

Two Design-Developer Competitions

- Searching for affordable housing in Gothenburg and Stockholm

Magnus Rönn, Associate professor

Affiliated, Chalmers University of Technology, Department Architecture and Civil Engineering

Abstract

The paper describes and discusses two developer competitions in Sweden which concentrated on design of affordable housing. Both competitions were given sites in a built environment with well operating infrastructure in Gothenburg and Stockholm respectively. But did the competitions benefit from their physical preconditions, and were the competitions carried out as a professional laboratory, supporting innovative solutions and affordable housing?

The developer competition is a new tool in Sweden; it evolved after deregulation of the building sector in the 1980s. In 2013, 19 of the 35 largest municipalities in Sweden had accepted policies for land allocation (Persson, 2013). A closer study of the local land allocation guidelines reveals that the competition form is undeveloped. There are no national rules for developer competitions.

The overall aim of this paper is to present research findings on the production of architecture values, design qualities, and innovations by developer competitions. Three questions will be explored: what kind of values and qualities are identified and developed by the key actors in the winning proposals? How have the sites and surrounding infrastructure been used in the competitions? In what manner did the competitions contribute to cheap apartments?

The methods used for data collection and analysis are as follows: the organizers' archives in Gothenburg and Stockholm were examined; the fundamental documents were analyzed through close reading; questionnaires were used to collect individual statements from key actors; and a model was constructed to find answers to the research questions. The model has crossing axes. One that represents physical dimensions and one that shows design dimensions in competitions.

The results is summerized in five conclusions. The first conclusion is that the teambuilding in the developer competitions in Gothenburg and Stockholm revolve around a core of people, with appropriate competence, who have known each other for a long time. The second conclusion is that there is a variation of motives for participating in the two developer competitions. The third conclusion is that the sites performs as attractors for the key actors in the competitions. The fourth conclusion is that juries connect architecture values and design qualities to the projects in the competitions, not to the physical dimensions. The fifth conclusion is that the competition can be an effective tool for generating innovative design proposals that combine good housing and low rent.

Key words:

Developer competition, architectural values and design qualities, affordable housing.

1. Introduction

There are two types of developer competitions with separate objectives. One is about design and the other focuses on economical issues and how builders get access to sites for exploitation. In order to distinguish these different competitions, I will call developer competition about design for design-developer competition or DD-competition. In a DD-competition the organizer asks for architectural solutions. It is a decisive criterion in this definition.

This paper presents two DD-competitions in Sweden that were about designing affordable housing. The overall objective was to design and construct cheap apartments. One competition was carried out in Gothenburg, on the west side of Sweden; the other took place in Stockholm, on the east side of Sweden. Both DD-competitions were given sites in built environments with well operating infrastructure. From this point of view, the physical surroundings could be understood as recourses by the three key actors in a competition; organizer, design team and jury.

Architecture and the built environment are physical artifacts with long lifetimes such as infrastructures, buildings, spaces, and landscapes. The sites and their neighborhoods have values and qualities that can be further improved by design. This is a basic assumption in architectural design. But did the competitions benefit from their physical preconditions? And if so, how did the organizers and competing teams take care of the sites as resources for developing architecture values and design quality? Of equal import is whether the competitions have performed as a professional laboratory, supporting innovative solutions for achieving affordable housing. I will use the two DD-competitions in Gothenburg and Stockholm as test beds in a discussion about value and quality in architecture and urban design.

Planning – a short background

The competitions in Gothenburg and Stockholm were about adding buildings to existing environments to provide reasonably priced rental apartments. The essential infrastructure is already in place in the form of technical support, squares, streets, and public transport (tram and underground). According to Nyström and Torell (2012) the physical planning can be structured into three main tasks:

- New-development of land without infrastructure.
- Adding buildings, renewal, and densification in built environments.
- Maintenance and protection of valuable environments.

Nyström and Torell mean that the contemporary planning pre-eminently intended for adding buildings and renewal – not large scale expansion. At the same time as operative spaces are limited, adding buildings creates new opportunities for architectural design and qualities. Renewal and densification of built environments are seen as a way to cater for present needs while preserving resources. The competitions in Gothenburg and Stockholm fit into this overreaching orientation of planning towards adding building, renewal, and densification.

The deregulation in the building sector in the 1980s gradually moved the initiative to the market. DD-competitions are included in this change of the conditions for design and construction. Blücher (2015) describes the development as a series of revision of the law with the intent to enable a quicker planning process. The market was supposed to be an effective agent. The planning and building act which was previously seen as an asset was viewed as a hindrance during the governmental investigation of the 21st century.

Values in Architecture and the Built Environment

The Commission for Architecture and the Built Environment (CABE) published *The Value Handbook* in 2006. The main purpose of the publication is to show how investments can be based on quality rather than cost.¹ In the book, CABE defines six different types of values that can be created by good architectural design.² Values connected to architectural and urban design in the guide can be summarized as:

- **Exchange value:** The commercial value of Architecture and the Built Environment is measured by the price that the market is willing to pay. Price depends on a wide range of factors such as location, design, and the demands of the market at the time. Good design affects the exchange values.
- **Use value:** This value of Architecture and the Built Environment depends on whether the design is fit for its intended purpose and contributes to the outcomes. A building has use value for end-users as well as owners and facility managements.
- **Image value:** Architecture and the Built Environment has the ability to convey strong visual messages. Design expresses status and communicates ideas. Public and private businesses use design in buildings to promote identities and attract positive attention.
- **Social value:** Places and buildings can encourage people to interact and contribute to mutual understanding, trust, and shared experiences. Social value arises when Architecture and the Built Environment promotes people to connect to each other and support co-operation.
- **Environmental value:** Architecture and the Built Environment take care of material for design and construction, occupy land, and demand resources for operation and maintenance. The impact can be reduced by sustainable design solutions in a long-term perspective. The Environmental value expresses if design, buildings, and management use resources in an environment-friendly way.
- **Cultural value:** Architecture and the Built Environment has a cultural value and tells us who we are both in a historical and a contemporary context. The heritage provides identity to our time and place in history. This cultural value connects us to past and future generations, contributes to our sense of national identity, and represents human achievement.

The Value Handbook has references to papers published in scientific journals. From this point of view, the book can be seen as a research based recommendation aimed at public organizations that want to get the most out of investments in architecture and urban design. CABE is trying to support local authorities to assess if places, streets, and buildings are hindering or contributing to service delivery.

Architects Sweden described values and qualities connected to architectural competitions on their webpage. However, there are no references to research in these recommendations. In contrast to the English guidelines, they seem solely oriented on practice and are illustrated by winning proposals. Architectural competitions are presented as professional culture that is passed on to students, architect firms, and potential organizers.³ *Architects Sweden* highlights many advantages for clients, politicians, citizens, and professional architects. The merits on what competitions can contribute to may be summarized as follows:

- **A value-creating process:** An architectural competition, where the participants invest their creativity and competence to create the best solution, is a value-creating process for the organizer. The competition reveals how the site may be enhanced by new values.

