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<sup>1</sup> Michael Gibbons et al., The New Production of Knowledge. The Dynamics of Science and Research in Contemporary Societies (London: Sage Publications, 1994); Helga Nowotny, Peter Scott, and Michael Gibbons, Re-Thinking Science. Knowledge and the Public in an Age of Uncertainty (Cambridge: Polity Press, 2001); Julie Thompson Klein et al., eds., Transdisciplinarity: Joint Problem Solving among Science, Technology, and Society (Basel: Birkhäuser, 2001); Helga Nowotny, "The Potential of Transdisciplinarity," in Discussing Transdisciplinarity: Making Professions and the New Mode of Knowledge Production, ed. Halina Dunin-Woyseth and Liv Merete Nielsen (Oslo: AHO, 2004).

<sup>2</sup> Thomas R Fisher, In the Scheme of Things. Alternative Thinking on the Practice of Architecture (Minneapolis: University of Minnesota Press, 2000).

## Collaboration is not enough! What do architects and designers bring?

Commissions and tasks in the built environment become more complex and demanding, urging for the combination and integration of different perspectives and kinds of knowledge. Current challenges in society need to be addressed from several angles simultaneously, not least in relation to issues of sustainability where different professions need to collaborate during the whole process of finding new solutions. There is a renewed focus on collaboration, which in the field of design is discussed in terms of "co-production", "integrative design", "user innovation", "participatory design", "transdisciplinary design", etc.

But is collaboration enough? There are some tendencies in the fields of both design and research to focus on the issue of collaboration and the process itself to the extent that the questions of what is the content or what will be the result of the collaboration is almost forgotten. This raises the question of what do architects and designers really bring into collaboration? Are architects and designers mainly facilitators or process leaders, or what areas of expertise are their core responsibility? Into each collaboration you need to bring a certain knowledge or ability, and you do not just collaborate for the sake of collaboration. The discussion on transdisciplinarity has raised the awareness of the need to cross and transgress borders between narrow fields of expertise and to look into other fields of practice to be able to address complex societal challenges and to see where new knowledge actually is produced. But the founders of this discussion also point to the importance of having an identity and base in your own disciplinary knowledge to be able to go into fruitful dialogue and transdisciplinary collaboration with professionals or researchers from other fields<sup>1</sup>. So, even though design and architecture are transdisciplinary in their core characteristics, we need to clarify and be more aware of what is our own disciplinary knowledge.

Design has great potential to contribute to collaborative processes, not least to address the demanding and urgent challenges in the societies of today. Architectural and design theory have during last decades developed an abundance of interesting conceptual frameworks to strengthen the role of the designer as well as of design knowledge and thinking. Design has for instance been described to have the same importance in the contemporary world of flows as science and technology had in the industrial era, not least due to the designers' trained ability to see relations and patterns among disparate, changing things and to form something graspable<sup>2</sup>. "Pattern recognition" has also been highlighted as of new importance in the digital era of production and experience of architecture<sup>3</sup>. Design has been described as a tripartite activity of a structuring activity, a creative activity, and a communication activity<sup>4</sup>, and design as a process that brings something new into the world involves especially "imagination" and "communication"

## Collaboration: Organising for design impact and value

Collaboration is not enough! What do architects and designers bring? Continued

<sup>3</sup> Mario Carpo, "Pattern Recognition," in Metamorph. Focus, ed. Nanni Baltzer and Kurt W Forster (Venezia: Marsilio Editore, 2004).

<sup>4</sup> Richard Foqué, Building Knowledge in Architecture (Brussels: UPA, 2010).

<sup>5</sup> Harold G. Nelson and Erik Stolterman, The Design Way. Intentional Change in an Unpredictable World (New Jersey: Educational Technology Publications, 2003).

<sup>6</sup> Albena Yaneva, Made by the Office for Metropolitan Architecture: An Ethnography of Design (Rotterdam: 010 Publishers, 2009).

<sup>7</sup> Nigel Cross, Designerly Ways of Knowing (Basel: Birkhäuser, 2007). more than pure creativity.<sup>5</sup> The ability to associate elements, actions and practices, read situations and to communicate through several media is often seen as central in design.<sup>6</sup> The ability of nonverbal communication and to think and communicate through visualisations and artefacts – to "read" and "write" in "object languages"<sup>7</sup> – is a core competence and a central way in which knowledge is produced and transferred in the design fields.

These communicative competences are of course of great importance for every collaborative process, but to communicate is not the core contribution of the designer. The material and artefactual aspects of designers' ways of thinking and communicating should be stressed. Central is knowledge on how to form, make, materialise things on different scales from disparate conditions, ideas, wishes and requirements. Even though design theory for decades has dealt with the issue of what (architectural) design knowledge is, there is still a need to further articulate this and to make it more conscious for designers. The role, specific competence, expertise and responsibility of each member in a collaborative team must be clear. So everyone, including you, knows what you contribute with and actually bring into the collaboration.