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Vision and Strategy Making

Teaching spatial planning in design education in a situated learning environment

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This chapter introduces the pedagogical approach of guiding vision and strategy making in university design studios. This is a unique way of teaching spatial planning in design education, bridging research, planning, and design. It will use one of the master's courses at the Urbanism Department of TU Delft as an example: the regional design studio 'Spatial Strategies for the Global Metropolis'. This approach is based on the tradition of planning schools with design education – using the design studio as a key method for teaching. This tradition has made spatial planning in design education different from other planning schools that focus on policies or social/environmental sciences. The approach being introduced is not only evidence-based/scientific but also explorative at the same time, prone to search for the more plausible and desirable future scenarios. It is in line with the role of regional design in practice, in the context of collaborative planning. To teach such practice-related skills, an authentic assignment from and the interaction with the 'real world' are needed, namely a situated learning environment, which mimics the actual situation and collaborative efforts of spatial planning. Spatial vision and development strategy are both tools of spatial planning in practice, meant to frame and steer the development towards a more sustainable future, with the involvement of stakeholders. In design education, they are also seen as design products students could and should work on to understand the roles of these tools in spatial planning and how to use them to develop regional design proposals.

COLLABORATIVE PLANNING, PLANNING EDUCATION, SITUATED LEARNING, SPATIAL VISION, DEVELOPMENT STRATEGY

1. Introduction

This chapter introduces a unique way of teaching spatial planning in design education, focusing on vision and strategy making in university design studio settings. As many authors suggested, one of the problematic issues with traditional ways of planning, more specifically blueprint planning, is that it cannot cope with the complexity (Healey, 2003; Amenta & Qu, 2020) or uncertainty (Balducci et al., 2011) brought by the current and future challenges cities and regions are facing. These challenges often involve global scale social, economic, and environmental risks, such as economic globalisation, migration, and climate change, which result in the loss of planning control in spatial development at the local level. The conflicts of interests in the use of space have turned spatial planning into a collaborative effort (Jabareen, 2006), which calls for tools to facilitate such a new way of planning. To enable and engage all stakeholders involved in the journey towards a more sustainable future, visions and strategies are needed to guide the collaborative processes of planning and development. One role of planners and designers in this new setting is to facilitate the making of these visions and strategies. Design is seen as a tool to experiment and visualise the possible and desirable future scenarios in spatial terms – the spatial development trends, including spatial structure, functionality, spatial quality, as well as the socio-economic and environmental performance. The question to educators at universities is: How to train future planners and designers in developing such skills within a short period of time in the classroom?

The answer can be straightforward: creating a situated learning environment for students and guiding them through the planning and design process with hands-on practices. Learning by doing? Learning is doing! Design studios could contribute to this unique way of teaching spatial planning, particularly in universities that offer design education, provided that timely systematic input on spatial planning and scientific research skills is given. This chapter demonstrates this method with the example of a master's level regional design studio at the Urbanism Department of TU Delft.

The structure of the chapter is as follows: after the introduction, section two introduces the main concepts, including a thorough discussion on vision and strategy making in planning schools with design education, one of the various types of planning schools worldwide. This is to provide an overview of the disciplines involved within planning education and position the method to be introduced in this chapter. Section three analyses theories related to collaborative planning and situated learning to deepen the understanding of the nature of strategic spatial planning, the roles of spatial visions, and development strategies in it, and the importance of learning by doing in teaching the skills involved. Section four explains the teaching methods used at TU Delft for guiding vision and strategy making in research and design studios, using the master's level regional design studio as an example. The intention here is not to showcase the 'Delft method' because even within TU Delft there are multiple ways of approaching it. Instead, based on this case, the section discusses fundamental notions of teaching spatial planning that are applicable in other schools with design education. Section five discusses the author's interpretation and ideas concerning collab-

orative planning in practice and the roles of vision and strategy making in it, as well as how to mimic the situation in education to facilitate learning. It is followed by conclusions on the method of guiding vision and strategy making in university design studios and the situated learning environment that is needed.