- **Development and innovation:** Competitions are an established tool for programming and design that allow space for development and innovation. Competitions give organizers access to alternative solutions for the assignment in the brief.
- **Knowledge and education:** Competitions generate knowledge about the future through architectural design. Architecture, economy, and user needs may be weighed against each other until the jury finds the best solution for the assignment.
- **Media impact and news value:** Competitions attract attention, which awakens public opinion and marketing interests. Architectural competitions have news value that creates curiosity and attraction among the public, politicians, architects, and the press.
- **A cultural event, stimulating public debate:** Competitions generate a basis for public dialogue about architecture as part of a building culture. Exhibiting the proposals make them known to citizens and allow them to be discussed in a qualified forum.
- **A by law approved procedure and negotiation selection for architect services:** Competitions are regulated by the Swedish Public Procurement Act and can be used for public clients for building and planning assignments. The competition is a method to generate a design and implement a project supported by the law.

The fact that *Architects Sweden* emphasizes merits connected to competitions is not surprising. Still, the webpage lacks critical reflections on the exorbitant resources demanded both by clients and architects in competitions. DD-competitions are mainly carried out without *Architects Sweden* having any control and often with poor terms for the architects. Neither of the two DD-competitions in Gothenburg and Stockholm have competition briefs that include economical compensation to the design teams for delivering approved design proposals to the organizer.

Design-Developer competition

DD-competitions are used in Sweden to allocate contested land owned by municipalities to developers. Through the competition, the organizers get access to thoroughly worked design solutions through proposals for new construction. Competitions are regulated locally by the municipalities in three manners: (a) in part, *politically* through land allocation policies that are adapted by Real Estate Committees or Municipal Councils; (b) partially, *professionally* through programs that describe the task and its conditions; (c) partially, *administratively* through contracts with the winners. The organizers begin the process by publishing a program that describes the competition task and the competition terms. Thereafter, the initiative is transferred to the market. Interested consult companies, construction companies, and real estate companies assemble design teams that produce solutions. The projects are judged by a jury. After the jury has ranked the proposals and selected a winner, the competition transforms into becoming a question about implementation through contracts with the developer. The jury member's decision culminates in a land allocation agreement that aims for design and construction.

In Sweden, the design teams normally compete at their own expense in DD-competitions. The profit for the developers lies in the access to a buildable site. The brief appear as a two edged sword with conflicting interests. The chance of success in competitions is opposed with the cost of developing competition proposals. The likelihood of becoming a winner decreases with the number of participants in the competition. For the organizer it is on the contrary crucial to attract as many competent competitors as

possible to the competition. The larger the number of competent design teams that participate in the contest, the larger the chance that the organizer gets access to good solutions to the competition task.

The DD-competitions are based in a completed program. The design teams are not meant to have a dialogue with the citizens, neither about how the task is described in the program or their solution to design problem at hand. The distance to the public increases further through the use of expert models to choose a winner. For example, it is only officials who appoint winners in Stockholm. In Gothenburg, politicians are part of the jury, but there are no opportunities for local influence from citizens. The lack of influence for the residents is a weakness of DD-competitions. It is only after the winners have been announced that the proposals become publicly available through websites and exhibitions.

The DD-competition as a tool in Sweden evolved after the building sector was deregulated in the 1980s. In 2013, 19 of the 35 largest municipalities in Sweden had accepted policies for land allocation (Persson, 2013). A closer examination of the municipalities' policies shows that politicians and civil servants have treated the competition simplistically. The DD-developer competition in Gothenburg is only dealt with in one sentence in the policy from 2016: *"The developer competition is used where appropriate considering the preconditions of the project and other circumstances,"* (Developer policy - instructions and rules, p. 4). The policy in Stockholm from 2015, describes the developer competition like this:

When the city wishes to meet particular ideas about design or use a competition can be used... The proposals are evaluated by a jury where the composition is indicated by the conditions of the competition. At a contest, the pricing happens through a fixed price for the determined land value, alternatively a land allocation agreement. (Developer policy, p. 6)

The number of DD-competitions has increased in Sweden. Despite that, the research about this type of competitions is small. The first study in Sweden is an evaluation of a competition 1986 in Malmö that aimed at designing affordable housing (Hansson, 1988). A majority of the research deals with this kind of competitions not as architecture, but as a question about economy, organization, regulations and land policies.⁴ Only a handful of scientific studies on DD-competitions have been found in Sweden, Denmark, Finland and Austria. For example, Liske (2008) has studied the use of competitions in Vienna from a design perspective. The overall objective has been affordable housing. Lahdenperä (2008) has examined cooperation during planning and formation of a DD-competition in Tammerfors. Östman (2014) has examined DD-competitions in Finland and Helsinki as illuminating examples. Kreiner (2016) has studied a DD-competition about an office building in Copenhagen. I have investigated pre-qualification of design teams in competitions and examined two DD-competitions in Gothenburg and Stockholm that had affordable rent land good quality housing as overreaching goals (Rönn, 2012; Rönn, 2014; Rönn, 2016; Rönn, 2017). Data from both of these competitions will be reused in this paper. Housing affordability for renters has been a key issue for the two public organizers in Sweden. The concept referrers in this study to a relation between rent level and income for the target group in the competitions (Robinson 2006 et al).

Competition as a professional laboratory

Architecture values and design qualities in DD-competitions are for researchers of architecture what reality and experiments are for scholars in natural science. The same goes for members of juries and design teams. It is simply not possible to rank design proposals and find the best solution that fits on the site without identifying and judging values. Architecture and urban design are always good or bad

from a certain perspective. Values, qualities, expression, intentions, and purposes are embedded in competitions, both as architectural solutions, design processes, and professional judgments.

Competitions in architecture and urban design can perform as professional laboratory producing innovative solutions to challenges in briefs (Guilherme, 2014). As laboratory the competition has four delimiting stages, each with its own key actor, where you can look for and find new thinking (Rönn, 2014). In this theorizing of the competition process as a professional laboratory innovations can appear: (a) in the competition brief; (b) in design proposals; (c) in jury decision; and (d) in implementation as agreements that regulate the execution of the winning design. In the initial planning stage the organizing body lays the foundation for new thinking through the choice of jury, competition form, and requirements in the brief. At this point innovation might mean breaking with established routines and trying new suggestions (Forlati, Isopp and Piber, 2012). In this stage creativity is a question for the organizer.

In the second phase, the responsibility for innovation transfers to the design teams. Their job is to find creative design solutions. *“It can be roughly stated that all firms are driven towards innovation by their vision and ambition of quality, that being either the architectural, technical and/or functional aspects,”* according to Reiner, Volker, and Wemlink (2009, p. 608). The responsibility is then transferred to the jury who are accountable for judging the proposals. The jury’s task is to find new thinking, identify existence of innovative solutions, and point out the overall best design proposal. In the fourth stage, the responsibility returns to the leading part in the organizing body, which answers for the implementation of the winning design. The client can at this stage develop and test more productive tools for securing values and qualities in transferring winning proposals to a built environment. The accounts show that innovations in DD-competitions are a collective concern that swings back and forth between the organizer, design team, and jury (Rönn, 2019).

