

Burano 05

NORDISK ARKITEKTURFORSKNING

Nordic Journal of Architectural Research

1-2012

Nordic Association of Architectural Research

Address: Magnus Rönn, School of architecture, KTH, 100 44 Stockholm, Sweden

Board

Working committee:

President: Magnus Rönn, magnus.ronn@arch.kth.se

Vice president: Rolf Johansson, Rolf.Johansson@slu.se

Treasurer: Madeleine Granvik, Madeleine.Granvik@slu.se

Other board members:

Claus Beck Danielsson, Denmark

Anne Elisabeth Toft, Denmark

Martin Espensen, Denmark

Kaare Eriksen, Denmark

Eivind Kasa, Norway

Trond Haug, Norway

Gro Lauland, Norway

Emma Nilsson, Sweden

Karin Grundström, Sweden

Minna Chudoba, Finland

Anna-Maija Ylimaula, Finland

Saari Hirvonen-Kantola, Finland

Deputy member:

Henrik Reeh, Denmark

The Journal

Chief editors:

Madeleine Granvik, Madeleine.Granvik@slu.se

Claus Bech-Danielsen, cbd@sbi.dk

Submitted manuscripts:

Manuscripts are to be sent to Madeleine Granvik (Madeleine.Granvik@slu.se) and Claus Bech-Danielsen (cbd@sbi.dk) as a text file in Word, using Times New Roman font. Submitted papers should not exceed 8 000 words exclusive abstract, references and figures. The recommended length of contributions is 5 000–8 000 words. Deviations from this must be agreed with the editors in chief. See Author's Guideline for further information.

Subscription:

The subscription for 2012 is as follows:

Student/graduate students: 250 SEK, 205 DKK, 225 NOK, 27.5 Euro

Individuals: 350 SEK, 290 DKK, 320 NOK, 38.5 Euro

Institutions: 3 500 SEK, 2900, DKK, 3200 NOK, 385 Euro

It is essential that subscribers inform about their email address. It is necessary to get Accessing journal.

Sweden pay to: postgirokonto 419 03 25-3

Denmark pay to: Danske Bank Bank 1-678-0995

Finland pay to: Sampo Bank 800013-70633795

Norway pay to: Den Norske Bank 7877.08.13769

Outside the Nordic Countries pay in SEK to SWIFT-address:

PGS ISESS Accont no: 4190325-3, Postgirot Bank Sweden, SE 105 06 Stockholm

CONTENTS

EDITORS' NOTES.....	5
MAGNUS RÖNN, GERD BLOXHAM ZETTERSTEN	
CURATING THE MAINSTREAM: THE CASE OF THE GERMAN <i>WETTBEWERBE AKTUELL</i>	13
TORSTEN SCHMIEDEKNECHT	
ANALYSIS OF ARCHITECTURAL REPRESENTATION AS A RESEARCH METHOD: NATIONAL LIBRARY COMPETITIONS.....	31
FRANCISCO GOMES, JASON HASKINS	
COMPETITION PROGRAMS AS ARTICULATOR OF WELFARE GOALS CONCERNING DEPENDENT SENIORS	65
JONAS E. ANDERSSON	
ARCHITECTURAL PERSUASION: ON QUALITY ASSESSMENT IN AN ARCHITECTURAL COMPETITION.....	97
CHARLOTTE SVENSSON	
A CASE STUDY: THE JURY PROCESS IN AN IDEAS COMPETITION FOR A SMALL URBAN CENTRE.....	119
LEIF ÖSTMAN	
A THEORY FOR ASSESSING QUALITY IN ARCHITECTURE COMPETITIONS.....	149
MAGNUS RÖNN	
HOUSING COMPETITIONS – ELABORATING PROJECTS IN THEIR SPECIFIC PROCESS FRAMEWORK.....	174
ANTIGONI KATSAKOU	
IS THERE AN «IMPURE» USE OF THE COMPETITION FOR AN URBANISTIC PROJECT OF ARCHITECTURE? TWO CONTEMPORARY, POLITICAL CASES IN COPENHAGEN.....	201
GERD BLOXHAM ZETTERSTEN, MAJA SANDBERG	

A THEORY FOR ASSESSING QUALITY IN ARCHITECTURE COMPETITIONS

MAGNUS RÖNN

Abstract

My paper has three aims. Firstly, I want to clarify the use of architectural quality as a key concept among architects in the Nordic Countries. Secondly, I will try to find out and explain how quality issues in performance are tested and investigated by experts in architectural competitions. Thirdly, I am going to present and discuss a theory for assessment in architecture and urban design based on models showing how critique is used as a tool by professional jury members in competitions.

The result in this article has a Nordic perspective on the competition culture and its tradition. Eighteen professionals with firsthand experience from competitions in Sweden, Denmark, Norway and Finland have been interviewed. They represent the architect's organization, the organizers and the competitors.

From the interviews, competition briefs and jury statements we get a good picture of how assessment is understood in practice. In architectural competitions the jury has to find the best proposal among the entries. The task is to single out one winner. There is a strong relationship in this case between how professionals use critique in a decision-making process, how the jury organizes its work, how the entries are judged in terms of quality and the outcome—a winner that jury members decide has the best solution to the task set forth in the competition programme. The jury statement is a written critique made at the end of the assessment. To improve future quality, the jury evaluates the competition, justifies its decision and describes any unclear design solution in the winning entry.

Key words:

Architectural competition, Architectural quality, Design criteria, Quality judgments, Architectural critique, Design decision

Introduction

The reappearance of aesthetics in spatial planning coincides with de-regulation, competition and marketing. This is the background for the architectural policy programmes, which developed during the 1990s in Europe starting in the Netherlands, Norway and Denmark¹. A new field of policy was established with an agenda distinguished by aesthetics and officials from the cultural department were given the task of formulating the national strategies in the field of design: design, architecture and town planning. The architect associations approved the programme. The profession came into focus. In the architecture policy programme the aesthetic dimensions of the concept of quality appear as the overlapping goal of policy. Architectural competitions were focused on as a means of creating attractive, innovative and exciting environments. They were associated with creativity, marketing and fairness through competition on equal terms. The programme encouraged state and county owned developers to select architects for public building assignments based on the results of architectural competitions.

Europe is the hub for competition culture. This is due not only to the fact that modern architectural competitions reappeared here at the end of the 19th century in the wake of industrialism and became part of the architect's self image and professional culture. Of equal importance is that the EU regulated project competitions through a special decision (Directive 2004/18/EC). Since then this directive has been incorporated into the national laws of the member states of EU. In Sweden the Law on Public Procurement, LOU, was revised as a result of the EU's regulations on competitions.

The majority of architectural competitions are arranged by the public sector, state-owned promoters and municipal architect offices. About 100 competitions take place annually in the Nordic countries. There are somewhat more competitions in the Finnish and Danish building sectors than in Sweden and Norway. The majority of competitions in Europe are arranged in France and Germany. Totally about 3000 architectural competitions can be suggested to take place annually with-in the EU²; of these about 600 larger competitions are registered with TED (Tenders Electronic Daily).³ This electronic database on the Internet publishes advertisements for negotiations within the EU. Public clients organizing competitions, which exceed the set economical threshold (125 000 – 193 0000 Euro as of January 1st, 2010) have to announce them on TED.

