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READING THE IMAGE – ENDORSING CO-CREATION IN PLANNING COMPETITIONS?

TIINA MERIKOSKI

Abstract

Planning of towns and communities is a holistic and interdisciplinary task during which many qualities are examined, such as political, economic, social and ecological aims. Furthermore, the need to create paths towards more sustainable communities and living environments has made the requirement for an effective multidisciplinary cooperation and co-creation in planning ever more important.

In order to investigate sustainable communities and to find transformative solutions, requirements have been included in planning competitions, which demand a multidisciplinary approach. However, the culture of these competitions is embedded in the architectural tradition. Thus, architectural knowledge production dictates how competition proposals are created, and the input of professionals representing other key disciplines is at risk of not being effectively included in the proposed designs.

This argument is supported by evidence from a research project investigating an open international planning competition held in Finland in 2011. The results suggest that planning competitions need to be reformulated in such a way that multidisciplinary co-creation is supported more effectively.

Keywords:
Knowledge production,
Co-creation, Multidisciplinary,
Planning competition, Sustainable communities, Planning, Cultures of Knowledge production

1. Introduction

In urban and spatial planning, the aims and objectives of political, economic and social interests are included in order to create guidelines for the use of land areas, which eventually form human living environments. Combined with local environmental conditions and global challenges such as climate change, urban planning presents a highly complex *design challenge*, in which holistic understanding is a necessity. Planners, architects, engineers, scientists – the many professionals who participate in this design task – create knowledge for each other and about the possible future of a particular site (see, for example, Fedeli, 2013). Thus, the challenge includes *the ways* in which this knowledge is created, transmitted, communicated and adopted.

One way to tackle this design challenge is to organise a *planning competition*. A competition is commonly considered a viable and cost-effective tool¹ since it produces a variety of design proposals over a relatively short period of time (Kreiner, 2010, p. 443; Andersson, Bloxham Zettersten & Rönn, 2013). A planning competition in this article is understood as a design tool within the praxis of architecture (see Figure 1) that is used to investigate possibilities and explore ideas for the use of a specified land area designated for development (Kreiner, 2010; Andersson et al., 2013; Merikoski & Eräranta, 2015; Merikoski, 2018). This might include an urban area, an undeveloped land area connected to an urban area, or a rural site.

Nonetheless, evidence from an international, open planning competition in Finland held in 2011 suggests that competitions may in fact not be effective in the search for novel and holistic designs for future communities. Even with high aims and specific thematic guidelines for sustainability, and a long-reaching time frame for the development of a site without major previous development, transformative and imaginative solutions were left isolated, holistic approaches to sustainability were hard to read and the most experimental proposals were considered unrealistic or theoretical by the competition jury (Merikoski, Eräranta & Staffans, 2012; Merikoski & Eräranta, 2015, Sipoo municipality, 2012).

In this article, it is argued that a key part of the reason for a planning competition not being able to produce effective and holistic designs for sustainable communities is its failure to consider the needs of multidisciplinary knowledge production. Since these competitions have a background in the tradition of architectural methods of knowledge production, the competition process, including guidelines, required documents, evaluation criteria as well as the evaluation and judging processes is framed by image-making; i.e. the premise that knowledge can be transmitted, read and judged by visual material (e.g. Andersson et al., 2013). In essence, it means that the image has a key role in both creating and communicating the knowledge embedded in the design (Andersson et

- 1 From the point of view of the competition organiser, i.e. the client, competitions exploit the input of several design teams over a restricted and relatively short period of time, which is seen as a cost-effective way of gathering ideas and solutions. However, in open format planning competitions, the participants devote quite a fair number of working hours without any guarantee of a reward for these efforts (e.g. Kreiner, 2010).

al., 2013). Within cultures of knowledge production beyond the architectural domain, working with images and reading visual material are not familiar practices. Thus, their contribution to the creative collaboration in knowledge production, seeking to find new ideas and innovation in planning, is bound to remain secondary.

Firstly, the research methods are described by considering the competition case in terms of developing the argument. Then cultures of knowledge production, and more specifically, the ways in which knowledge production are displayed within planning competitions are examined. In Section 5, observations from the case competition are discussed and the key findings to support the argument are elaborated. In the final section, conclusions are drawn, and future competition practices are discussed.

2. Methods and materials

The argument presented in this article is based on the data and material collected in a planning competition project in 2009–2012. The project was organised by the municipality of Sipoo in Finland, supported by Aalto University and Tekes, the Finnish Funding Agency for Technology and Innovation, through its Sustainable Community 2007–2012 program. The project included an open, international, planning competition, the desired outcome of which was to discover sustainable solutions to the pressures of growth on a small municipality, created by its proximity to the Helsinki capital area. The competition called for proposals on ways the competition site could be developed into a new sustainable town of 70,000–100,000 inhabitants (Sipoo municipality, 2011; Merikoski & Eräranta, 2015; Merikoski et al., 2012). To understand the scale of this task, it needs to be noted that in 2009, all of Sipoo municipality held less than 18,000 residents, of which approximately 3,000 lived within the competition area (Sipoo municipality, 2011, p. 17; 25).