2. Method and model

The overall aim of this article is to contribute to knowledge on the production of architecture values, design qualities, and innovations by investigating two competitions. Three questions will be explored:

- **Architecture values and design qualities:** What kind of values and qualities are described and identified in the winning design proposals?
- **Architecture and the Built Environment:** How have the sites and its surroundings infrastructure been used and understood in the competitions by the key actors?
- **Competition as professional laboratory and tool for designing affordable housing:** In what way do the two DD-competitions contribute to cheaper apartments?

The following data have been collected from the competitions:

- **Study of archives:** The organizers’ archives were examined in Gothenburg and Stockholm to get an overview of relevant documents. Additional information was collected from the municipalities’ websites.

- **Competition documents:** Key documents are the briefs, design proposals, jury reports, decision on implementations, and land allocation agreements together with detail plans. The documents are analyzed by close reading; important notions, words and sentences have been highlighted, analyzed, and interpreted in their context. The design solutions are analyzed by architectural critique.
- **Statements from key players:** There are three typical key actors in the competitions: 1) representatives for the organizer (jury and members of assessment team); 2) developers (constructors and real estate managers); and 3) architectural firms. 97 informants have been identified among these key actors: 17 representatives for the organizers; 40 architects/ consultants; and 40 agents for developers. 71 out of 97 key players (73 %) answered a questionnaire with individual statements about how they experienced the competitions.

Analyze Model

To find answers to the research questions, I have constructed a model using crossing axes: one horizontal axis representing *physical dimensions* in the competitions and one vertical axis showing *design dimensions* on the challenge in the briefs. The basic ideas behind the model look like this:

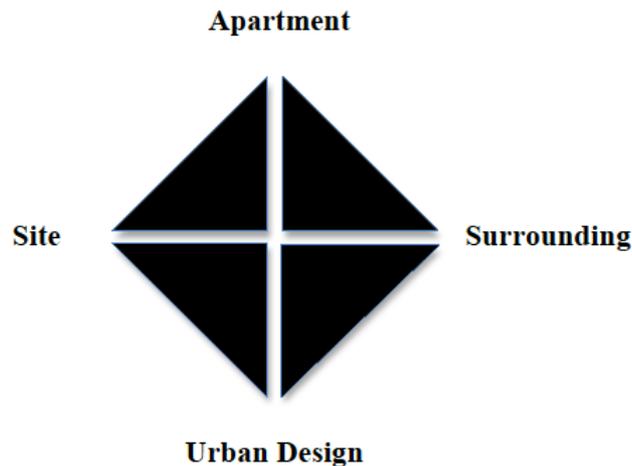


Figure 1: Model for analysing architecture and the built environment as value and recourses.

The horizontal axis for *physical dimensions* is two-sided. On the one side, there is a *site* with special characteristics provided by organizers. On the other side, there is a *surrounding* to the site. The physical dimensions have values and qualities that operate as attractors and influence the number of competitors in competitions. The more professional design teams participating in a competition, the greater the chance is for organizers to receive several good solutions to the task/challenge in the brief.

The vertical axis describes *design dimensions* and involves interior design, architecture, and building design as well as landscape architecture and urban design. On the one side of the axis is *apartments* as results of interior design and architectural design. Architecture values and design qualities in DD-competitions are in this perspective closely connected to how expected tenants will experience every day life. Good design should support the use. The other side of the axis is represented by *urban design*.

There is always a wider context outside the specific site. From this perspective, architecture values and design qualities are a part of a overall structure of the housing area – urban form, building types, courtyards, streets, green areas – and access to social services, stores, public transport etc. This is

important design dimensions for both tenants and citizens in the neighborhoods. All the key actors should therefore consider the long term impact of design solutions implemented as a built environment. Of course, it is a complicated task to bring forward credible judgments in DD-competitions since critique of proposals have to be based on a model of a future environment presented in drawings, diagrams, and illustrations.

3. Case studies

The case studies start with the competition in Gothenburg followed by the competition in Stockholm. In total 28 design teams took part in these DD-competitions in the two largest cities in Sweden. Design proposals have been presented anonymously to guarantee equality, objectivity, and fairness. Approved proposals have to contain traditional architectural drawings, perspectives, illustrations, as well as rent and a description of housing management.

The organizers in Gothenburg and Stockholm promise the developers behind the best solutions implementation of their proposals. The winners get access to the sites through a land leasehold agreement. In the briefs, there is no prize money for delivering proposals. The design teams compete at their own expense. Compensation to architects for design proposals is an issue for the parties in each team – not for the organizers in Gothenburg and Stockholm.

3.1 Case study Gothenburg

In 2013 the property board in the city of Gothenburg called for a DD-developer competition aimed at good quality housing at reasonable rent. The competition brief described the task in 16 pages. The objective is “*to realize housing with good living quality and low housing costs*” (Competition brief, p. 4). According to the brief the competition should “*demonstrate how you can design, build, and maintain rentals everyone can afford while maintaining high quality,*” (Ibid, p. 4). The location for the competition is Högsbo. The site is attractive, in proximity of trams, a library, and a lively square with shops:

The location is the best you can think of with very short distance to a tram stop with several different commute options. The distance to Axel Dahlströms torg with shops, a library, a gym, and street life is equally short... The place has been chosen because here there exist large potential for good development and cheap housing. The possibility for a functioning everyday life is good. The closeness to public transport and services facilitate the possibilities of having a well functioning everyday life without access to a car... The addition of new housing in the neighborhood can hopefully strengthen the service in the square and the public transport at the same time as the selection of sizes and tenure statuses are broadened. (Ibid pp. 4-5)

The competition tasks are divided into three phases. First, the competitors should deliver suggestions for housing on the site. Secondly, the proposal should include various sizes of apartments. Thirdly, the competitors should present the rental rate and long-term maintenance costs of housing.. According to Statistics Sweden (SCB), the rent level in greater Gothenburg was, in 2014, 1716 SEK per sq. m/year for new housing.

Judging criteria and delivery demands

The jury should evaluate the design proposal based on three major criteria with sub issues in the brief. The fundamental design criteria for judging the proposals are:

- Design of housing.

- Surroundings and build environment.
- Execution, maintenance, and economy.

The proposals are to be presented anonymously at a maximum of six A3-format posters with a complimentary description in A4-format. Proposals with a higher average rent than 1 400 SEK per sq. m/year will be excluded from evaluation by the jury.

The winner will get access to the competition site. The land will be leasehold to the developer behind the winning design. However, if the competition does not lead to any good solutions, the organizer maintains the right to “*reject all competition proposals without compensation for the proposers,*” (Ibid p. 9).