Competition regulations vary among the member states in Europe although there is a common basis for the rules decided by ACE (Architects' Council of Europe) and UIA (International Union of Architects). Competition regulations in the Nordic countries are a combination of an international competition culture, national decisions and EU directives (2004/18/EC), which describe how competitions can be used as negotiat-

1 The Netherlands; *Space for Architecture* (1991), *Architecture of Space* (1996), *Constructing the Netherlands* (2001) and *Action Programme Space and Culture* (2005). Norway; *Surroundings as Culture*, (1992), *Aesthetics in Government Buildings and Constructions*, (1997) and *Architecture.Now*, (2009). Denmark; *Danish Architecture*, (1994), *Architecture 1996* (1996) and *Nation of Architecture Denmark*, (2007). Sweden; *Forms for the future* (1997), Finland; *Finland's Architectural Policy* (1998) and *The architectural policy for greater Helsinki region* (2009), Germany; *Building Culture in Germany* (2001). Ireland; *Action on Architecture* (2002). Austria; *The Austrian Report on Building Culture* (2006). Scotland, *BUILDING OUR LEGACY, Statement on Scotland's architecture policy* (2007)

2 According to Nasar (1999) about 2000 competitions take place annually in France. Wynne (1981) report 500 competitions per year in Germany. Strong (1996) reports 400-600 competitions in Germany. I have discussed the number of competitions in 2009 with representatives of the Federal Chamber of German Architects (BAK) in Berlin and Stuttgart. Still, 500 competitions per year seemed to be fairly good number competitions according the representatives. 2 600 competitions can be assumed to take place annually in France, Germany and the Nordic countries.

3 According to a study by The Danish Association of Consulting Engineers, F.R.I. (1988) 21 % of the ads on TED were for negotiations using architectural competitions. The survey covered 17 countries in Europe. In 1997 there were totally 2893 ads on TED. Of these 608 were described as competitions. The major portion of the competitions is in Portugal, France, Italy, Finland, Austria and Belgium. The report *Building Culture in Germany* from 2001 presents similar results for awarding procedures within the EU. According to this report about 600 architectural competitions are advertised per year among the member states as the basis for negotiating architectural services.

ing tools. On a national level the competition concept is not as well defined. For example there are several work methods on the market, which resemble competitions such as parallel assignments, develop & construction competitions and procurement competitions. However, these tools for competitions are not architectural competitions according to the rules established by Sweden's Architects. The only approved forms of competition in this case are (a) open competitions, (b) competitions by invitation, (c) ideas competitions, (d) project competitions and (e) two-stage competitions (open followed by invitation).

Architectural competitions are competitions using aesthetic means, visualized proposals. The jury takes a position on a vision of the future. This article discusses architectural competitions from a Nordic study carried out 2005-2008 at the School of Architecture, the Royal Institute of Technology in Stockholm (Rönn, 2011). The research group consisted of Associate professor Reza Kazemian, Associate professor Magnus Rönn, project leader, and PhD student Charlotte Svensson. The Nordic study was made up by two research projects: Firstly, an investigation of contemporary competitions in Finland, Norway, Denmark and Sweden. Secondly, an investigation of the assessment process inside the jury room in two architecture competitions by PhD student Charlotte Svensson.

Objectives

The aim of this article is to present a theory about quality judgment. It is an assessment theory used in architecture and urban design. The hypothesis is that quality questions in this field can be tested in a reliable manner using architectural critique methods. Architectural competitions are used as informative examples of the theory put into practice. The assessment theory describes the basis on which professional jury members choose a winner in architectural competitions, the best total solution of the competition task.

Architectural critique is a form of knowledge based on experience in the competitions, which is expressed through design, assessment and statement of the competition results. The three methods of using critique in architectural competitions are described below:

- Design Tool: Competing architects use critique from colleagues at their architect bureau as a means of improving the competition entry. Critique is a basic element in ideas development and in the reflection on the design in early phases. In this case, critique raises the quality standard and works as a design tool for competing architects.
- Work Method: Professional jury members use critique of the competition entries as a work method for judging quality. As the jury examines the proposals more closely, critique takes on an educational function where merits, uncertainties and shortcomings become apparent. Critique gives the jury members a better understanding of the design problems.

- Jury Statement: The jury presents the results of the competition in an architectural critique statement commenting upon design proposals awarded prizes and the competition as a whole. This is presented in the form of a written statement. This statement also serves as a justification by the jury for their choice of prize-winners.

In this article I will discuss architectural critique as a work method for assessing architectural and urban design projects.

The intention is to describe the theory behind architects' quality judgment of proposals in architectural competitions. The source of inspiration for my theorizing is Svensson (2008, 2009) who, in two competitions – one open and one on invitation – studied the quality assessment that juries made of the entries. She was able to participate in meetings and follow the juries' work from the beginning to the final selection of prize-winners. I apply this theory afterwards to try to understand the actions of the jury members based on the conditions of quality judgment. This is my contribution. The hypothesis is that qualities in design are identified in a dialog-based assessment following a specific procedure. The criticism demonstrates how professionals point out strength and weakness in design proposals.

Set-up

The paper is divided into two parallel parts dealing with various aspects of judging theory: key concept, criteria, quality questions, assessment process and models describing strategies for choosing prize-winners.

The first part discusses architectural quality as a key concept. Quality is a controversial and exciting key concept in architecture and urban design. The definition stems from the way recognized, knowledgeable practitioners speak, think, communicate and act on quality questions. Language usage should reflect professional quality ideas. The result is a professional, cultural and historically defined key concept. Quality in architecture and urban design projects is specified via criteria. Reviewing architectural competitions reveals that the same criteria appear time and again. It can be assumed that these design criteria constitute fundamental quality concepts. It is also typical in architecture and urban design that criteria in use have an open character supporting an assessment of proposals based on dialogue.

The second part of this paper focuses on the assessment process. I use architectural competitions to illustrate quality work from the jury's point of view. When judging is seen as a process, there are several phases that the winning entry goes through. The process entails control/ checking, evaluation, ranking and elimination of proposals. In this part of the paper I presents four graphic models, which describe the architectural critique work method as a judging theory. The first model describes how

the quality changes from design to implementation. The second feather model and the third balance model serve different judging situations and quality questions. The fourth model describes two strategies that are the basis for choosing the prize-winner: the rational decision-making model is compared with the architectural critique work method. These strategies are used to show how jury members choose a first-prize winner. In the final discussion the two strategies can be seen as discrepancies between laypersons and architects on the jury.

Method and material

The article is based on studies of contemporary architectural competitions in the Nordic countries. The research was conducted 2005-2008 at the Royal Institute of Technology. The analyses are based on inter-view data, competition documents, publications and observations. 18 experienced jury members in the Nordic countries were interviewed. They represent the three major parties in the competition system:

- The organizers; promoters and clients.
- The competing architects; bureaus and project groups.
- Architect associations; competition administrators and inspectors.

The interviewees were chosen for their practical experience from competitions. Their combined experience covers over one hundred competitions at which they were participants, architect jurors, and representatives from organizing bodies. A questionnaire about competitions, from the programme to the nomination of the winner and drawing up of the statement from the jury, was used for the interviews. Each interview lasted from one to two hours. They were printed and verified by the interviewees. Together with competition documents these interviews give a good picture of the competition culture in practice.

