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CONTENTS

Photo on the front cover: An illustration from the winning entry "Kuura" by Eriksson Architects Ltd.
Image: Eriksson Architects Ltd., courtesy of Aalto University

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SIGHTS BEYOND ILLUSIONS: TOWARDS COMMENSURABLE COMPETITION PROPOSALS

TIINA MERIKOSKI

Abstract

In planning competitions, the design teams produce visual material in order to present their future vision for a given site. Competition briefs include guidelines concerning this imagery, which aim (1) to ensure that it transmits the knowledge essential for evaluation, and (2) to mitigate the challenge of representational differences between the proposals. However, a key part of the art of architectural representation is to visualise the imagined environment in such a way that it appeals to the emotions of the viewer. It involves the design teams trying their utmost to create imagery that stands out, persuades the viewer, and provokes the imagination. These efforts put into the image-making render it difficult to compare objectively the knowledge embedded in the designs.

Within a research project investigating sustainable solutions for Nordic tourism destinations, a method was developed and tested to mitigate the challenge of the incommensurability of competition proposals. Key features in proposals to an invited competition were redrawn in digital format, and then layered against each other in order to gain a visually "undisturbed" understanding of the differences between them. The findings of this experiment suggest that the contemporary competition practices should and could be revised in order to gain competition proposals that are more readily available for mutual and objective comparison.

Keywords:
Planning competition, Visual rhetoric, Image, Evaluation, Architectural representation

1. Introduction

A planning competition is a form of an architectural competition[1] – a design tool created to investigate possible futures for the use of land on a particular site. It is grounded in the tradition of architectural methods of knowledge production: blueprints, illustrations, 3D renderings, and other graphic material (Merikoski & Eräranta, 2015; see also Rönn, 2009). Furthermore, the practice of a competition is based on four presumptions: (1) knowledge can be transmitted via visual material; (2) the quality (of the design) can be read and judged from the architectural drawings; (3) an architectural project – such as the competition task – is a viable method for investigating the future; and (4) competitions generate extraordinary and good quality designs as well as innovation (Andersson, Bloxham Zettersten & Rönn, 2013, p. 11; Lipstadt, 2009, p. 12-13; Kazemian & Rönn, 2009, p. 177, 180; also Svensson, 2009; Strebel & Silberberger, 2017).

A common practice is for the competition proposals to be anonymously submitted in the form of boards or digital PDF submissions.[2] The proposal needs to communicate by itself to the members of the jury how the design team has imagined the future of the competition site. In other words, their imagery is meant to be self-explanatory (Andersson et al., 2013, p. 10), and these images are meant to be assessed using criteria laid out in the competition brief (Kazemian & Rönn, 2009, p. 177, 179). In the brief, guidelines for the imagery are also provided, which aim firstly to ensure that it would transmit the essential knowledge required by the task; and secondly, to mitigate the challenge of representational differences between the variety of proposals (Merikoski, 2018), for instance by setting requirements for the scale to be used in particular drawings.

However, the architectural profession is all about image-making and creating visual material, representations of the "real" provoking one's imagination (Tähtinen, 2013; Pallasmaa, 2011) and are explicitly constructed to entice their audience (Rapoport, 2015). Architectural representation aims to visualise the imagined environment in a way that does not merely communicate the knowledge embedded in the design, but also creates an illusion of the future. The visual rhetoric included in the imagery of a competition entry is deliberate, meant to seduce the jury members and it complicates the comparison of the proposals in a way that is not always consciously acknowledged (Merikoski, 2018).

This article introduces a method, which was developed to mitigate the visual illusions of the imagery in competition proposals. The method was developed in a two-year research project at Aalto University investigating sustainable solutions for Nordic tourism destinations. During the project, the ongoing planning process of a particular case study site was observed in terms of the considerations of the different requirements of sustainability in planning and developing the site. An invited competition was held for the site and the researchers contributed to the

1 The first architectural competitions in Finland were held in the mid-19th century and the modern competitions can be seen as a product of the industrial era. Competition rules were formulated by the end of the 19th century (Rönn, 2009, p. 54; Merikoski & Eräranta, 2015, p. 43).

2 The form for the submissions is defined in the competition brief. Traditionally, proposals have been required on A1 or A0 boards (often specified to be horizontally or vertically oriented). In addition, A3 prints may be asked for and/or PDFs of the boards. However, the trend has been towards a "lighter" set of documents: in some of the latest competitions in Finland, only A3 prints together with a PDF file have been required, and in some competitions only PDFs have been requested (e.g. Europan 14 / http://europan.fi). Arguments for rescinding the large boards are plentiful. First, the boards are a handful for the competition organiser; receiving, storing, displaying and dealing with them after the competition, all require careful coordination as well as large amounts of space. Another key reason, one could argue, is the sustainability of the competition in general: it is considered more resource effective to ask only for A3 prints and/or digital material (for instance in Sibbesborg competition, Merikoski et al., 2012).

competition process in several ways. Firstly, a set of guidelines for sustainability was created which was then included in the competition brief. Secondly, the proposals were analysed in terms of these guidelines, in order to see the ways in which they had been interpreted in the designs. Finally, a layering method was developed to assist the evaluation. The results of the analysis as well as the comparisons conducted with the layering method were available to all jury members.

The key idea of the layering method involved redrawing those features relevant for comparison as vector image layers, such as land use, buildings and road networks. These images were then examined against each other in order to gain a visually "undisturbed" understanding of their differences (Merikoski, 2010; 2018). The comparisons ignored the graphic expression as well as the visual rhetoric that often guide the act of evaluation, such as when the first impression of the visual appearance plays a key role in determining whether a proposal is accepted for a further and more profound investigation.

The method revealed the illusions that had been embedded in the imagery, and the jury – including its architect members – understood how they had been led by the skilfully created images. For instance, one of the overall plans was first perceived as being widespread compared to another proposal, but the layering method revealed that the solutions were actually quite similar in terms of land use (Staffans & Merikoski, 2011, p. 79).

After the introduction this article begins by elaborating the methodological background of the research project. Then, the question of the image is addressed. In the third and fourth sections, the case study site and the competition are described. The fifth section compare proposals and the sixth section introduces the layering method. In the last sections, conclusions are drawn and discussed.

