my work.

During my research, I slowly became more familiar with the conditions and ongoing lawsuits. Despite all of this, I received a lot of cooperation. Moreover, everyone was very open with me. I would like to thank all respondents for their openness and contribution to my graduation: Griet Bos, Ane Witteveen, Eppo and Marga Ludolphie, Albert van der Ploeg (Gemeente Dongeradeel), Jur Wiering, Hendrik Nienhuis, Ria Posthuma, Herwil van Gelder (Gemeente De Marne), Harmannus van Oosterom, Jan van der Veen and Bearn Bilker (Gemeente Kollumerland c.a.). Yde van Kammen and Jantina Wennink I am indebted for the photographic material they provided. Also, I would like to thank Ciska Hoekstra and Hans Zijlstra (Historische Vereniging Noordoost Friesland) and Alice Luth-Boonstra (Historische Kring De Marne) for their mediation and advice. In addition, the Waddenvereniging and Stichting Verdronken Geschiedenis for giving me the opportunity to conduct a survey in Ulrum on the 30th of November 2017.

Finally, I am incredibly grateful for the support received from my parents; Jos van Alphen and Lida van Wiggen. Together we went to the Lauwersmeer for the first time on a beautiful summer day in August. What better way to start your thesis. Afterward, they were so kind to lend me their car throughout and review my work. Lastly, my friend and mentor Onno-Hans Noteboom, who has been there for me from the beginning of my student career. Nine years ago, I stepped across his threshold at University of Applied Sciences in Utrecht. Since then, he has always encouraged me to stay curious, push boundaries and follow my own path. Something that I will definitely keep doing during the next phase of my (professional) life.

Sander van Alphen

Amsterdam, February 2018

Het volledige onderzoek is beschikbaar via: erfgoedlauwerszee@gmail.com.