The competition placed a great emphasis on the aims of sustainability, with entrants being accordingly encouraged to form multidisciplinary planning teams. To support this, a team of experts representing five different *themes of sustainability* (Sipoo municipality, 2011, p. 34) were involved from the very beginning of the competition project. These themes were: (1) Unique methods of organising transport, (2) Unique ways of living and lifestyles, (3) Unique environment and landscape, (4) Unique forms of eco- and energy-efficiency and (5) Unique methods of organising employment and services. Each expert was responsible for creating evaluation criteria for their own domain, and while not part of the jury, they assisted the jury during the evaluation process. The jury consisted of nine members of which five had a background in architecture or landscape architecture. The rest represented municipal governance (Sipoo) from other perspectives. In addition, two invited international jurors² were involved (Merikoski et al., 2012; Merikoski & Eräranta, 2015; Sipoo municipality, 2012).

2 The two invited international jurors were Professor Wulf Daseking and Dr. Patricia McCarney, representing at the time the City of Freiburg and the University of Toronto, respectively. Daseking's professional background is in architecture, and McCarney's in urban and city planning (Sipoo municipality, 2011).

In terms of the research and this article, the data and material include all the competition documents, from drafts to finalised material, including the competition programme and evaluation minutes (Sipoo municipality 2011; 2012). Also included are the thirty proposals received in the competition, transcripts of semi-structured interviews with 11 key actors in the Sibbesborg project, video recordings of three expert workshops arranged prior to the competition launch and the personal research notes of the author throughout the project, including observation of the jury evaluation process.

A key part of the research was a critical analysis of the competition entries and the knowledge they communicated. The analysis, which examined the ways the requested knowledge had been presented within the proposed designs, was conducted after the competition merely for research purposes (see also Merikoski & Eräranta, 2015). For the analysis, explicit evidence was sought from the responses of the design team to a certain aim or requirement. A piece of knowledge had to be found either in the text or within the imagery for it to be acknowledged. This investigation was then assessed in conjunction with the experts' evaluations of the proposals, the transcripts of their interviews and the formal jury evaluation (i.e. Sipoo municipality, 2012). Interpretation in this sense was minimised, although in this kind of analysis, the factor of personal interpretation and its multitude of forms cannot be fully eliminated (Merikoski & Eräranta, 2015, p. 48; see also Merikoski et al., 2012).

3. Cultures of knowledge production

The accumulation of information and knowledge has played a key role in the transformations that global society has encountered during the past decades (Knorr Cetina, 2007, p. 361). Paradoxically, it seems that, although a *lack of knowledge* has often proved to be a problem throughout history, it is now the *profusion of knowledge* that compounds the problem (Koponen, Hildén & Vapaasalo, 2016, p. 11). Nonetheless, the *knowledge society* is not only about producing and having access to increasing information and knowledge. It is “a society permeated with [...] arrangements, processes and principles that serve knowledge” (Knorr Cetina, 2007, p. 361-362). Among other things, it means that new domains and disciplines have emerged in order to access, organise and understand the abundance of information and knowledge. In addition, the need to combine and co-create knowledge has become ever more important and central for many undertakings concerning, for instance, urban and spatial planning.

This *epistemic diversity* (Knorr Cetina, 2007, p. 364) can be interesting and useful in knowledge creation within a specific field of study, but it may amplify disconnections between domains and generate challenges for multidisciplinary studies and holistic approaches. Differences between

domains are strengthened as within the profusion of epistemic cultures they easily become self-referential and more interested in internal affairs, instead of aiming to reach across boundaries (Knorr Cetina, 2007, p. 364). In addition, a long and specialised education, divisions in labour and practice and *distinctive tools and methods of knowledge production* generate disconnections between domains (Knorr Cetina, 2007, p. 364).

Cultures of knowledge production (Figure 1) can be understood as sets of practices, tools and environments of a specific epistemic domain within which information is assessed, then turned into knowledge and finally communicated to others. These include the use and content of, for instance, images, symbols or text, as well as meanings connected with the use of these tools (Knorr Cetina, 2007, p. 364). For instance, in architectural knowledge production, image-making and visual representation play an important role. Within the domain, it is established that architecture is created via drawing and visual representation.³ Furthermore, it is presumed that this imagery can transmit relevant knowledge, and that architectural quality can be read from the visual material (Andersson et al., 2013). Many architects identify themselves with visual artists (see, for instance, Lipstadt, 2009), although the profession also works within the field of technology. Architectural studies in universities worldwide are within art schools or schools of technology, without any clear justification for either choice of positioning.

The culture of architectural competitions can be seen as “a future oriented production of knowledge through architectural projects” (Andersson et al., 2013, p. 10). Furthermore, a planning competition is a *tool* with which the future of a particular site is investigated by design (Andersson et al., 2013, p. 10-11). The role of design in competitions is not to explore existing conditions, but to examine “how it could be if the proposals were to be implemented” (Andersson et al., 2013, p. 10).

