

# *The Lindholmen Case:*

## *Residential Architecture and Compensation in Areas of National Heritage Interest*

**Magnus Rönn, Associate Professor**

Kulturlandskapet,  
affiliated to Architecture and Civil Engineering,  
Chalmers University of Technology

### **Abstract**

The case study is a combined architecture and planning project in Gothenburg. The project started with a design developer competition for new housing. The winning design was transformed into a planning project. The town planning office's assignment was to implement the proposal in a detailed development in an area with cultural values, protected in the law and through the county administrative board and the city's conservation program, which is a local guideline for planning in Gothenburg decided by the politicians.

The architecture and planning project deals with the need for housing, strong exploitation interests, and how planning processes handle cultural values and architectural qualities of both local and national import. Some of the adjustments in the winning design, as well as regulations in the detailed development plan, can in this case be understood as compensation.

### Objective, Research Questions, and Methods

The objective is to understand how architecture, cultural values, and compensation are expressed in an architecture and planning project. The case has been selected because of the different demands connected to the site. The research question centres around three themes: 1) the design developer competition, 2) compensation as actions and adjustments of the detailed development plan, and 3) cultural values and architectural qualities identified in the consultant investigations and how they are implemented. The methods are archive studies, close reading of key documents, and site visits. The case has also been discussed at seminars.

### Result

The result is presented as seven conclusions that discuss how the task in the competition program is described in relation to conditions at the site, jury judgments, citizen participation, statements from authorities that review the detailed development plan, compensation as hidden actions, and specific regulations. A selection of identified values and qualities in the consultant investigation were transferred into the detailed development plan.

### **Key words:**

Design, compensation, heritage values, qualities, detailed plan, planning process.

## INTRODUCTION

### Background and Purpose

This case study is part of an R&D-project that is implemented through support from the Swedish National Heritage Board's R&D grant. The overarching purpose is to understand how architecture, cultural value, and compensation are expressed in a combined architecture and planning project. The site for the renewal is Lindholmen, a district of Gothenburg that is an area of national heritage interest. The architecture and planning project starts with a competition that aims for new student accommodations. Through the competition, the organiser wants to find both general residential solutions and a specific proposal that fits on the assigned plot in Lindholmen. The planning project is an assignment from the politicians to the City Planning Office, TPO, to develop a detailed development plan for the winning competition proposal. It is now that the citizens in the district get to view the competition proposal and can submit opinions on the detailed development plan and its architecture project.

A reason for the choice of case studies is that architecture and planning projects contain an educational intersection between interests that are represented by public authorities, municipal administrations, and citizens. An additional reason for the choice of case is that Lindholmen is a cultural environment with an interesting history. The district is designated as an area of national heritage interest. Lindholmen is also part of the city's program for the preservation of cultural historically valuable built environments. The preservation program has been accepted by the Municipal Council and is to be a guideline for the physical planning of the city. According to the preservation program in Gothenburg, Lindholmen is a residential district from 1850 onwards to 1900 in connection to the shipyard of Lindholmen on Hisingen in Gothenburg. A considerable proportion of the dwellings were built by shipyard workers as self-build. Through 1900-1940, dwellings were added in the form of landshövdingehus, a type of built environment typical of Gothenburg that has a ground floor of brick and additional floors of wood. From the 1940s onward, the population decreased and several dwelling houses were demolished. The shipyard was gradually dismantled. The last boat was built in 1974. Simultaneously with the shutdown of the shipyard, the built environment was beginning to be reevaluated; the dwellings were restored and stripped plots were gradually completed with new built environments. A resourceful opinion against the demolition fury in Gothenburg that fought for the preservation of the built environment had grown. So concise background of the case study.

### Outline

The article is in four parts. The first part describes rules, key concepts, purpose, research questions, and methods. The second part presents the Lindholmen competition from the program to the jury's choice of winner. The third part brings up the planning and design of the detailed development plan of the area with focus on cultural environment and how hidden compensation thinking becomes visible through the planning process. The fourth and final part contains, presents, and discusses the conclusions of the case study.

### Areas of National Heritage Interest

Municipalities are to show consideration for areas of national heritage interest when planning and designing detailed development plans. It is a national demand which is to be found in both the Swedish Environmental Code, EC, and in the Planning and Building Act, PBA. According to EC, chapter 3§ 6, cultural values are to be defended in the planning. From the regulation, the following is ap-

parent: areas and physical environments “*that have meaning from a public stand point because of their nature values or cultural values or with consideration to outdoor life are to as far as possible be protected against measures that can considerably damage the nature or cultural environment.*”

The National Heritage Board, NHB, (Riksantikvarieämbetet) and the County Administrative Board, CAB, (Länsstyrelsen) are two state agencies in Sweden that to a varying degree influence how cultural values are taken care of in the planning. The National Heritage Board has the task to produce national heritage interest descriptions for the national cultural environment care (NBH, 2014). The descriptions contain a motivation for appointed national interest and a short account of how cultural values are expressed in the area. As national heritage interest in Gothenburg appear ancient monuments, built environments with cultural historical values, and districts with particular qualities of architecture and city planning. The County Administrative Board is a regional agency that is to protect and coordinate the state’s interests in the planning. The administrators of the CAB review detailed development plans and judge their consequences for the national interest (PBA, ch. 3, §10). In the cases where a proposal is not revised after critique from an administration, the CAB can annul the detailed development plan at risk of considerable damage to national heritage interests. Effects on cultural environments are in this case tried with consideration to planned exploitation of the land, identified cultural values in the plan descriptions and foundations, illustrations of the planned built environment, and revised plan regulations. The judgements are partly made by the eye.

### **Cultural Environment and Cultural Value**

Cultural environment and cultural value are two ambiguous concepts with a wide interpretation frame that reoccur in detailed development plans. In the report, *Platform Cultural Historical Evaluation and Selection*, from 2015, the National Heritage Board defines *cultural environment* as all environments affected by humans (NHB, 2015 p. 13). It can be a single building, a complex or a remnant, and can include districts, a large part of a landscape or a whole region. The National Heritage Board describes *cultural values* as a collective designation for values that can be attributed to environments with a basis in cultural historical, social or aesthetic aspects (ibid, p. 13). In the 2018 building regulations of the Swedish National Board of Housing, Planning and Building, NBHPB, (Boverket) cultural values include expressions such as technical, historical, cultural historical, environmental, artistic, and architectural values. This overarching view of the concept of value coincides with the national goal for good built environments in Sweden (NBHPB, 2014). The architectural policy of Gothenburg, APG, from 2018 has as a goal that “*aesthetic, artistic, and cultural historical values are to be preserved and developed,*” (APG, p. 2).

Randall Manson (2002) notes that cultural values in an international context often refer to visible qualities and attributes of things. The material cultural heritage is at the centre of the evaluation. According to *The Value Handbook* (2006) by CABE, Commission for Architecture and the Built Environment, cultural values in architecture tell us who we are both in a historical and in a contemporary context. The heritage provides identity to our time and place in history. Cultural value in built environments connects us to past and future generations, contributes to our sense of national identity, and represents human achievement.

