Regional designing: A strategic design approach in landscape architecture

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Regional designing is a strategic design approach in landscape architecture that envisions desirable future situations for regions in which the spatial situation is under pressure. This paper studies the principles that regional designers use to structure and organize their design process. The regional design principles highlight the extremely ill-defined, unstructured and volatile design situations that regional designing engages with. Moreover, the study reveals that the design process is an inextricable part of the broader process of change it aims to contribute to. This draws attention to a dynamic perspective in designing, to the interaction with stakeholders, to the position of the designer in the design process, and it calls for a (re)new(ed) culture in design.

Keywords: regional design, landscape architecture, strategic design, collaborative design

In landscape architecture, regional designing is a form of large scale spatial design that develops visions and long-term perspectives for regions in which the existing spatial form and function are under pressure and need to be adapted. Such spatial situations are often ill defined and call for structural change. Regional designing envisions the possible and desirable future arrangement of settlements, infrastructures, water features, nature reserves and other land uses in a region, including the relationships between them, their aesthetic appearance, and how this can be realized in the future (Kempenaar, Westerink, Van Lierop, Brinkhuijsen, & Van den Brink, 2016, p. 21). It is a form of design that engages with strategies and societal issues, such as adapting to climate change (Brand, Kersten, Pot, & Warmerdam, 2014; Wilson, 2006), transition to renewable energy sources (De Waal & Stremke, 2014; Stremke & Koh, 2010), or structural demographic changes (Kempenaar, Van Lierop, Westerink, Van der Valk, & Van den Brink, 2016; Sousa & Pinho, 2013).

Examples of regional designing include the visions made for the Le Grand Paris exhibition in 2009 on the future urban development of the greater Paris region (Wells, 2009), the proposals for the Rebuild by Design competition, aimed at making the New York/New Jersey coast more resilient to future hurricanes (Bisker, Chester, & Eisenburg, 2015), and the 'Landschaftszug'

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approach for the spatial adaptation of the shrinking city of Dessau in Germany (Langner, 2014). In projects such as these regional designers aim to contribute to improving the spatial situation by producing long-term perspectives, strategies and pathways that can be used as navigation devices in the uncertain future that lies ahead (Langner, 2014).

Recently a comparable engagement with vision development and strategy formulation as in regional designing has emerged in other design disciplines, particularly in those that aim to contribute to a transition to a sustainable society (Bachman, 2012; Ceschin, 2014; Manzini, 2015). Several authors have argued that this strategy-oriented designing calls for a specific focus in 'how to' design. Bachman (2012), for example, states that aspects such as foresight, systemic relationships and interdependencies, need more attention in architectural designing. Thackara (2006) pleas for shifts towards 'sense and respond', 'deep context', 'seeding edge effects', 'smart recombinations', 'social fiction', 'design with people' and 'design as service' in order to design for a sustainable world, and scholars in product-service design emphasise the need for process-based, multi-scale, multi-actor and systemic approaches in design in order to arrive at sustainable design solutions (e.g. Blizzard & Klotz, 2012; Ceschin & Gaziulusoy, 2016; Charnley, Lemon, & Evans, 2011; Coley & Lemon, 2009). The involvement of design in vision development and strategy formulation has broadened and altered the field of design, diversified design processes and expanded the field of expertise of designers.

Designers engaged in long term processes of change, societal transitions, vision development and strategy making face problem situations that are ill-defined and not bounded (Ceschin, 2014; Dorst, 2015). To respond to these situations, designers tend to take a system perspective (Bachman, 2012; Barnett, 2013; Dorst, 2015). Ill-defined and unbounded problems are not related to one particular component that can be isolated, but generally emerge from the relationships and the interactions between constituent parts. Moreover, strategic design approaches include people that have a direct or indirect relation to the problem situation in the design process (Blizzard & Klotz, 2012; Ceschin & Gaziulusoy, 2016; Meroni, 2008). In a genuine dialogue, information and perspectives are shared and new partnerships and relationships develop. This is expected to lead to social innovation and sustained change (Hillgren, Seravalli, & Emilson, 2011). Furthermore, inducing change takes central stage in strategic design approaches, calling for knowledge of processes and how to influence them. This process orientation also alters the position of design: it can become a service or capacity that is permanently embedded in organisations (Dorst, 2015).