2. Methodology

The background of this article lies in a two-year (2009–2011) research project (MATKA) in which sustainable solutions for Nordic tourism destinations were investigated. The research was framed by an ongoing planning process of a particular case study site during this time. MATKA was based on pragmatic action research (PAR) methods in which the researchers worked in collaboration with local stakeholders including project partners[3]. A PAR approach indicates that the research forms a dialogical relationship with the local participants; knowledge is produced in collaboration, and diverse methods and work forms are applied (Greenwood & Levin, 2007). In the MATKA project, this approach was manifested through stakeholders and local actors playing a key role in providing insights, ideas and local knowledge. At first, an actor

3 The project partners represented the entire value chain of stakeholders of developing the case study site: Kolari municipality (planning authority), Laatumaa (landowner), Lapland Hotels (a key developer for the case study site and the operator of the close-by ski lift), Lemminkäinen Talo (holiday house constructor and developer), and Fortum Power & Heat (energy company).

survey was conducted in order to ensure that all the stakeholders would be considered as well as to gain understanding of their respective interests and views on developing the location. Project partners, local residents, entrepreneurs and others were then engaged via workshops held on different occasions during the project. Altogether 11 local actors were also interviewed – some of them more than once.[4] In addition, a visitor survey was conducted. Based on all the findings and knowledge obtained from and created together with the stakeholders, a shared vision for the development of the site was formulated (see Merikoski, 2010; Staffans & Merikoski, 2011; Tyrväinen, Uusitalo, Silvennoinen & Hasu, 2014).

4 The author spent several months in the location, thus making the project more accessible to the locals, especially considering that about 1 000 km lie between the research institute and the location.

Within the timeframe of the project, a planning competition was held for the case study site. In this way, the researchers had the opportunity to participate and follow through an entire competition process. Research interests in terms of the competition were: (1) to enhance understanding in integrating the requirements of sustainability in planning and (2) to investigate the assessment and comparison of the proposals. The researchers created guidelines for sustainability based on the local conditions and aims and on the generally considered features of a sustainable community at the time. To understand the local context, planning documents, policy papers and other relevant agreements, plans and reports concerning the case study site were studied and analysed, specifically in terms of sustainability. In addition, existing sets of guidelines and criteria were explored, such as the checklists in LEED and BREEAM certifications, as well as the criteria included in the Whistler 2020 vision (RMOW, 2007). The guidelines constructed for the case study site were then included in the competition brief. Furthermore, the proposals were evaluated in terms of the given guidelines: how the different dimensions of a sustainable community were prioritised in the proposals and how the given guidelines had been translated into planning solutions (Merikoski, 2010).

Regarding the second aim, exploring an effective comparison of the proposals, some of the key elements of the proposed plans, such as land use and infrastructure, were separately studied by redrawing and layering the same features of different proposals on top of each other. In this way, the differences between the proposals were easier to understand and the effects of visual rhetoric alleviated. This layering method is further elaborated later in the article.

The challenge of the incommensurability of the proposals was discussed during the MATKA project to some extent. However, it was not at the core of the project, and marked only a beginning for a further exploration on the topic of the challenges of planning competitions as design tools and the architectural knowledge production based on image-making (see for instance Merikoski, Eräranta & Staffans, 2012; Merikoski & Eräranta, 2015;

Merikoski, 2018). A deeper investigation into the question and the role of the image has been conducted for this article.

The part of the MATKA project in which research met with the ongoing planning agenda of the case study site can be understood to be an experiential case study analysis as defined by Straatemeier, Bertolini, Brömmelstroet & Hoetjes (2010). Within the analyses conducted in the project, past decision-making and planning processes were reflected in the legitimate planning documents, aims and status of the site at the time. Overall objectives were to learn how aims and past decisions promoting sustainability had been transferred into planning solutions, to identify possible bottlenecks and to suggest recommendations for developing planning practices based on these insights (Staffans & Merikoski, 2011). In addition, the layering method described in this article was developed and tested within the project.

As a methodology, experiential case study analysis implies that innovation for planning practices can only be developed through testing, reflection, and adaptation (Straatemeier et al., 2010). Furthermore, Straatemeier et al. (2010, p. 578) argue that research in planning should not only be concerned with understanding the current practices and processes but also with creating change. Many research methodologies (e.g. comparative case study analysis) are static and do not allow interactive development processes, which are vital in order to generate change. Experiential case study analysis is a dynamic process in which change in practice is simultaneously sought along with scientific results. This methodology is derived from an understanding of planning research as a design science. Design sciences aim to develop knowledge for the design and to solve or improve problems in areas, such as construction or planning (van Aken, 2004).

3. Making of the image

During the past decades, the role and power of the image has been accelerated by modern technologies and new practices for producing, sharing and exploiting visual material. Images not only dominate the media, commercial and entertainment industries, but have also become a significant tool in politics, for instance. Images have also occupied a greater role in people's private lives: they have transformed the way the world is experienced and, along with the new practices of sharing images, such as in social media, these experiences are communicated back to the world. The real and imagined have become mixed, and a concern is that the images generate a reality of their own, instead of documenting the reality as it is (Pallasmaa, 2011).

The power of the image derives from its ability to "open up a direct channel to the human mind and emotion" (Pallasmaa, 2011, p. 21). A skilful image-maker can use this channel with a variety of motivations: images

can be aimed (1) to dictate and manipulate, or (2) to liberate the mind and feed the imagination (Pallasmaa, 2011). The first, which Pallasmaa (2011, p. 21) calls "images of control", are used, for instance, in politics and for propaganda. They aim to suffocate the imagination of the viewer, and to manipulate by channelling attention in a pre-determined direction. The "image of emancipation", as opposed to the image of control, "reinforces [the] sense of self, autonomy and individual independence." (Pallasmaa, 2011, p. 21).

Above all, architects are image-makers (Tähtinen, 2013), and architectural knowledge production is heavily grounded in visual representation. Visual material illustrates and gives form to an abstract idea or design (Rapoport, 2015), and the images are produced and used for several purposes. Richens (2011, p. 93) has summarised the most common roles as being (1) to originate, (2) to test, (3) to persuade, (4) to instruct, (5) to promote, (6) to explain and (7) to record. For instance, in competitions, a few of these roles are simultaneously present. First, the design is originated, but also tested in the competition imagery. In addition, the imagery aims to persuade, and sometimes to promote an idea or an innovation. A key role of the competition imagery is also to explain the design to the jury because of the anonymity of the submissions.

In architectural projects as in competitions therefore, it is presumed that the knowledge relevant to the use and purpose of the image can be embedded in the selection of drawings, illustrations and diagrams (Andersson et al., 2013, p. 11), and that at least some of this content is commonly shared (Tähtinen, 2013, p. 25). Furthermore, it is presumed that the imagery can communicate its content to an audience in a disinterested manner (Lipstadt, 2009; Andersson et al., 2013; also Kazemian & Rönn, 2009), the image being "a transparent means of representation devoid of interpretation" (Tähtinen, 2013, p. 24). Especially the linear forms of architectural representation, such as blueprints, construction drawings, and orthogonal projections, are seen as objective representations of the design. Nonetheless, these are forms of knowledge production that are specifically used by the architectural (and engineering) profession. As such, they are hard to read for those who are not familiar with working with this kind of imagery (see, for instance, Tähtinen, 2013; Merikoski, 2018; Merikoski et al., 2012).