Cultural environment and cultural value are examples of concepts that are clarified through use. To be able to give guidance in planning and design of detailed development plans, the cultural environment has to be presented and its values be made visible. The consequences of the exploitation need

to be analysed with a starting point in the identified cultural values of the location and the architectural qualities of the area. The specific context is deciding for how the concepts are interpreted, defined, understood, and used in detailed development plans. It is a reason why consultants are hired to produce planning foundations when areas of national heritage interest are exploited. The degree of impact on the cultural environments needs to be visualised in images to become clear. The consultant investigations are an example of a local counselling in detailed development plan missions that in text, photographs, and illustrations present cultural values and architectural qualities.

### **Compensation**

The underlying principle for compensation is that the builder is to recompense damage to valuable nature and cultural environments that occur when the land is exploited (Persson 2011). In the literature, compensation is described in several ways. It can be a tool that has support in the law, a method in the planning of the municipalities' that aims to balance interests, or concrete measures in planning and building projects (Grahm Danielson et al, 2015 and 2017). *Ecological compensation* dominates the R&D-ventures in the Swedish Government Official Report, SGOR 2017:24.

The knowledge development in the area appears as very singular within agencies, the academy, and industry. For example, the Environmental Protection Agency, EPA (Naturvårdsverket) promotes the reports on compensation on their website. Furthermore, EPA has produced a handbook, published in 2016, on the use of ecological compensation as an answer to exploitation that risks harm to valuable nature environments. *Cultural environment compensation* has not been granted equivalent support from the NHB and the NBHBP. Within the national cultural environment care, the term compensation arouses discomfort and suspicion (Grahm Danielson et al, 2015 and 2017). However, there is a local practise where compensation thinking is viewed as a way to solve problems. Compensatory measures and functions are used to remove obstacles against exploitations in the planning process. In this perspective, compensation focuses of tangible cultural values connected to transformation.

To be able to judge if a detailed development plan contains cultural environment compensation, a starting point is required. The legalisation gives no clear guidelines. There is a sliding scale that goes from consideration and adaptation to recompense for damage and protection of values. A way to approach compensation thinking and its expressions is, therefore, to turn to practice and examine how key players form an opinion about detailed development plans. Four base conditions must in this view be fulfilled for the detailed development plans to be considered as containing expressions of cultural environment compensation. There has to be (a) a plan mission that (b) contains an exploitation that (c) has or risks to have a negative impact on the cultural values of the plan area, which (d) leads to revisions of detailed development plan proposals and plan regulations or to a changed design of the planned built environment. Planning processes that meet these base conditions contain compensatory measures and functions. Context and intention are explanatory factors. There has to exist a desire to minimise damage, recreate values, and assure qualities. The definition is not about determining what is "right/wrong" parlance or what is "good/bad" compensation, but the aim with the definition is to understand how compensation thinking appears in the planning processes.

### **Municipal Regulatory Documents**

There are two municipal regulatory documents in Gothenburg that are of import for the compensation thinking in detailed development plans. The first document is the policy of 2009 that is called

*Compensatory measures for nature and recreation.* That it is to be used in planning processes is a result of political decisions. Compensatory measures in the policy are “*measures that are taken in connection to exploitation to compensate (replace) a lost value or function,*” (Gothenburg City 2008, p. 9). The aim is to assure that the citizens have access to valuable nature and recreation areas in the future at the same time as the city grows. Compensation measures are, in this municipal perspective, voluntary agreements that are assured in contracts with the developer.

The second regulatory document that pertains to compensation is the 2009 *Comprehensive Plan for Gothenburg*, which was accepted by the Municipal Council. The comprehensive plan, CP, consists of three parts. Part 1 presents starting points for planning and strategies. Nature and cultural environments are a strategic area for the city where compensation is to be applied. “*Removed nature, cultural, and recreational values are compensated,*” (CP, part 1, p. 96). An active approach to compensation, protection, and preservation of cultural values is lifted as urgent. “*Apply actively use-regulations, protection-regulations, demolition prohibition, and compensatory measures for cultural historically valuable built environments in the formulation of in depth advancements of the comprehensive plan and detailed development plan,*” (CP, part 1, p. 97). The continued work should aim to “*develop and use methods of compensation measures for nature, culture, and recreation values in the planning,*” (CP, part 1, p. 96). The comprehensive plan for Gothenburg is hence a document in support of compensation in the planning and development of detailed development plans in cultural environment areas.

### **Aim and Research Questions**

It is a combined architecture and planning project that is examined in the article. The aim is to understand the connection between architecture, cultural value, and compensation in the planning and designing of a detailed development plan. The empirical basis consists of competition documents, proposals for detailed development plans and remarks. The following three themes should be analysed in the architecture and planning project:

- **The Competition:** how is the aim of architecture and city building shown in the competition program? To what degree has favoured proposals been adapted to the location? What sort of values and qualities is it that the jury sees in the winner?
- **Compensatory Measures and Functions:** how does the compensation thinking in the planning and designing of detailed development plans appear? What type of compensatory measures and functions exists in the planning?
- **Cultural Values, and Architectural Qualities:** what cultural values and architectural qualities do the hired consultant view as important for the detailed development plan? To what degree are the identified cultural values and qualities translated into plan regulations and design principles?

### **Selection and Method**

This examination is a case study. The basis for the choice of case is that Lindholmen is a national interest. The case study is part of an R&D-project that examines detailed development plans in areas of national heritage interest. An additional reason for the choice is that the planning to an increasing degree is aimed at completion, renewal, and densification (Nyström and Torell, 2012). It means that explanation interest has to be weighed against demands for adaptation to surrounding built environment and the preservation of cultural values. From this point of view, the architecture and plan-

ning project in Lindholmen appears as a case with considerable immediacy for contemporary planning.

The case study method is suitable to examine complex contexts (Schön, 1983; Johansson, 2007). Another benefit with the method is its closeness to practice. The competency in architecture and city building appears as a useful résumé of cases for practicing architects—examples of solutions that after processing can be reused in new assignments. Information about the case has been gathered, compiled, and analysed through the following methods:

- **Archive Studies:** to gain access to the key-documents, the competition organiser, the City Planning Office, and the Property Management Department were contacted. The competition organiser contributed with the competition program, the competition proposals, the jury statements, and the judging material. The archive of the City Planning Office was studied on site. Here was archived application for the detailed development plan, the plan mission, the consultant investigation, the proposals for detailed development plans, the review statements, the appeals, and the decisions. The Property Management Department sent the completing agreement that pertains the realisation of the winning competition proposal.
- **Close-Reading:** Key documents have been analysed through close-reading (Brummet, 2010). Words and sentences that describe the participants' attitude to cultural values have been reviewed in detail and compiled into meaningful patterns.
- **Site Visits:** the existing buildings of the site have been studied. The site visits make visible both to what degree the dwellings have been adapted to the surroundings, the detailed development plan's effect on the cultural values, and architectural values in the area. The site visits also reveal to what degree compensatory measures and functions have been carried through and their effects on the environment.