2. The world landscape of planning education

In regard to spatial planning at the regional level, vision and strategy making are both seen as part of regional design (Lingua & Balz, 2020; Colombo et al., 2018). In the context of European countries (Albrechts, 2004), regional design as a tool for spatial planning has regained its importance along with the revival of strategic spatial planning. This is because the regional scale is becoming essential in tackling many challenges mentioned earlier, which calls for spatial strategies that match the regional scale (Neuman & Zonneveld, 2018). Generally speaking, regional design is about guiding the spatial development within the regional territory according to demands and claims, spatially connect interests from various stakeholders, delineate more sustainable and desirable future scenarios for the region, as well as correlate action plans.

For the global audience unfamiliar with the term 'regional design', there might be a tendency to relate it to regional planning or urban design in a regional context. This has to do with the type of planning education one has received or the planning context one is situated in. The teaching of spatial planning in different schools can vary, some focusing on geography and planning (e.g. Sun Yat-

sen University in China, Cardiff University in the UK, University of Toronto in Canada), some on land use planning and management (e.g. the State University of Land Use Planning in Russia, China Agricultural University), others on urban planning (those situated in schools of architecture and planning worldwide, such as Tsinghua University in China, National University of Singapore), or planning and governance (those located in schools of public administration, such as Renmin University of China, Erasmus University Rotterdam in the Netherlands).

Such a variety of planning education existing in the world of universities reflects the transdisciplinary nature of spatial planning, which indeed involves knowledge from (social and environmental) science, (urban and landscape) design, and technology. At the same time, it creates different vocabularies among these disciplines when addressing notions related to spatial planning. Therefore, the discussion of vision and strategy making in this chapter needs to be positioned within this landscape of worldwide planning education, which is, as indicated in the title of the chapter, more relevant to the schools that offer design education. This means, when talking about vision and strategy, they refer to the spatial dimension of envisioning and strategising, and are seen as design products in the university studio settings. These terms might be understood differently in the planning schools that focus on policies, where design is not at the core of the discussion. Nevertheless, the methods of vision and strategy making to be introduced in the following sections involve knowledge and skills from other planning domains, particularly geography and governance.

3. Situated learning environment mimicking collaborative planning

In the last section, I discussed vision and strategy making in the realm of planning education and positioned the method to be introduced in this chapter within that realm. This section elaborates collaborative planning theories (Healey, 2003; Albrechts, 2004), the planning context in which these two terms are situated, and the situated learning environment (Brown et al., 1989) in university design studio settings that mimic the collaborative effort of spatial planning in practice.

First of all, the terms 'vision' and 'strategy' need clarification, as they might be understood as the blueprint plans and the implementation of such plans in traditional perceptions. There used to be conceptions that development plans could be directly implemented, such as the construction of the British New Town Programme in the 1950s (Healey, 2003). However, as Healey (2003) stated in the context of the UK, since the emergency of policy plans, the delineation of the plans represents mainly the spatial specification of principles and norms to guide the development process, while the 'implementation' of the plans mostly refers to the take up of such principles and norms in projects, through the interactions among actors.

This is a visible trend of paradigm change in spatial planning. The unpredictable, complex world has led to the incapability of planning control in spatial development. The shift from hierarchical control from the state to new governance modes that involve networks of broader ranges of actors is seen, particularly in established democratic socie-

ties. Within such a context, collaborative planning is described as an 'emerging paradigm' (Innes, 1995). Vision and strategy making then become a collaborative decision-making process, in which the stakeholders involved jointly envision the possible and desirable future scenarios and identify strategic interventions that stimulate the transformation, aiming for win-win situations. As these decision-making processes often involve multiple scales of interventions, the importance of the regional level is increasingly recognised. The vision and strategy making are actually components of regional design that reflect spatial conditions, political agendas, and planning regimes of the regional context. Within such a comprehensive setting in practice, design as a tool contributes to the continuous (re-)interpretation of the spatial structure of the region, visualising spatial qualities of the future scenarios and spatial implications of the development strategies. In this case, design education's job will be to cultivate the next generation of planners and designers capable of participating in such collaborative efforts.