Despite the increasing involvement of design in vision development and strategy formulation in various design disciplines, research and reflection on designing engaged with long term processes of change has been limited up

till now. Furthermore, empirical studies grounded in actual strategic design practices, such as regional designing, are scarce. To enhance the understanding of the design process and design expertise in strategic designing, we investigated regional design practice in Dutch landscape architecture with the following research question: What principles do landscape architects employ in regional designing?

Regional design endeavours need to be tailor-made to the geographic region and the issues they address, making each regional design effort different and specific. However, regional designers, just like other designers, deal with the specifics of each situation over and over again. Based on these experiences, designers develop principles, which help them to organise and structure the design process in new situations (Lawson, 2005). The principles of regional designers reflect notions on appropriate activities and ways of doing, and as such on the methods and methodology of regional design processes. Therefore, principles developed by regional designers offer a lens through which it is possible to gain insight in regional design processes and expertise, and also in what regional design contributes to an enhanced understanding of strategic designing, that is designing engaged with societal transitions and creating structural change.

1 Research approach and methods

In our study we focussed on regional design practice in the Netherlands. The Netherlands is a suitable case, as it has developed a strong tradition in regional designing over the last decades (De Jonge, 2009; De Zwart, 2015). In the 1980s, in reaction to the rational planning approach of the previous decades, various experiments were set up to explore the potential of using the integrative and visual capacities of designing for developing long term perspectives in regional planning (De Jonge, 2009; Salewski & Paine, 2012). These experiments were successful and fuelled the uptake and further development of regional designing. In the 1990s and 2000s this developed into a widespread practice, with a growing community of practitioners.

We interviewed Dutch landscape architects who reached the 'expert', 'master' or 'visionary' level in regional designing. Overall, six levels of expertise can be distinguished in designing: novice, advanced beginner, competent, expert, master and visionary (Lawson & Dorst, 2013, p. 99). 'Expert' is the level at which a response to a specific situation is intuitively, and appropriate actions are taken immediately. A 'master' sees this way of working as contingent, and develops new ways of doing, and at a 'visionary' level the designer redefines the domain or creates new ones. We considered 'expert' to be the minimum level for our interviewees, as this is the level at which designers are expected to have developed (personal) guiding principles. We used a minimum 15 years of professional experience as the best way to ensure that the interviewees would have

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reached this level. Other criteria for the selection of interviewees were: trained and educated as a landscape architect, a record of working on multiple regional design projects, and willing to participate in the study. We identified the landscape architects via regional design projects described in previous studies and publications (De Jonge, 2009; De Zwart, 2015; Meijsmans & Beelen, 2010), regional design projects known by the authors, and by consulting landscape architects in our network.

Landscape architects employed in private and in governmental organisations are both engaged in regional designing, but with different positions in the regional design process and with a different perspective. Privately employed landscape architects are commissioned to do regional design projects, often by governmental organisations. Governmentally employed landscape architects initiate such projects, participate in them as representatives of their organisation, and deal with the follow up. We interviewed landscape architects with various backgrounds and positions in our study.

We used the criterion of saturation (Bryman, 2012) to determine when we had a sufficient amount of interview data, meaning that we stopped interviewing when we had a rich and varied image of the design principles used by experienced landscape architects and no new concepts emerged from the interviews. In total we interviewed 12 landscape architects. Table 1 gives an overview of the landscape architects interviewed, their current working position and previous working experience.

The interviews were held between July 2015 and August 2016 at the working place of the interviewees and had a semi-structured nature. All interviews lasted from one to one and a half hours and clustered around questions on 1) the current practice of regional designing, 2) the structure and organisation of a regional design project, 3) the method and techniques used in the regional design process and 4) the skills employed in regional designing. The interviews were transcribed, and then analysed on their content through a protocol of qualitative coding (Miles, Huberman, & Saldaña, 2014) by the first author of this paper. The second author checked and critically reflected on the coding process and its outcome at various moments during the research process. A first round of coding of three interviews was used to develop a list of reappearing themes in the interviews. These were:

- principles used to organise and structure the design project,
- the regional design process,
- the context of the regional design project,
- regional design products,
- methods used in regional designing,
- regional design skills,
- personal engagement of the regional designer.

