TRANSLATIONS – EXPERIMENTS IN LANDSCAPE DESIGN EDUCATION

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ABSTRACT

How can students be taught an experimental approach to landscape design? New strategic planning tasks require more research-oriented design methods. Using the example of student work for a rural landscape in northern Denmark, this paper discusses landscape design as a process of translation. The landscape project is here essentially understood as spatial interventions aiming at unfolding inherent, place-specific development potential. Comprehending the landscape and dynamics of landscape change and formulating landscape projects thus becomes an integrated, creative process: A translation of an existing into a possible future landscape. Based on actor-network theory the paper outlines, first, a conceptual framework and, second, an educational procedure for landscape translation.

INTRODUCTION

Urban and regional planning deals increasingly with renewal and transformation of existing landscapes for strategic purposes. Planners, politicians and private stakeholders expect landscape projects to affect economic, social and environmental development beyond the specific project purpose and beyond the borders of a given transformation area.

Landscape projects are therefore more and more concerned with unfolding inherent, place-specific development potentials – and doing this across different scales: locally, regionally, and globally. As a consequence landscape architects increasingly ask what landscape projects can *do* rather than how they should look. The general idea is to steer urban or regional development in a desired direction through strategic physical and programmatic interventions (Braae and Author 2011; Kühn 2010; Sieverts 2011). At the same time, long term urban development processes with many actors and an uncertain outcome require landscape projects to remain open to new interests and insights.

Strategic urban and regional planning confronts landscape architects – and ultimately landscape design education – with new methodological challenges. Landscape analysis becomes central to the design process in new ways: Working alternately with analysis and project development the landscape architect simultaneously formulates local problems and relevant physical and programmatic interventions. In other words, comprehending the landscape and dynamics of landscape change and formulating landscape projects becomes an integrated, creative process. The modifier 'creative' is vital. Rather than a comprehensive analysis with regard to formulate 'correct' solutions, landscape analysis is here a creative act seeking to uncover and make local development possibilities probable through purposeful design experiments.

How then can students be taught this experimental approach to landscape design?

This paper draws on my teaching experiences from the Aarhus School of Architecture and the University of Copenhagen. Through the last 5-7 years these schools established new hybrid educations that combine landscape architecture with an urban and regional planning perspective. Recognizing that teaching how to design solutions for predefined problems is no longer sufficient, the schools have a strong focus on developing new education methods for landscape projects in a strategic planning context. In this context the teaching of adequate survey and mapping techniques plays an increasing role. However, not even the most advanced mapping techniques do necessarily led to innovative ideas for landscape development (v Seggern, Werner et al. 2008). The step from inventory to intervention, i.e. the formulation of the design problem, requires therefore particular attention. How to teach this first and maybe most important step of an experimental design process is the focus of this paper.

Using the example of student work for a rural landscape in North Jutland, Denmark, I discuss landscape design

as a process of translation. Based on actor-network theory the paper outlines, first, a conceptual framework and, second, an educational procedure for landscape design experiments.

TRANSLATION: CONCEPTUAL FRAMEWORK

With actor-network theory (ANT) creative landscape analysis can be described as a translation of an existing into a possible future landscape. The ANT-account is a method to describe how complex connections are being constructed for a certain purpose, e.g. the development of a product (Latour 2005). Originally developed in relation to research and technological innovation processes, it shall here be applied to the development of strategic landscape projects through design experiments.

According to ANT human actors (users, stakeholders, professionals, etc.) and non-human actors (infrastructure, soil, climate, natural processes, etc.) gather in interdependent, dynamic actor-networks due to their agency. Agency does here not designate an intentional activity, but the actor's capacity to affect other actors. It is thus crucial that an actor is defined by what it does to other actors. In a landscape project an 'actor' can therefore be any thing, idea or person having an effect on landscape development: from the topography of the landscape, over development plans, to important stakeholders.

ANT thus directs landscape architects' attention to the effects of interaction between human and non-human actors. It is the relations between physical structures and natural and socio-cultural processes and not the physical structures themselves we need to be interested in.

Throughout the design process these effects of interaction are both studied and being translated into an innovated actor-network (Braae and Author 2011). More precisely the 'identity of actors, the possibility of interaction and the margins of manoeuvre' are being negotiated and delimited (Callon 1986).

FOUR MOMENTS OF TRANSLATION

Based on his study of marine biologists' attempt to restock the St. Brieuc Bay, France, to produce more scallops, Michel Callon (1986) defined four decisive 'moments of translation': *problematisation*, *interessement*, *enrolement*, and *mobilization of allies*. These four moments can equally be applied to a design process. Here, the first decisive moment is the formulation of a design problem or, as Callon puts it, 'series of negotiable hypotheses' for landscape development.