Therefore, as stated earlier, enabling learning by doing is an essential method in teaching spatial planning when it comes to vision and strategy making. This is in line with the tradition in design education. When students are assigned authentic regional design tasks extracted from the real-world of practice, the university design studio setting transforms into a 'simulated' planning context, a situated learning environment in which products of visions and strategies for the chosen areas are created and can be used in the real regional context. From the perspective of cognition, this is not only useful but essential for learning (Brown et al., 1989).

# 4. Vision and strategy making in design education

Following the theoretical discussion above on collaborative planning and situated learning, a regional design course at the master's level at TU Delft is introduced in this section – the research and design studio 'Spatial Strategies for the Global Metropolis'. It is viewed as a case study for reflection on a variety of issues, most notably the degree to which a situated learning environment focused on regional design could be developed within a university studio setting, and the characteristics of vision and strategy making in practice and design education.

In recent years, a further development of the Delft tradition of 'research by design; design by research' is seen in the interdisciplinary approaches applied in the research and design studios at TU Delft, experimenting with planning and design solutions that can tackle complex challenges, such as climate change and flooding issues, scarcity of resources and competing demands for land uses, etc. The regional design course at the master level is one of them. In the past five years, the course has collaborated with stakeholders from practice, such as The Deltametropolis Association (Vereniging Deltametropool) and the Province of South Holland. The Deltametropolis Association is a strong network organisation and inspiring knowledge institute in which the professional community, public interest groups, research institutions, and governments come together, conducting independent research in metropolis development in the Netherlands and the Eurodelta (https://deltametropool.nl/vereniging/english-summary/). The Province of South Holland is a Dutch province located in the south part of

Randstad, a key actor responsible for coordinating regional planning and development, collaborating with various stakeholders within the region and the national government. Both of the social partners are heavily involved in the regional design practice, and contributed to the creation of situated learning environment for the regional design course at TU Delft by defining the thematic focus of the assignments, giving knowledge input on the challenges of spatial planning in the Dutch regions, as well as feedback to student work and further dissemination of the final products.

Such a learning environment has generated enthusiasm and a positive atmosphere in the studio, equipped students with knowledge, skills, and facilitated learning by doing. However, it does not make vision and strategy making 'easier' within the studio setting. The making of spatial visions and development strategies in practice engages various disciplines and stakeholders, which usually take years to make real progress. In the educational setting, this is challenging due to the limited timeframe of university courses (usually two months for a design studio at TU Delft) and access to relevant data and stakeholders. In this regional design course, these issues were tackled with the support through additional course elements and from partners. Next to the design studio, there are lecture series that provide students timely knowledge and skills needed for the analysis of spatial development trends and development of regional design proposals. Besides, students get access to sources of data and direct contact with key stakeholders, thanks to the partners from practice.