Background

I would like to begin the discussion by comparing the processes involved in choosing the winner. Even if the final goal is the same, there are several differences in how decision makers choose a first prize-winner in an architectural competition as compared with an election situation. A part of the political decision-making process tries to create an attitude towards a proposal in an elected community. Proposals and motions compete with each other for approval by the majority, if the political negotiations end without consensus. Two proposals are set against each other. There is either approval (yes) or rejection (no). The driving force in this decision-making process is disagreement on what is to be seen as a better world. The winner will be the proposal that obtains the majority's support. If the results should be even, the chairman's opinion will carry the vote, unless the proposal is postponed for further consideration and investigation. In the worst case, a choice will be made by drawing lots instead of using good arguments. The winner will then prevail but must also learn to live with the objections raised publicly by the minority.

Another example is found in the sports world (Johansson, 2010; Patriksson, 1982). Tournaments are designed to find a champion. The judge makes sure the games follow the rules, but should interfere as little as possible in the competition. The winner should be named after a noble competition on equal terms. Tournaments are arranged so that two teams compete against each other. The winner continues to the final. The team that makes the most goals wins the soccer tournament. The match cannot end with an even score. If at full time the score is even there is an extension, a golden goal or the penalty is used until there is a winner. One team must be the winner.

A common point in politics and sports is the duty to name a winner through a process the participants and public considers being just and rational. The need to identify a first-prize winner in architectural competitions is just as strong. But here consensus is of the utmost importance in the decision-making process. In architectural competitions the jury is dealing with a special kind of design problem and quality issues. If the members of the jury cannot agree on the outcome of a quality assessment they consider it to be a failure. Disagreement leads to doubt about the competition and generates uncertainty within the jury, a doubtfulness that is transmitted to the promoters and commissioners/clients. Reservations in the jury's statement should be avoided. This is clear advice from experienced jury members and representatives of architectural associations (Kazemian, Rönn and Svensson, 2007). The question is how the jury should arrive at finding the best overall solution for the competition task. According to Michael Benedikt (2007) it is possible to evaluate architecture in a fair way. But, on what grounds can one design solution be rated as better than another?

Starting point

An architect must be able to distinguish between good and bad solutions. This is a qualification developed by comparing different design principles. Architecture develops through sketches of experimentally outlined requirements and a primary generator (Darke, 1979). A fundamental idea in the assignment is outlined, visualized and tested in drafts (Cross, 1984). Neither the understanding of the problem nor the solution are given at the start in architecture and urban design, but evolve during the design process as an interplay between the primary generator, the problem and its solution. According to this description architecture is a field of knowledge, which is full of opinions, requirements and artistic ambitions. There is an evaluation constraint inherent in architecture. Even the criteria, which form the basis of quality judgment, are emotionally charged (Cold, 1989; Rönn, 2005). Without evaluation of the competition entries there can be no first-prize winner. A competition's surprising, innovative and creative impact depends on the solutions proposed for the task. The jury waits with curiosity to see the entries. The underlying judging theory will explain the jury's encounter with the entries and help understand how the winner is chosen.

The architectural critique work method starts with the eye's ability to discern merits, obscurities and shortcomings in the visualized competition entries. Seeing quality develops by looking at representations in special way. It is practice-based knowledge. The jury must be able to read and interpret drafts, illustrations and scale models. The challenge lies in understanding the competition's task and the design problems. Quality questions in competitions are wicked problems (Churchman, 1967; Rittel and Webber, 1973). Wicked problems cannot be solved by traditional analyses. I believe that wicked problems are embedded in design as a professional practice. It is impossible to define and understand design problems out of their specific context. Typical for architecture, urban design and town planning is that there are always many good solutions to design problems. One solution is, generally, never overwhelmingly better than another. In any case, the jury has to find a winner; one proposal has to be the best solution of the task. Since there are several good solutions to choose from the jury's quality judgment will be marked by insecurity, a fundamental doubt that normally remains up until the final assessment.

Key concept

I see architectural quality as a key concept with two dimensions: an aesthetic dimension and a technical dimension (Lundequist, 1992). Good quality versus right quality. The aesthetic dimension of quality in architecture and urban design is a question of experience and evaluation. The technical dimension of quality concerns traits in products that can be controlled during the production process. These two aspects are very difficult to unite in a quality concept. There is disagreement as to what architectural quality is, how appealing environments can be created, and how they should be judged.

Good quality in the aesthetic dimension of architecture appears as worthwhile solutions, which fit into the surroundings and make an environment appealing. Knowledge of good quality is acquired through models, examples, case studies and architectural critique. There is a connection – the physical location, the aesthetic intentions and the goal for projects – which steer design and assessment. Architectural quality is an entity that should be tested by considering the unique context of the assignment (Ibid).

The technical dimension raises general quality questions. Quality is seen as a characteristic, function and performance, which can be measured, guaranteed and controlled (Nashed, 2005; Nelson, 2006). The record is the proof. The right proposal meets the specifications. The goal for the design is to deliver defect-free products. The strategy is fault minimization. Quality judgment becomes a question of size, measuring procedures and the number of deviations.

Of course, it is good to produce drafts with zero faults. But there is no guarantee that fault-free drafts are good solutions to the design problem. A correct text without spelling mistakes doesn't always mean a good reading experience. Quality in architecture and urban design must be something more than zero faults. Another important finding in the Nordic study is that the relationship between the aesthetic and technical dimensions changes over time.

Architectural quality isn't only a key concept involving an exciting relationship between the aesthetic dimension and the technical dimension, but rather the relationship between the two quality ideas, which varies in a typical way (Fig. 1). The earlier on in the production process the quality judgement is made, the greater the importance of the proposed aesthetic dimension. The competition is positioned at the initial design phase where form and judgment strive to identify good quality. The technical dimension controls the building phase. By then the competition is already decided and the winner chosen. The right quality will then be a concern for the realisation of the winning proposal. This shifting of emphasis towards where the quality concept lies in architecture and urban design is essential for architects judging a competition proposal.

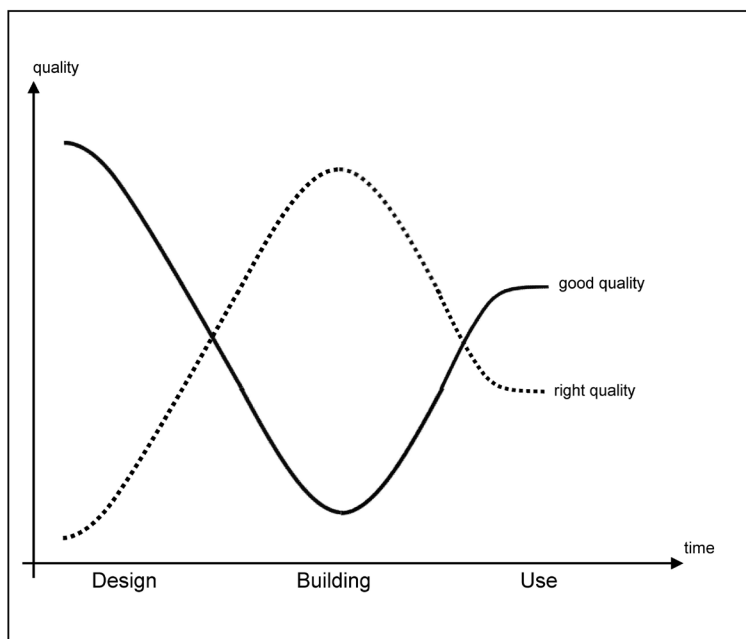


Figure 1. Transformation of the quality concept in the building sector.