In an attempt to seduce and convince their audience, for example in order to sell a project or an idea to a client, other forms of imagery and visualisations are used (see, for instance, Rapoport, 2015). Being less technical, 3D renderings and other visualisations mimicking the real environment are easier to approach for a nonprofessional. However, these images are even more problematic since they have been explicitly created to persuade the viewer, or as Tähtinen (2013, p. 61) has put it, echoing Pallasmaa's (2011) propositions, they "present a falsified image, an interested image perhaps purposefully manipulated in a certain way and shown in a certain light in order to advance a cause."

Likewise, Leach (1999, p. 5) has noted that "the image shifts from reflecting reality to masking and perverting that reality". In fact, all images are a combination of the *real* and the *suggested* (Pallasmaa, 2011, p. 63), and the power to captivate the viewer is based on the dialogue between these two. Pérez-Gómez wonders about the profession's reluctance to question the premise of transparency of architectural representation while "during the last two decades, the seductive potential of the virtual space has expanded beyond all expectations, through both technological breakthroughs and artistic endeavours" (Pérez-Gómez, 2005, p. 217). Using the embedded manipulative forces, the image is not even meant to *depict reality* but to *construct* one (Grubbauer, 2008, p. 107). Thus, the image is not "passive or inert" (Georg, 2015, p. 328). Following Latour's understanding on the roles of artefacts in human and non-human actors' relations, images in architectural knowledge production can be seen as mediators that not only carry the knowledge as required, for instance by a design task, but also translate, transform and even distort it (Latour, 2005, p. 39).

Moreover, the idea of a disinterested image undermines architects as professional image-makers – although for them the "image is not an 'end' in itself" (Tähtinen, 2013, p. 25). The architect is not only a design professional within the field of building and construction, but also very much a trained and skilful image-maker, who constructs the image deliberatively with consideration of the viewer – whether it is the client, competition jury, or the media, for instance (Merikoski, 2018, p. 136; also Rapoport, 2015, p. 316). Grubbauer (2008, p. 108) talks about "the constructed nature of images": the process of image-making is connected to what is portrayed within the image – and what is not – and it all begins with the future viewer and agenda in mind (Rapoport, 2015; Grubbauer, 2008).

4. Case study: A new resort community in Ylläs, Lapland

The case study site of the MATKA project is located in Ylläs[5], in the municipality of Kolari in the northwest of Finnish Lapland (Figure 1). The site lies next to Äkäslompolo village and the Ylläs Ski Resort on the northwestern side of the Ylläs fell (Figure 2). Ylläs fell (718 msl.) is part of the third largest national park in Finland, the Pallas-Ylläs National Park. The fells in Lapland create a unique mountainous landscape in Scandinavia, which is appreciated for its far-reaching sceneries and extraordinary wilderness (Figure 3). As in many Nordic destinations, tourism in Ylläs is based on the purity of Nordic nature[6] as well as outdoor activities.

At the time of the MATKA project, a master plan (Ylläs II Master Plan) for the Ylläs area had been prepared, approved by the municipality and awaited ratification. For the case study site, the Master Plan allocated a dense new village centre in connection with the existing ski centre and a

5 Ylläs is one of the most visited ski resorts in Finland with registered overnight stays ranging from 225 000 to over 350 000 per year within 2004-2015. (Regional Council of Lapland, 2016)

6 Nordic tourism destinations are often remote locations with extraordinary natural environments, sensitive to erosion and slow to restore. With development and new construction, many destinations seek increased economic benefits and higher competitiveness. However, growing numbers of visitors as well as fast construction and development strain the natural and social capacities of these communities. Many destinations are struggling with the simultaneous need to protect the natural environment and to meet the needs of tourism. Planners are working in the crossfire of different demands, interests of several operators and the need to preserve nature and its limited resources (e.g. Williams and Ponsford, 2009; Kauppila, Saarinen and Leinonen, 2009; Luthe, 2009).

334 ha holiday housing and accommodation area. For the hotel, tourism businesses and services, the Master Plan allowed up to 284 000 m² of new construction (10 200 bed units), and for holiday housing, approximately 50 000 m² (2 500 bed units) (Figure 2). The Master Plan together with other legal documents and strategic plans indicated the aims for development. Other guidelines for planning were set by the existing topographical, ecological, and microclimatic conditions of the site.

Many strategic plans and development projects concerning the future of the Ylläs site have been presented in the past years and decades, and a part of the long-term development strategy was to hold a planning competition. Thus, in 2010, the Kolari municipality organised a planning competition with other stakeholders of the site. The goal of the competition was not only to collect a variety of optional plans for the site, but also to find new solutions or concepts for a sustainable tourism resort. After the competition was resolved, planning of the site continued with the winning team. Based on the winning entry, a Resort Master Plan for the site was finalised in December 2011. The course of the competition is described in more detail in the next section.

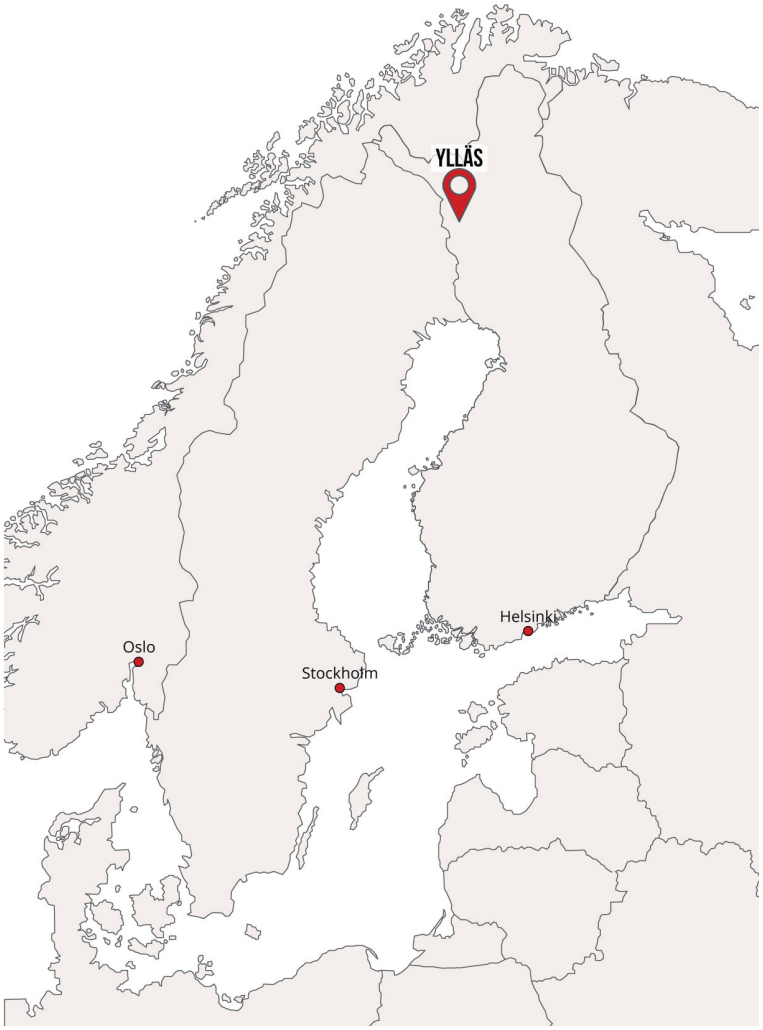


Figure 1
Ylläs is located in the northwest of Finnish Lapland.
IMAGE: TIINA MERIKOSKI