Table 1 Overview of the interviewed landscape architects

Nr	Gender	Years of experience	Current position	Previous experience
1	F	15+	Staff member provincial organisation	National governmental organisation
2	M	15+	Research/consultancy organisation	Private firm, national governmental organisation
3	M	15+	Private firm	Private firm
4	M	20+	Staff member provincial organisation	Private firm, municipal organisation
5	F	20+	Staff member national governmental organisation	Private firm, national governmental organisation
6	M	20+	Co-owner private firm	Private firm, engineering company
7	F	20+	Staff member national governmental organisation	Municipal organisation, national governmental organisation
8	M	25+	Self-employed	Self-employed
9	M	25+	Self-employed	Private firm, self-employed, national governmental organisation
10	M	25+	Research/consultancy organisation	Municipal organisation, national governmental organisation
11	M	25+	Co-owner private firm	Municipal organisation, engineering company
12	F	25+	Co-owner private firm	Private firm

The list of themes was used for the coding of all transcribed interviews. In this round of descriptive coding, codes were given to everything that was said in the interviews, developing an extended list of codes based on these themes. During this round of coding the researcher went back and forth through the coded interviews to refine the codes and to ensure the consistent use of codes. In a following round the researcher interpreted what was said by the interviewees and clustered the quotes of the interviews in relation to the design principles that emerged from the interviews. Again, to ensure consistency, this clustering included going back and forth between the codes and occasionally going back to the transcribed interviews. This procedure enabled to develop rich descriptions of the principles, including their associated methods, skills, and position or role in the design process.

2 Regional design principles

All regional design projects are shaped to the specifics of the region and its institutional setting, as was emphasised in the interviews. They are unique and have different aims and outcomes. Regional designing was for example said to be used to develop policy guidelines, to open up new regional vistas, to influence the political agenda, to coordinate developments of various stakeholders, to improve and develop relationships, and to design and structure the forthcoming stages of a spatial planning process. Notwithstanding this diversity, the interviews showed that regional designers have developed various, sometimes very personal ways of creating and developing appropriate regional designs for specific situations. Although each designer used their own words in expressing these principles, our analysis showed many parallels and similarities between them. We derived seven regional design principles from the interviews:

- taking a dynamic systems perspective,
- addressing multiple geographical scales,
- looking from history to future,
- creating a continuing dialogue with stakeholders,
- reframing the region,
- sensing and responding,
- balancing direction and openness.

These principles reflect the expertise of regional designers and the methodology followed by them in regional designing. The interviewees related each principle to particular methods, techniques and design skills. Moreover, they gave rich descriptions on how and when to apply a principle, and the function of the principle in relation to the overall regional design process. Often these descriptions were interlaced with personal experiences and telling examples. Below we present what we derived from the interviews on the principles for regional designing.

2.1 Taking a dynamic systems perspective

The interviewed landscape architects take a dynamic systems perspective in regional designing. They perceive regions as slowly changing, developing, and evolving complex systems with multiple interdependent relationships. As one of them said: "*the landscape of a region changes continuously at a slow pace, sometimes a little faster, sometimes very slowly*". This perspective enables regional designers to understand how the existing situation in the region came about, in what direction it is expected to develop in the future, what the main drivers of change are in the region, and what proposals would be suitable.

Regional designers use multiple methods and techniques to get a good understanding of the dynamic and complex regional system. These include field visits, studying of (historic) maps, Geographic Information System (GIS) analyses, and document and literature study. The 'triplex model' and the 'layer approach' were frequently referred to in the interviews as conceptual frameworks used to analyse and understand the regional system. The first is a layer-cake model that was developed in the 1970s and 1980s at the landscape architecture group at Wageningen University in the Netherlands (Duchhart, 2007). It is based on the ideas of Ian McHarg, as outlined in his classic study: '*Design with Nature*' (McHarg, 1969). It distinguishes three interrelated layers: an abiotic, a biotic and an anthropogenic layer and states that a landscape perceived at a certain moment in time is no more than a snapshot of a continuous process of change. The layer approach appeared in the 1990s in Dutch spatial planning. The layer approach also distinguishes three interrelated layers: the substratum, the network, and the occupation layer, each with a time dimension indicating the rough life-time span of spatial structures and

the *pace* of development in each of the layers (Priemus, 2007; Van Schaick & Klaasen, 2011).