- 3 Examples of architectural projects realized with no visual material exist, and, for instance, narratives can be used to envision the forthcoming design. However, it is highly unlikely in a modern society that an architectural project would proceed all the way from beginning to final realization without visual material. A common practice in architecture is to seek ideas and form by sketching or model-making, either by hand or with digital tools. Also, by the time of preparing documents for building permission, legislative requirements apply, which include visual material such as a certain set of blueprints. The Land Use and Building Act in Finland also sets guidelines on the ways different scale spatial planning projects are to be represented (Land Use and Building Act, 1999).

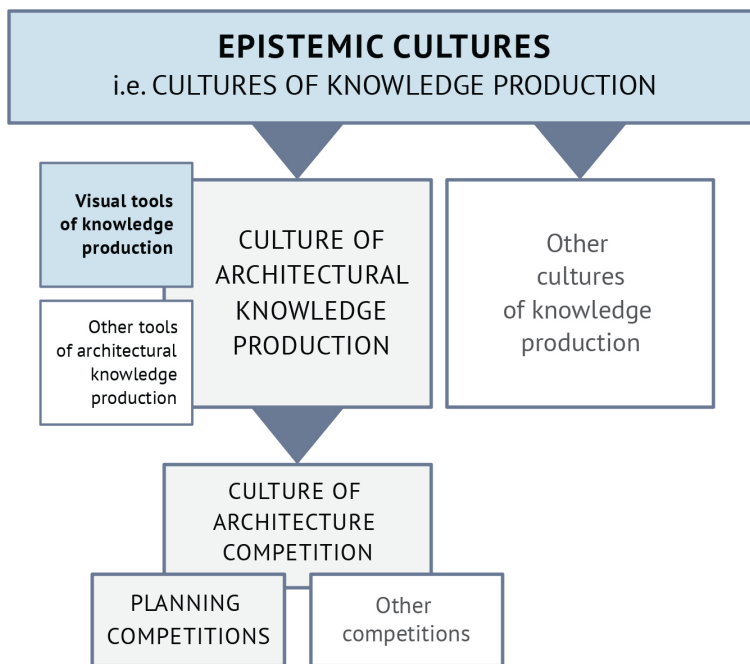


Figure 1
A planning competition in this article is understood as a design tool grounded in architectural knowledge production and placed within the culture of architectural competitions. In architectural knowledge production, a multitude of tools and methods are applied, with the visual tools being seen as the most eminent and important ones (Andersson et al., 2013). Both architecture as well as spatial and urban planning as conducted by architects often begin with drawings or model making, either by hand or by using digital tools, but by law, the realization of the project also requires a set of blueprints.

4. Knowledge production in planning competitions

Within a planning competition process, knowledge is created and communicated in different phases in varied ways. The first, and perhaps the most eminent, is the work of the design team participating in the competition producing knowledge in the form of the proposed design (Andersson et al., 2013, p. 11). The ways in which this design process materialises and evolves depends on the specific team in question. In competitions in which the entries are submitted anonymously, it all occurs behind the scenes, and the process cannot be guided or even observed during the competition.

The second way in which the production of knowledge ensues in a planning competition is when the *design* has to communicate the solution proposed by the competing team for the given problem (Andersson et al., 2013, p. 10-11). This means that the dialogue occurs between *the jury* and *the proposal*: the submitted material has to “provide answers” to the questions of the jury, which then “generate knowledge about the solutions” (Rönn, 2011, p. 113). This implies, among other things, that knowledge about the design is created by its assessor; thus, it is relevant *who* the reviewer is and what his or her professional background is.

While evaluating the proposals, the third way of knowledge production unfolds *among the members of the jury*. At best, the evaluation turns into a learning process in which those members of the jury who lack knowledge in a certain field of expertise are supported by those with professional experience, for instance, on reading architectural blueprints and visualisations (Merikoski et al., 2012; Andersson et al., 2013, p. 9).

The professional members of the jury simultaneously learn from the other jurors on matters, such as local societal and political conditions, which may affect the choice of winner (Fedeli, 2013).

5. The Sibbesborg case

In the Sibbesborg competition, efforts were made to support the multidisciplinary approach which is required for effective envisioning of a future sustainable town. Experts representing a variety of professional disciplines were involved in the process from the very beginning, in order to respond to the challenging design task that would demand multidisciplinary expertise, not only from the design teams, but also from the evaluation. Finally, five experts were invited to participate, according to the five aforementioned themes of sustainability. An extra effort was placed on promoting dialogue among these experts, as well as between the experts and the jury. The themes, as well as engaging the experts in the process, were thought to encourage and even compel the entrants to form multidisciplinary teams.