## THE COMPETITION

### The Competition Program

The 11th March 2011, SGS Studentbostäder announces a competition on student housing. The program was called *Student accommodations of the future*. The competition is arranged in collaboration with Studentbostadsföretagen, the Student Housing Association of Sweden, which is a branch organisation for companies that own and administer student accommodations. The developer is SGS Studentbostäder. It is a company that has the task to provide students in higher education in the Gothenburg area with “*as good dwellings as possible to as low a cost as is possible*,” (Student accommodations of the future, p. 3). SGS Studentbostäder intends to implement the winning proposal in the district of Lindholmen. The competition plot is owned by Älvstranden AB, which is a municipal company.

The competition is organised as an open Design Developer Competition. In Sweden, the competition form grew forth at the side of the classic architecture competition during the deregulation of the 1980s and reflects a power-shift in the consultant and building sector. It is the building company of the design team that is the contractor in negotiations with the municipality about the execution of the winning proposal. The architects of Sweden do not have any control over this form of comple-

tion. The conditions of the participating design teams are regulated in the competition program. Design Developer Competitions lack national competition rules. Typical for the competition is that the proposals are produced by design teams that have representatives of architect offices, building companies, and property managers.

According to the competition program, SGS Studentbostäder will present the competition proposals at a conference in Gothenburg during the autumn of 2011. The conference has the student accommodations of the future as the theme. There are obviously great expectations tied to the competition. SGS Studentbostäder wants to develop new student accommodations with the plot in Lindholmen as a starting point. In the competition program, the task is described as follows:

- to design the Student accommodations of the future that are area efficient and cost effective and at the forefront when it comes to the environment, energy, and IT-technique.
- to at the plot propose and build student accommodations.
- to find a general concept that can be adapted to several plots of varying conditions and exploitation level in Gothenburg as well as in the whole of Sweden.

It is a contradiction in the description of the task in the program. The organiser asks for proposals that are both adapted to the plot in Lindholmen and that can be built in other locations in Sweden. There are two special circumstances that affect the competition task. Firstly, the surroundings in Lindholmen consist of a built environment that is an area of national heritage interest. The area is also part of the city's program for the preservation of cultural historically valuable built environments, which compared to the national heritage description, gives a much better view of the values of Lindholmen and architectural qualities. Secondly, the plot offers unique opportunities for scenic views. The plot has three plateaus with a height difference of 6 metres. The design team has to take the terrain into consideration in their development of competition proposals that are to fit at the location. According to the program it should be possible to build dwellings of at least four floors on the plot, possibly with a furnished attic.

The competition program is a document of 10 pages with 7 appendices. All documents are in Swedish. Here there are a summarisation of the background to the competition, information about the plot, procurement rules, judgement foundations, names of the commissioners of the jury and judgement group, time-plan, and presentation demands. It is information that is usually part of competition programs.

The appendices consist of the following documents: a description of example rooms and technical functions, presentation of plan conditions and cultural history, extracts from the investigation into a new residential neighbourhood on the plot with architectural references, maps, geotechnical evaluation as well as a tender form with administrative stipulations. According to the competition program, the winning proposal should be executed as a turn-key contract, a procurement form where the builder is responsible both for the projecting and the execution.

In the competition program, the short national heritage description is quoted in full. However, there are no references to the city's preservation program. The motive for appointing Lindholmen as an area of national heritage interest is that the neighbourhood displays the living conditions of the workers. The dwellings began to be built in connection to the shipyard of Lindholmen during the later part of the 19th century. According to the national heritage description, the area is a combination of self-build in the tradition of the fishing camps of Bohuslän, and systematic construction of city character. Expression of the national heritage is described as follows:

*The dry-dock towards the river—constructed in 1875, later expanded—and other remnants of the shipyard environment. The built environment of Slottsberget which shows how the migrated yard workers brought with them the building traditions of the coastal communities of Bohuslän to their assigned residential district, but also more plan oriented on the somewhat even top of the mountain. The lower inland-plateau with larger, oblong blocks and a strict line-system of detached wooden houses of 2-3 floors in different varieties (1885-90,) mixed in with landshövdingshus (1900-20). The plan pattern and the character of the built environment, the porch-like vestibules towards the yard and fence enclosed plantations towards the street. “Aftonstjärnan” (The Evening Star), the worker's own People's House from 1902. (National interests for the cultural environment-Västra Götaland County, p. 17)*

### Price Sum and Submission Requirements

The price sum of the competition is 350 000 SEK which are to be divided between the three best proposals. The winner gets 200 000 SEK as remuneration. The other two premiered proposals get to share 150 000 SEK. There is no requirement that the competition proposals be presented anonymously to the jury. Otherwise, the submission requirements are typical of competitions. The participating design teams should present their competition proposals in four posters together with a description of the dwellings. The presentation should include:

- layout in scale 1:400
- facing, sections, and apartment plans in scale 1:100
- furnished apartment in scale 1:50
- perspectives, at least one exterior perspective and one interior perspective
- area presentation, total living area and building area
- technical and economical accounting

The design teams get three months in which to produce the competition proposals. The competition is announced on the 11th of March 2011 and the proposals are to be delivered to the organiser by the 9th of June 2011. There are no specific requests for the competency of the participants of the competition other than the administrative regulations that concern bids in the building sector. According to these regulations, the bid has to contain at least two references of similar character, size, and complexity.

### Judging Model

It is a mathematical judging model with scoring criteria that the organiser puts as the foundation for the ranking of competition proposals. According to the program, the competition proposals shall be judged with a starting point in the following six scored judging criteria:

- **Architectural and Technical Design;** configuration and design of houses. Construction, framework, tier of logs, and exterior material choices (15 points).



- **Function;** the furnishability of the apartments and use, communal spaces, and material choices for apartments (15 points).
- **Energy and Environmental Aspects;** the project shall meet directives for “Environment classified building in Gothenburg” and the National Board of Housing, Building and Planning’s environment class “Silver” (10 points).
- **IT Technical Future Design;** (5 points)
- **General;** the project should be designed as a flexible concept which in its essential parts can be used on several different plots (5 points).
- **Production Cost;** the project is to be designed so that the apartments appear as “affordable” to students. The production cost should not exceed sums: 450 000 SEK for a single with kitchen/kitchenette, 620 000 SEK for two rooms and kitchen/kitchenette, and 750 000 SEK for three room and kitchen (20 points).