In addition, stakeholder analyses, policy documents, regional studies, and personal information of stakeholders were mentioned as important information sources in gathering an understanding of the socio economic, cultural, and political situation, as well as the drivers of change in the region. This information is drawn on maps of the region to give it a spatial dimension and to identify correlations, connections, relationships and frictions.

In relation to developing a good understanding of a region, the interviewees considered the ability to think in interactions, change and (slow) movement important. Furthermore, they considered general knowledge on how spatial configurations or landscapes come about, to be critical knowledge for regional designers. It is, in combination with good basic research skills, the basis for every investigation into the specifics of a particular regional situation. Furthermore, a general feeling for (regional) politics and how decisions are made, were also mentioned as important in developing a good understanding of the region and the mechanisms of regional change.

2.2 Addressing multiple geographical scales

Regional designers address both smaller and larger geographical areas than the region itself in regional designing. The interviewees expressed that they take a larger geographic area into consideration to explore the relationships of the region with other regions and areas, and to position the region in its context. In addition, the interviewees indicated that in regional designing the focus also switches to perspectives related to the human scale, such as experiences, aesthetics and architectural composition. As one of the interviewees said: "… *in the end it [regional designing] is also about trees and grass … and the sunlight dancing with them*".

The switch to a local, human scale is used to test how the regional ideas work out, by elaborating a proposed intervention for a specific site. This will show if an idea is feasible and which local conditions are required in the future. The testing is used to improve and refine the ideas and concepts on a regional scale. In addition, the local scale is essential in the communication of regional design ideas. Several interviewees indicated it is the appropriate scale level to connect to stakeholders or others who are not trained in thinking spatially on a regional scale. Reference images and visualisations of 'how things could be' illustrate the abstract regional ideas and make them tangible and foreseeable.

The interviewees indicated that regional designers develop the ability to switch between various levels of scale, and know when it is opportune or necessary to address another scale. Moreover, to 'test' regional design ideas on a human

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scale, regional designers need site-design skills. They must be able to give appropriate form and dimensions to ideas, they need knowledge about materials, know what is feasible and logical in concrete situations, etc. Furthermore, they need skills that enable them to visualise such ideas and elaborations.

2.3 Looking from history to future

The temporal perspective of regional designers spans from the history to the future of a region, as the interviewees pointed out. Regional designing is about developing interventions in an existing dynamic and complex situation. Regional designers must work within and with 'what is' and can only change a little. Or as it was expressed by one of the interviewees: "*as a regional designer you only work on the next chapter in the long history of a region*". Regional designers, therefore, pay close attention to the historical context of a region and how it arose. Furthermore, regional designers aim to develop scenarios and interventions that set off a certain desirable chain of events. These scenarios envision pathways towards desirable futures, and are often related to historic situations or developments.

The time-perspective in regional designing stretches from decades to centuries and epochs when the history of a region is considered. Decades is the time dimension that is often considered in the future perspective. This long-term future perspective is made tangible by 'zooming in' and reasoning back from the future to today, the current month, or the current year. Basic research and analytical skills, as well as the ability to think in interactions, processes and development, were considered important skills in the interviews related to this principle.

2.4 Creating a continuing dialogue with stakeholders

Regional designing is defined in the interviews as a collaborative process with stakeholders. It is considered common practice in regional designing to invite representatives of all relevant stakeholders to participate in the design process. A sense of belonging to a group is created during a regional design process, which can take from several months to up to a couple of years. People get to know each other, a certain level of trust is built, and stakeholders will experience, in the words of one of the interviewees: "*the joy of making things together*".

Stakeholders are an important source of specific regional knowledge that is essential for developing a good understanding of the region and the regional context, and as such for making an appropriate regional design. Moreover, the involvement of stakeholders in the regional design process enables them to develop shared ideas and perspectives, and to take ownership over the developed ideas. To facilitate this, regional designers address the distribution

of responsibilities over various actors in collaborative design sessions and try to connect actors with specific goals. Stakeholder ownership was said to translate in support for the regional design ideas, but can also turn into future action and collaboration between stakeholders.