The experts created their own criteria for the design task in the competition and evaluated the proposals accordingly. It was an unprecedented effort for a planning competition to include additional expert work in the competition process – from the beginning to the final phases of evaluation. A more common prevailing practice in planning competitions is to ask for a written statement from an expert representing a particular domain to support the work of the jury, without any interaction between the expert and the jury or among the experts. In the case of the Sibbesborg competition, not only were the experts able to directly present and justify their arguments to the jury members, but they were also able to interact and learn from each other (see Merikoski et al., 2012; Merikoski & Eräranta, 2015). For instance, they used an evaluation table combining all of the individual evaluation criteria in an attempt to evaluate the overall success of the proposals (Merikoski et al., 2012, p. 30).

Furthermore, the experts were asked to define the types of documents they would like to see in the competition entries considering their forthcoming evaluation; however, particular forms were not suggested. Some of them considered that precise requirements would overly constrain the design teams: innovation itself would finally determine the form of representation and different ideas would need different ways to become elaborated. Only architects were familiar with the idea that a plan or a design can and must be communicated through a certain set of documents (e.g. interviews, 2012).

Consequently, the documents, which were required from the submissions, followed the conventional path of an architectural project in

which a certain set of visual material is supported by written descriptions:

- an illustration depicting the overall plan for the competition area (scale 1:15,000)
- relationship of the competition area to the region as a whole (scale 1:250,000)
- detailed partial plan for the centre (scale 1:2,000), supplemented by other material depicting the centre and its functions (e.g. perspective illustrations, diagrams, section drawings, and written explanations)
- a written description of the content of the submission
- a written description of an implementation path
- additional thematic material, which had not been given specifications (Sipoo municipality, 2011).

Despite these efforts, a common ground for the discussion was not easily found, and the experts could not easily identify the key knowledge embedded in the proposals (interviews, 2012; Sipoo municipality, 2012). Even if they all possessed some previous experience of competition evaluation, the professionals outside the architectural field were not comfortable with reading visual material. When interviewed, only the professionals with a background in architecture considered the traditional set of visual imagery and illustrations necessary to evaluate the proposals effectively. Others had to rely on the text included in the proposals (interviews, 2012). Moreover, in many designs the text and the imagery were seen as being disconnected: a proposal might present skilfully produced imagery and a credible written description without any relation to each other (Merikoski et al., 2012, p. 39; also, Sipoo municipality, 2012).

5.1. Performance of the proposals

The aims of the Sibbesborg competition were manifold, and Merikoski et al. (2015) have earlier discussed the complexity of the design challenge of the competition. In brief, the key aim of the competition was to investigate the long-term implications of the pressures of growth for the Sipoo municipality, and the ways by which this growth could be proactively responded to, by means of sustainable land use and urban development.

High expectations were placed on the design proposals by the organisers as well as by the invited experts. In general, the quality of the designs was considered good, but the bold, holistic and innovative solutions that had been sought did not emerge. For instance, all the proposals relied on current transportation technology, despite the competition's projected timeline of up to a hundred years in the future (interviews, 2012). Similarly, many proposals seemed to lack a very basic understanding of the proportional relationship between energy and material flows, and land use (Sipoo municipality, 2012, p. 18). Moreover, social acceptance of the proposed solutions was not considered in any of the entries, and in only one proposal, social sustainability was mentioned (Sipoo municipality, 2012, p. 19).

One of the reasons for the failure to suggest novel and innovative solutions might have been that none of the teams had thought to imagine the kind of society and environment they would be facing in fifty or a hundred years' time. Thus, the design solutions only reflected the current societal conditions, and mostly promoted realistic, conservative and known responses to the challenges of sustainability. In fifty years' time, different values and mechanisms may exist, and imagining the ways in which they would reflect the town and living environment are essential if solutions for the future are to be effectively investigated (for instance, Merikoski et al., 2012; interviews, 2012). Reasons for the lack of these visions could be: first, the difficulty of detaching oneself from the prevailing conditions and imagining far ahead into the future; and second, the fear of being judged "unrealistic" in terms of competition evaluation, thus being left without any hope of an award (interviews, 2012; Merikoski et al., 2012; Merikoski & Eräranta, 2015; Merikoski & Junkkonen, 2012).

For example, the winning proposal "Nourish" listed ten notions as its planning principles (Table 1; Figure 2). However, none of them elaborated on the projected transformation of society and its values in the near and distant decades of the future. Local food, "nearly zero energy" buildings, a densely built town and "a zero-carbon lifestyle" added nothing novel to the current or past discussions on sustainable communities. One of the interviewees (non-architect) commented that the proposal was described in such a vague manner that one could interpret it a multitude of ways. The proposal did not elaborate on its actualisation, despite one of the key tasks stated in the competition brief exhorting contestants to describe the path towards implementation: "It must have been readable in the plan, but in the text it did not clearly come out how they thought it would happen" (interviews, 2012, translation by author). The same interviewee noted that if you choose to interpret an ambiguous proposal in an optimistic manner, it would seem more promising (interviews, 2012; Sipoo municipality, 2011; Merikoski & Eräranta, 2015; also, Kreiner, 2009).

Table 1
The planning principles of the winning proposal “Nourish” (see also Figure 2).