The judging model reflects a strong faith in judging where measurability is at the centre of the quality assessment (Svensson, 2009; Andersson and Rönn, 2012). The winner will be the proposal that at the counting gets the highest score. The judging criteria are, however, ambiguous and have an open quality. Good judgment is a deciding competency when ranking the proposals. According to the program, criteria 1-5 are to be equivalent of 50% of the total points at the evaluation. Criteria six is equal to the remaining 50% of the score. The economic aspect can therefore be assumed to have a considerable impact on the ranking of the proposals. Reasonable rents (20 points) appear here as a prioritised goal for the organiser, completed with architectural qualities and technical design (15 points), function (15 points), as well as energy and environmental aspects (10 points).

### Competition Proposals and Judging

The competition proposals are reviewed by three instances; a jury, a judging group, and an expert group of three people. There are eight people in the jury: four politicians from the Building Committee and the Property Management Committee, two leading executives from the City of Gothenburg, a representative of the students and the CEO of SGS Studentbostäder. The jury’s task is to choose winners. The composition of commissioners shows that the competition is anchored with prominent politicians and officials.

The judgement group consists of 12 people and a co-opted member. Their role in the competition is to evaluate the proposals and present a preliminary order for the jury. In the group there are five executives from SGS Studentbostäder, their student representatives, an official from the Urban Planning Department, a representative for the property owner, and an extern architect. The co-opted member represents the student housing companies. For the expert examination of competition proposals, two external architects in cooperation with the builder’s property manager are responsible.

The competition results in eight approved proposals for new dwelling.<sup>1</sup> The judging group uses three meetings to rank the candidates. Three proposals are rewarded in accordance with the competition program. One project is selected as the winner and two solutions to the competition task are placed

in a shared second place. The jury follows the recommendation of the judging group (Report from judging work, 2011). The judging group states that the location, topography, and national interest of the plot create unique conditions for the competition. It is only one project that takes the cultural values of Lindholmen into consideration. The competition proposal from Lindbäcks Bygg and White Arkitekter therefore stand out as a clear winner. Their solutions to the tasks appear as possible to build on the assigned plot. In shared second place proposals that meet the request for general solutions are placed. At the same time, the judging group notes that these proposals fall short in adaptation to the location. The motivation for awarding Lindbäcks Bygg and White Arkitekter the first prize in the competition sounds as follows:

*An interesting, independent, and versatile proposal that well utilises the conditions of the plot. The building volumes have a touch of the existing older built environment in a modern interpretation. The special facade towards the river, through its broken down and varied expression, is appealing and can become an asset for the area. The apartments are well solved; from the smallest to the largest and the proposed collective spaces in viewing locations all have the makings to become a unique asset for the citizens. The proposal has a strong concept and can surely be re-worked in size and details in the coming detailed plan work without losing its originality. The proposal also shows the absolute best economic viability.* (Report from judging work, 2011, p. 5)

In the report from the judging work, it is noted that the student accommodation of the future, which was the focus of the competition, was not given a clear answer in the submitted proposals. There was not any clear goal in the competition program either, but the organiser left it up to the design teams to interpret the theme of the competition. The organiser's challenge in the competition program is mainly about the student accommodations being area efficient and cost effective with technology at the forefront. To this challenge, the design teams answer that the building should be based on modules.

In the competition program, the organiser asks both for general solutions to the competition task and proposals that fit the assigned plot. It is a built-in contradiction in the competition that becomes clear when the competition proposals are judged. According to the judging group, the national interest description does not contain any clear guidelines for the design. The general design principle that is formulated during the judging work is that the student accommodations at the plot should be designed as an independent form without dominating the surroundings. The independent form should be reflected in the buildings' volumes, facade design, material choices, and arrangement of the plot. According to the report from the judging work, the winning proposal fulfils these general principles as a foundation for the dwellings and architecture at the plot.

The proposal from Lindbäcks Bygg and White contains 176 apartments in three buildings with a central corridor. The height of the houses varies from three to five floors and follows the terrain. The construction has a wooden frame with prefabricated modules. The facing material is sheet metal which the judging group regard as less suitable, but easy to change at a later stage. The layout of the apartments is regarded as having good furnishability. The buildings are narrower towards the gables. Here there are common rooms with views, greenery, and lighting, which are appreciated. The judging group summarises the proposal as interesting, independent, and versatile. The conditions of the plot have been used and the architecture is described in the statement as a modern interpretation of the location. The design has features of the older building in Lindholmen.



Figure 1. Winning design. Bird perspective. Illustration: Lindbäck's bygg AB and White Arkitekter, 2013.



Figure 2. Winning design implemented as built environment in Lindholmen. Photo: Magnus Rönn, 2019.