However, regional designing is not just about facilitating a process. Regional designers engage in a "*continuing dialogue with stakeholders*", as was said in one of the interviews. As a designer, and as an expert on landscape and spatial development, the regional designer contributes substantively to this dialogue. These contributions range from knowledge of the landscape, how it functions, its history, or how things are interrelated in the landscape, to using design skills to create coherent and comprehensive perspectives, detailed designs for specific places, and pathways or scenarios on how things could be realised.

To organise and structure the collaborative dialogue in regional designing, a cycle of multiple half/one/two day sessions are organised as part of the regional design process. The number and length of the sessions is determined by the complexity and aim of the project, and the number of stakeholders involved. The latter can range from around eight or ten to up to 80 or 90 people. Game-based exercises, using sticky notes, drawing on maps and working on a three-dimensional model, were a few of the techniques mentioned in the interviews that are used in interactive sessions. All interviewed landscape architects said they have little theoretical- or methodological background in these participatory processes and that they learned and developed methods and approaches for collaborative design processes in practice.

All interviewees indicated the importance of using visuals such as maps, reference images, and visualisations of possible future situations in collaborative design sessions to structure and focus the ongoing dialogue. The act of drawing on a map, or using a map in conversations to point out things were mentioned in multiple interviews as ways to trigger discussions and make them concrete and tangible. It adds a level of precision to conversations that can clarify things. More importantly, it adds a spatial dimension to what is discussed and helps to build a shared understanding. In the words of one of the interviewees:

> "… *that you notice that a collective image is created literally and figuratively, that a joint vocabulary emerges… you do that by putting a map on the table and start drawing. I do not know a lot of other techniques that can accomplish this*".

In relation to the organisation and management of an appropriate dialogue in regional designing, all interviewees stressed the need for well-developed process and facilitation competences. These competences include listening, sensing, empathising, as well as experience with group dynamics, and the

ability to lead and interact within a group. Moreover, addressing controversial issues, pointing out dilemmas and confronting people were also mentioned as important skills. Finally, regional designers need to develop the ability to 'read' when it is opportune to do something (and when not), both at the scale of the regional design process itself, within the setting of a collaborative sessions and at the scale of regional processes.

2.5 Reframing the region

All interviewees reported that designers face a substantial amount of fuzziness and openness in the first stages of regional designing. A natural first response to this fuzziness is to broaden and widen the initial perspective, to investigate the region and to question the given requirements. In addition, regional designers search for opportunities that arise from the existing situation, and they want to see, check and investigate whether all relevant issues and relationships are in the picture, how they relate to each other, and where problems arise. One of the interviewees said: "*In researching the regional problem, you search for frictions between issues and situations, you look for what doesn't fit … there only is a problem when there is friction*".

Based on the understanding of the region, how it came about, the opportunities and its current drivers of change, the region is reframed. This reframing enables to identify critical places, to separate main issues from side issues, and to evoke, structure and order ideas. The essence of this new perspective on the region is often represented by a motto, a spatial concept or a logo. Furthermore, the new perspective enables the development of scenarios or the envisioning of how things can come about.

Storytelling was indicated in the interviews as a method used to develop new regional frames. Regional designers tell stories about the regional landscape: about unseen relationships in this landscape (e.g. between the soil and the occupation pattern), about its history, how it came about etc. Stakeholders respond to this and tell their stories. In the process of telling and re-telling, the regional story evolves and changes. At a certain point the story becomes a specific regional perspective that directs choices and selections. Several interviewees indicated that this cannot be directed, it emerges during the process, sometimes at the beginning of a regional design process, sometimes at a much later stage, and occasionally it doesn't happen at all. However, reframing the region is something that always takes central stage in the focus of regional designing according to the interviewees.

2.6 Sensing and responding

The regional design process itself was described in the interviews as an iterative exploration, in which not all is known and 'discoveries' are made along the way. Designers, therefore, need to be open and adapt to new insights; they

have to sense and respond. Some of the interviewees described the active exploration and search for new insights as the core of regional designing and as a critical activity in developing new ideas, perspectives or visions. Creating these new insights is not something that can be enforced. However, the interviewees indicated that it is possible to improve the conditions and circumstances for new ideas and insights to emerge, for example, by field visits, conversations in different settings, or investigating reference projects.