The 10 planning principles	
1	Sibbesborg lies at the crossroads of the Greater Helsinki urban area, the vast agricultural and nature areas of the northeast and the archipelago and integrates the strengths of all these into the city fabric.
2	A chain of dense villages along the east and west sides of the river form a basic services network, easily reachable from every home.
3	Local food is the easiest and most cost-effective nourishment, and is visible in every phase of the Sibbesborgian’s lifecycle.
4	A zero-carbon lifestyle is the easiest and most cost-effective way of life, thanks to high-density enabling a diversity of public and private services.
5	All buildings are nearly zero-energy and use wood as a material, restricting building height to eight floors.
6	The riverside of Sipoonjoki and Sipoonlahti is open to the public and forms an urban central park. Eriksnäs peninsula and the vast forests of Hitå form urban lungs.
7	Sibbesborg is linked to Helsinki by a metro line. The two stops along this line form the twin city centres of Sibbe and Borg. Links to Nikkilä, Kilpilahti and Porvoo function by bus. Links to the archipelago function by waterbus.
8	Sibbe and Borg form a uniform new centre cradling the Sibbesborg archaeological site. Both sides have their own distinct character.
9	Söderkulla forms the old town, its character based on locality and a balanced mix of old and new.
10	Eriksnäs leisure centre forms a centre of seasonal services, acting as gateway to the archipelago.



Another proposal, “Siblings” (Figure 3), performed best in the expert evaluation and was finally awarded the third prize in the competition. In the interviews, it was mentioned that the structural form did not *appear* as fine as in the other awarded proposals, and its architecture seemed conservative and traditional, although non-architects did not see it necessarily being a disadvantage (interviews, 2012). In the jury’s evaluation it was criticized for making “non-convincing historical references” in terms of urban design and architecture (Sipoo municipality, 2012, p. 42). However, the jury noted that it was an “exceptional proposal” since it included ideas to “almost all the quality criteria” listed in the brief (ibid., p. 24) in one way or another.

Another interesting proposal, “City Game” (Figure 4), which was awarded an honorary mention, lacked something in both its visual performance as well as in its attempts to follow the typical line of representing an architectural project – or as recorded in the evaluation minutes (Sipoo municipality, 2012, p. 29): “the presentation is very confusing”. It was considered to offer many interesting, but *theoretical* ideas (Sipoo municipality, 2012, p. 29-30). Nonetheless, in terms of envisioning a future society, it was among the most stimulating, focusing more on policies and co-creation than on detailed, architectural representations. It proposed an iterative development process with “a set of objectives, strategies and tools to inform the city-making”. The idea was based on collective action and on the will to co-create.

Figure 2
One of the boards of the winning proposal, “Nourish”, presenting a visualization of the future town as well as ten planning principles (see also Table 1).

IMAGE: WSP FINLAND LTD., COURTESY OF AALTO UNIVERSITY.