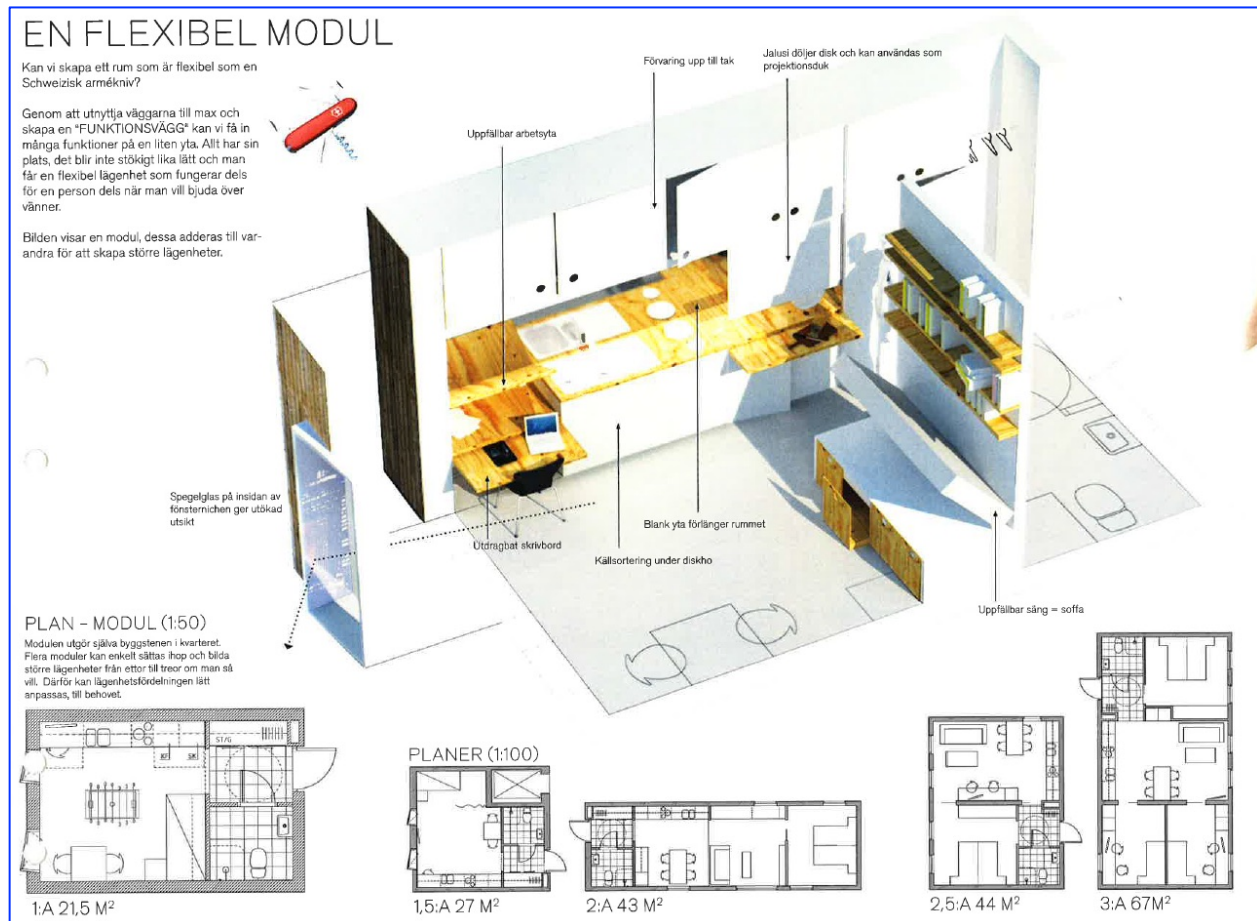


Figure 3. Winning design. Apartments for students (below) and module as the basic principle for design and construction (above). Illustration: Lindbäck's bygg AB and White arkitekter 2013.



Figure 4. Winning design. Cross section showing the "hubs" on top of the building. Illustration: Lindbäck's bygg AB and White arkitekter 2013.



Figure 5, 6, 7 and 8. The winning design in its context. Photo: Magnus Rönn, no 4 and 5. On the right, two photos showing traditional buildings. Source: Melica and Detailed Developer plan, Gothenburg City 2014.

## THE DETAILED DEVELOPMENT PLAN

### Cultural Environment Investigation

Parallely with the competition, Älvstrandens Utveckling AB applies for a plan change of the land for new student accommodations in Lindholmen (Plan request 2011-07-01). The aim is to make the location available for the winning competition proposal. The town planning office, PPO, is positive to the application and starts to investigate the conditions for a detailed development plan. Melica gets the assignment to examine the cultural environment. It is a consultant company with expert competency in the field. The investigation is presented as a cultural environment and cityscape analysis (Melica, 2012). The method that is used to describe cultural values and architectural qualities in Lindholmen are eight illustrated walks. The first two walks in the district follow the river shore and take note of view points, sightlines, spaces, walkways, the character of the built environment, and overall impression. The third walk goes from the ferry quay towards the district centre. On the way, renewed and reused industrial buildings from the shipyard era were passed. After that, a walk that goes from the plot to the neighbourhood bus stop follows. The fifth walk arrives at the plot by Sannegårdshamnen and Slottsberget. The path goes past the dry dock that was blown out of the rock and which after the shutdown of the yard was transformed into a marina. The sixth walk reaches the plot by Förmansgatan, which has dwellings from the 1880s. The dwellings were built by shipyard workers as self-build. The buildings were renovated during the 1990s. The seventh walk arrives at the plot by Verkmästaregatan. This walk passes dwellings with farm buildings, half-private room formations, and enclosed patios. The last walk follows Lindholmsvägen, which has a small-scale, and variation-rich built environment in wood with spaces, planks, outhouses, and greenery. The walks in the district are summarised in eight points that the consultant view as critical aspects of the cultural environment from a preservation point of view:

- visual guidelines
- intersections and orientation points by the plot
- the area of industrial memories, its spread and boundaries
- the spaces in the district
- the overall effect of the built environment
- streets and suburb character
- small-scale in the local environment
- view points in the district

The culture and cityscape analysis contains two appendices. The first appendix presents examples of architectural details in the built environment: plastered base floors, window scopes, wooden panels, designed corners, material effects, and artisanal executions. The second appendix brings up “other remnants” from the shipyard eras that are part of the national interest description: reused industrial buildings and slipways on which the boats were built. The consultant points out that the slipways are still visible and provide a compartment forming effect in the area.

### The Plan Proposal with Design Regulations

In 2013, PTO presents their proposed detailed development plan for consultation. According to the detailed development plan, SGS Bostäder may build 175 apartments in dwelling houses of 4-5 floors on the plot. Commerce is allowed on the ground floor. In the proposal, it is included that a park,

which has contact with the dry dock in the area by a stairway that runs down to the marina, is to be built in connection to the dwellings. The dry dock is included in the national interest description and the stairway is to be renovated (Detailed development plan 2013-10-01). TPO declares that the winning proposal is to be adapted to the national interest, which in hindsight has been clarified in a culture and cityscape analysis (Melica, 2012). TPO puts demands on the architecture of the dwellings in the detailed development plan and lifts in texts and images into the detailed development plan from consultant investigation. The reason is that the built environment needs to be adapted to the national interest. The winning proposal is therefore to be further developed with consideration to the five following design regulations:

- The location in the city
- The small-town character of Lindholmen
- The street and the block structure of the area
- The terrain adaptation of the built environment
- A high degree of detail and richness of expression

For each design regulation, there is an explanatory description in the detailed development plan that draws support from the cultural environment and cityscape analysis of the consultants. The design regulations are followed up with plan regulations that regulate the placement of the buildings, their width, scale, roof, facing, and colour. According to TPO, the design principles shall support the experience of Lindholmen as a historical environment. The new apartments add social values to the area. The demands on the architecture of the dwellings make it so that TPO does not see any risk of considerable damage to the area of national heritage interest. The detailed development plan does not need to be completed with an *Environment consequence description*, ECD. TPO thinks the exploitation is positive for the district and leads to better contact with the dry dock that is included in the national interest description. The detailed development plan is expanded to include an existing stairway to the marina. The stairway is to be restored and the ambient environment be transformed into park-land in the detailed development plan. The restoration makes it so that the dry dock becomes accessible to citizens and visitors, which in the detailed development plan is described as an amplification of the area of national heritage interest.

### **Recommendations**

The design principles are completed in the plan description with recommendations directed to the builder. The recommendations are general advice that is to be a support for SGS Studentbostäder and the building permit administrator in their work to adapt the planned dwellings to the cultural values and architectural qualities of the district. TPO wants the competition proposal to be further developed with regard to the following recommendations:

- From important viewpoints, the form and colour of the new built environment should be adapted to the surroundings.
- The design of the neighbourhood should favour meetings in streets and yards.
- Towards Verkmästaregatan and Förmansgatan the built environment should fit with the older built environment in the vicinity in expression and degree of details.
- The houses towards Plejadgatan should neither be given a too light nor too dark colour.

- There ought to be a variation in the design of the buildings within the neighbourhood regarding colour and detailing.
- Facings should bear the stamp of horizontal facing motifs with relief effects.
- If front yards towards the street are arranged, the yards should consist of grass or shingle and the front yard ought to be enclosed with a picket wooden fence, 1-1,2 metres high.
- Vegetation in front yards and between the houses should consist of trees or solitary shrubs.