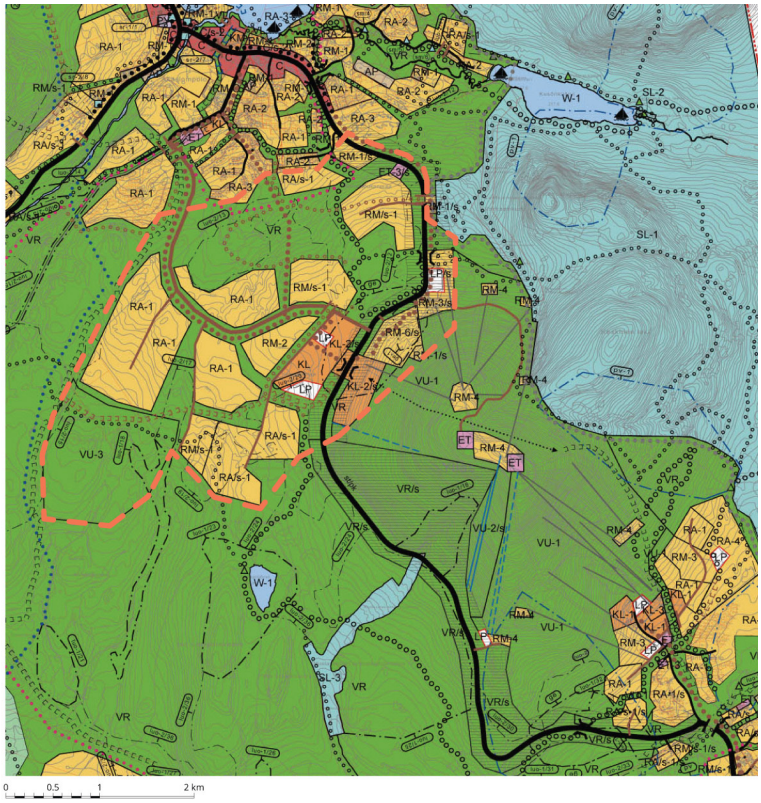


Figure 2
A part of the Ylläs II Master Plan in which the case study site is located (as indicated by the red line). The case study site demonstrated roughly 1 200 ha in total for new development. RA and RM indicate areas in which holiday housing and tourism services can be built. KL indicates areas reserved for hotel and business development. North of the case study site is the existing Äkäslompolo village. In the lower right corner of the image is Ylläsjärvi village with another ski centre.
SOURCE: KOLARI MUNICIPALITY, MODIFIED

Figure 3
Ylläs fell viewed across Äkäslompolo Lake.
PHOTO: TIINA MERIKOSKI

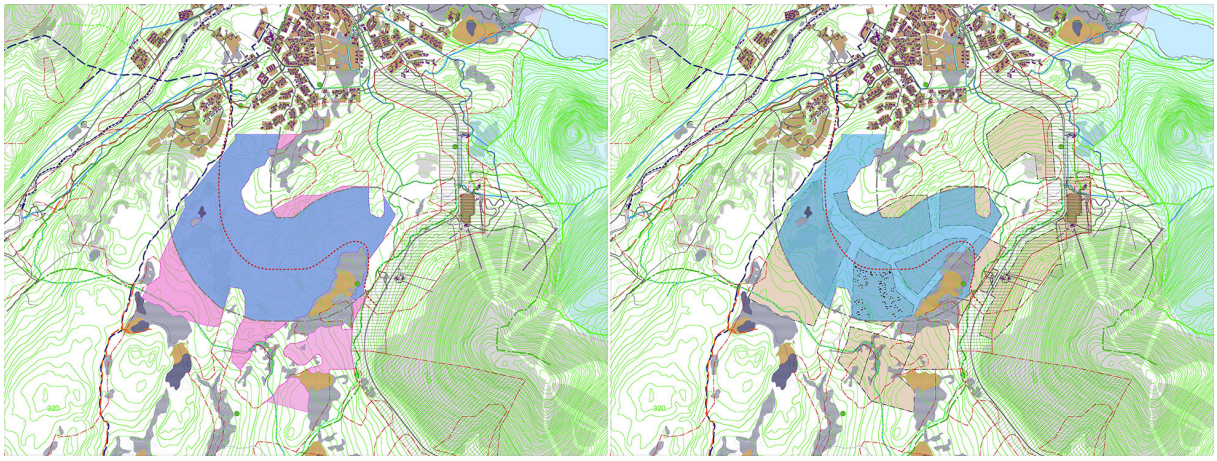
5. The competition

The Ylläs planning competition was launched in April 2010. The main objective of the competition was to investigate alternative planning solutions for a new resort community. Five multidisciplinary design teams were invited to participate; all teams submitted a proposal (see also Merikoski, 2010; 2018).

The competition brief included all the relevant and existing planning documents, such as the Ylläs II Master Plan. The Master Plan was considered flexible, yet simultaneously problematic, especially in terms of the aims for sustainability. For instance, the given densities of construction seemed too low in some parts for an effective infrastructure or for a public transportation system. On the other hand, a dense new resort centre was to be built on the most challenging topography and within the most vulnerable natural environment. The guidelines given by the MATKA researchers aimed to complement the lack of aims for sustainability in the Master Plan and to set a minimum standard for the designs in terms of sustainability.

Ylläs as a tourism destination is a remote location, and as a resort village, Äkäslompolo is spread out and sprawled around the old, original village. Another village, Ylläsjärvi, is located on the other side of the Ylläs fell and is accessible mainly by car from Äkäslompolo. Consequently, one of the challenges of the competition was ensuring easy and sustainable access, for instance, to the services, trailheads, and to the ski slopes. Guidelines, such as limiting the new construction within walking distance from the main roads, were included in the brief. It was demonstrated by the project researchers (Figure 4) that, by limiting the construction to a walking distance from the new main road crossing the site, it would still allow the same amount of development (square metres and bed units) with the same average density as indicated in the Master Plan. In addition, public transport would become accessible, and nature and trailheads would always be within walking distance (Staffans & Merikoski, 2011).