Jury and assessment team

The jury consists of nine members: six politicians and three chief managers from the city of Gothenburg. This composition of the jury represents a democratic decision-making in contrast to a expert model where there is only professionals in the competition jury. The politicians in this case are both from the majority and the minority parties. The politicians are laymen when it comes to architecture and they are supposed to reflect the citizens’ interests in the DD-competition in finding the best proposal. To support the jury, there is an assessment team with six municipal advisors, mainly from the property department and the city planning office in Gothenburg. They represent an expert model for judging. The assessment team is made up of internal professionals, and these civil servants are called experts in the competition brief.

Design team

The Gothenburg-competition started 2013-06-19 and ended 2013-09-30. Altogether 13 teams composed of architectural firms, construction companies, and real estate managers took part in the competition. A majority of competitors are multidisciplinary teams. Three of the competitors did not meet the rent requirement and were eliminated in the initial control of the entries. The remaining ten design teams presented approved design proposals following the demands and were therefore evaluated by the jury and the assessment team.

Winning design

An architect firm produced the winning proposal in a joint venture with two small developers. It is a Gothenburg-based team with three local companies: Svanström Fastigheter, Almgren Fastighets AB, and Okidoki Arkitekter. Their solution is based on a neighborhood structure with courtyards and 156 apartments, which is more housing on the site than expected. The jury’s attention was caught by the open connection between the kitchens and living rooms that reduces the area. The average rent is about 1 399 SEK per sq. m/year. This is a reduction of the rent level with 23% compared to the new housing in Greater Gothenburg.

The rent levels are as follows:

1 room and kitchen (64 apartments)	2 995 SEK/month	26 m ²
2 rooms and kitchen (25 apartments)	5 758 SEK/month	49 m ²
3 rooms and kitchen (14 apartments)	7 403 SEK/month	63 m ²
4 rooms and kitchen (42 apartments)	9 147 SEK/month	74 m ²
Attached house (11 units)	11 025 SEK/month	92 m ²

The layouts plans of the apartments are as follows:

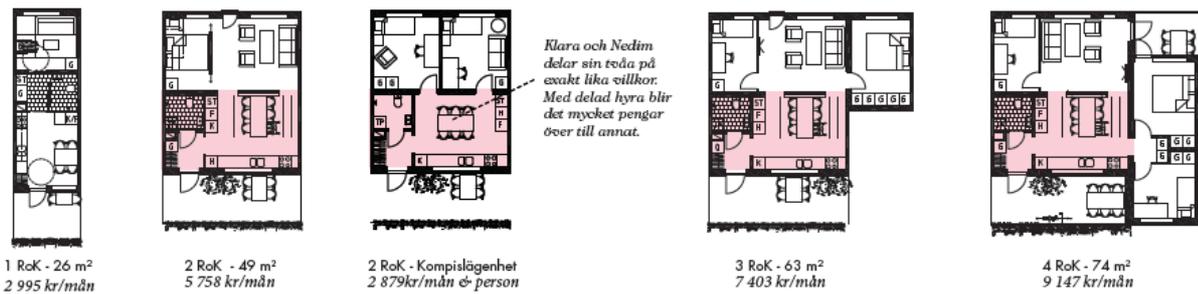


Figure 2. Apartments in the winning design proposal. Source: Svanström Fastigheter, Almgren Fastighets AB, and Okidoki Arkitekter.

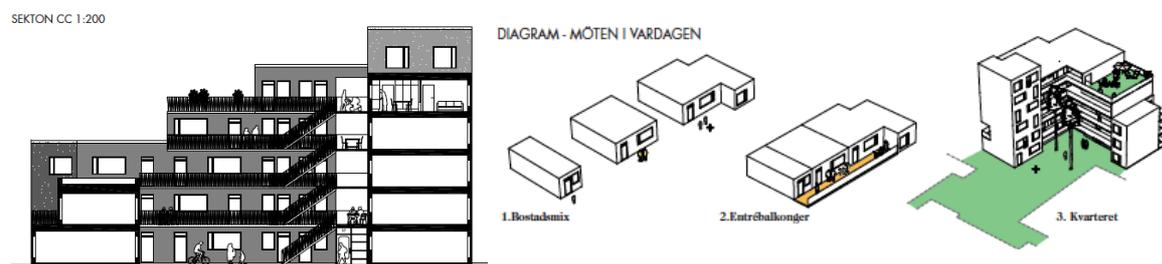


Figure 3-4. Cross section and design principles behind the design proposal. Source: Svanström Fastigheter, Almgren Fastighets AB and Okidoki Arkitekter.



Figure 5. Overview of the winning design proposal. Source: Svanström Fastigheter, Almgren Fastighets AB, and Okidoki Arkitekter. Competition proposal.

The winning proposal consists of tree-houses (later changed to a concrete construction) with plastered veneer in light colors, adapted to the surroundings. The buildings vary in height to create variation and bright courtyards. Here there will be room for small scale cultivation that will contribute to social cohesion, according the design team.

3.2 Case study Stockholm

In 2014 the development administration in Stockholm called for a DD-competition aimed at area efficient apartments with low rent. The overall objective is to achieve *“cheap and area efficient housing that young people can afford to ask for,”* (Competition brief, p. 2). The site for the competition is located in Midsommarkransen, a district in southern Stockholm with access to a metro station built in 1964. The motive for building new housing in the area is described by development administration as: *“By inviting to an open competition the hope is to find new thinking, smart and innovative solutions.”* (Ibid, p. 1)

The competition brief is eight pages long and contain a description of the competition task, the planning conditions, submission demands, judging criteria, and the jury members. There is no closer description of the site or its surroundings in the brief. However, the brief refers to an overreaching analysis of the neighborhood with generally phrased principles as a basis for the planning and design of architecture and city development projects. The most important conditions are described in the brief as followed by the organizer: The dwellings are to be rented and the land is to be leased to the winner. The rent given in the proposal is to be established in a contract with the city. The buildings are to have a ground floor with businesses connected to the street.

Judging criteria and qualification

According to the competition brief, the design proposals are to be judged on a basis of the judging criteria and quality demands. There are four design criteria in the competition brief for judging the proposals. They are presented as:

- Architecture and design.
- Innovation and new thinking for area efficiency.
- Adaptation to given preconditions.
- Average rent in SEK per sq. m/year.

The brief also includes qualification requirements competitors have to fulfill. Design proposals that do not meet the demands will be rejected. The qualification requirements are a combination of regulations in the law about public procurement, references, and the city’s experience with builders. The requirements are as follows:

- Leading officials may not be guilty of economic crimes/tax evasion.
- The builder is to be able to show that the company alone or through a parent company has the financial stability and sustainability to see the project through.
- The builder is to be able to present completed and well executed projects of equal scope to the competition as reference.
- The city’s previous experience with the company can come to affect the judging.