In the detailed development plan, compensation measures are included as its own rubric. According to TPO, no compensation is needed, as the exploitation does not take up any nature or recreation spaces. It is a view of compensation that is to be found in the policy of 2018. The design demands in the detailed development plan are not viewed as expressions of compensation measures and functions with the support of the general plan. The governance of architecture of the dwellings in the plan regulations is treated as a way to adapt the planned built environment to the area of national heritage interest. The restoration of the stairway to the dry dock is not viewed as a compensation measure either. The underlying aim with design demands and design regulations is to remove objections to the planned exploitation in the national interest. Compensatory measures and functions are hidden in the planning process as changes to the plan proposals that facilitate the building of dwellings in the area.



Figure 9 and 10. The illustration and photo show how the area for the detailed developer plan has moved toward the dry-dock, which is included in the national interest for cultural environment at Lindholmen. Source: Detailed Developer plan. Gothenburg City. 2014.

### Critique and Appeals

The detailed development plan gets critique in the consultation. The Culture Department finds “*that the proposal fundamentally contains too compact and tall volumes that have not been founded at the location,*” (Utterance 2013-12-19). The new buildings will in much too great an extent dominate the surrounding and change the character-founding views from the river shore. The built environment does not fit at the location. A revised detailed development plan with lower buildings that take greater consideration to the cultural environment of the area is requested. The County Administrative Board’s unit for spatial planning also have the objection: “*The municipality deems that the small-town character of Lindholmen is assured through the plan proposal. The County Administrative Board’s assessment, by contrast, is that the proposal, with the proposed height of buildings, strongly deviates from the cultural historical character of the national interest. The height of the building must be better adapted to the scale of the area,*” (Utterance 2014-02-13). TPO needs to clarify the architectural recommendations in the plan description. The County Administrative Board also notes that the presented photomontage is misleading because the detailed development plan

permits taller buildings (Consultation opinion 2014-02-13). The objections against the planned built environment are, however, not so great that it according to the County Administrative Board poses a risk of considerable damage to the area of national heritage interest (Examination opinion 2014-09-02).

From the citizens comes a massive and well phrased critique. Three main objections are presented. Firstly, the planning and design of the detailed plan are criticised for being ruled by the competition without opportunity for local influence from the citizens in the area. The construction of dwellings has not been based in a program, but TPO has chosen to present the detailed development plan without previous program work. Accordingly, the citizens have not been able to affect the starting points of the planning. A second critique is that the cultural environment investigation was carried out in retrospect after the conditions for the building of dwellings had been established in the detailed development plan. The cultural environment and cityscape analysis should have been used to control the design. Thirdly, the architecture of the dwellings is criticised (Consultation opinion report 2014-06-10). The planned dwellings fail in adaptation to the cultural historical values and architectural qualities of Lindholmen according to citizens in the neighbourhood. TPO summarises the critique as follows:

*Many of the remarks of the citizens that were submitted during the consultation remain... The most serious objection from among the submitted remarks concerns that the proposed built environment is not adapted to the area of national heritage interest or to the municipality's preservation program. Many people find the scale to be wrong and the buildings to be too tall and too wide and that the proposed building can damage the national interest... There have also been many opinions on the planning process submitted. Many people think that one should have had a program as well as a cultural environment investigation done before the actual detail development plan work was initiated... The process has of some people been experienced as undemocratic, and they think that the citizens of the area have received information too late in the process." (Examination and exhibition report 2014-11-25, pp. 1-2)*

To meet the objections from agencies and citizens, the detailed development plan is completed with several detailed design regulations (Detailed development plan 2014-11-25). The project is reduced from 175 to 165 student accommodations in the houses. Even after the reduction, the built environment is dense with dwellings that shade dwellings without direct access to sunlight. The lack of sun in the narrow yards is compensated with a plan regulation that puts demands on communal roof terraces of a maximum of 85m<sup>2</sup>. The plan map is completed with references to the design principles in the plan description. It gives the design principles a stronger legal status. In the plan regulations, the placement of the buildings, and their design towards street and yard, their width and distance, scale and visual impression, base and base floor towards the street, eaves and roof pitch, roofing, material and colour, roof terrace, facing, and facade colour are regulated. But there are also design principles in the plan description that have not been transformed into regulations. It concerns the demands on the degree of detail and richness of architectural expression. The citizens are not satisfied with the changes and appeal the detailed development plan without success. The County Administrative Board rejects the appeals (Decision 2015-06-25). The exploitation is not considered to considerably damage Lindholmen as an area of national heritage interest. As a regional plan authority, the County Administrative Board has abstained from re-examining the municipality's decision to



accept the detailed development plan. Accordingly, there is no chance of success with the complaints from the side of the citizens through alleging damage to the national interest.



Figure 11 and 12. The photos show the dry-dock turned into a harbour for small boats seen from the top and from the river. The new buildings can be seen at a distance of the wright. Photo: Magnus Rönn 2019.

## CONCLUSIONS AND DISCUSSION

*A first conclusion* is that the architecture and planning project was planned as two parallel lines without enough coordination of the cultural environment aspects. The competition program lacks a clear description of the cultural environment of Lindholmen as support for the development work of the design teams. This lack of comprehensive vision is remarkable because the organiser was aware of that the location for the competition is an area of national heritage interest. Nor are there any references in the competition program to the city's preservation program for Lindholmen, which is to be a guideline for the planning of built environments in areas of cultural historical values. The competition program is thus undeveloped from a cultural environment standpoint. The consultant's cultural environment and cityscape analysis in the detailed development plan have only been used for adaptation of the winning competition proposal in hindsight—not for control of the completion. The foundation for the exploitation was decided in the competition. The detailed development plan is about modifying the competition proposal so that the dwellings can be built at the location.

A surprising circumstance in this case study is that the competition task has not been adapted to the special conditions of the plot. In the competition, the organiser asks for dwellings that fit at the location and that are a general dwelling concept that can be built on plots with varying conditions and exploitation degree. It provides a bothersome unclearness to the completion task which greatly impacts the design teams' interpretation of the competition proposal. The architects in the judging group should have raised the alarm and made sure that the goal of the completion gained a clearer formulation and that the competition program was completed with an investigation of the area's cultural environment.

*A second conclusion* is that the jury and judging group got a limited selection of proposal to choose from when the first prize winner was to be decided in the competition. As winner only dwelling pro-

jects that could be combined with the area of national heritage interest could be chosen. The proposal from Lindbäcks Bygg and White Arkitekter shows the best economy. It is also a solution to the completion task which in comparison with all other proposal appear as adapted to the cultural values and architectural qualities of the district. The proposal gets the most points in the examination and thereby becomes the obvious winner of the competition. On shared second place two solutions to the completion task that are general concepts are placed. The judging group criticizes these proposals for lacking adaptation to the location.