Alteration of conditions and circumstances also happens in a broader sense in regional designing. The interviewees indicated that the regional design process itself adds to, and alters the context in which regional design outcomes have to perform. Particularly the landscape architects with a governmental background described the alteration of contextual conditions as being one of the important effects of regional designing that can open up new opportunities. For example, involving stakeholders in a regional design process can improve relationships and build trust between organisations, as one of the interviewees reported:

"… then we had a truly open discussion on substantive issues… on what is relevant and what is important… this has done a lot of good in our relationship with municipalities and in the mutual relationships between municipalities".

Sensing and responding is also employed in the collaborative sessions with stakeholders. These sessions are carefully prepared in advance by the designer or the design team, but almost all interviewees emphasised that a session almost never unfolds as anticipated. In these sessions, the designer or design team must be responsive to what happens and often adapt 'on the spot'.

2.7 Balancing direction and openness

Balancing direction and openness is the final principle that we derived from the interviews. It reoccurs in regional designing in multiple ways. Firstly, the interactive regional design sessions need to have an open character to give room to stakeholder input and let them have influence on what is happening. This is critical in creating a level of genuine participation (c.f. the ladder of citizen participation; Arnstein, 1969), but can also lead to fuzzy situations. Interactive regional design sessions however, are not a complete open space, in which anything goes, as was expressed by a few of the interviewees. The sessions are prepared by the designer or the design team, and have an intended focus. This focus needs to be balanced with whatever emerges during the session.

Secondly, balancing direction and openness is a principle that is also applied to the regional design process. Although open and exploring at certain stages, at other moments regional designing is converging, and choices have to be made. This is when the regional designer uses his or her ability to blend different kinds of information into a coherent set of ideas, in multiple scenarios or

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options to choose from. Choices in regional designing are either based on consensus that is built within the involved group of stakeholders, or on informed decisions made by the Commissioner, a Steering Committee or another appointed group. Thirdly, and finally, the end result combines direction with openness. The final outcome needs to be focused enough to give direction and guide decisions and actions. However, it also needs to be flexible and leave room for future adaptation and elaboration of the envisioned pathways to desirable futures.

The interviewees described that regional designing gives direction by being both integrative and selective. Regional designing focuses initially on all relevant issues and themes in a region, including their relationships, which is followed by an interpretation and reframing of the problem and the central question(s). The reframing directs what should be addressed and what not, what are the appropriate boundaries of the region, who should be involved, what expertise is needed, etc. This is when regional designing gives direction and is selective. It distinguishes between essential and side issues, and it might leave out or lose less relevant themes along the way. Moreover, regional designing points towards critical elements and places, or in the words of one of the interviewees:

> "*Regional plans can be selective in two ways: …. when looking at the entire region, this and this are the places to act and invest … and considering the socio-economic dynamics, these interventions could trigger a series of events that would really advance this regional society*".

3 Discussion

The design principles that we derived from the interviews sketch the outline of a regional design methodology. They give insight in the specific manner in which (Dutch) regional designers structure and organise their design process and what they consider important in these processes. Moreover, they reveal how regional designers deal with ill-defined, complex, not bounded, fuzzy and volatile problem situations, how they envision desirable future situations, and how they formulate strategies towards these futures. Regional designers not only take a systems-perspective in their encounters with problem situations, they explicitly take a *dynamic* systems perspective that includes changes, movements and transitions. They understand regions as: "*a collection of different types of objects and relations that act on, and with, each other to form a dynamic arrangement or organizations of material conditions*" (Barnett, 2013; p. 60). This dynamic perspective enables regional designers to identify drivers of change, and to envision strategies, interventions and actions that are likely to set the development towards the desired future situation into motion.

In landscape architecture, processes of change have always been a relevant theme, as plants and trees grow and take time to fully mature, and outdoor

spaces are regularly adjusted over time to new uses and changed circumstances. These kinds of change processes relate to clock-time, a linear perception of time and change. The interviewees in our study also addressed the importance of a kairos oriented perception of time (e.g. De Jonge, 2009; Smith, 1969), although they did not use that term. Kairos-time is focussed on propitious moments for decision or action, and the role of events. This is very relevant in strategic thinking, and as such in regional designing, as utilizing 'windows of opportunity' and doing things at 'the right time' is critical in creating structural change. Designing can alter or influence circumstances and conditions to create an environment in which things can happen and opportunities arise, as is also addressed by Ceschin (2014) in his reflections on a new strategic design attitude. A co-creation process with stakeholders (Kempenaar, Westerink, et al., 2016) or the organisation of (major) events (Van Dijk & Weitkamp, 2014) can influence and alter the situation, and the conditions for things to happen. These aspects deserve attention in future research, in order to enhance and improve regional designing and other kinds of designing involved in vision development and strategy making.