This figure illustrates how the quality concept's aesthetic and technical dimensions are related to each other during the three phases of the production process: design, building, usage. My hypothesis is that the quality concept is given different meanings along the way from design to building and usage. The concept is transformed. Here lies the explanation as to why the aesthetic dimensions and associate design criteria de-

termine the conclusion of the architectural competition. In fact, for the end user, good quality is normally more important than the right quality when they evaluate architecture and urban design. The visual image gives the initial impression of the environment. Environments are said to be of good quality when the user experiences them as pleasing, attractive and purposeful. Once again the aesthetic dimensions of the quality concept play a decisive role in how quality is experienced.

Quality as a professional language

I would like to proceed and explain what lies behind the quality notions that denote professional practice. Quality as a concept will be discussed, analysed and interpreted. The interviews in the Nordic study showed how jury members view quality. The aesthetic dimension appears clearly in everyday language. According to the informants, architectural quality is a key concept defined by six specific aspects.

- **An indivisible entity:** The concept can, firstly, referring to Vitruvius, be seen as an unviabable unity of form (*venustas*), function (*utilitas*), and construction (*firmitas*). That is a 2000 year old tradition, which is very much alive, a canon to posterity that architects continually return to in their rhetoric. The profession means that quality seen as design, function and construction are united in an architecturally holistic artistic idea. The whole is more than the sum of the parts.

I stick to Vitruvius, who says that architectural quality is about aesthetic, function and construction. Everyone can draw a house that functions and stands for a period of time. But a house needs to be pleasant and beautiful as well. Architectural quality comes up when aesthetic, functional and constructional problems are optimally solved. Jan Christiansen, interview 2005.

For me, architectural quality is an overall view, a totality where pure aesthetical as well as functional dimensions meet each other and shape a unity with economy, material and possibility to build. Per Rygh, interview 2005.

- **Context and Site-dependent:** Secondly, to understand architectural quality in relation to the site and its special conditions. Quality cannot be dissociated from a specific case and proven in general terms. There is something unique about architecture that makes it dependent upon the context. Architectural quality is found when projects harmonize with their adjoining buildings or surroundings.

For me architectural quality is about how to place a house on a plot, how a plot is used, how to create room and space, how to move in a building, how to see in and to see out. It is about the form, colour, lighting of course. A building with quality stimulates me; makes me curious, happy and joyful. Birgitta Holm, interview 2005.

Architectural quality often deals with interplay between surroundings and context and may be observed and digressed in a positive sense. Thomas Nordberg, interview 2005.

- **A surprise experience:** Thirdly, the concept is linked to the mysterious, and difficult to define, aesthetic phenomenon in architecture. Quality is the unexpected experience of something good in the environment, a personal liking reflected in an artistic design solving a design problem. The immediate certainty of finding a winner in architectural competitions is not supported in research surveys but rather is dependent upon a total experience. Feeling, combined with a trained eye and experience from similar cases, leads to certainty.

Quality, at a fundamental level, is about norms and demands that need to be fulfilled. But there is a peculiar subjective side over such level that deals with judgment, aesthetic and personal insight... Quality is something more than demands that should be fulfilled... the concept architectural quality carries some mystics with itself. Perhaps, it has something to do with the time. We look at architecture through our mental eyes. Matti K. Mäkinen, interview 2006.

- **A combination of present and future:** Architectural quality, fourthly, combines characteristics of the period along with timeless values. Both present day and classical ideals can be traced in the competition entries considered to be of architectural quality. In spite of philosophical criticism, quality is understood as eternal or long-lasting values that survive changing fashion. Architectural history is the judge of quality questions. According to this point of view, it is difficult to ensure judgments of architectural quality in early stages of the building process. The idea that quality in architecture is seen afterwards puts the jury - which is forced to make a future-oriented quality judgment of the proposal - in a difficult and insecure position.

Looking at it the historical light, there are often consensuses on quality in architecture. Through this view architecture quality exist in buildings that along the time could survive varying judgments. The subjective side of architectural quality is an expression for approval. Architectural qualities have all the appropriate solutions, which are appreciated by capable professional architects. Mikael Sundman and Pekka Pakkala, interview 2006.

- **Competent identification:** Quality is understood, fifthly, as the result of professional identification and recognition from colleagues. Architectural history is viewed as a purveyor of models, good examples and instructive cases that practicing architects may take up again and use as inspiration for new assignments. The profession itself will be the interpreter of quality. Colleagues' approval is considered a measure

of quality. Praise from colleagues is a sought after signal, particularly among young architects.

Architectural quality is a concept with double meaning. On one hand architectural quality is a professional practice. In the other hand quality is a matter of subjective judgment that is the outcome of the best competence that gradually gains its right value... The subjective side of architectural quality is an expression for approval. Mikael Sundman and Pekka Pakkala, interview 2006.

- **Use and practical solutions:** Sixth, quality in architecture has a practical, utilitarian significance. Architecture should fulfil a purpose. Buildings are said to be of quality when the design suits the intended use and meets the required specifications. Manifold benefits are derived from architectural quality. In this respect, quality becomes a question of how material, construction, technical systems and spatial organization are suited to the planned activity and requirements from the users involved.

Quality is a practical question. It is difficult to separate different qualities from each other but still we can talk about architectural quality, technical quality or functional quality. For instance quality can be seen as something practical that can be separated from architectural or functional qualities. As architects we should be able to distinguish and include all these qualities and be more responsible to them as architectural quality in a whole. Teemu Kurkela and Jussi Murole, interview 2006.

The definition of architectural quality is an empirically founded hypothesis. This professional language is typical of architects in the Nordic study. In five out of six aspects, quality is an aesthetically oriented concept. This fact can be explained both by the competition being the design at the beginning of the production process and by the position architects have in the building sector. Practising architects deal with issues in the early stages of architecture and urban design projects where aesthetic dimensions are vital for finding a primary generator for a future design. Only when architectural quality is linked to the final purpose, use, and practical solution, does the concept take on a technical dimension for the profession.

Design criteria

The interviewees were also asked what criteria they used as a basis for their quality judgments in competitions. According to the interview data there are two different types of design criteria: evaluation criteria specific to the project and general criteria, used in different kinds of competitions. Evaluation criteria linked to a specific project are based on the written, distinguishing features described in the competition pro-

gramme. These design criteria vary from competition to competition. But there is also a stable pattern, a number of criteria, which appear time and again in competitions and which influence the jury's quality judgment on a deeper level. I call these signs for general criteria since they have a broader area of application.

All competition entries, in principle, will be judged by general criteria even if these are not specifically outlined in the competition programme. General criteria are commonly acknowledged signs of architectural quality, which are rooted in professional experience. They are an expression of tacit knowledge among architects. The general criteria were identified when interview data was compared with a close examination of jury statements, selected for further investigation in the Nordic study.

