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LANDSCAPE:
A PLACE OF
CULTIVATION

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This paper describes the contextual analysis of architecture with landscape methods as both design and teaching methodology. The methodology applies our understanding of research as design and design as research, and involves the evaluation of landscape architecture-based approaches to built examples in a region famous for its constructed landscapes – The Netherlands.

In a series of design courses the authors have been teaching in Delft and Rotterdam from 2009 to 2012 analytical methods were developed through a combination of one-to-one contextual readings of built architectural projects. The aim of our cross disciplinary teaching is to involve students of architecture and urbanism with a range of factors that inform professional design – eliciting insights into the mechanics underlying structural and compositional principles, and enabling students to critically evaluate the qualities of space and architectural performance on the basis of rigorous analysis. In the this paper we will present through student work the aims of our teaching laboratory and our effort to introduce a wide range of methods, like systematic research by drawing or surrealistic games, yielding layered architectural interpretations involving landscapes in architecture and it’s design education.

Structured within two educational settings at TU Delft and Rotterdam Academy of Architecture in three consecutive situations, the laboratory’s general topic remained constant, and each subsequent laboratory built on the insights obtained previously. In each laboratory several groups of students analysed Dutch architectural projects from the last 25 years, specifically with a view to understand how they are, or are not, designed integrally with their landscapes – or as landscapes themselves.

Contemporary architecture is increasingly influenced by the concept of landscape, and this is particularly the case in the Netherlands. Like in many other places, a new mindset is emerging, transforming the core values of the disciplines of architecture and urbanism with the notion of the organisation of architectural space as a landscape. Through experiment our lab develops methods to analyse such phenomena in focused studies of specific cases, understanding how architects use landscape not only as a metaphor but also as a method to design buildings. (Figure 1)

The course’s basic research framework was established according to a simplified version of the presenting authors own ongoing interdisciplinary doctoral research project, ‘Architecture with Landscape Methods’, at the TU-Delft Chair of Landscape Architecture. In this project we are citing Alex...
Wall as having identified in 1999 a resurgent tendency in contemporary design: the carefully guarded disciplinary borders between architecture, landscape architecture and urbanism were becoming less relevant, giving as evidence such cross-disciplinary schemes as OMA’s and Bernard Tschumi’s competition entries for the Parc de la Villette (1982-1998). In that same year Kenneth Frampton (inspired by Gregotti 1966 engl. 2010 and Maki 1965) - coined the term megaform to describe this typology, citing a whole list of representative projects including the seminal Yokohama Ferry Terminal by Foreign Office Architects (1995-2002) (Frampton 1999, 2011, also Wall 1999). What had initially appeared as small collection of seemingly eccentric designs – somewhat misleadingly labeled ‘landscape urbanism’ – has since become a recognizable form of interdisciplinary practice forwarding an agenda broader than the design of isolated buildings. In architecture it has become clear that there are new forms of low-rise, high density, landscape-integrated buildings championing public programs. These have been variously coined “landscrapers”, “groundscapes”, “landform buildings”, and “groundwork” (Betsky 2006, Ruby 2006, Allen 2011, Balmori 2011, also see Jauslin 2013). We think of these as exemplifying ‘Architecture with Landscape Methods’.

Our laboratory participants found Dutch examples of ‘Architecture with Landscape Methods’ right outside the door, and within reasonable reach for students, providing them with direct access to both the buildings and, as mentioned, even the architects themselves. A preliminary selection of relevant examples was made on the basis of the Architecture Yearbook in the Netherlands (Brouwers 1989, NAi 1990 - 2011), this provided an overview with a consistent editorial approach and selection methodology. (Figures 2 & 3)

While the choice of projects was left to student groups in a rather free manner, the research framework itself was methodically structured. Our students were confronted with landscape methods that were entirely new to them – although as a conceptual framework based on the work of Steenbergen & Reh (2003), the methods are - on a opposite trajectory to our research - an entry into landscape architecture from the side of architectural theory. To try and understand the architecture of landscapes, Steenbergen and Reh established a hands-on simplification of Frankl (1914 engl. 1968). - putting him directly into the mapping tradition of landscape layer models as developed by Phil Lewis and Ian McHarg (1969), and in the Netherlands by Meto Vroom (1995). Steenbergen and Reh’s set of four layers - ground form, spatial form, metaphorical form and program form - explains landscape as a composition of four overlapping layers. Their model provides the fundamental structure guiding the analysis of architecture with landscape methods. Their adaptation of Paul Frankl’s architectural theory of landscape was thoroughly explained and illustrated to the students with drawing methods from earlier applications on the
basis of direct educational experience at TU Delft (Steenbergen e.a. 2008), helping to establish a coherent theoretical foundation for the course.