Proposals from competitors that are considered to not fill the qualification demands and the conditions for planning will be discarded. The organizer emphasizes that they have *“free discretionary power”* at the review of the competition proposals. (Ibid, p. 8)

Jury

The Jury in the DD-competition consists of four officials from the Development Administration and the City Planning Office. There are no politicians in the jury. The composition of the jury thus repre-

sents an export model. The members consist exclusively of officials with professional competency in the areas of architecture, planning, and construction.

Design proposals

The DD-competition in Stockholm started 2014-06-18 and ended 2014-09-29 when the design proposals were submitted. The organizer received 15 proposals for new housing, mainly by design teams in Stockholm. Additionally in this competition, the competitors are multidisciplinary design teams including architect firms, constructors, and real estate companies with some few exceptions. The teambuilding in the competition reflect the complex challenge in the brief.

The design proposals in this case have great differences in rent levels. The average rent varies from 1 490 SEK per sq. m/year to 2 550 SEK per sq. m/year. Corresponding rent levels for new constructed housing in 2015 in Stockholm is 1 704 SEK per sq. m/year according to Statistics Sweden (SCB). According to the jury, there are few design teams that have solved the task innovatively and present proposals that can inspire continued development of cheap dwellings, but we are not given any closer information about which examples of innovation the jury has observed in the competition proposals. The winning proposal is, however, accredited with a number of general qualities that makes the jury lift the solution as innovative and exemplary.

Winner: Familjebostäder and Origo Arkitekter

Behind the winning proposal there are two companies in Stockholm: an architect office and a housing company. The design team includes Origo Arkitekter and Familjebostäder, which is a large company owned by the City of Stockholm. It was the shape of the building and the color of facades that caught the jury's attention when judging this proposal in the competition.



Figure 6. Birdseye view of the winning design. Source: Familjebostäder and Origo Arkitekter. Competition proposal.

The design proposal contains 30 apartments with an average rent of 1 659 SEK per sq. m/year. That is three percent lower than the average rent of new housing in Greater Stockholm. The design team is cautious in their description of the proposal. There are no references to the judging criteria “*innovation and new thinking*,” in the text. The essential design idea is communicated preeminently through visual media – drawings, diagrams, and illustrations.

The winning proposal contains one building of three to five floors in a winding shape. Reduction of the buildings height is described as an adaptation to the site and the scale of the surrounding built environment. The hilly ground motivate placement of premises along the street to make room for small scale businesses. The winding S-shape is described as an attractive shape that leads into the greenery of the area. The construction consists of wedge shaped modules placed in a concrete frame. The roof is covered in sedum which will even up the strain on the sewage system during rainfall.

There are two sorts of housings in the building: 9 apartments of 29 sq m with a monthly rent of 4 080 SEK and 21 apartments of 33, 5 sq m with a monthly rent of 4 630 SEK. The dwellings have an open floor plan without room-separating walls to allow for efficient area usage. Alcoves are portioned off with a drape, which is an unusual solution to design problem in homes (see fig 9-10). 18 of 30 apartments have balconies and the apartments on the ground floor have access to patios.

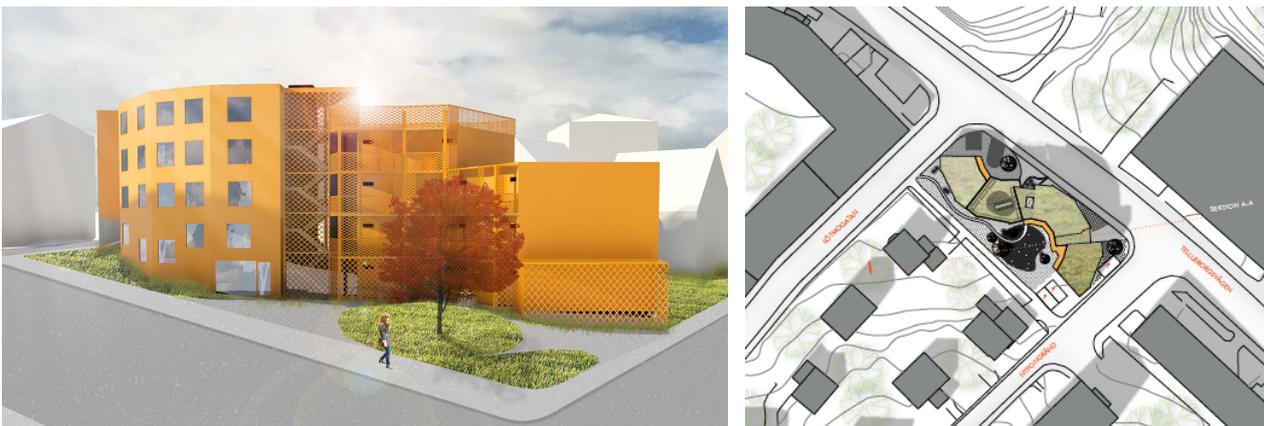


Figure 7-8: Presentation of building and city plan. Source: Familjebostäder and Origo Arkitekter. Competition proposal.

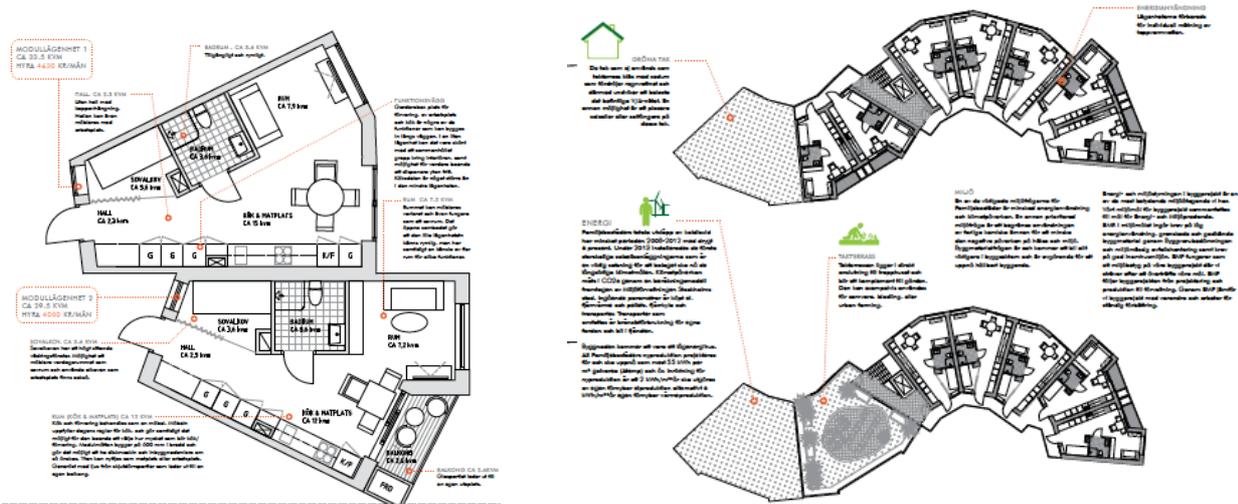


Figure 9-10. Apartments: Source: Familjebostäder and Origo Arkitekter. Competition proposal.