The analyses showed that there were six general criteria, which reappear in judging competition entries. These design criteria reflect an understanding of how the jury members should proceed to determine the decisive differences between the competition entries:

- **Wholeness and fundamental idea:** How has the competitor solved the competition goal on the whole? Is there a powerful design idea? To what extent has a strong fundamental idea and an appealing design been combined with functional demands, durability and economy.
- **Coherence and surroundings:** How well does the proposal fit the site? Is the scale appropriate? How does the design blend in with the neighbouring buildings and the surrounding landscape?
- **Entrance position:** How has the competitor solved the entry into the area, site and buildings? What is the relationship between the outside traffic and the inner movement pattern in the area and building?
- **Suitability and functional set up:** How has the competitor solved the spatial organization? How does the proposal work in regard to the end-users planned activities? How have the end-user's functional requirements been met?
- **Economical and technical solutions:** How is the contribution technically produced? Are the system solutions, constructions and materials safe, buildable and economical?
- **Development possibilities:** To what extent can the proposal be further developed? Can some of the shortcomings be corrected and other solutions improved without losing the fundamental idea and compromising the architectural quality of the project?

The design criteria are part of an assessment based on dialogue and have two principal functions. They tell the jury members what is important to judge and how to proceed. The first step is to direct the juror's attention. This is the «what». The second step is a question and represents the «how». An open attitude is necessary since there is no single, clear-cut solution to the architectural quality question. The jury acquires knowledge by posing questions about the proposal. It is a dialog. The questions reflect the inquiring nature of the criteria, which are, in turn, the consequence of the multifaceted nature of the competition. The jurors are confronted by several interesting solutions to the design problem in architecture, urban design and town planning; this becomes very obvious in an open competition.

It is not possible to arrive at a sole, «objective», best solution. Nor is the outcome of an assessment in competitions a result of luck as Kreiner (2009) proposes. Not least from a jury point of view. I believe the answer to architecture's quality questions lies in a well-balanced entity and power sharing between architects and their clients. The winner is chosen through architectural critique striving for quality in the design proposals. It is a combination of steering «before» through the brief and steering «after» by design and jury assessments.

The architects on the jury act as guides for the laymen inside the jury room. Discernment, experience and a trained eye give judging competence. The architectural interpretation of the proposal will be even richer and further enhanced when it is examined from several angles. That is the reason the jury is made up of members from various fields; architects, promoters and users.

Quality questions

There are three basic quality questions that the competition jury must answer. It is not sufficient to identify and describe the qualities. An evaluative judgment should also be passed. The quality questions require each professional jury member to take an active position. The three quality questions may be put as follows:

- How good is X?
- Is X good enough?
- Which is best: X or Y?

The questions correspond to basic principles for judging quality: valuating, ranking and comparison. The first question has an exploratory nature. The value of the design has to be identified and judged. This is the valuating part. From this question the jury obtains a preliminary view of the proposals (assessment object X) and its quality. The jury then tests if object X is good enough.

The second question means that X is ranked relative to some kind of a quality level. It is a starting point for the ranking procedures. To participate in a competition, an entry must fulfil a number of goals and requirements in an acceptable way. This quality judgment results in a triangle drama among (a) the jury members, (b) the competition proposals, and (c) the elements of the quality level. The feather model (next page) illustrates this situation (Fig. 2). The entries, which meet the quality level, proceed to the next step in the judging process.

A proposal that does not meet these standards is rejected at the initial stage of the competition. This is very apparent in open competitions where there are many entries and the jury is forced to quickly eliminate a number of proposals.⁴ But there is no clearly defined «benchmark» that proposals must meet, only a floating boundary, a quality level that is determined by the competition program, the nature of the competition goals and the members' quality concepts. The only strict rule is that the entry be submitted in time with the proper documents.

The third quality question to be definitively answered in the competition is which one is best: X or Y? Design, choice and evaluation of the entries create an organic entity. The quality assessment includes identifying and evaluating the merits, unclear points and shortcomings in the proposals. Being able to deliver trustworthy advice is a sign of professional competence. The comparisons are based on determining which solution is better or poorer and which entry has the best total approach to the task.

A pre-condition for architectural competitions is that quality judgment in architecture and urban design is based on an evaluative approach. A first-prize winner will be picked among the entries. The next interesting question is: what determines the decision and how do professional practitioners arrive at a trustworthy conclusion in such situations.

4 The same appears in the prequalification for invited competitions organised by public clients. Applications from architecture firms that do not contain required documents are eliminated.

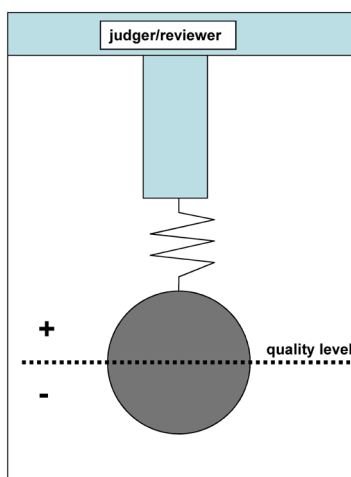


Figure 2. Feather model.

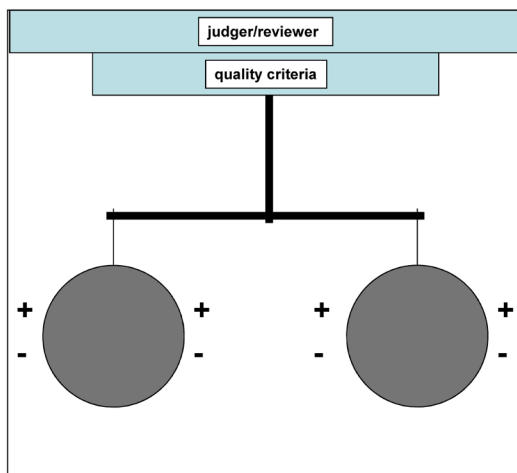


Figure 3. Balance model.

Why is X better than Y? Quality questions result in a situation with five components: (a) jury members, (b) proposal X1, (c) proposal X2, (d) criteria, (e) ranking. This situation of assessment is illustrated in the balance model (Fig. 3). There are always at least two competitors and possible solutions to every competition. The criteria establish what should be compared and the jury's attention is focused on the aspects that are judged important in this context. How the comparisons are made depends upon the nature of the assignment. The traditional method for assessing artistic presentations is to use the jury system. The order of preference will reflect how several judges interpret the meaning of quality. Individual differences will be evened out. The jury system is a way of contributing to greater consistency in quality assessments (Rönn, 1996).

Typical procedures in assessment process

Normally, five jury meetings are required to decide upon a winner in an architectural competition. In the Nordic countries the evaluation of the entries is made in steps. Favourites are picked out. Poor solutions are eliminated. The assessment is a search for architectural qualities. In the final round, there are only a handful of proposals remaining, which the jury considers to be possible solutions. The winner will be the proposal the jury members agree upon. Consensus is considered a sign that the jury has found the best total solution to the competition brief.

The jury members represent the organizer and the architects appointed by the architect association. The architects on the jury must present the proposals in a comprehensible way for the organizer's representatives. Then the process of elimination begins. Each juror chooses a few favourites for further consideration. If it is difficult to agree upon a final round, the jurors usually discuss their favourites a second time. Normally a winner is found among the proposals. Whether or not it is the «right» one may be a matter for discussion. In any case, it is not difficult for the jury to find a few good proposals.