Nonetheless, it turned out that the most challenging task was fitting the required number of square metres of new construction onto the steep slopes in the eastern parts of the planning area. At the time of the competition, the Master Plan validated by the Kolari municipality allowed up to 284 000 m^2 of new construction of hotels, other facilities for tourism and commercial services. Another 50 000 m^2 was allotted for holiday housing. These numbers were also regarded as guidelines in the competition. However, the steep slopes would be challenging to construct on and contained valuable and vulnerable natural sites. Thus, the high number of square metres was criticised by many, but the competition organisers justified it by pointing out the close proximity of the ski resort and the need to ensure an economically viable business in the area. (Merikoski, 2010; 2018)



The proposals were submitted in early autumn 2010. Overall, the proposals represented a variety of different plans that were well in line with the Ylläs II Master Plan. It seemed that the competitors had not risked their chances of winning by proposing a plan that might require adjustments to the Master Plan, which could have resulted in an exhaustive legal and bureaucratic process, and which the competition organisers would certainly have wished to avoid. Innovative approaches or strong statements for sustainability were only found in one proposal, "Luppo", which proposed much less construction than the Master Plan allowed, leaving as much land undeveloped as possible (Figure 5). However, it was considered unrealistic in terms of the developers' aims as well as aims indicated in the Master Plan (Merikoski, 2010; Merikoski & Junkkonen, 2012; Merikoski, 2018).

Figure 4
MATKA researchers demonstrated that (1) by leaving the most ecologically vulnerable areas undeveloped (pink on the image on the left indicates the area that could be developed without constructing on highly prestigious natural sites; see also Figure 2) and (2) by limiting the new construction (blue area) at a walking distance (600 m) from the (new) main road (red dots), the area would still fit the same amount of development (square metres and bed units) with the same average density as indicated in the Ylläs II Master Plan (light brown on the image on the right). In addition, public transport would become accessible, and nature and trailheads would always be within walking distance.
IMAGES: TIINA MERIKOSKI, 2010

Figure 5
"Luppo" presented a strong ecological statement. The proposal left most of the site untouched and suggested significantly less construction than what was set in the competition brief. It was assessed to be unrealistic in terms of the site developers' aims, especially since the plan left the highest parts of the site – with the most ecologically sensitive nature – unconstructed. The aim given in the competition brief, and allowed by the Master Plan, was that half of the resort centre, and a 10 000 m² hotel would be built on these parts of the site.
IMAGE: ANONYMOUS PROPOSAL, COURTESY OF AALTO UNIVERSITY

Figure 6
In "Noitarumpu", the centre of the resort was resolved in a very characteristic manner. The jury found it interesting and reflective of the local culture in an innovative way but considered it economically unrealistic since it proposed locating most of the parking as well as parts of the existing main road underground. Nevertheless, the proposal was rewarded with an honorary mention.
IMAGE: ARKKITEHTITOIMISTO NEVA OY, COURTESY OF AALTO UNIVERSITY

As part of MATKA project, the researchers explored ways to mitigate the visual rhetoric of the proposed designs, and in order to compare some key features of the proposals in a more objective and transparent way, a layering method was developed and tested. The findings and material from using this method were available to the members of the jury. This method is further elaborated in the next section.

The competition was resolved in December 2010. "Kuura" by Eriksson Architects was announced as the winner (Figures 7 and 8). It was regarded as the best compromise of all the guidelines and aims. However, the plan was considered too spread out in terms of land use, and the jury suggested that as the project continued, it should be developed into a more compact site plan. Further planning of the site was commissioned to the winning team, and a Resort Master Plan finalised late in 2011 was based on their competition proposal (see Merikoski, 2010; Merikoski & Junkkonen, 2012).