4. Findings and discussion

The findings in the two DD-competitions deals with teambuilding, motives for competing, physical dimensions, architectural values, design qualities, and competitions as tool and professional laboratory for developing innovative solutions.

Structure of design team

The first conclusion is that the design teams in Gothenburg and Stockholm revolve around a core of key people with appropriate competence who have known each other for a long time. Only 4 out of 28 participating teams describe themselves as new constellations. The other 24 design teams are made up of people who have collaborated on earlier assignments as clients, project managers, and consultants. An important factor is also the combination of competence fitting to specific tasks in housing architecture, building construction, and facility management. The composition of multidisciplinary design teams respond to a complex challenge described in the competition briefs: designing and constructing affordable housing with good architecture.

The team building is a self-organized process conducted by the participants in the two DD-competitions. The structure of the teams also reveals a contradictory pattern. On the one hand, there are seemingly well-organized teams of individuals with clear roles. This pattern can be seen in how some teams describe their proposal and by answers in questionnaires. On the other hand, there are temporary constellations coming together only to develop the competition proposal. This type of design team can only be seen in the questionnaire responses from participants and not in the description of their proposals. In both cases, the construction of the design teams appears to be informal organizations. Typically the team building processes are described like this:

I took the initiative for the design team... The company had enough experience to join the design team and was still curious enough to test something new. (Architect)

We chose an architect who we have previously worked with and who we have good experience with. (Developer)

For me it is obvious to both direct, listen, and develop a project together with the best architects. For my part, it is important that they have the same interest... (Developer)

Because the economic requirements were so tough, we had an internal discussion about the possibility/likelihood of achieving a result. For us it meant thinking about a new concept... and bringing together people with knowledge about "cheap" construction. (Developer)

The initiator to form the team often comes from the developer even if some participants reflect examples of driving forces from the architectural firms. For developers, participation in competitions represents uncertain investments for the future. They compete at their own expense. Architects contribute to the funding of the proposal through low compensation. The amount of unpaid architectural work varies in the competition. Continued cooperation after winning is an oral promise based on the partners trust for each other – not a written agreement. This is an informal commitment for continued assignment that is highly credible when the developer and the architectural firm share the development costs and have personal relations. Developers that view the design of the competition proposal as an architectural assignment and pay a consultancy fee as client are less willing to discuss the continuation of the assignment. They do not make the promises. Thus the lack of prize money and economical compensation for delivery of proposals in DD-competitions has a negative impact on the teams working conditions. The involved companies do not take part in design team on equal terms.

Motives for competing

The second conclusion is that there is a variation of motives for participating in the DD-competitions in Gothenburg and Stockholm. The competitions are attractive from several points of view. The physical dimensions play a major role in making the competitions attractive to the market. The organizers' planning is based on having an attractive site to offer companies in the consulting, building, and property sectors. This turned out to be a correct assumption in both competitions. The organizers received all together proposals from 28 competitors. 13 design teams chose to participate in the Gothenburg-competition despite objections from the Swedish Property Federation. They were strongly against the rental demand in the brief. This does not seem to affect the number of participants. Nor did the tough economical condition make competitors withdraw from the competitions although three of them failed to meet rental demands.

There is a series of motives behind the decision to participate in the two DD-competitions in Gothenburg and Stockholm. Taking part in the competitions is motivated by: (a) the possibility of accessing the land; (b) the location of the site; (c) the competition challenge; (d) the desire to try something new; (e) hope for a new assignment; and (f) a will to appear as a responsible player on the local market. This is a general picture of motives. However, there are also differences depending upon the various roles within design teams. Above all, the competitors are motivated by the developer who stresses the need for buildable land and a wish to be established on the housing market in two cities:

We are looking for land for rentals... (to) increase our property portfolio, there is no other possibility of acquiring municipal land. (Developer)

We considered the location to be interesting and that it would be a good experience since we've not previously participated in this sort of competitions. It was a different form and we... had certain expectations on participation. (Developer)

We wanted to win leasehold rights on municipal land to build dwellings on. That is our business concept. To build, own, and, in the long term, administer rented accommodations. (Developer)

The architects in the design teams are more attracted by the challenge in the brief – designing cheaper housing with architecture values and design qualities – than constructors and facility managements. Other motives for their involvement in the competitions are the hope for new assignments, the desire to meet request from clients, and learning outcomes.

I was tempted by the “sociopolitical” nature of the project that combined good architecture with low housing costs. I saw several possibilities in this brief. The challenge was to combine architectonic ambitions with the requirement for low rent. (Architect)

We participated with the hope of designing more housing as we want to increase our presence on this market. And it was an attractive project with good conditions. (Architect)

It was attractive to design and develop highly area efficient residential solutions. A challenge that will remain an important issue in the future. (Architect)

In particular, our client was keen to enter this competition. And we like to do competitions even though we already had an extremely high workload at this time. (Architect)

Physical dimensions

The third conclusion is that the sites perform and operates as attractors for the key actors in the two DD-competitions. The physical dimensions provide appealing preconditions for the design teams in Gothenburg and Stockholm. The sites and their surroundings are regarded as recourses for attracting competitors by the organizers. The built environment is already in place, both as it is and as its inherent possibilities. The physical dimensions have potential values and qualities for the competitors that can be further developed by architectural design. The organizers' understanding of the built environment as attractor corresponds in part with the design teams' motive for participating in the competitions.

The land and site were appealing... land allocation is almost always interesting with an attractive site such as this (competition site) had. (Developer)

I think land allocation competitions are good as they give us smaller companies a chance to display ourselves. Otherwise it is easy that the building commissions only are given to well known companies. (Developer)

We participated partly with the hope of to getting to lead more housing projects; we want to gain a larger foothold on that market. Partially it was an attractive project with good preconditions. (Architect office)

A fun task in an established built environment and where the challenge was to produce area efficient apartments, but also design the houses and rooms in between with as high quality as possible... (Architect office)

All the key actors – organizers, juries, architects, and developers – found the locations of the sites in Gothenburg and Stockholm promising. The juries are pleased with the number of participants and explain this by following arguments in questionnaires: (a) attractive site with favorable location in the city area; (b) challenging competition assignment; (c) freedom in the choice of solution; (d) prospect of attention from organizing bodies. Since only a submitted proposal can become a winner, the competition is marked by expectation and uncertainty, both for organizers, juries, and design teams. Chances for success are almost impossible to calculate in advance. Even if it is possible to estimate the number of competitors, it is impossible to predict the composition of design teams and their specific solutions. There are always several good design solutions to the design problem in the briefs. That is one reason why the competition is marked by a moment of genuine uncertainty and tense expectation about the jury's decision.