The jury's assessment of the contributions is made in six steps:

- **Handing-in check:** The process begins with a submission check. This is a formal review. The entries must arrive in time, fulfil the program specifications and be professionally executed. Minor changes in relation to the specifications are allowed. But the competing architects have to follow the fundamental demands in order to stay in the competition. In open competitions many proposals are eliminated during this first stage.
- **Order of work and scrutinisation:** In the second step the work order is established and the entries scrutinized. The jury decides how their work should be done and starts to examine the entries. They usually walk around the area alone or in groups, familiarizing themselves with the proposals. Work groups are frequently appointed to examine the proposals from specific aspects and prepare for the upcoming meeting. The competition goals as described in the brief determine whether or not expert advisors need to be called in.
- **Choice and preliminary assessment:** The third step involves selection and preliminary assessment. The architect members of the jury make an initial quality assessment of the proposals, often in consultation with the competition secretary. This is a professional evaluation that results in a selection of proposals thought to be appropriate solutions to the competition task. This is a preliminary selection and there is nothing to prevent further changes being made in the choices.
- **Presentation of design proposals:** The fourth step is the presentation of interesting contributions. The architect members of the jury present an unbiased and professional description of the proposals they consider interesting solutions to the task. Members present their special favourites. This is followed by an evaluation of the selected entries. The architect members have a special responsibility when it comes to pointing out good solutions and describing the shortcomings. The qualities that lie behind graphically seductive presentations of environments and populated photomontages need to be identified. A compact cluster of proposals now begins to crystallize.
- **Ranking:** The fifth step entails ranking. The next time the jurors meet there is usually a suggestion for ranking the entries. The pressure to find a winner leads members to make value judgments. A critical situation arises when jurors are forced to express personal opinions. There is no clear-cut winner. One proposal is seldom overwhelmingly better than another. Some shortcomings in details are easier to overcome than others. The jury must consider how proposals may be further developed and make a future-oriented overall judgment. They must carefully study the drafts and try to envisage the built environment.

Sometimes, expert advisors are called in to provide additional information before the jury chooses a winner. Cost analyses are used in the final assessment to determine if there are any economical differences in the remaining proposals.

- **Decision and architectural critique:** The sixth and final step in the process is the decision and architectural critique in the jury report. The jury concludes their quality assessment by naming the first-prize winner, other prize-winners and presenting their criticism of the competition. The decision includes the winner being awarded the assignment. In open competitions, the jury divides the prize sum among the 1st, 2nd, and 3rd prizes and eventual honourable mentions. For competitions on invitation the jury nominates one winner since all participants receive the same fee. The jury's verdict contains two types of criticism about the competition: partly a criticism of the competition, partly an individual architectural critique of the award-winning solution. The jury sometimes discusses so many shortcomings of the winning entry that you are surprised by their choice. The critique should be interpreted as advice prior to the upcoming assignment. It is in the interest of the future design that makes the jury points out uncertainties and shortcomings, which need to be worked out before the implementation phase.

This description indicates how the assessment process is organized in competitions, but also how it should be organized for the jury to find a winner, according to the interviewed architects in the Nordic countries. Jury members with different quality concepts and experiences, base their architectural competition assessments on competition rules, competition programs, competition proposals presenting different solutions, and a work sequence for the jury's assessment. The assessment process is organized to handle the differences between the competition proposals and the uncertainty of the solutions. Despite a genuine uncertainty in the quality assessment, the jury should agree upon a winner. Reservations in the jury's verdict indicate doubt, even if the cause can be traced to ambiguities in the competition brief and the openly formulated assessment criteria. If there is disagreement among the jury members, the competition may fail to be implemented; this emphasizes the need for consensus in picking the best solution for the competition's task.

Decision versus appraisal

In the Nordic study we discovered that the members of the jury used different strategies to decide upon a winner. The organizer's representative saw the choice as a decision-making process. They tried to clarify the differences between the competition proposals, which would enable the jury to go further in the process. The technical dimensions of the quality concept were explained. It was a rational means of seeking an answer to a quality question that depended upon experienced jury members,

people who were used to making decisions about proposals in county building offices. An informant describes this quality concept as follows:

Bureaucrats and politicians on the jury often believe only one meeting is involved; that they should be presented with a problem and decide upon which project should win. Gaute Baalsrud, interview 2005.

Rationality is associated with benefit and efficiency (March, 1994; Bazerman, 2006). The rational decision-making process is described by Bazerman as a work-flow with a number of defined steps used as a basis for making a decision. The procedure seems to lead to a rational choice. But rationality means a decision-making process that in an efficient way leads to the most beneficial result. Focus lies on the method, how decision-makers should proceed to obtain maximum results. The recommended work-flow consists of the following steps.

- define the problem
- identify the decisive criteria
- weigh the criteria
- compile various alternative decisions
- rank each alternative according to the respective criteria
- make the most advantageous decision

This describes an ideal situation. Important here is that the model by Bazerman describes in a good way how decision makers in the public sector compare services and candidates (Volker and van Meel, 2010). Quality, usage and cost are the usual decision-making criteria and normally are weighted 25%, 25% and 50% in Sweden. The reviews are expressed in numbers. Using points gives the illusion of something being factual and fair in ranking professional qualities.⁵

My opinion though is that the rational decision-making model is not suitable to use as a basis for choosing a winner in an architectural competition.⁶ Decision-making models don't solve the jury's problem but rather lead to a dead-end. The handbooks by Nashed (2005) and Nelson (2006) about quality in architecture don't give any practical advice when the purpose is to find the best solution. There is a creative moment in competitions, which escapes the rational decision-making model. On this point Lipstadt (2010) finds my conclusions close to Kreiner's (2009, 2007) findings in her reading of the paper: We both see unpredictable elements in the jury process of decision-making. Decision alternatives are unknown to the jury when the competition is announced. Design principles can be identified and categorized only after the jury has become familiar with the architects' proposals. Kreiner (2007) describes this situation as follows:

5 One of the reasons why public clients use a rational decision-making model to negotiate services is that it gives the impression of impartiality. It is easier to defend in court should a company protest against unfair treatment (Lennerfors, 2010).

6 Anders Lunander and Arne Andersson convincingly demonstrate in a report *Metoder vid utvärdering av pris och kvalitet i offentlig upphandling* (Method of evaluation cost and quality in public negotiations) how mathematical evaluation models determine the outcome of tender evaluations. Using the same grading of price and quality you obtain different winners depending on the choice of model. Identifying the best offer on the basis of points and numbers gave a false sense of impartiality.

... the criteria for choosing the winning proposal, including the definition of the client's needs and preferences that are used to justify the choice, are defined retrospectively... The competition brief may help the jury in determining if entries are legitimate or not. But the crucial task of selecting the winner among the legitimate entries cannot be done on criteria other than the features and qualities that distinguish an entry from the other... When the criteria for the winning proposal are defined after the competition, the future successfulness is fundamentally unknowable and unpredictable ahead of time. Kreiner, 2007, p. 3.

Architectural quality is a matter of judgment from the jury perspective. Design problems cannot be understood outside of their spatial context. You cannot calculate the best overall solution when quality is a matter of good judgment based on open design criteria. All such attempts miss their goal. On the other hand, competent jury members with good judgment can indicate in which way a proposal is better or poorer for the organizer based on the competition programme. Architects are trained to see and assess qualities in design proposals. The answers to the competition's questions develop during the judging process through jury work based on dialogue. It is learning by seeing and reflecting. Professional jury members communicate with the proposals and feel that the design returns information back about their architectural quality.