*A third conclusion* is that the citizens of Lindholmen only in a limited capacity have been able to affect the building of dwellings after the detailed development plan was presented in an exposure for consultation. After they got to take part of the detailed development plan, the citizens formulate and submit written utterances about the proposal. At this stage, the latitude is very limited. It is a result of how the completion program was developed without dialogue with the citizens of Lindholmen. There is already a winning proposal for new dwellings, appointed by a unanimous jury, when the citizens are informed of the building of dwellings through an exhibition. Then, the leading politicians and executives of the city have already taken a stand to the exploitation through electing a first prize winner of the completion. The overall purpose of the detailed development plan is to implement the winning proposal from Lindbäcks Bygg and White Arkitekter.

*A fourth conclusion* is that the planning and design of the detailed development plan contains a hidden form of cultural environment compensation. It means that the compensation is uttered through action during the planning process—not as concrete measures. The compensation is indirectly expressed as planning method, design principles, and problem solving strategy (Rönn, 2018). Compensation as planning method concerns making the land available for the planned exploration through balancing interests. The benefit of new student accommodations in Lindholmen is measured against the degree of effect on the identified cultural values and architectural qualities of the area. Both TPO and the CAB judge that the demands for adaptation of the competition proposal are enough for the detailed development plan to be approved. Compensation through the development of design principles starts from the consultant's cultural environment and cityscape analysis. The compensatory function lies in the transformation of the demands on the architecture to detailed regulations in the detailed development plan that facilitates the building of dwellings in the area of national heritage interest.

Compensation as problem solving aims to remove obstacles for the planned exploitation. It concerns minimising the risk that the new built environment should be considered as considerably damaging the area of national heritage interest. The County Administrative Board has to be convinced. The adaptation of the competition proposal leads to the wanted result. The solution lies in the design regulations. The County Administrative Board rejects the complaints to the detailed development plan by the citizens of Lindholmen. The building of dwellings is considered as sufficiently adapted to the cultural environment of the area. In the trial of the detailed development plan, the County Administrative Board states: “... *that the National interest of Lindholmen is negatively affected, but is judged to not considerably damage the national interest. This ruling is founded in that the reworked proposal presents buildings that have been adapted to existing heights of the landshövdungehus. The buildings have been suggested to be covered with wooden facing that is painted in light colours in similarity with adjacent landshövdungehus and with red roofs,*” (Decision 2015-06-25, p. 24).

*A fifth conclusion* is that cultural values and architectural qualities are treated in two different ways in the detailed development plan; partly as shall-demands (binding plan regulations) and partly as ought-to-demands (recommended design principles). It is above all demands that can be coordinated with winning competition proposal without too much adaptation that TPO transfers to the detailed development plan as detailed plan regulations. The design principles, however, have an open and interpretable character that leaves the execution to the builder, building companies, and architects. Questions to what degree the completion proposals have to be adapted to the stated cultural values and architectural qualities in Lindholmen. The location in the city is, for example, one design principle in the detailed development plan that means that the plot is in an exposed location of great importance for the cityscape. Special consideration shall therefore be taken to the height and colouration of the buildings. The demands for adaptation of the competition proposal sound like this: *“The houses towards Plejadgatan should to not stand out against the rest of the built environment neither be given a too light nor too dark colour,”* (Detailed development plan 2014-11-25, p. 12). The small-town character of Lindholmen is a design principle that is interpreted as that the built environment towards Verk-mästaregatan and Förmansgatan should be *“adapted in expression and degree of detail”* to the surroundings (ibid p. 12). To join to the street and block structure of the area, the competition proposal ought to be *“visually divided into smaller building volumes, although the residential buildings are made up of a larger unit, and there ought to exist a variation in the design of the buildings within the block in colour and degree of detail,”* (ibid, p. 15). The design principle for high degree of detail and richness of expression is described like this in the detailed development plan: *“Toward Verk-mästaregatan and Förmansgatan the built environment ought to relate in expression and degree of detail (as) of the older built environment in the vicinity,”* (ibid, p. 17).

*A sixth conclusion* is that it is only visible cultural values and architectural qualities that are lifted by TPO in the detailed development plan. The material culture heritage is prioritised. Tangible values are in focus. The consultant uses the walk as a method to show cultural values and architectural qualities in the material culture heritage. It is an impactful way of displaying the cultural environment that has pedagogical points. Eight walks in the area that is presented in text and image, maps, and photographs. Two follow the river and present how the plot is exposed from the river. The other six walks approach the plot from different starting points. TPO uses the cultural environment investigation as a foundation for the development of plan regulations and design principles. Citizens use the consultant’s cultural environment and cityscape analysis to show shortcomings in the competition proposal with the associated detailed development plan. There are no demands on that the immaterial culture heritage should be documented and made accessible for citizens and visitors. None of the professional actors defend the intangible heritage under the development of the plan proposal for Lindholmen.

*A seventh conclusion* is that compensation thinking is part of a negotiation oriented practise that contains an exchange of objections and proposals for solutions in order to get access to the site. These compensatory measures and functions are embedded in the planning process. Four forms of compensation appear in architecture and planning projects. Firstly, compensates a lacking knowledge of the cultural environment in the competition program. The short national interest description is further developed in the detailed development plan to a planning foundation that makes visible cultural values and architectural qualities in Lindholmen. Plan and implementation description is completed with descriptions, maps, and photos from the consultant’s cultural environment and cityscape analy-

sis. Secondly, the detailed plan regulations are used in combination with general design principles to ensure sufficient processing of the competition proposal. The compensatory function is shown in the decision of the County Administrative Board to reject the citizens' complaints to the detailed development plan. Thirdly, the geographic area is expanded compared to the competition program. The restoration of the existing stairway down to dry dock and marina is part of the plan area. Citizens and visitors gain access to a designated remnant of the shipyard era. TPO views it as a reinforcement of the area of national heritage interest. Fourthly, the tenants are compensated for that the detailed development plan allows a so high exploitation degree that the dwellings access to sunlight is limited. The compensation consists of a sunlit roof terrace. TPO notes that "*many of the simplex dwellings always lie in shadow. It is important that bright and sunlit common areas are arranged. The narrow yards the plan allows shall according to the plan regulation be compensated with a communal roof terrace,*" (ibid, p. 26). The first three forms of compensation are expressions of cultural environment compensation that are embedded in the detailed development plan. The fourth point is a form of compensation that is aimed at the tenants as a consequence of high exploitation of the land that creates dwellings in shaded positions.

### Acknowledgment

Frida Andreasson has translated proofread the paper. Quotations are translated from Swedish. The research behind this paper is supported by The Swedish National Heritages Board's R&D grant.