Architectural values and design qualities

The fourth conclusion is that juries and design teams connect architecture values and design qualities to proposals in DD-competitions. The design dimensions dominate the production of proposals as well as jury judgments in the jury reports. This applies to both competitions. In addition, the judgments focus on values and qualities as a result of indoors design rather than urban design. The juries steer the evaluation towards housing and rent. For this reason, architectural design of apartments plays a major role in the jury reports. Following statements in the jury reports illustrates this perspective on design dimensions in the competitions:

The judgment had focused on the solutions in the mutual environment which facilitate everyday life for the residents and adds city quality for the neighborhood. Good, well thought out, and area efficient dwellings as well as good overreaching design and design idiom has been highlighted at the judgment. (Jury report, p 5, Gothenburg)

Several of the proposals show apartments with few square meters that are perceived as having good living qualities. Many good floor plans have been presented... Area efficient apartments do not have to sacrifice availability either. (Jury report, p 7, Gothenburg)

The jury has in the judgment emphasized that the competition aims for dwellings that are to serve for a long time and have the ability to attract young people with different life situations. The jury has therefore valued the proposals' housing qualities for instance regarding furnishability, flexibility, spatiality, and daylight. With this starting point the jury can establish that the smallest apartments cannot accommodate the requested living conditions. (Jury report, p 5, Stockholm)

The jury has valued proposals that through innovation and new thinking can inspire continued development and new thinking regarding cheap dwellings... The judging regarding what is a cheap dwelling for young people differ substantially. Good quality of materials as well as design as of floor plans and social aspects can be created without it having to mean the highest rents. Contrary, the proposals that were left in the final evaluation had among the lower rents. The proposals that were left in the final evaluation had contrary to that the lower rents. (Jury report, pp 5-6, Stockholm)

The following architecture values and design qualities from the winning proposals can be found in the jury reports from the two DD-competitions.

Table 1. Architecture values and design qualities in winning proposals according jury members.

Gothenburg competition	Stockholm competition
The winning design proposal has affordable apartments with low rent	The winning design proposal has one of the lowest rents in the competition
Bright apartments through narrow buildings and windows at both sides	Good housing qualities on small spaces
Well-designed apartments with good standard on materials	The triangular, angled apartments have short attractive space for entrances
Area-efficient floor plan with open space between kitchen and living room	Access to balcony as compensation for smaller apartments
Apartments have access to both a balcony and space outside at courtyards	Ground plan has spaces connected to the street contributing for services and city life in the area
Distribution of large and small apartments support social mix in the area	The winding house shape give space and invite the surroundings
Spaces for meetings at entrances and courtyards generates feelings of security	The building and its architectural design expresses a strong identity
Good conditions for development of community through spaces outside for activities	The building refers to the surrounding through its scale, color, and relation to nature
Interesting wooden buildings with facades in bright colors adapted to surroundings	The design proposal is innovative and exemplary as architecture and construction

The table shows architectural values and design qualities in the winning proposals in Gothenburg and Stockholm in the design of apartments and housing areas. That is the case even if the indoor design is in centre of the evaluation. Compared to the *Value handbook*, four different values are highlighted by the juries: (a) exchange values, (b) use values, (c) social values, and (d) cultural values. Affordable apartments, low rent, and area efficiency, good standard and balconies can be seen as both exchange and use values from a tenant perspective. Social values are supported by a mix of large and small apartments, spaces for meeting, and activity in courtyards. Architecture with a strong identity and design adapted to the surroundings are cultural values. There are some comments by juries about the competitions as a

tool for new thinking and innovative solutions. This reflects partly how Swedish Architects promote architectural competitions as a process for creativity, innovation, knowledge, and public attraction etc. However, the jury reports from DD-competitions focus on the design results – not on the competition as production of architectural values and design quality. In Gothenburg, the design proposals were presented to the public through an exhibition. This was also a promise in the brief.

Designing affordable housing

The fifth conclusion is that the DD-competition can be an effective tool for generating proposals with good architectural design and accepted rent. Affordability has been understood and evaluated as costs (rent level) and as outcome of design (area effective and small apartments). The competition in Gothenburg was more effective and had a better outcome than the one in Stockholm. The political initiative in Gothenburg came from the property board. They wanted to challenge the market. The course of the competition was established with politicians and internally with the property department. As 10 design teams were able to deliver proposals with an average maximum rent of 1 400 SEK per sq. m/year, the competition may be seen as a successful tool for housing politics. The demand and following regulation of the initial moving in rent in the land allocation agreement is an administrative innovation. The result is a reduction of rent with 23 % compared to equivalent apartments in greater Gothenburg for new housing. The politicians in the jury are very pleased with the results of the competition according to comments in the questionnaires.

The organizer in Stockholm tries to get affordable housing by attracting design teams into the competition and asking for solutions with cheap apartments, but there is no explicit rent level in the brief that can be used to evaluate the proposals. Thereby it is difficult to determine if the competition was organized as an effective tool to reach the goal of *cheap and area efficient housing for young people*. In 2015, the rent for new constructed rental apartments in Stockholm was 1 704 SEK per sq. m/year. Only 4 of 15 design teams presented proposals with a lower rent level. The lowest rent being 1 490 SEK per sq. m/year can be found in the proposal from Botrygg och Sonark Arkitektkontor. The jury considers the proposal difficult to judge because of lacking information in the presentation. However, the design proposal fulfilled the submission requirements of the competition brief. In this case, affordability is mainly connected to design and not to costs. The winning proposal has an average rent of 1 659 SEK per sq. m/year. That is only three percent lower than the average rent in greater Stockholm. Also in Stockholm, the regulation of the rent level in the land allocation agreement stands out as an innovation. The development administration is negative to this steering of costs because of resistance from developers. Officials prefer to follow the market rather than challenge the building sector. According to the organizer, they will not use this tool for controlling the rent level in the future unless the development administration gets clear demands from politicians (Rönn, 2017). Affordable housing needs political driving forces in this context.

A majority of the 28 design teams report that the two DD-competitions have operated as professional laboratories supporting innovation and new thinking. The rent requirements in the briefs have been perceived both as an *obstacle* and *source of inspiration* in the development of design proposals. The developers are surprisingly positive to DD-competitions even if they do not receive economic compensation for delivering approved proposals. A critical point for implementation is how the organizers treat the partners in winning design teams. The developer is the sole contract partner in the DD-competitions, both in Gothenburg and Stockholm. The organizers do nothing to keep the successful design team intact as a protection for architecture values and design qualities in the winning proposals. In both cases,

the organizers transfer the power and responsibility during the process, from architects in the design teams to developers.

It is very important that the organizer (municipality) supports the architectural solutions in the winning proposal so the competition doesn't turn into a construction project. That is a risk with developer competitions since only the constructors and real estate managers are included in the land allocation agreement. (Architectural firm)

Acknowledgement

Frida Andreasson has checked the language and proofread the paper. Quotations from questionnaires and competition briefs are translated from Swedish.