The architectural critique work method that Svensson (2008, 2009) saw in her PhD project was used by architects on the jury. The work method represents an assessment competence that is developed and transmitted by architectural critique of student proposals in basic education, in professional practice at architect bureaus via peer criticism by colleagues, in the press through architectural critique texts and at the drawing board as self-criticism of assignments (Attoe, 1978; Thau, 1994; Lundequist, 2002; Johansson, 2002). An informant describes the critical aspect of assessing competition entries as follows:

To me questions of architectural assessment have always been important. The jury members – particularly the professional architects – should have an understanding and experience of architectural critique. Someone who makes a professional statement about architecture is responsible for their judgment. Architectural critique is a way of approaching architecture's being. A developed architectural critique requires a theoretical background as a point of departure to look at and judge architecture. That's what I mean; architectural critique is of fundamental importance to a jury's evaluation of a competition proposal. Matti K Mäkinen, interview, 2006.

Nils-Ole Lund (1994) looks upon architecture as a bridge between research and experience. The purpose of critique is as follows:

The main purpose of critique is to describe the values and choices hidden behind the creation of architectural works. The eventual assessment that is made must be based upon the relationship between the intentions and the result, and correlate the work and the context the building is placed in. The connection applies to both tradition and the physical environment. The goal of critique is to create a debate about an architectural work... Lund, 1994, p. 46-47.

Wayne Attoe (1978) points out that criticism is an essential future-oriented activity, both for educating architects in design studios and in professional practice. The significance of criticism can be described as follows:

Criticism is broadly concerned with evaluating, interpreting and describing... Normative criticism has as its basis a doctrine, system, type or measure. Normative criticism depends upon our believing in something (norms) outside the environment under scrutiny and assessing the environment... Interpretive criticism is impressionistic, evocative or advocacy in character... Descriptive criticism either depict (pictures) physical phenomena, recounts pertinent events in the life of the designer, tells us the historical context of the design process and construction..., or details the design process itself. Attoe, 1978, p. 8-10.

Model of judgment process

The architectural critique work method can explain the differences Svensson found between the jurors who are architects and those who represent the organizers. For architects, critique is part of the competition contribution in a wider sense. The professional challenge it to identify the competition's design problem, how well the design proposal fits into the site and fulfils the planned enterprise. The judging process changes its characteristics for this reason in the final step (fig 4). This is crucial phase in the competition.

The design proposals are used as an educational tool for generating new insight into competition tasks and their design problems. It is a way of learning by design. The differences between the jurors who are organizers and those who are architects can be illustrated in the following model (fig 4).

The model is an attempt to graphically illustrate the fundamental thoughts in the decision making process and the architectural critique work method. The rational decision making process tries to create a decision making situation where two alternatives are set against each other. The choice is minimal. The process advances by the continuous elimination of proposals. One entry is seen as better than the other until there is a single winner.

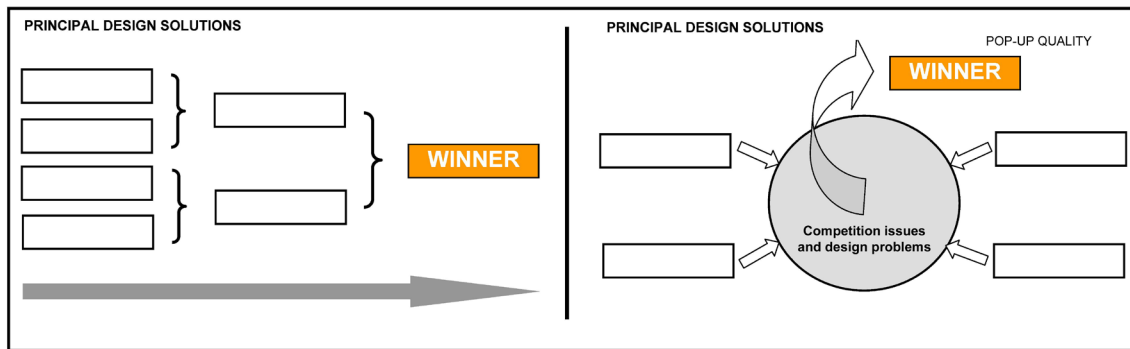


Figure 4. Strategies for choosing a winner.

The final winner is chosen after a comparison between the two best proposals. Grading proposals from evaluation criteria is considered a rational means of choosing a winner; a method for quality assessment of proposals, which seems to meet the requirements for impartiality and fairness in the negotiation of services.

The process of the architectural critique work method develops in another way. The difference becomes apparent when several good solutions for the competition are identified. The solutions represent various design principles. Now the process of elimination ceases and the assessment focuses on closer examination of the remaining entries. The goal is to clarify the competition task and the design problems. The winner becomes apparent to the jury during the assessment process when they scrutinize the proposals more closely. The decisive factor is visual. The informed eye becomes the judge. The jury members see that one solution suits the site better than the others. The pop-up quality of the winning proposal is the answer to the wicked problems.

Instead of eliminating proposals as fast as possible at the beginning of the judgment, to arrive at a manageable decision making situation where only two choices remain, the jury members, working according to the architecture critique method, try to keep the interesting proposals in the competition for as long as possible. The proposals are a tool in the learning process, a source of knowledge about the competition's task and its design problems. The more closely the most interesting proposals and best solutions are examined, the better the jury understands the competition. Knowledge develops through assessment. The favourite proposals shed light on the competition's brief. The best total solution for the task appears only when the complex of competition problems has been solved. The jury can then point out the winner by consensus.

The two strategies that were identified in the Nordic study developed by analyzing meeting notes and data collected when directly observing the jury's work. The theoretical work-up raised questions about how the choice of winner could be understood and explained as a decision making and assessment process. The jurors worked in their roles as ex-

perienced decision makers: county officials and entrepreneurs as well as architects appointed by the corps. Time pressures reinforced the jury's traditional manner of making decisions and assessments. That explains why the parallel strategies became so apparent at the end of the process. In spite of their differences the jury came to a unanimous decision about the prize-winner, which reinforces the need for consensus in architectural competitions.

Acknowledgement

The paper is partly founded by spare time and partly by The Swedish Research Council FORMAS. The development of a theory on judging quality in design proposals is based on reflections from a research project at the Royal Institute of Technology financed by The Swedish Research Council FORMAS.