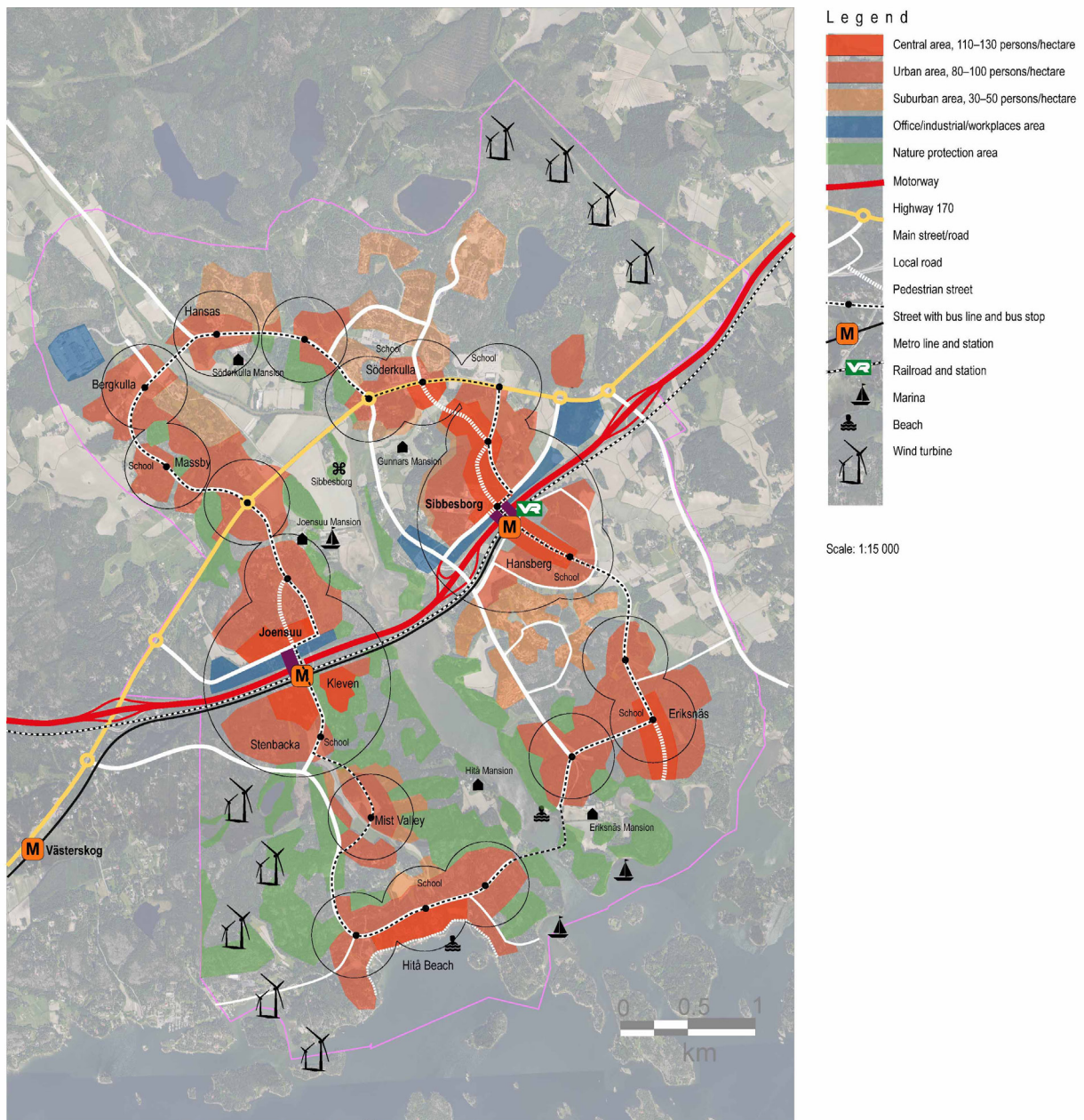
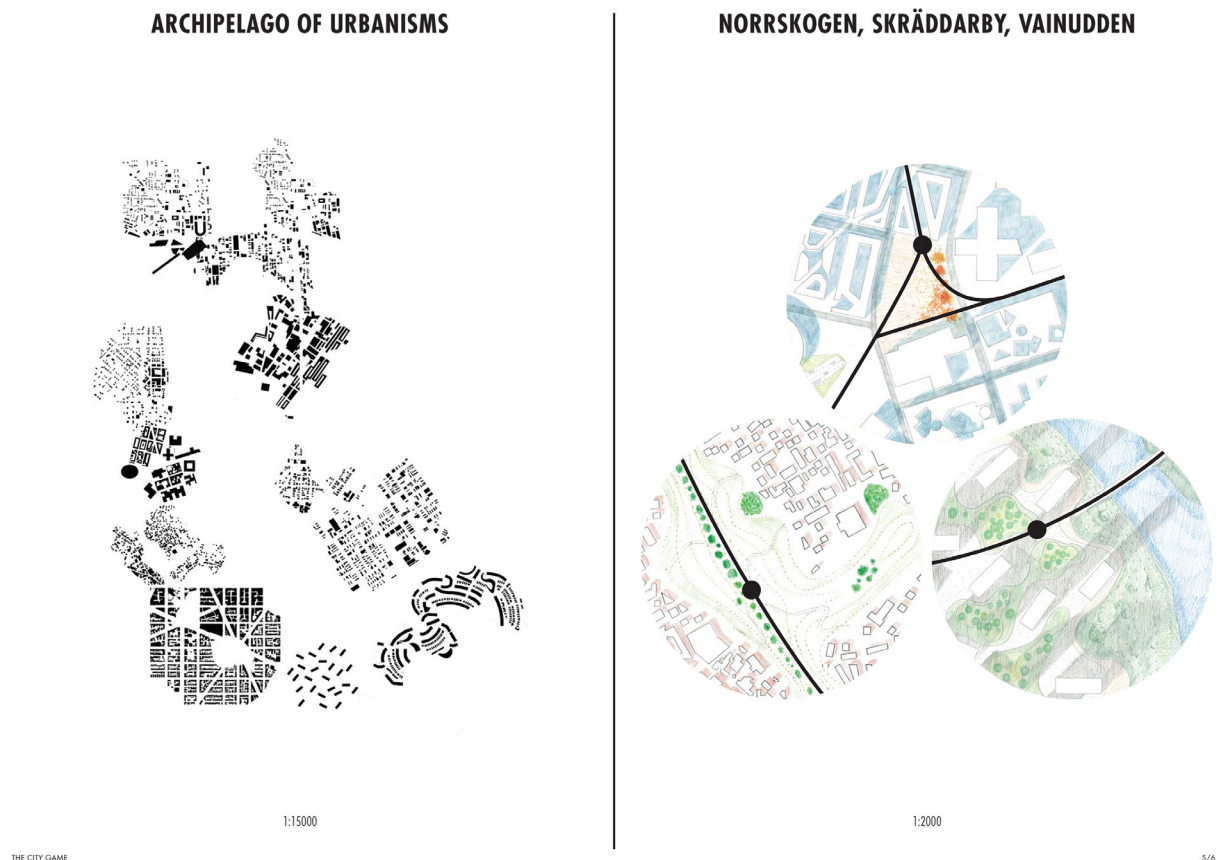


Figure 3
The proposal entitled “Siblings” was awarded the 3rd prize in the competition. It was ranked the best in the overall expert evaluation. The jury appreciated the structural plan of the proposal and considered it “realistic” and one that could “suit Sipoo” well (Sipoo municipality, 2012, p. 23). However, the jury noted that it lacked innovation and “some aspects of surprise” (Sipoo municipality, 2012, p. 23-24). In this image, the overall plan in 1:15,000 is shown.