In this ten weeks' course, students worked in groups on developing visions and strategies for the Amsterdam Metropolitan Area (2017, 2018, 2019),
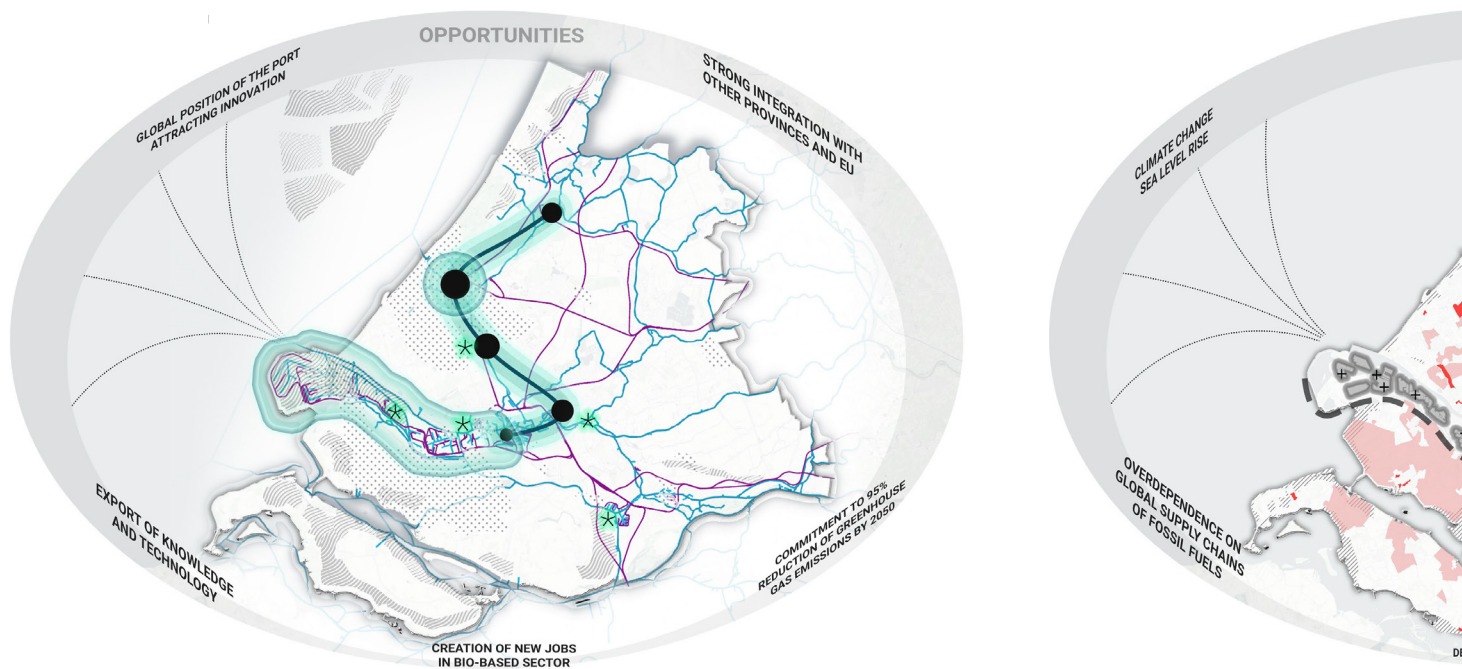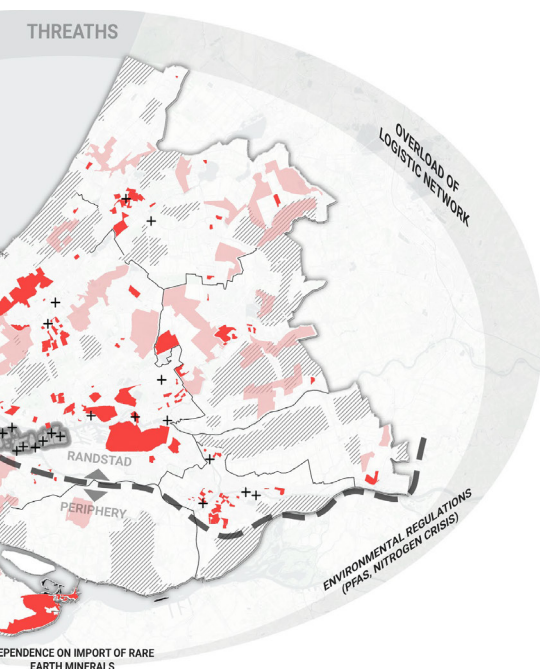
Figure 1: Examples of student work showing evidence of spatial development trends, on opportunities and threats related to energy transition in the Province of South Holland. Authors: Ramaiah Perumalsamy, G.B., Górz, M. & Aerts, M. (2020). Source: Energy Commons, A group report from the course "R&D Studio Spatial Strategies for the Global Metropolis". TU Delft. Printed with permission.

and the Province of South Holland (2020, 2021). The theme was regional design stimulating the transition to a circular economy in these Dutch regions, with a particular emphasis on socio-spatial justice. In the syllabus, both the spatial vision and development strategy are defined as 'design products'. The spatial vision is described as a normative agenda in spatial terms that describes a desirable future. It is expected that the spatial vision is persuasive, seeks to convince, enable, and engage actors involved. What is slightly different from the types of spatial visions developed in practice is that, in the design studio, we encourage students to explore extreme scenarios, as well as those nuanced ones that can be implemented within a timeframe. The second product – development strategy – identifies a timeline of strategic interventions to be implemented in line with the spatial vision, with an inventory of actors involved. These strategic interventions include development projects that focus on specific areas or infrastructure networks, with dedicated actors, budgets, and defined timeframe, and/or policies that guide spatial development through rules and regulations for areas concerned.