Bibliography

- Andersson, A., and Lunander, A. (2004). *Metoder vid utvärdering av pris och kvalitet i offentlig upphandling*. Stockholm, Konkurrensverket.
- Anvisningar av mark till bostäder och verksamheter (2016)*. Göteborg: Fastighetskontoret, Göteborgs Stad.
- Blücher, G. (2015). PBL är i ständig förändring, *PLAN*, Nr 1.
- Hansson, M. (1988). *Förenklat byggande inom kv Sjövik, Norra Gullviksborg i Malmö, utvärdering 11*. Malmö, Fastighetskontoret.
- Guilherme, P.M.H.S. (2014). Competitions serve a larger purpose in architectural knowledge. *Lusofona Journal of Architecture and Education*, oct. 2014.
- Fisher, P., & Robson, S. (2007). The disposal of public sector sites by “development competition”, *Property Management*, No 4.
- Forlati, S., Isopp, A., and Piber, A. (Eds), (2012). *Wonderland Manual for Emerging Architects*. Vienna, New York, Springer.
- Inbjudan med tävlingsprogram (Competition brief)*, (2014). Markanvisningstävling för billiga och yteffektiva bostäder för unga i Midsommarkransen. Exploateringskontoret, Stockholms stad.
- Juryutlåtande, (Jury report)*, (2014). Markanvisningstävling för billiga och yteffektiva bostäder för unga i Midsommarkransen. Exploateringskontoret, Stockholms stad.
- Kreiner, K. (2016). The Inaccessibility of Building Accessibility: Given Visual and Material Form to Innovation in Andersson, Bloxham Zettersten & Rönn (Eds) *Architectural Competitions as Institution and Process*. Scandinavien Book, Royal Institute of Technology and Kulturlandskapet.
- Lahdenperä, P. (2008). Synchronizing urban and building design: Experiences from competitive planning in partnership. Paper presented at: *The CIB W55/65 Transformation through Construction Conference*, 15-17 November 2008, Dubai.
- Lahdenperä, P. (2009). Conceptualizing a two-stage target-cost arrangement for competitive cooperation, *Construction Management and Economics*, No 13.
- Liske, H. (2008). *Der “Bausträgerwettbewerb“ als Instrument des geförderten sozialen Wohnbaus in Wien – verfahrenstechnische und inhaltliche Evaluierung*. Wien, Magistrat der Stadt Wien.
- Markpolitik och kommunala markpriser*. (2005). Karlskrona, Boverket
- Mark, bostadsbyggande och konkurrens. En granskning av den kommunala markanvisningsprocessen*. (2012). Stockholm, Statskontoret. Rapport 2012:25.
- Markanvisningspolicy, (Developer policy)(2015)*. Stockholm, Stockholm Stad.
- Markanvisningspolicy – anvisning och regler (Developer policy – instructions and rules)*, 2018. Göteborgs stad.
- Morgan, F. J. (2010). *Residential property developers in urban agent-based models: Competition, behaviour and the resulting spatial landscape*. Auckland: University of Auckland.
- Nyström, J., och Tonell, L. (2012). *Planeringens grunder*. Lund, Studentlitteratur
- Persson, E. (2013). *En studie av förekomst och innehåll i markanvisningspolicyer*. Stockholm, Institution Fastigheter och byggande, KTH.
- Renier, B., Volker, L., and Wamelink, H. (2009). On going Innovation by Architectural Firms. Paper presented at Conference: *International Conference on Global Innovation in Construction - GICC 2009* International Conference on Global Innovation in Construction - GICC 2009
- Robinson, M., Scobie, G. M., and Hallinan, B. (2006). *Affordability of housing: Concepts, Measurement and Evidens*. Wellington, New Zealand Treasury.
- Rönn, M. (2012). *Prekvalificering – arkitekttävling vs markanvisningstävling*. Stockholm, TRITA-ARK-Forskningspublikationer 2012:3.
- Rönn, M. (2014). *Restricted developer competitions - three cases in Sweden*, Forskningspublikationer 2014:1, KTH.
- Rönn, M. (2014). Choosing architects for competitions - Reviewers experiences from the selection of design teams in Swe-

den. *FORMakademisk, No 1.*

Rönn, M. (2016). *Markanvisningstävling i Göteborg: En pilotstudie om gestaltning, byggande och boendekostnader*. Stockholm. KTH, TRITA-ARK-Forskningspublikationer 2016:1.

Rönn, M. (2017). *Markanvisningstävling i Stockholm - En fallstudie om innovation i arkitektur och bostadsbyggande*. Stockholm, KTH, TRITA-ARK-Forskningspublikationer 2017:2.

Rönn, M. (2019). Design Developer Competition in Stockholm: A case study on innovation, architecture, and affordable housing. *ENQ. The ARCC Journal for Architectural Research, No 1.*

Stenberg, A-C. (2006). *The Social Construction of Green Building*. Gothenburg, Chalmers University of Technology.

The value handbook. Getting the most from your buildings and spaces, (2006). London, CABE.

Tävlingsprogram, (Competition brief) (2013). Göteborg, Fastighetsnämnden, Göteborgs Stad

Östman, L. (2014). An explorative study on municipal developer competitions in Helsinki. *FORMakademisk, No 1.*

Webpages

Information in Gothenburg on the developer competition 2016-06-15

<http://goteborg.se/wps/portal/invanare/bygga-o-bo/kommunens-planarbete/plan--och-byggprojekt/!ut/p/z1/hYtNDoIwEIXP4gmmRKK4xAUoGKCRKHRj>

Information in Stockholm o the developer competition 2017-10-25:

<http://www.stockholm.se/-/Sok/?q=Markanvisningst%c3%a4vling,+midsommarkransen&uaid=3ED0CB02485891E0B12B9A3FA3505032:3137322E32332E3232382E313433:5248132893308904997>

Rent level in greater Gothenburg 2014 and Stockholm 2015, at SCB 2017-03-06:

http://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START_BO_BO0404_BO0404A/HyresrattBygghLgh/?rxid=a6ced5c4-ce5c-40d7-b4ae-681c9899e183

Information about competition on the homepage of Swedish Architects 2017-10-25:

<https://www.arkitekt.se/wp-content/uploads/2014/06/tavlingsbroschyr2008webb.pdf>

Notes

¹ See: <http://www.designcouncil.org.uk/about-us>

² See <http://webarchive.nationalarchives.gov.uk/20110118095850/http://www.cabe.org.uk/about-cabe>

³ See: Tävlingar (Competitions), homepage, Architects Sweden, accessed 2016-12-06:

<https://www.arkitekt.se/bransch/tavlingar/>

⁴ See: Boverket, 2005; Stenberg, 2006; Fisher & Robson, 2007; Lahdenperö, 2009; Morgan, 2010; Statskontoret, 2012.