IMAGE: LIIDEA LTD AND ARKKITEHTI OY RAJANIEMI, COURTESY OF AALTO UNIVERSITY.



Once the identities of the awarded teams (altogether eight proposals) were revealed at the awarding ceremony, it was interesting to assess the kind of expertise with which these designs had been created. In the competition brief, it was *recommended* to form multidisciplinary design teams, including expertise within professional fields, such as land use, habitation, transport, community management, ecology and landscape design, development of services and business operations, as well as area development processes (Sipoo municipality, 2012, p. 6). However, most of the expertise within these eight teams comprised of architecture: two design teams consisted only of architects or students of architecture, one team represented a school of architecture and planning (hence, all team members were most likely students of architecture and planning) and three teams had included only one additional field of expertise (“landscape architecture”, “traffic engineering” and “engineering”). The teams that were awarded the first and the second prize were the most diverse in terms of presenting multiple fields of expertise. In terms of domains, the winning team represented architecture, traffic engineering, social sciences, landscape architecture, political science, engineering and land use planning, while the team that won the second prize possessed expertise in architecture, engineering and transport planning (Sipoo municipality, 2012).

Figure 4
“City Game” was awarded an honorary mention. The proposal offered interesting ideas, but its presentation was considered “very confusing” (Sipoo municipality, 2012, p. 29). On the left, an overall plan in 1:15,000, and on the right, detailed partial plans in 1:2,000 are represented.

IMAGE: KALLIALA, TOIVONEN & HEISMAN, COURTESY OF AALTO UNIVERSITY.

It would be tempting to argue that the multidisciplinary team behind the winning proposal would support the main argument of this article. However, it only elaborates the complexity of the task at hand; in terms of the expert evaluations, the winning proposal was not among the best. Naturally, the jury was able to justify its nomination (Sipoo municipality, 2012), but among the experts, it was criticized for presenting nothing unique, innovative or transformative; or as one of the interviewees described it, it contained “a lot of beautiful words and its visual appearance was ok” (interviews, 2012, translation by author).

6. Discussion

In this article, I have argued that competition practices based merely on the architectural tradition of knowledge production set implicit restrictions on *what kind of knowledge* can be created, *how it is presented* in a proposal and *how it can be evaluated* from the proposals (see also Merikoski & Eräranta, 2015). A tool that supports only one domain's methods of knowledge production and communication prevents other fields of studies from effectively contributing.

Evidence from the Sibbesborg case material lends credence to this argument. Five experts from different fields of studies were involved throughout the competition process: starting from the beginning of formulating the competition brief and evaluation criteria, to assessing the proposed designs. Those experts who represented professions other than spatial planning and architecture found it difficult to read and understand the imagery and visual material, which dominated the proposals. Thus, many of them felt forced to only focus on the written material and thought the imagery was “a nice addition” (Merikoski et al., 2012, p. 39; see also Tähtinen, 2013, p. 65). However, the role of text in the entries remained descriptive, and its content was not reflected in the imagery (Merikoski et al., 2012; Merikoski & Eräranta, 2015). Moreover, not all of the knowledge content in the visual material was included in the text. In other words, the written and visual materials were disconnected with no clear link between them (see also Andersson et al., 2013, p. 10-12). These findings suggest that knowledge created by experts outside the architectural profession was not effectively considered, nor adopted into the visual representations of the designs, or that those professions were not included in the design team in the first place.

A project to design and envision a future sustainable community is enormous, complex, highly multidisciplinary and filled with uncertainties, and as such cannot be mastered only with images (Tähtinen, 2013, p. 26). Even if in the Sibbesborg Competition brief (Sipoo municipality, 2011) it was encouraged to form multidisciplinary design teams, none of the required documents – those with which the designs and the knowledge they contain are communicated to their audience – were explicitly

designed to support multidisciplinary knowledge production. The choice of methods for knowledge production already project the end result (see, for instance, Slotte & Hämäläinen, 2015), and vice versa: a pre-defined set of documents in competitions, heavily grounded in architectural traditions, set limitations on the ways that the knowledge they contain can be produced.

In addition, the set of required documents included unnecessary and irrelevant requirements in relation to the key aims. For instance, in a competition in which innovations for sustainable communities and – as in many competitions for future sustainability – outlines for a development process over decades, or even a hundred years ahead, are called for, it does not seem necessary, relevant or even reasonable to ask for a detailed town plan (Merikoski & Eräranta, 2015). Among other risks, the designers themselves as well as the evaluators (i.e. the competition jury) become lost in the details of the design (Andersson et al., 2013, p. 11) instead of being able to find the transformative, key ideas. Images that do not respond to the design task effectively draw attention away from what is actually important, and prevent the discovery of interesting ideas for future sustainable communities. Thus, the logic of connecting the aims, task and requirements seems to fail in the current practices of planning competitions (Merikoski & Eräranta, 2015).