While both are listed as design products, for the purposes of clarifying the course's deliverables for students, vision and strategy formulation are evaluated using a variety of criteria. For vision building, students must understand the complexity, uncertainty, and multiscalarity of regional spatial development, as well as the limitations of regional design, and the ethical issues involved. The formulation and argumentation for a spatial vision should be based on evidence of spatial development trends (see Figure 1), commonly shared values and norms, and appropriate planning principles. For strategy making, students need to understand the basic roles and instruments of strategic spatial

THREATHS

OVERLOAD OF
LOGISTIC NETWORK

RANDSTAD

PERIPHERY

ENVIRONMENTAL REGULATIONS
(PFAS, NITROGEN CRISIS)

EPENDENCE ON IMPORT OF RARE
EARTH MINERALS

planning in delivering public good, spatial quality and equality. The development strategy is consistent with the spatial vision, which should be effective and feasible within the constraints of a given institutional context and resilient in the face of long-term spatial development uncertainties. It is important to emphasise spatial justice within the context of collaborative planning in order to arrive at a fair distribution of costs and benefits among the stakeholders. Besides, visualisation and story-telling are both important in communication in collaborative decision-making. Students should learn to visualise design proposals clearly, consistently, and persuasively, and be able to engage in critical debate. By working on vision and strategy making, students are expected to understand and critically reflect on the role of regional design in collaborative planning processes.

5. Conclusions

The chapter briefly introduced the approach of guiding vision and strategy making in planning schools with design education. It looked into the experience of the regional design course at TU Delft and positioned this approach within the landscape of planning education. Creating a situated learning environment and embedding the teaching in the discourse of collaborative planning are both crucial for such a domain of planning education. By no means this TU Delft approach should be seen as the model to follow, neither will it be relevant forever. On the contrary, this chapter seeks continuous interpretation and reflection on the tradition of 'learning by doing' in planning schools with design education to cultivate the future generation of planners and designers who could contribute to the solutions for complex spatial development challenges in transdisciplinary settings. The future challenges in spatial planning research and education lie in this transdisciplinarity, which necessitates a wider understanding and skill set in vision and strategy formation that extends beyond the scope of spatial planning and design itself. Nevertheless, in relation to spatial development at the regional level, both spatial vision and development strategy are components of regional design, which is a tool that is increasingly used for creating dialogues within the collaborative decision-making process. The design 'flavour' makes it unique compared to other planning education that focus more on science and/or policy, and it also sets the context for this chapter when discussing the relevance of the approach of guiding vision and strategy making.

In a nutshell, guiding vision and strategy making

in university design studios has become an essential component in the teaching of spatial planning. Creating a situated learning environment is instrumental in getting students to understand the nature of collaborative planning. Such a learning environment can be enhanced by connecting teaching with research and practice in the design of assignments, organisation of teaching activities, and feedback moments, so that students have the opportunity to work on 'real' societal issues and keep connected to 'real' stakeholders in the planning context. Vision and strategy making in the university studio settings is a process of analysing, synthesising, envisioning, and strategising, which involves intense verbal and visual communication among students and teachers. It is an example of 'research by design; design by research', which is evidence-based and explorative at the same time. The essence is, through such a research and design process, to help students understand the multidisciplinarity and multiscalarity embedded in the current issues or future challenges, the complexity reflected in the conflicts of interests in the use of space among stakeholders, uncertainty related to long-term spatial development, and limitations of spatial planning. Besides, it is essential to let students debate on values and norms behind planning principles, roles, and instruments of strategic spatial planning in delivering public good, spatial quality and equality, within the given institutional context. Hopefully, knowledge and skills needed by the future generation of planners and designers will be cultivated with this approach.

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