### References

- Andersson, J. E. and Rönn, M., 2012. *Construction competition in Karlskrona, an evaluation of prequalification (Entreprenadtävling i Karlskrona, en utvärdering av prekvalificeringen)*. Stockholm: TRITA-ARK-Forskningspublikationer 2012:2.
- Brummett, B. 2010. *Techniques of close reading*. Los Angeles: SAGE
- Building regulations of the Swedish National Board of Housing - regulations and general recommendation (Boverkets byggregler – föreskrifter och allmänna råd)*. 2018, BBR. BFS 2018:4).
- Ecological compensation. A guide on compensation for loss of natural values. (Ekologisk kompensation. En vägledning om kompensation vid förlust av naturvärden)*. 2016. Bromma: Naturvårdsverket. Handbok 2016:1
- Ecological compensation (Ekologisk kompensation)* 2017. Swedish Government Official Report, SGOR 2017:24).
- Grahn Danielson B. Rönn, M., & Swedberg, S. (Red) 2015. *Compensation measures for exploitation in cultural and natural environments (Kompensationsåtgärder vid exploatering i kultur- och naturmiljöer)*. Danmark: Kulturlandskapet och KTH/Arkitektur.
- Grahn Danielson, B. Rönn, M. & Swedberg, S. 2017. Cultural Heritage: Changing Ideas on Compensation in Planning. *Architectural Research in Finland, 2017, No 1*.
- Good built environment in the municipalities - a study of the environmental target survey 2006-2013 (God bebyggd miljö i kommunerna - en studie av miljömålsenkäten 2006-2013)*. 2014. Karlskrona: Boverket.
- The architectural policy of Gothenburg (Göteborg – en modig förebild inom arkitektur. Arkitekturpolicy för Göteborgs stad)*. Accessed 2019-03-15:  
<https://stadsutveckling.goteborg.se/siteassets/pdf/arkitekturpolicy-for-goteborgs-stad-.pdf>
- Johansson, R. 2007. On Case Study Methodology. *Open House International, No 3*.
- The national interests of the cultural environment according to Ch. 3, 6 § environmental Code (Kulturmiljövårdens riksintressen enligt 3 kap. 6 § miljöbalken)*. Handbok 2014-06-23. Stockholm: Riksantikvarieämbetet.
- Compensatory measures for nature and recreation (Kompensationsåtgärder för natur och recreation)*. 2008. Gothenburg: Gothenburg City.
- Mason. R., 2002, *Assessing Values in Conservation Planning: Methodological Issues and Choices*, in Marta de la Torre (Red) *Assessing Values of Cultural Heritage*. Los Angeles: The Getty Conservation Institute.
- Environmental Code (Miljöbalk)* (1988:808).
- Nyström, J. & Tonell, L. 2012. *Planning grounds (Planeringens grunder)*. Lund: Studentlitteratur.

- Persson, J. 2011. *To understand compensation (Att förstå compensation)*. Göteborg: Melica Media. *Plan- och bygglag* (2010:900).
- Platform Cultural Historical Evaluation and Selection (Plattform, Kulturbistorisk värdering och urval)*. 2015. Stockholm: Riksantikvarieämbetet.
- National interests for cultural environment - Västra Götaland County (Riksintressen för kulturmiljövärden – Västra Götalands län)*. Riksantikvarieämbetet. Accessed 2018-09-01:  
[https://www.raa.se/app/uploads/2018/05/O\\_riksintressen.pdf](https://www.raa.se/app/uploads/2018/05/O_riksintressen.pdf)
- Rönn, M. 2019, *Architecture, cultural values and compensation (Arkitektur, kulturvärde och compensation)*. Fjällbacka: Kulturlandskapet.
- Schön, D. 1983. *The reflective Practitioner*, USA: Basic Books.
- Svensson, C. 2009. Speaking of Architecture. A study of jury's assessment in an invited competition, *Nordic Journal of Architectural Research*, No 2/3.
- The value handbook. Getting the most from your buildings and spaces*. 2006. London: CABE.
- Oversight of national interests (*Uppsikt över riksintressen*). 2018. Stockholm: Riksantikvarieämbetet.
- Comprehensive Plan for Gothenburg (Översiktsplan för Göteborg). Del 1. Utgångspunkter och strategier*. 2009. Antagen av kommunfullmäktige 2009-02-26. Stadsbyggnadskontoret.

### Referenser to the Case Study

- Decision (Beslut)*, 2015-06-25, Länsstyrelsen i Västra Götaland.
- Detailed development plan at Plejadgatan (Detaljplan för bostäder vid Plejadgatan)*, Planhandling, 2013-10-01. Dnr 0511/11, Stadsbyggnadskontoret, Göteborgs stad.
- Detailed development plan at Plejadgatan (Detaljplan för bostäder vid Plejadgatan)*, Planhandling, 2014-06-10. Dnr 0511/11, Stadsbyggnadskontoret, Göteborgs stad.
- Detailed development plan at Plejadgatan (Detaljplan för bostäder vid Plejadgatan)*, Planhandling, 2014-11-25. Dnr 0511/11, Stadsbyggnadskontoret, Göteborgs stad.
- Student accommodations of the future. Program to concept and design developer competition (Framtidens Studentboende. Program för koncept och entreprenadtävling)*, 2011-03-11. SGS Studentbostäder och Studentbostadsföretagen.
- Student accommodations of the future. Report from judging work (Framtidens Studentboende. Rapport från bedömningsarbetet)*, 2011. SGS Studentbostäder och Studentbostadsföretagen.
- Examination opinion (*Granskningsyttrande*), 2014-09-02. Länsstyrelsen i Västra Götaland.
- Examination and exhibition report (*Gransknings-/ utställningsutlåtande*), 2014-11-25. Dnr 0511/11, Stadsbyggnadskontoret, Göteborgs stad.
- Lindholmen, Cultural environment and cityscape analysis (*Lindholmen, Kulturmiljö- och stadsbildsanalys*), 2012-12-13. Melica.
- Plan request Plejadgatan (Planbegäran Plejadgatan)*, 2011-07-01, Norra Älvstranden Utveckling AB.
- Consultation opinion (Samrådsyttrande)*, 2014-02-13. Länsstyrelsen i Västra Götalands län.
- Consultation opinion report (Samrådsredogörelse)*, 2014-06-10. Dnr 0511/11, Stadsbyggnadskontoret, Göteborgs stad.
- Official report (Tjänsteutlåtande)*, 2013-10-01. Dnr 0511/11, Stadsbyggnadskontoret, Göteborgs stad.
- Utterance (Yttrande)*, 2013-12-19. Kultur förvaltningen, Göteborgs stad.

### Note

<sup>1</sup> Five of the building companies in the teams are local companies with a clear connection to the western part of Sweden with three exceptions. Additionally there is SKANSKA which is a company with international commissions, and PEAP which is a company with operations in the Nordic countries, participate in the competition, and Lindbäcks Bygg AB. The architect offices in the teams come from both Gothenburg and Stockholm. The winning proposal in the competition was handed in by Lindbäcks Bygg AB and White arkitekter. Lindbäcks Bygg is a family business from Piteå that builds in all of Sweden. White Arkitekter is Sweden's largest architect office with international business. The winning team consists of two companies with good reputation in the consultation and building business.