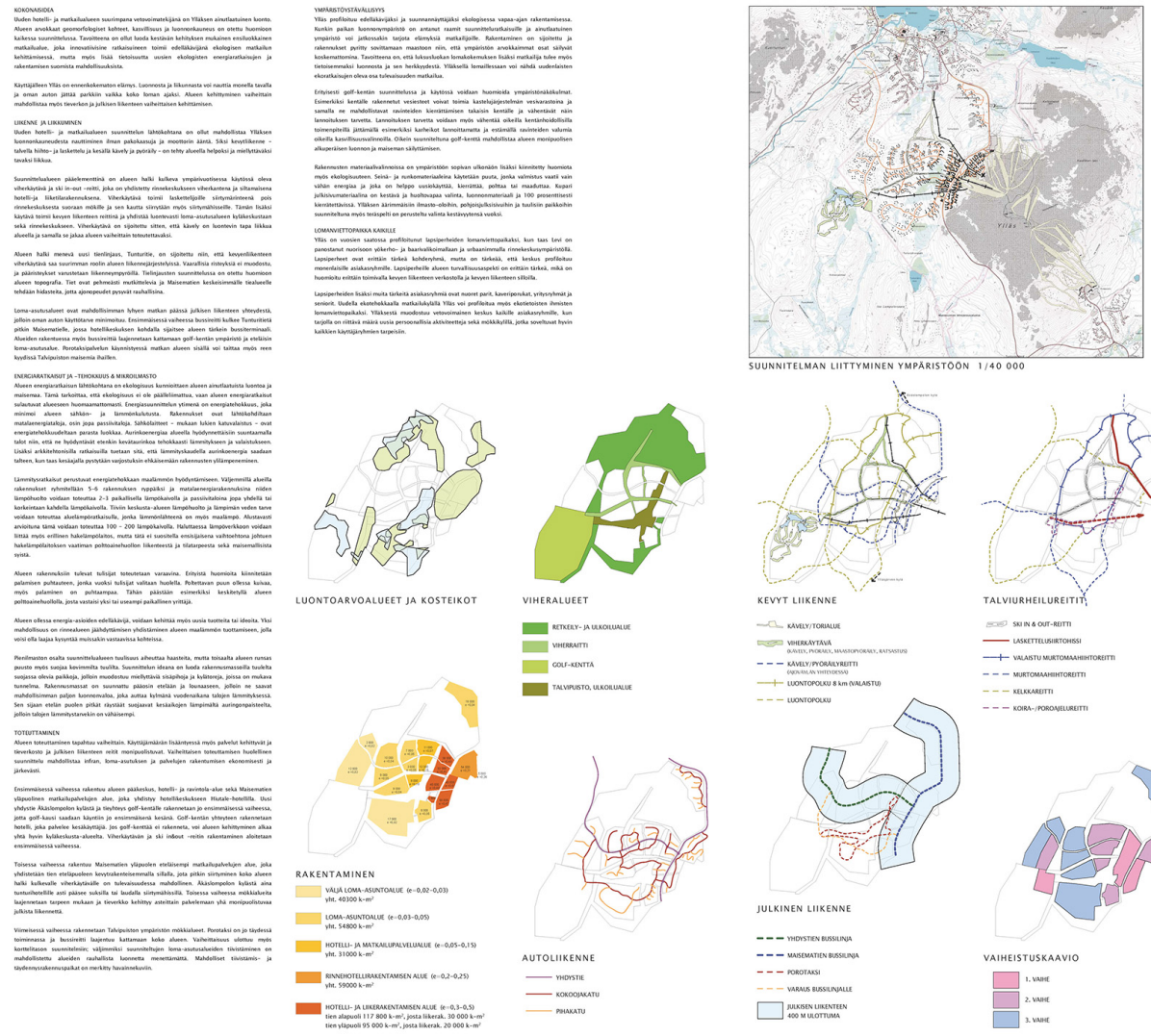


Figure 7
The jury considered “Kuura” (winning entry) to be a carefully studied proposal, as it responded sufficiently well to all the different aims and guidelines of the competition. The MATKA researchers appreciated the proposal for taking into account the architectural guidelines for sustainability such as the composition of buildings within the landscape and topography.
IMAGE: ERIKSSON ARCHITECTS LTD., COURTESY OF AALTO UNIVERSITY

Figure 8
An illustration from the winning entry "Kuura" by Eriksson Architects Ltd.
IMAGE: ERIKSSON ARCHITECTS LTD., COURTESY OF AALTO UNIVERSITY

6. Comparison of the proposals – stepping beyond the illusions

Although not widely discussed, at least among the architectural profession, the incommensurability of the competition proposals poses a common challenge to their effective evaluation. Even if guidelines for the required documents are provided in the competition brief in order to lessen this challenge, the representational differences remain. Part of the architects' professional skills is to convince the client, in this case, the competition jury, of the proposed design. The chosen methods of illustration combined with the skills, for instance, in 3D rendering, create an illusion and an image not comparable with another image, without high levels of interpretation and imagination. The jury becomes easily fooled by the extraordinary imagery, and the knowledge actually embedded in the images is not effectively considered (see Merikoski et al., 2012).

In addition to the rendered visualisations, many proposals include diagrams (see for instance Figure 7) of different features of the plan, or other imagery presenting a particular detail of the design. These are typically small images and also not directly comparable to another proposal's imagery, as the visual techniques and the final realisation vary in the same way as they do in the proposals in general. Moreover, there is variation in what exactly is featured in a given proposal – the freedom to choose the displayed details is typically left with the design team, although some requirements can be given in a competition brief.

Yet another feature of traditional competition submission that increases the difficulty in comparing the designs is that the boards, prints, or PDF's cannot be placed and layered against each other. The material submit-

ted can only be compared side by side. Thus, a key question raised by the MATKA research was whether it is enough to assess the proposals one by one: would it not help if the designs could be more effectively weighed against each other?

For these reasons, a method to mitigate the challenge of incommensurability was created. At the core of the method was the plan to investigate and compare the different designs, as layers against each other. As a result, the knowledge that was relevant to compare, such as land use, buildings and road connections, was redrawn as vector images. With these vector drawings, the different proposals were examined against each other, providing a visually "undisturbed" understanding on the differences between them (Figures 9 and 10). Furthermore, all existing features, such as topography and other natural elements, trails and existing buildings, could be studied together with the layers created from the proposals, since they were already available as digital files as part of the actual planning documents of the site (Merikoski 2010; 2018).

The redrawn layers were stripped of the visual effects that power the images and aim to impress the jury. The illusions created by the visual rhetoric became insignificant: the jury, even its professional architect members, understood the way they were influenced by the impressive 3D renderings and the chosen visualisation techniques. For instance, land use in one of the proposals was first perceived as being widespread compared to another, but the layering method revealed that they were actually similar to each other. The method also highlighted the dominance of visual over written material when competition proposals are evaluated.[7] The image is powerful in creating the expression of, for instance, land use, even if the figures for actual square metres would be provided and are comparable as such (Merikoski, 2018). In terms of comparing road networks of the proposals (Figure 10), the method made it easily possible to calculate the amount of new road construction proposed by the designs. The costs as well as the environmental effects of realisation would be different whether the proposal suggested 15 or 30 kilometres of new road construction (Staffans & Merikoski, 2011, p. 79).

In practice, the layers were drawn in VectorWorks, but any other vector-based drawing software, such as AutoCAD or Adobe Illustrator, could have been used. Redrawing the layers was not as laborious as it first might seem. However, it does require additional work. In this case, only five designs were to be compared. In a competition with tens or hundreds of proposals, it naturally becomes arduous as an additional task (Merikoski, 2018).

7 The roles of the image and the text in architectural projects and competitions have been discussed by several studies such as Andersson et al. (2013), Merikoski & Eräranta (2015), Tähtinen (2013), and Pallasmaa (2011). The relationship between the two modes of self-expression and knowledge production is anything but simple. In architectural competitions, the role of text among the required competition documents is descriptive. For architects, text is meant to support the imagery and "to clarify the knowledge that is already deposited in the images" (Andersson et al., 2013, p. 10). Thus, the information that the texts contain remain secondary in its form and content. In addition, evidence exists indicating that working with text is considered as not actually participating in the architectural design process as an equal collaborator (Tähtinen, 2013). Simultaneously, many professionals outside the architectural discipline rely on written material. From their perspective, visual material merely supports and illustrates the knowledge and information that is described in the text. (Merikoski et al., 2012)

