Working in a process with a joint ambition - Maria Sofia a case study from Helsingborg

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Abstract

This case study will give an example of how to work together in the building process with a joint ambition. The role of the architect will be in focus and will be described in the perspective of developing the future role.

In this project a housing area with 200 apartments was planned to be built near Helsingborg in the south of Sweden by Helsingborgshem, the municipal housing firm. The actors involved started up the process with several meetings and with a precise goal concerning the costs of producing each square meter. The involved actors such as: The local authorities, the architects, the caretaker, the construction firm and representatives for the future tenants worked together in the early stages at workshops and meetings. In these early discussions the knowledge and experience from each part were used in favour for the planning process.

The role of the architect in this process is interesting because of the possibilities to develop the future role. When involving the user in the building process several skills are required. The pedagogical role as well as good communication skills can be useful. Interpretation is also needed when the experts are using all the difficult terms when formulating the plans for the product. To be more responsible of the economical frames as well as keeping up the collaborative work is a challenge. More time and efforts in the early stages can be an investment with good results. Using the knowledge from the group in a safe atmosphere may also have a positive effect on the final product. The chance to create the "right product" with a higher constructability can also give good economical effects. The winners are the actors involved, the end-users and future tenants because of the possibilities to lower the rent.

This case study will describe the actors involved, their common goal and their way of working together. It will also discuss the role of the architect and the possibilities to learn from this case study. The attitudes towards the different roles are shaped during the time of education. In which direction is the Swedish architectural education going? Does it support the collaborative process found in this case study?

Keywords: working process, joint ambition, collaborative learning, architects role

1. Introduction

This paper is based on the case study of the project Maria Sofia in Helsingborg. The aim of the project is to find a way to better work together with all the actors involved in order to achieve good quality to low costs. Experiences from other projects were used to choose the type of organization and the actors involved. By using dialogue and cooperation and by using the collected competence, block of flats with good functionality, quality and aesthetics will be designed. Managing this process requires a joint ambition. The public Real-estate owner, Helsingborgshem, have a culture and tradition to work close to their tenants and to follow the changes in time, considering changes of demands and requirements. It is necessary to test different and new ways of working together in the building sector. The end-user is not always satisfied with the product considering quality and costs. Different authorities and organizations declare the motive and gives guidelines for a better process. The Building Cost delegation got the commission from the Swedish Government to consider how to decrease production and management costs in the building process (Byggkostnads-delegationen SOU 2000:44) [1]. They stated that a more innovative way of thinking and working was needed, citing the lack of development on the part of the actors involved. Surveys are also necessary to investigate the users' experiences of quality and usability. The Building Cost Delegation declared that the architect should have the ability and knowledge to translate psychological, social, ecological and other requirements into a physical form at a reasonable cost. This is because good solutions cannot be created by regulations alone: regulations only provide a rough idea of what needs to be achieved, and must be combined with an ability to innovate via co-operation between the actors involved. The universities are advised to develop their curricula especially to incorporate better knowledge of economics and of how to handle communication and information flow within the organisation of a building project. After problems concerning the construction process during the housing exhibition BO01 in Malmö, in the southern of Sweden, the Construction Council decided to create The Construction Process Forum. The aim was to develop the construction and the real estate management process, increase the profitability across the supply chain, increase the human value among the actors of the construction process, and increase the image of construction. A program was formulated inspired by the Considerate Contractors Scheme from UK and was developed into the program Utmärkt bygge (2007). Several initiatives have been introduced in Europe by Constructing Excellence (UK)(2006), PSI Bouw (Nl) (2006) and Utmärkt Samhällsbyggande (Sweden, Byggkommittén 2006). The Swedish Council for Construction Excellence (BQR) teamed up to develop a cross sectored tool to identify key factors used as different performance indicators (Josephson and Lindström 2007)[2]. The nine factors are: Organization, Leadership, Motivation, Project goals, Time, Cost, Customer satisfaction, Productivity, Learning development and Improvements. The tool is tested and evaluated during 2007.

A number of challenges remain to better understand the needs and requirements of the stakeholders in the building process. It can be difficult to keep a dynamic process "alive" when a host of regulations and laws is directing and controlling both the actors' roles and their responsibilities to society and the project. There are also cultural factors and traditional working methods that can restrict the innovative design process. It is important to maintain a creative and

generous working-climate early on in the building process, especially if users are involved: users may not be used to the aim of the process or the language used in the dialogue between the actors involved. If the process focuses on the needs of the end-users, tools can be used to evaluate the performance. The actors involved can share the responsibility for the interpretation. The architect can be the actor who guides the users through this dynamic process, keeping it alive. The architect can also take the main responsibility to interpret the end-users needs and requirements and to facilitate these through the process. To achieve good results the architect needs certain skills and experience and need to draw on various models and methods to support the process. Grange (2005) [3] believes that architects in general have a pronounced desire for a stronger role; however, the rather conspicuous fact is that the architect is more or less invisible in the wider context of the Swedish building industry. Institutional cultural and structural conditions, historically established conceptions, self images and social contexts, have formed the structures prevalent in the building industry today. According to Emmitt (1999) [4], if creative design is to flourish, architectural management techniques and tools must be effectively applied. Our educational system is creating individuals who tend to stick to traditionally defined roles, which may be inappropriate for a dynamic and quickly changing industry. The Swedish Architects Association (SOU 2000:44) issued the following statement for consideration: "Quality and aesthetics should not be subservient to short-term economic interests and the need for architectural skills should not be underestimated during the production phase of the process… An architect has the competence to interpret and translate the client's and customer's requirements such as comfort, functionality and efficiency- into a solution that is possible to build."