These first design hypotheses function as the filtering lenses for both landscape analysis and project development. Landscape architects' testing of development possibilities, e.g. in the form of scenarios or interpretative maps, corresponds to what Callon calls *interessement*: Actors who are potentially affected by the formulated design hypotheses are being identified and gathered. The more productive relationships between the so identified actors one can observe and describe the more valid one's hypotheses become. Inversely it can happen that one must reformulate or even reject a hypothesis because it shows impossible to demonstrate possibilities of interaction.

The so gathered actors are then *enrolled* into the preliminary actor-network of a design project. In the form of physical and programmatic interventions the project introduces new actors, creates new or further articulates existing relationships and connections. The more productive relationships between existing actors and design interventions one can suggest the more probable the desired innovation effect of one's proposal becomes.

The final moment of *mobilization of allies* rarely happens in an academic context. It occurs when the realised project begins to unfold its effects through the landscape and all the gathered actors are made to act as one innovated actor-network.

IMPLICATIONS FOR LANDSCAPE DESIGN EDUCATION

Understanding creative landscape analysis as an experimental translation process has several productive implications for teaching landscape design and, in particular, the formulation of a design problem.

With ANT we can understand a given development site as the dynamic result of interactions taking place between different human and non-human actors.

As a consequence ANT also provides an alternative, relational understanding of context: A site relates to its surroundings due to the reach or extent of present actors' interaction – what Callon (1986) calls the 'margins of manoeuvre'. This process-based understanding of context makes it possible to study and develop a given area across different scales: locally, regionally, and globally.

Finally, ANT provides valuable advice for a design approach that focuses on what a landscape project can *do* for landscape development. Translation links landscape analysis with the formulation of a design proposal by articulating possible relationships between existing and future material conditions, ideas, and practices. According to ANT the key to creative landscape analysis is to follow the actors and carefully map their controversies with other actors, i.e. the differences, traces, and transformations they produce in interaction. Bruno Latour, one of the founders of ANT, calls these traceable effects of interaction the 'figuration of agencies' (Latour 2005:53).

This approach has the advantage to be transparent, i.e. one can retrace and discuss the observations, analyses and hypotheses on which a design proposal is based. In this way it becomes possible to share and further develop the action-oriented knowledge produced by one student together with teachers and other students – or, in professional planning practice, with the many actors in a planning process. It also becomes possible to integrate

new interests or insights in a long-term planning process with an unknown result.

TRANSLATING GÅRDBO LAKE

A student project for a rural landscape in North Jutland, Denmark, shall illustrate the development of a landscape project based on translation with particular focus on the initial design phase and the formulation of the design problem.

The Gårdbo Lake project is the MA thesis of two students in Landscape Architecture and Urbanism at the Aarhus School of Architecture. Kim Møller and Anne Ulrik (2007) set out with the general hypothesis that a unique cultural landscape could provide a development opportunity in a remote, rural region suffering from population decline, lack of work places and a growing vacant building stock. This hypothesis guided both landscape survey and analysis and the formulation of a place-specific design problem.

To begin with the students chose the drained and cultivated Gårdbo Lake area for two reasons: The drained and cultivated Gårdbo Lake area has a striking spiral landform and a characteristic field pattern with intact hedges and copses. At the same time it is situated in an especially problematic location, disconnected from the relatively prospering coastline and thus particularly affected by population decline.

In their landscape analysis Møller and Ulrik then focused on how the existing characteristic landscape structures had come into being, which processes had affected them over time, and which processes were likely to affect them at present and in the near future. The landscape analysis was thus structured around three approaches: First, a traditional survey of characteristic physical structures. Second, a diachronic analysis of how the existing physical structures had developed and changed over time in interaction with natural and socio-cultural processes. Third, a synchronic analysis of present activities and uses in the area, expressed new needs and interests, and existing plans and policies for landscape development.

The historical analysis made it possible to identify long term development tendencies and what physical structures they affected and how. The analysis of current spatial practices and discourses made it possible to identify present usages, development interests and needs in relation to existing physical structures.

Overall the analysis pointed to three distinct landscape structures ‘figuring’ from the effects of interaction between human and non-human actors: the drained lake bed, the cultivated lake shores and the ridge to the west of the lake. Over time each of these landscape structures had developed its own clearly recognizable aesthetic vocabulary. Furthermore, the analysis pointed to a number of present development tendencies and different, partly conflicting interests that potentially affected the three landscape structures.

For example, the lake drainage system was under progressive erosion and required a costly renovation in the not too distant future. The owner of the lake bed area and the associated manor house wished to maintain agricultural production but also to invite tourists in the area to increase his income. The Danish Society for Nature Conservation on the other hand promoted a restoration of Gårdbo Lake to enhance biodiversity and local bird life. The European Water Framework Directive represented yet another interest, seeking for improved water quality through extensification of agricultural production.