For our laboratory, we summarized the four layers of the landscape architectural composition of Steenbergen and Reh (2003, 2008) as follows:

- Ground form is an analysis of how the natural landscape is abstracted, parcelled and rationalized on one hand, and how systemic continuity is maintained, fragments related or otherwise strategically activated on the other. In the case of architecture, consider here also artificial landscapes, and the tensions and correlations between natural and artificial morphologies. Interaction with, or manipulation of, the ground plane is the essential maneuver here.

- Spatial form in landscape is derived from the experience of proximities, including circulation paths, sequential frames, and picturesque compositions. The relation to and manipulation of the horizon are essential design aspects integral to this layer. In architecture the promenade architecturale means an approach to scenically or sequentially read spaces that yield various oscillations between formal volumes and voidal networks.

- Image or Methaphorical form deals with implicit impressions and explicit representation, as well as symbolic, iconographic, and didactic expression, always connected to the other layers and mostly represented in one or another of them. We distinguish between two primary types – contextually integrated and strategically differentiated.

- Programmatic form is the analysis of functions and their compositional relationships – the design’s functional anatomy, as it were. In landscape the programmatic form incorporates the tension between business (negotium) and contemplation of nature (otium) in a constant search for balance - from classical landscapes to current times. In contemporary architecture, an emphasis on ecological, spatial and socio-economic equity comes to the fore.

After first experiments in Delft, in the second year in Rotterdam, the conceptual and theoretical approaches to landscape were reconciled more explicitly. The student’s freedom from many preconceived theoretical notions about landscape enabled their critical assessment of the relevance of such conceptual frameworks to the interpretation of layered, evidence-based analyses of existing conditions. The third studio was the largest and most intense, and we will illustrate the article and conference presentation with results from this culminating laboratory as representative of the methodology-to-date.

Ultimately, the layers themselves are merely a convenient means to identify and distinguish the elements in relation to one another, to better understand the aspects that transform an architectural composition into a composed landscape. One of the questions that become immediately evident with such an approach is ‘how do the the layers used differentiate between ‘indoor’ or ‘outdoor’ design?’ While the line between ‘inside’ and ‘outside’ is often used as a convenient disciplinary boundary (Vroom 1995), the design methods developed in the studio consistently demonstrate the arbitrariness of this boundary.

As a group we discussed what type of drawing would best reveal which aspect of design analysis, and, of course, the students were encouraged to experiment with various drawing techniques to express each of the 4 layers- testing how effectively a given arrangement reveals new information, or at least communicates information that is already known. Presentation of the work at regular intervals enables individual results to be continuously folded back into the group work - a feedback cycle of analysis and representation - while working in groups further advances the student’s verbalisation skills. In architecture we believe there is truth in the assertion that ‘thinking is drawing and drawing is thinking’. This collective drawing activity is an education in architectural thought. Such thinking leads to insights into the making of architecture. It is an approach described after-the-fact by the director of RAvB Chris van Langen as leading to ‘huge progress of the students’ capacity in design analysis and the understanding of design mechanisms’, and to ‘highly enthusiastic reactions from the students.’ (Figure 4)

In the third year, students built models of their analyses, where each layer is detachable as a separate artifact, and in a subsequent workshop of the Design Analysis Laboratory we used these ‘4 layer’ models to collectively occupy a site. Finally, we then
played a game devised by the Surrealists: Cadavre Exquis, also known as exquisite corpse or rotating corpse, is a composition method by which a collection of words or images is collectively assembled. Each collaborator adds to a composition in sequence, either by following a rule (e.g. the order “adjective – noun – adverb – verb” or “head – body – legs”) or by being allowed to see the end of the drawing the previous person contributed (Brotchie 1995). The game was played in front of the academy at the future site, adjacent to the hall where the students eventually exhibited the resulting collaborative model.