Certain characteristics and principles of regional designing we encountered in our study, such as dealing with unstructured and ill-defined problem situations, re-framing of the region and its issues, and sensing and responding, are not unique to regional designing. All design problems have a certain amount of 'wickedness' (Rittel & Webber, 1973), re-framing is a general part of design activities (Lawson & Dorst, 2013; Schön, 1983), and designing is always contextual, calling for a reflective and learning attitude (Lawson, 2005). However, the problem situations that regional designers encounter seem to be extremely ill-defined. They are unstructured, not bounded and volatile, making (re-)defining or (re-)framing the core of regional designing, as was expressed by one of the interviewees. This suggests that re-framing and sensing and responding, both general features of design expertise, are of extra importance in designing engaged with vision development and strategy making. To confirm such differences between strategic and more tangible forms of designing, and to verify and explain the nature of these differences, additional research is needed, for example into the importance, position and time spent on re-framing in various design processes.

Creating a continuing dialogue with stakeholders emerged from our study as an essential part of regional designing, which calls for expertise and skills to deal and interact with people. Engaging with stakeholders or future users during the design process is not general to all design activities, but also not unique to regional designing (e.g. Sanders & Stappers, 2008; Simonsen & Robertson, 2013). Collaborative or participatory designing is generally motivated by empowering disadvantage groups, or making better designs (Simonsen & Robertson, 2013; Van der Velden & Mörtberg, 2014). In regional designing, collaboration with stakeholders is driven by the information and knowledge

that stakeholders have of the complex situation and by the ability of collaborative design processes to alter and change contextual conditions towards the future.

During the design process, stakeholders not only bring their knowledge into the process, they also develop ownership over ideas that emerge and develop, and they change their perception (Kempenaar, Westerink, et al., 2016; Van Dijk, 2011). Moreover, collaborative design processes build strong networks and relationships, which can evolve in future collaborations (Meijsmans & Beelen, 2010; Von Seggern, Werner, & Grosse-Bächle, 2008). These are strong assets in creating and inducing change, and makes the collaborative design process an inextricable phase of the broader process of change and transition; part of the change emerges from the design process.

The position of the design process in a broader process of change, and the collaboration with stakeholders that comes with it, gives the designer a specific position in the design process. The landscape architects that we interviewed for our study, expressed that as a regional designer you do not 'take over' and 'own' the design or the project. They said that their role as designer is to guide, facilitate and fuel the collaborative creation process with stakeholders. This implies that the designer is part of the group, not the expert that knows better, leaving little room for a 'starchitect' attitude. It indicates a particular design culture, which is nicely captured in Manzini's renewed description of design (Manzini, 2015; p. 53−54):

> "*Design is a culture and a practice concerning how things ought to be in order to attain desired functions and meanings. It takes place within open-ended co-design processes in which all the involved actors participate in different ways. It is based on a human capability [designing] that everyone can cultivate and which for some − the design experts − becomes a profession. The role of design experts is to trigger and support these open-ended co-design processes, using their design knowledge to conceive and enhance clear-cut, focused design initiatives*".

4 Conclusion

Our study into the principles of regional designing illustrates the involvement of design professionals in vision development and strategy making. We expect that this strategic kind of designing is here to stay and will grow in importance as one of the domains that design professionals engage with, and it adds new dimensions to the 'art' and culture of designing; to its expertise, methodology, methods, skills, and to the attitude and position of designers in the design process.

Expert strategic designers, like the regional designers in our study, undeniably show similarities in their developed design expertise and principles with other

expert designers. However, our study indicates accents in this expertise on dealing with extremely ill-defined problem situations, reframing, and a particular need for strategic designers to develop process skills to interact with stakeholders and future users. Moreover, they need to develop expertise on timing and on being part of long-term processes of societal change. However, as this branch in designing is relatively young and still developing, more research is needed to fully understand its dimensions and consequences, and what is needed to adequately educate and train future designers who want to contribute to processes of societal transition and long-term structural change.

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