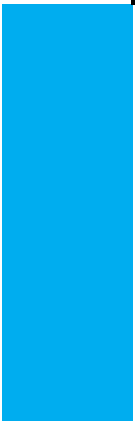


Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Peter Kaijser
Student number	4011090 (wordt gebruikt voor koppeling met student file)
Telephone number	0654357918
E-mail address	peterkaijser@hotmail.com
Studio	
Name / Theme	Architectural Engineering
Teachers	Ir. A. Snijder & Dr. Ing. M. Bilow
Argumentation of choice of the studio	Always have been more interesting in the technical, innovative and functional side of architecture, rather than the subjective part where the beauty of architecture is questioned all the time.
Graduation project	
Title of the graduation project	Kinetic Beach House
Goal	
Location:	Coastal Area
The posed problem,	<p>1: The coastal areas are a well known characteristic Dutch thing. With their high dunes they are not only featuring for the safety of the whole country it also has highly valued cultural and natural qualities. The dunes are an aeolian landscape, which means they are formed and reshaped by wind. Sand is transported by wind from the shore and beach into the dunes, which is also important for a healthy ecologic dune system. Current beach houses have a bad influence on this transportation and block the wind, so the dunes will not grow as fast as a situation where there are no houses.</p> <p>2. Currently, most recreational buildings on the beaches are also disassembled, broken down and stored for the new season. The storage and demounting takes time and money,</p>

<p>research questions and</p>	<p>Overall design question: “How to use Kinetic Architecture to enhance the sustainability of small pavilions or small structures?”</p> <p>Thematic Research Question: “How can Kinetic designing help to build or use a beach house in a more sustainable way?”</p>
<p>design assignment in which these result.</p>	<p>On the location of the coastal area a solution has to found on beach houses for the current problems of sand transportation into the dunes and the cost effectiveness of the transportation and stalling of the houses. For both solutions an answer has to be, and will be, found in kinetic design. This solution can or will result into a new type of beach house.</p>
<p>This should be formulated in such a way that the graduation project can answer these questions. The definition of the problem has to be significant to a clearly defined area of research and design.</p>	

<p>Process</p>
<p>Method description</p> <p>Literature studies The literature studies that are done are mainly about kinetic architecture and kinetic design. Because it is hard to get a grip on the term ‘kinetics’ and it was hard to summaries projects under kinetic because it is such a broad term. Other literature studies are done on the location of the beach and the dunes.</p> <p>Case Studies For the case studies a template has been made, based on the findings of the literature study on kinetic design. The literature study helps to categorize different type and different purposes which different kinetic projects can be divided in.</p>

Literature and general practical preference

van Berlo, Janneke and Kalker, Titia. Ecologisch en morfologisch advies strandbebouwing. Delft: Rijkswaterstaat, 2013

Fox, Michael. Ephemeralization. Massachusetts Institute of Technology: Kinetic Design Group. Department of Architecture (2009)

Fox, Michael and Kemp, Miles. Interactive Architecture. New York: Princeton Architectural Press, 2009

Schittich, Christian. In detail small structures. Basel: Birkhäuser, 2010

Zuk, William and Roger H. Clark. Kinetic Architecture. New York: Van Nostrand Reinhold, 1970

Reflection

Relevance

Although kinetic design does not have to be set to a coastal area, it could be very useful in this case. The problems that are addressed on the coastal area frankly ask for a dynamic, adjustable or moving structure which is what kinetic design is all about. The relevance between kinetic design and the search for a new type of beach houses is pretty big. A hypothesis is dared to be stated: "One kinetic design can solve the multiple problems of current beach houses."

Time planning