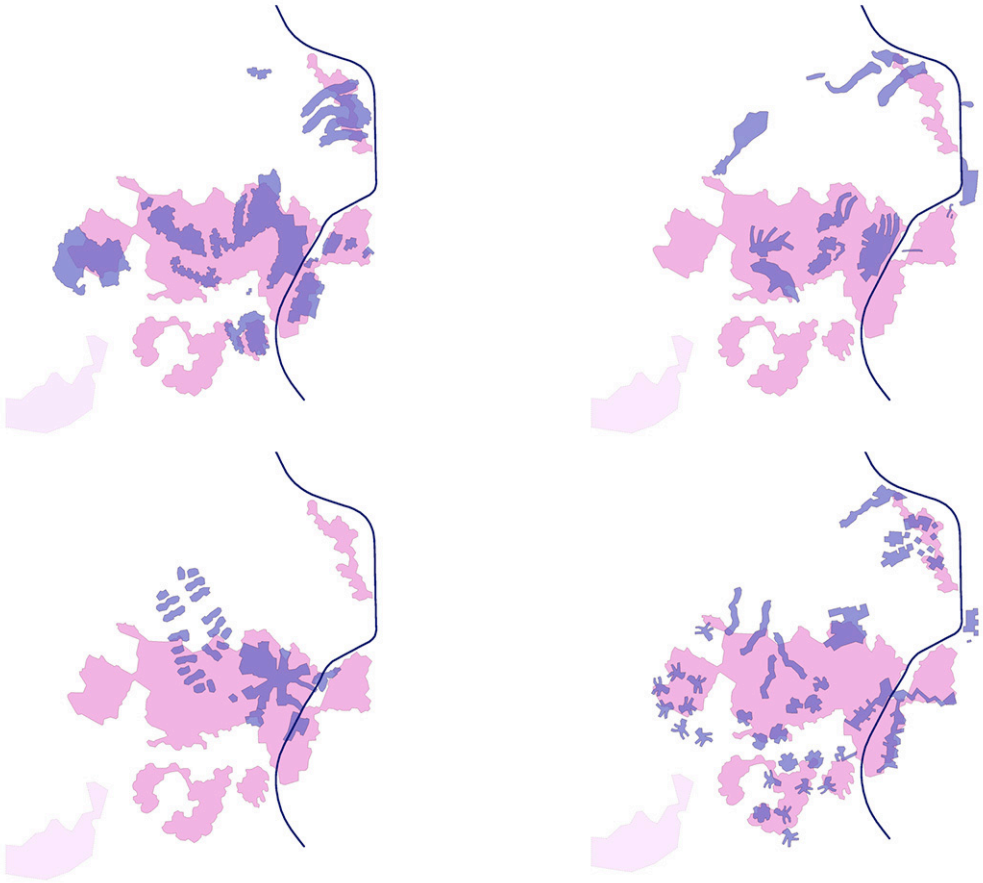


Figure 9
Using the layering method: key features of each proposal was studied against those of the other proposals. Here, land use of the winning proposal (in pink) is layered against the other entries. Clockwise from top left: “Kuura” & “Kudelma”; “Kuura” & “Luppo”; “Kuura” & “Noitarumpu”; and “Kuura” & “Ylys”.
IMAGES: TIINA MERIKOSKI

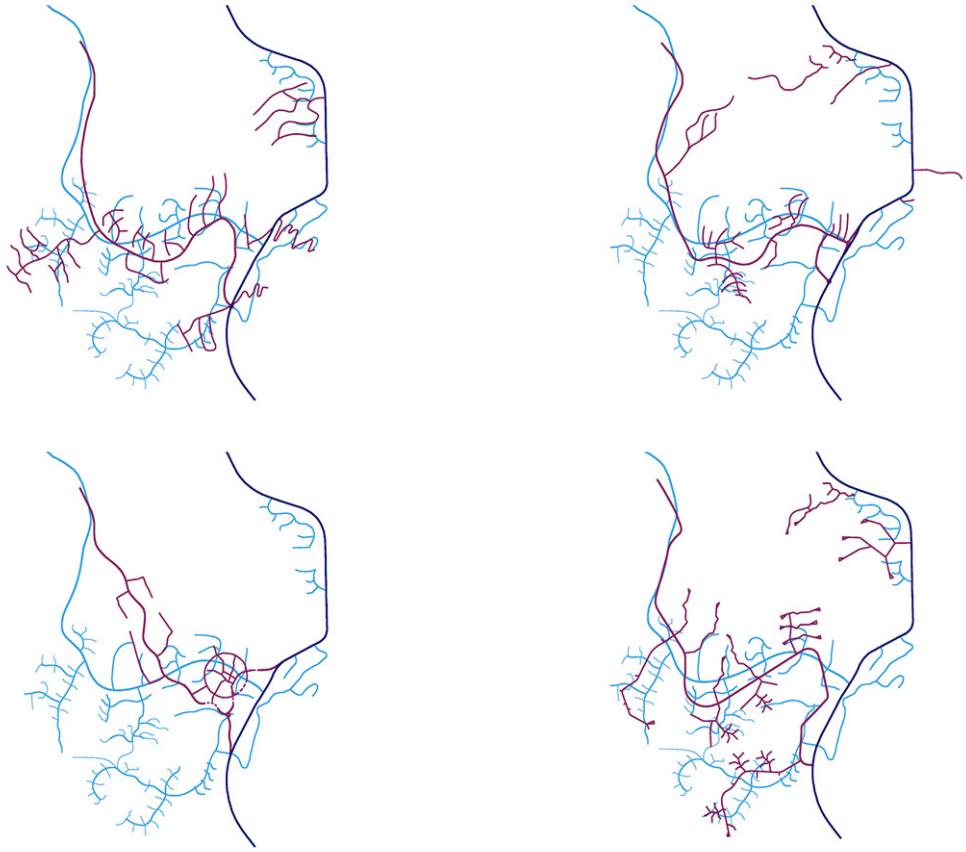


Figure 10
In these images, the road network of the winning proposal (in blue) is compared with the other entries. Clockwise from top left: “Kuura” & “Kudelma”; “Kuura” & “Luppo”; “Kuura” & “Noitarumpu”; “Kuura” & “Ylys”.
IMAGES: TIINA MERIKOSKI

7. Discussion

A planning competition is a design tool based on the traditions of architectural knowledge production. It means that the proposed design is introduced mainly with images, 3D renderings and other graphic and visual material including diagrams. In addition, it is premised that these visualisations can transmit the necessary knowledge, that architectural quality can be judged from these drawings and illustrations and that the imagery can be a disinterested, transparent way of communicating the design to an audience (Andersson et al., 2013; Lipstadt, 2009; Tähtinen, 2013; Strebel & Silberberger, 2017).

Members of the jury struggle throughout the judgment process as they assess which designs to choose for the prize group, and most importantly, the winning proposal (e.g. Kazemian & Rönn, 2009). Rönn (2009) as well as Kazemian and Rönn (2009) have discovered in their research that it is rather easy for the jury to narrow down a handful of proposals as the best but choosing a winner from among those is difficult. The designs are approached and tested through asking questions in order to find out the degree to which they meet the requirements and evaluation criteria

stated in the competition brief (Kazemian & Rönn, 2009, p. 180). However, the final choice is arrived at based on emotional responses (Kazemian & Rönn, 2009, p. 185).