It appears that the formulation of the Sibbesborg competition entailed a mixed message: on the one side, it encouraged the entrants to form multidisciplinary teams, for instance by involving professional experts outside the architectural field as evaluators, while on the other side only one profession's tools of knowledge production were introduced and effectively used. The planning competition should support multidisciplinary co-creation and knowledge production, instead of the present practice that currently serves only architects.

The findings also suggest that this problem is not restricted to competitions.⁴ An urban planning process follows the general line of a competition process: beginning from formulating the design task or problem, through the process of choosing the most viable solution for a particular site. The municipal planning process is more complex and time-consuming due to legislative requirements, but it is also more open and inclusive of different actors. The work of the architect as an urban planner is supported by experts representing different disciplines, as well as by reports, analyses and assessments. Nonetheless, the question remains whether the necessary knowledge produced by all the relevant domains is effectively applied and incorporated in the blueprints. The risk seems to be that the additional knowledge will remain as separate documents and cannot be identified within the plans that become the grounds for development. It would be interesting and important to continue this investigation within the field of practice.

4 The case on which this article is based was an open planning competition in which the entries were anonymously submitted. Thus, the findings and discussion at this point are limited to similar formats of competitions only.

7. Conclusions

Competitions in architecture are considered to provide great and good-quality designs in a cost-effective manner (Kreiner, 2010). By organising a competition, it is possible to gain multiple explorations and approaches to a given design task: competitions “mobilise unknown and unrelated sources of creativity” (Kreiner, Jacobsen & Jensen, 2011, p. 162). At the same time, as this study has indicated (see also Merikoski & Eräranta, 2015), competitions present a rather fixed and limited way of producing and communicating knowledge.

In the Sibbesborg competition, the construction of the teams behind the eight, awarded proposals are known. The two most successful designs, in terms of awards, were presented by the most diverse teams. Most of the teams had included only expertise from one profession, mainly engineering, in addition to architecture. This trend indicates firstly, that architects place a high value on their own overall expertise and the knowledge with which they could complete such a complex and multidisciplinary design task. Furthermore, it can also indicate that for some reason architects struggle to find or include other professionals. Based on informal discussions, one reason for this may be that the other professionals do not find it appealing to participate in a competition into which a significant amount of effort and working hours is placed without any guaranteed compensation. In addition, it should be noted that these competitions are specifically targeted towards architects⁵ in the first place, and it is common that participating in a competition is initiated by the architect or a group of architects. Additional expertise is then called for according to the relevance of the task, or as advised in the competition brief. However in many cases, as in the case of the competition studied in this paper, architecture is the only profession required in order to participate (Sipoo municipality, 2011, p. 6).

As the research did not include an exploration of the competing teams’ design processes, nor were the team members of the awarded proposals interviewed, it is impossible to speculate on their own experiences of working in these, at least, somewhat multidisciplinary teams, nor for instance, their way of dividing the task within the team. However, by knowing that the experts formulating the competition guidelines and assessing the proposals experienced difficulties in finding the relevant knowledge from the proposals and reading the visual material, it is implied that similar difficulties were experienced within the design teams one way or another.

Prevailing competition practices apply only architectural methods of knowledge production, thereby restraining innovation in both finding transformative solutions for planning future communities and creating new ways for multidisciplinary teams to work effectively. In competitions, in which a holistic approach to urban planning is emphasized, and

- 5 In Finland, information on announced competitions can be found on the Finnish Association of Architects SAFA website as well as in the professional journals and reviews of architects (such as the Finnish Architectural Review *ark* and *Arkkitehti uutiset au*). In addition, the competitions are usually announced on the client’s (the competition organiser; for instance, a municipality) website. Sometimes, a specific competition website is established, and a competition holding a local or national significance might be acknowledged by the local and/or national media.

the aim of which is to find innovation, a different logic has to be applied to creating a combination of guidelines, tasks and required documents. Yet, a competition cannot be designed to produce successful outcomes, but it can stimulate “the participants to act in ways that will more likely result in favourable outcomes” (Kreiner, 2010, p. 444-445). Planning competitions should be understood as not only *a tool for knowledge production*, but as *a culture of knowledge production* in itself, in which several domain-specific tools, processes and practices are used and combined in different ways and in different phases.

As the keynote speaker, William Reed stated at the launching seminar of the Sibbesborg competition: “You cannot glue parts of life together”. Similarly, knowledge produced in silos cannot be effectively combined into a holistic design only at the end of the process. The requirements of multidisciplinary expertise and the need for holistic solutions for future communities suggest that the representational methods used in planning competitions need to be reshaped to serve the kind of knowledge creation that is effective and supports holistic design.

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