- Andersson, A. och Lunander, A., 2004. *Metoder vid utvärdering av pris och kvalitet i offentlig upphandling. En inventering och analys av utvärderingsmodeller inom offentlig upphandling*. Stockholm: Konkurrensverket.
- Attoe, W., 1978. *Architecture and Critical Imagination*, Chichester, New York, Brisbane, Toronto: John Wiley & Sons.
- Bazerman, M. H., 2006. *Judgment in managerial decision-making*, New York: Wiley.
- The Danish Association of Consulting Engineers, F.R.I., 1988. *F.R.I-Survey of Architectural and Consulting Engineering Service 1997: Statistical Analyses related to the EU Service Directive*. Copenhagen: March 1998.
- Benedikt, M., 2007. *Introduction in Sanders*, Ed. Judging Architectural Value. Minneapolis: University of Minnesota Press.
- Darke, J., 1979. The Primary Generator and the Design Process, *Design Studies*, No 1.
- Churchman, C. W., 1967. «Wicked problems», *Management Science*, No 4.
- Cold, B., 1989. Om kvalitet i arkitektur, *Tidskrift för arkitekturforskning*, No 1-2.
- Cross, N., Ed. 1984. *Developments in Design Methodology*, Chichester: J. Wiley & Sons.
- Horst, R. and Webber, M., 1973. Dilemmas in a General Theory of Planning. Reprinted in N. Cross, Ed. 1984. *Developments in Design Methodology*, Chichester: J. Wiley & Sons, Chichester.
- Johansson, A., 2010. *Deciding who is the best*, Umeå: Department of Education, Umeå University, No 95.
- Johansson, R., 2005. Arkitekturkritik i dagspressen i Johansson, Rönn and Werner, Red. 2005. *Om kvalitet i arkitektur*. Stockholm: TRITA-ARK-Forskningspublikationer 2005:1, KTH.
- Kazemian, R., Rönn, M. and Svensson, C., 2005. *Jämförande analys av arkitektävlingar: erfarenheter från tre nordiska länder*, Stockholm: TRITA-ARK-Forskningspublikationer 2005:3, KTH.
- Kazemian, R., Rönn, M. and Svensson, C., 2007. *Arkitektävlingar – Erfarenheter från Finland, Lettland*: Axl Books.
- Kreiner, K., 2007. *Constructing the Client in Architectural Competitions. An Ethnographical Study of Revealed Strategies*. Copenhagen: Copenhagen Business School, Department of Organization.
- Kreiner, K., 2009. *Architectural Competitions – Empirical Observations and Strategic Implications for Architectural Firms*, Nordic Journal of Architectural Research, No 2/3.
- Kähler, G., Ed. 2001. *Status Report on Building Culture in Germany. Initial Situation and Recommendations*, Berlin: German Ministry for Transport, Building and Housing.
- Lennerfors, T., 2010. Den reglerade protesten i Gustafsson, Red. *Regler – Civilisationens ryggrad*, Tyskland: Santérus Academic Press.
- Lund, N-O., 1994. Arkitekturkritik og Tradition, *Nordisk Arkitekturforskning*, No 2.
- Lundequist, J., 2002. Kritik som kunskapsform i *Arkitekturkritik – arkitekturmuseets årsbok 2002*. Stockholm: Arkitekturmuseet.
- March, J. G., 1994. *A primer on decision making*, New York: The Free Press.
- Montgomery, H., Hemlin, S. och Johansson, U.-S., 1990. *Professorstillsättningar i arkitekturämnen, På vilka grunder sker besluten?* Stockholm: Bygghälsningsrådets vetenskapliga forskningsnämnd (BVN), Statens råd för Byggnadsforskning.
- Nasar, J. L., 1999. *Design by Competition. Making Design Competition work*. USA: Cambridge University Press
- Nashed, F., 2005. *Architectural Quality Control, An Illustrated Guide*. USA: McGraw-Hill.
- Nelson, C., 2006. *Managing Quality in Architecture. A Handbook for Creators of the Built Environment*. Oxford; Architectural Press (Elsevier).
- Patriksson, G., 1982. *Idrott tävling Samhälle*. Örebro: Veije förlag.
- Rönn, M., 1996. Award-Winning Industrial Architecture, *Nordic Journal of Architectural Research*, No 1.
- Rönn, M., 2005. Att bedöma arkitektonisk kvalitet – hur utses prisvinnare i Johansson, Rönn och Werner, Red. 2005. *Om kvalitet i arkitektur*. Stockholm: TRITA-ARK-Forskningspublikationer 2005:1, KTH.
- Rönn, M., 2009. Judgment in Architectural Competitions – Rules, Policies and Dilemmas, *Nordic Journal of Architectural Research*, No 2/3.

Rönn, M., 2011. Architectural quality in competitions. A dialogue based assessment of design proposals. *FORMakadenisk*, No 1.

Strong, J., 1996. *Winning by Design: Architectural Competitions*, Oxford: Butterworth Architecture.

Svensson, C., 2006. Användandet av grundkriterier i arkitekttävlingar i Rönn, Tornberg och Svensson, Red. *Arkitekttävlingar, Gestaltningsprogram och arkitektonisk kvalitet*. Stockholm: TRITA-ARK-Forskningspublikationer 2006:1. KTH.

Svensson, C., 2008. *Arkitekttävlingar, om konsten att finna en vinnare*, Stockholm: TRITA-ARK Akademisk avhandling 2008:3. KTH.

Svensson, C., 2009. Speaking of Architecture. A study of the Jury's Assessment in an invited Competition, *Nordic Journal of Architectural Research*, No 2/3.

Thau, C., 1994. Arkitektens krise og kritikens normer – mellem socialæstetik, bilede-storm og selvforydelse. Kritikens normer i en foranderlig verden, *Nordisk Arkitekturforskning*, Nr 2.

van Meel, J. and Volker, L., 2010. Dutch design competitions: lost in EU Directives?. Paper presented in the conference *Constructions Matter*, Copenhagen 5-7 May 2010.

Wynne, G. G., 1981. *Winning Designs: The Competitions Renaissance*, New Brunswick U.S.A. and London U.K.: Transaction Books.

Personal communication

Lipstadt, H., 2010. Critique, Mail 20100406.

Interviews

Anonymous informant, architect and project leader working in a state run construction project in Norway.

Baalsrud Gaute, Architect and Competition Secretary, at NAL, Norway.

Beite Kjell, Practicing Architect, Norway.

Christansen Jan, City Architect in Copenhagen, Denmark.

Deichmann Flemming, Architect and Competition Secretary, at AA, Denmark.

Hansen, Lars Ole, representative for the builder and specialist on the law, Denmark.

Holm Birgitta, Practicing Architect, Sweden.

Huotelin Paula, Architect and Competition Secretary, at SAFA, Finland

Jussi Murole, Practicing Architect, Finland.

Kallstenius Per, City Architect in Stockholm, Sweden.

Mäkinen Matti K., Architect, Professor and the former General Director of National Property Board (Byggnadsstyrelsen), Finland.

Nordberg Thomas, Architect and Competition Secretary, SA, Sweden.

Pakkala Pekka, Architect at the Building Planning Office in Helsinki, Finland

Pekkarinen-Kanerva Pirjo, Architect and Competition Editor, at SAFA, Finland

Rygh Per, Architect and Competition Secretary, at NAL, Norway.

Sundman Mikael, Architect at the Building Planning Office in Helsinki, Finland

Teemu Kurkela, Practicing Architect, Finland.

Wadelius Christer, Architect and the former General Secretary at the National Property Board (*Byggnadsstyrelsen*), Sweden.



Biographical information

Magnus Rönn
School of Architecture
Royal Institute of Technology
100 44 Stockholm
Sweden
E-mail: magnus.ronn@arch.kth.se
Cell phone: +46-08-790 85 65

Magnus Rönn is architect, associate professor and research director at the School of Architecture, Royal Institute of Technology, Stockholm. He is leading a research group called arc-plan. Focus for the research in recent years has been architectural competitions and architecture quality, which is as a key concept for understanding design issues. Magnus Rönn organised the first scientific conference on architectural competitions in Stockholm, October 2008. He was editor-in-chief together with Jonas E Andersson and Reza Kazemian for the anthology «The Architectural Competition: Research Inquires and Experiences». The book includes 26 papers from the conference in Stockholm.