It is embedded in the practice of architectural representation to visualise the imagined environment in such a way that the image persuades the viewer and wins over the client or jury. Architects, as skilful image-makers, carefully make their decisions while constructing an image: how to frame the image; what to include and what to exclude; and what methods and style of visualisation will be used (Merikoski, 2018; also Grubbauer, 2008). This visual rhetoric is meant to appeal to the emotions of the viewer (Pallasmaa, 2011), and in the case of the competitions, to convince the jury members (Svensson, 2012). This aspect of architectural representation complicates the comparison of the proposals. The final product, the image created, requires high levels of interpretation as well as experience in reading knowledge and information from such imagery (Kazemian & Rönn, 2009; Merikoski et al., 2012; Merikoski, 2018). Moreover, the effect the images may have on the viewer's mind is in many ways hidden and subconscious (e.g. Pallasmaa, 2011; also Evans & Hall, 1999). In competitions, architectural jury members use not only their technical knowledge but also implicit and tacit knowledge, assumptions as well as emotions to evaluate and select their favourite proposal, without necessarily being able to argue the reasons for arriving at that decision (Kazemian & Rönn, 2009, p. 177; Svensson, 2009). Representatives of the client, often non-professionals in terms of architecture, struggle to read, interpret and compare the proposals, thus, in effect, handing over the power on deciding on the winner to external professionals. It is important that the clients understand themselves why a particular design was chosen: they are the ones taking the project forward, while the architects in the jury depart after the competition is resolved (Strebel & Silberberger, 2017, p. 4; see also Svensson, 2009).

One of the MATKA project aims was to explore how the challenge of becoming lost in the persuasive world of visualisations could be mitigated and the key differences between the designs accentuated. The layering method developed within the project enabled the different features of the designs to be examined against each other in a way that stepped beyond the chosen visualisation styles and techniques. In addition, the illusions created by the visual rhetoric became transparent, and even the architect members of the jury understood the persuasive impact the skilfully constructed imagery had had on them.

Having said that, the most valuable finding of this experiment was that contemporary competition practices should and could be revised. Even if this method could be further developed and adopted into practice, it would mean that we would only be adding more to the already exhaustive process of evaluation, especially in the event of a competition re-

ceiving many proposals. Instead, it would be more feasible to revise the expectations and requirements placed on the submitted material, thus facilitating the process of mutual comparison and objective evaluation. Since the set of required documents has remained more or less the same throughout the history of architectural competitions (see, for instance, Merikoski & Eräranta, 2015; also Rönn, 2009), it seems only fair to ask whether it would indeed be time to revise the competition requirements. What are the exact documents that we need the competitors to submit in order to effectively evaluate the proposals? With tools for image making constantly developing, it does not seem unreasonable to ask the competitors to, for instance, include separate layers of key features in a given digital form.

Finally, it was interesting to assess if using the layering method had any effect on the outcomes of the competition. The layered material as well as the analysis prepared by the MATKA researchers were available to the jury members. The analysis and the results of the layering method supported at least to some extent choosing "Kuura" as the winner, which had already held a strong position among the jury members. Therefore, it seems likely that regardless of the researchers' comparisons, "Kuura" would have been chosen as the winner. Nevertheless, the intention of the method was not to become a tool for judging in the first place, but to assist in comparing different designs and to provoke discussion about the image (Merikoski, 2018). This tool would not assess the proposals' architectural qualities; in any case, it only made the solutions comparable beyond their visual appearance.

8. Conclusions

Architects primarily work with images. They are professionals in constructing images and accustomed to reading visual material. However, the image is not as simple as it might seem at first. Within architectural research, the question of the image as a tool of knowledge production has not been greatly considered, and the disinterestedness of the imagery is insufficiently challenged (e.g. Tähtinen, 2013; Pérez-Gómez, 2005). Visual rhetoric is strong within the imagery of competition proposals; its aim is to convince the jury members. In the end, images distract, seduce and can be misleading (Tähtinen, 2013; Pallasmaa, 2011). They may look concrete and beautiful but are merely "shadows" since the reality they represent does not exist (Nyman, 2008, p. 250).

Considering the multifaceted role of the image and all the layers embedded in it, it is clear that constructing such an image requires skill and expertise that only the professionals working with images possess. The image is a "highly intentional product" which carries a message (Grubbauer, 2008, p. 106). The architect-created imagery in competition proposals, which aims not only to imagine a possible future for a given

site, but also to win a competition, applies both the manipulative and forceful features of the art of image making (i.e. images of control), as well as those which inspire, and arouses the imagination and senses of the viewer (i.e. images of emancipation) (Pallasmaa, 2011). An image containing – and blending – the "real" and the imagined, which is created to evoke thoughts, provoke the mind, and even manipulate, (Pallasmaa, 2011) cannot be called disinterested.

Furthermore, it seems naïve to presume that viewers or subjects of the image would understand these intrinsic features of the image in the same way as the professionals creating them – considering that some, if not most, of the rhetoric is not obvious even to the professionals, and that they can also be misled and enticed. Interpreting the image is at least as complex as the image itself (see, for instance, Kazemian & Rönn, 2009). There is a dialogue between the object (the image) and the subject (the viewer), and the final understanding is a combination of the messages embedded in the image and the capacity of the viewer to read, interpret and decrypt them (Grubbauer, 2008, p. 110; Evans & Hall, 1999, p. 4).

Moreover, it is not only the paradigm of *using* imagery in architectural knowledge production that can be disputed. In addition, the roles of the different modes of *producing* the images can now be discussed, due to the emergence of new, computerised tools for creating images during the past decades. Tähtinen (2013) has noted that different perceptions towards these new tools exist. Some are doubtful towards the new, and feel nostalgic about the hand drawn, while others do not seem to care about the tool they are using for image-production, "since what counts is the idea to be represented" (Tähtinen, 2013, p. 67). Nevertheless, a new generation of designers and architects already utilise the new digital tools in new ways – surpassing that which can be seen as only mimicking the traditional practice of drawing by hand.

Hence, one can ask if it is still the best way to benefit from these new tools of image making in competitions, by requesting more or less the same set and type of documents as in an era pre-dating these tools. The operational environment around architectural knowledge production has changed in a way that it no longer justifies all of the common practices. With the time and resources at hand during the MATKA project, the layering method was developed in order to bring forward the challenges of the image, and to evoke the discussion about modernising competition practices. In the end, the method as a tool in evaluation and providing insights beyond the visual rhetoric is not as important (and not even suggested by this article) as is revising existing practices. The experiment suggests that current competition practices – including design practices within the larger scope of the architectural knowledge production – should be adjusted to better meet the 21st century requirements[8] (Merikoski, 2018).

8 The Age of Information, or Digitalisation, or the Post-Industrial Era – however we wish to name the past couple of decades – has introduced new computerised tools for knowledge production and image making as well as for collecting and managing growing amounts of data. In addition, there is an ever more critical need to address the global environmental changes we are experiencing. Along with the growing complexity of challenges, concerning land use and urban environments, comes the need for effective multidisciplinary collaboration and co-creation.

Furthermore, the architect's role as an image-maker also deserves more attention – it cannot be simplified or dismissed as being irrelevant. As Pallasmaa (2011, p. 23) notes:

> *In a world which is increasingly fictionalised by an architecture of the commercialised image, and the enticing and seducing architecture of the retinal image, the task of the critical, profound and responsible architect is to create and defend the sense of the real.*

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