Landscape is humanity’s aesthetic appropriation of nature, inclusive of the city - described by Cicero in 45 BC 10 as the creation of a second nature. The ‘invention’ of landscape at the beginning of the Renaissance can be identified with the beginning of humanism (Brock 1977 after Burckhardt 1860). Both these scholars attribute the date to the same event: the famous ascension of Mont Ventoux as described by Petraca in his Epistolae familiares (1995, first published ca. 1350). Landscape methods in our age could re-establish the human condition in situ as the main driving force of architectural creation. The aesthetics of landscape could be a means of facilitating the reconciliation of humanity and the built environment. Further development in this direction could provide the basis for sustainable development with an emphasis on the vitality of existing ecologies and the human experience. The establishment of an as-yet-absent theoretical framework for these new aesthetics promises to transform a fashionable tendency into a socially relevant movement for the architecture and urbanism of the 21st century. Architecture itself needs to establish fundamental approaches to the cultural relationship between humanity and nature in order to address issues of sustainability. We therefore need a sound concept of how to relate our living space to our world – if it is well understood, the highly cultural and widely popular topic of landscape could again broaden the social relevance of architecture.

Results of the work as presented on this conference can be seen both as outcomes of our landscape teaching methods and as research on the inter-contextual workings of landscape related design processes in architecture. As to the application of our experimental design analysis methods objections could be made to our findings, that they would ‘mainly describe the shape’ of a certain project ‘and the respective advantages, as the exercise was carried out, but not what is achieved in content.’

We must however insist on the importance of studying form and composition as the essential content of design education. Firstly knowledge of form is the most important aspect of architectural or landscape architectural composition – students have all kinds of historical, procedural and technical knowledge, but often lack the means to understand and then replicate the formal composition of a project. Secondly the composition of form – as exercised here into four layers- is in our opinion the essential content of any successful design. Not understanding the content would be only to copy form without understanding it’s role in a composition. On the contrary to copying, real understanding of form does not mean missing the content. With this exercise we have come to the conviction that the decomposition and recomposition of formal aspects in our exercises is not distracting form the content but rather unveils the content and makes student litterate in applying such compositional skills in their own designs in the future.

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Namely the students of the third laboratory are listed below, as our paper will concentrate on them. (Projects, Years, Architectes; Student Authors)

1 TU Delft Library, 1993-1997, Mecanoo; Adi Piet Stam, Annelies Bleker, Linda van Os
2 Kunsthal Rotterdam, 1990-1992 OMA; Jelle Baars Martijn Bakker & Sharmila Nashed
3 Mickelhosrt Haren, 2002-2003 Onix; Shahir Malikzai & Anand Sietaram
4 Son-O-House, Son en Breugel, 2000-2004 NOX/Lars Spuybroek; Ruben Sannan, Jan Willem Terlouw
5 Sportpavillon Zestienhoven, 2007-2008, MonderschijnMoonen; Robert Remijnse
6 Ronald McDonald Centre, Amsterdam, 2006-2010, FACT; Sarina Da Costa & Anneke Heins
7 Johnson Wax Building, Mijdrecht 1962-1966, Maaskant; Esther Kats en Jantie Merkens & Jantien Merkens
10 Boekenberg Library, Spijkenisse, 2008-2012 MVRDV; Rico Goudriaan, Daan Hens, Corné Nuijten, Christiﬁne Vriesema
11 De Kunsthalle, Almere, 1999-2007 SANAA; Pascalle Asgarali & Baťlaan van der Sluis
12 Educatiorium, Utrecht, 1998 OMA; Emma Westerdun & Arthur Meerloo
13 A6rena, Koog aan de Zaan, 2003-2006 NL Architectes; Cecilia Dobos & Mattie Le Voyer

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Petraca, E. Familiarum rerum libri IV 1: Ad Dyonisim de Burgo Santi Sepulcri. V. Rossi. Firenze, Sansoni;


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