By problematizing these present development tendencies and conflicting interests Møller and Ulrik identified place-specific challenges and development opportunities that became the basis for formulating a place-specific design problem or brief for the Gårdbo Lake area. At the same time, they identified and delimited relevant areas for physical and programmatic intervention with regard to the formulated brief.

On this basis Møller and Ulrik developed a strategic landscape project for the larger lake area where new physical structures and programs will incrementally transform the existing landscape structures and uses. Each intervention is thought to provide opportunities for further development. In this way the proposal is strategic because it seeks to affect landscape development over time while at the same time remaining open to new insights or interests that could emerge in the future.

In a first phase, the landscape project suggests the conversion of the drained lake bed into a planted lagoon and the improvement of accessibility to the area. To control the water level of the lagoon the existing drainage system is being reused. In this way biodiversity and bird life will be enhanced while agricultural production can continue unhindered on the lake shores. In addition, the planted lagoon is expected to attract hikers and bird lovers. Improved connections to the regional road and path system and especially to other tourist destinations will thus be able to enhance the integration of the inland with the beach resorts on the coast. In a second phase, a specialisation of agricultural production into medicinal plants could enable wellness tourism. In a third phase, the ridge to the west of the lake with its impressive windbreak hedges and well-preserved field patterns could become attractive for agro-tourism.

Interestingly, the MA thesis was presented in the form of a storyboard, linking empirical observations to strategic considerations and spatial interventions. Rather than showing plans and drawings of the landscape project as a finished product, Møller and Ulrik chose to present analytical maps and drawings, strategic diagrams, text, and eye-level visualisations of imagined development scenarios. Together these mixed media tell a story of possible landscape development over time and across different scales. At the same time this

presentation form makes it possible to retrace the proposed design interventions to observations, analyses and hypotheses. In this way the strategic effects of the design proposal are made probable.

TRANSLATION: EDUCATIONAL PROCEDURE

What can we learn from the above for setting up teaching of landscape design experiments?

FOCUS ON PROBLEMATISATION

This paper suggests that creative landscape analysis can be compared to a research or technological innovation process. Here, a research question or hypothesis guides the choice of survey and analysis methods, the collection of data and the development of innovative solutions. Formulating the design problem is therefore the first and maybe most important step of the design process. This means that the ability to formulate a relevant design problem needs to be trained.

Inspiration for a conceptual framework and method can be found in ANT and an understanding of creative landscape analysis as a translation of an existing into a possible future landscape. ANT provides us with a relational understanding of site and context as dynamic actor-networks of human and non-human actors. It also provides us with a relational understanding of the landscape project as a strategic intervention rather than a finished product.

The discussed student work demonstrates that studying the 'figuration of agencies', i.e. the effects of interaction between physical structures and natural and socio-cultural processes, can be a way to formulating a place-specific design problem. The student work further suggests that unstable landscape structures – such as the eroding lake drainage system – combined with multiple conflicting interests can point to development challenges and opportunities and to relevant sites for physical and programmatic intervention.

EXPANDED RANGE OF ANALYSIS METHODS

Studying the 'figuration of agencies' requires a combined analysis of physical landscape characteristics, diachronic analysis of the development history of existing landscape structures and synchronic analysis of present spatial practices and discourses in a given area.

This means that the range of survey and analysis methods needs to be expanded from methods for primarily visual analysis of landscape structures to methods for analysing dynamic landscape change over time and methods for analysing present spatial practices and discourses. This broadening of landscape analysis methods mirrors the convergence of the landscape architecture and the urban and regional planning profession.

NEW INSTRUMENTS OF REPRESENTATION

Strategic urban and regional planning requires landscape projects that focus on what spatial interventions can *do*. Furthermore strategic planning processes with many actors and an uncertain outcome require landscape projects to remain open to new interests and insights. To communicate on the one hand the strategic potential of a landscape project and on the other hand remain open to new insights and interests requires new instruments of representation.

A storyboard that links empirical observations to strategic considerations and spatial interventions could be one possibility. What is decisive is to make design decisions transparent and thus to make proposed design interventions retraceable.

NEW CRITERIA FOR DESIGN QUALITY

Ultimately, understanding creative landscape analysis as a process of translation provides us with new criteria for landscape design quality and thus for the assessment of student work. A good landscape project needs to demonstrate that it is likely to have a desired effect on landscape development. Further it needs to demonstrate that it is capable to incorporate new insights and interests. These new criteria do not devaluate aesthetic qualities. Rather they suggest the development of a new, more relational aesthetics that is concerned with how landscape architecture affects landscapes and is being affected by multiple landscape actors.

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