2. Method

The researcher attended the meetings in the early stage of this project in order to observe and to collect information (drawings and memos). The action research is combined with literature studies and self-experienced project processes as an architect. The discussion is based on several conference papers and my licentiate thesis, User's requirements in the building process- a case study (Svetoft 2005) [5]. The information of the companies involved is the official version from their homepages. Questions about the architects role and education are discussed with the perspective of the official descriptions from the Universities and meetings with architectural students in Lund. This case study will also be used in a parallel research project: "Value Creation Indicators" in CREDIT project program (Construction and real estate-developing indicators for transparency) financed by Formas ERABUILD. Experiences from several projects will be monitored and methods for measuring how the end-users requirements are fulfilled will be discussed. There can be contradictory demands from different type of customers. A holistic perspective will be kept. It can minimize the risk of non-compliance, the end-users needs as well as the technical or stakeholders view must be considered in the process. The aim is to capture the end-users requirements in order to identify and quantify value creation in real-estate and construction.

3. An organization with a joint ambition

By clearly posing a common goal for a project a joint ambition can be achieved. Working together can also give possibilities to a learning process. The attitude towards the task and each other creates the atmosphere and working conditions. The main principle of market dynamics is to have a short distance between user and innovative producer (de Ridder 2007) [6]. That is the way it is in the consumer market. In order to cope with the dynamics of this century, the Building Industry could take over this principle. But the construction industry is not organized for speed and change. It is better to focus on the value of the building against the cost of a building per relevant time step, in a series of interventions. This perspective gives the possibilities to change the components and elements when it is beneficial. Persson (2006) [7] describes that the construction industry works with questions of how efficiency can be increased by reducing the errors being made. He presents the value of a broader awareness of knowledge management principles to achieve good and improved results. This requires a coaching process. The key factor is the meeting between individuals, sharing information, socializing with one another. The professional architects must also be willing to involve the user and to develop a clear understanding of the user's situation. An interesting experience reported in several case studies made by Dahlholm (2000) [8] is that, in being involved during the design process, the users themselves became more aware of their own priorities and values concerning living/working. They also expected the professionals to respect their point of view due to their increased understanding. Related to this phenomenon a user may expect the architect to accommodate his or her personal preferences to a greater extent than usual, which may present problems for the architect. Involving the user in the building process raises questions about relations connected to roles and power, knowledge and competence and about who is responsible for the decisions. The architect must reflect on how to communicate. Both the architect and the user must have trust in the process and each other. The culture of the organization is of great importance to support the role of the architect and other actors involved. Kaufman & Kaufman (1996) [9] discusses fundamental dimensions in the organizational culture, describing four values by J Martin: The level of sensibility towards the client, freedom to initiate new ideas, willingness to tolerate risks and openness towards possibilities to communicate. A strong culture and organization share these fundamental values. Labovitz & Rosansky (1997) [10] describes the concept of alignment that can create a culture of a shared focus at the goal and better prepare for adjustments and innovations. The horizontal alignment focus on their customer's requirements and used as a navigation tool. The organizational structure, decisions made and all activities are based on the question: What is the best for our customers? Good quality or better, the right quality, can also be an interesting argument because of the large amount of resources and money involved. For the real estate owner a user's involvement can bring about positive long-term economic effects. Bergman and Klevsjö (2001) [11], describe several arguments, models and tools for the important work of putting the customer in focus. Better quality also has an impact on the company's earnings. The contented customer comes back and requires fewer resources to the company due to small costs for product changes and so on. The best strategy is to know all about expectations and needs even before customers know these themselves. According to Schéele & Rundlöf (1998) [12] there are some barriers between different areas and actors that must first be surmounted to be able to

integrate the necessary knowledge and action. They also talk about cultural differences that can hinder communication. If the user does not even know what kind of knowledge is needed to participate in the process, there is a problem. Sebastian (2007) [13] means that the biggest challenge: to manage collaborative design, is to deal with the human factor and social complexity in collective designing. In recent studies he also refers to the categorisation on design management focusing: design actors, design processes and design products. He also refers to Otter and Prins (2001) who consider the constituent elements of people, processes and objects. To achieve collective designing the interactions between the creative design processes of individual design actors must be stimulated and guided. Managing Collaborative design can use a creative design workshop as a tool, involving all principal design actors and decision makers. The Workshop, in which all partial and overall designs are presented, discussed and decided. Bolman & Deal (1997) [14] describes the problem when people don't understand the dynamics of the system they defend themselves and blame the problems on someone else. They refer to Argylis and Schön (1978, 1996) [15] and describe that there can also be difficulties admitting the problem which makes it even harder to deal with necessary changes in the organization. A case study in two large international companies is described by Farida Rasulzada (2007) [16] in her dissertation named "Organizational creativity and psychological well-being". She clearly states the connection between creativity in a working-place and the psychological well-being of the employees. The individual that feels and experience being creative is more satisfied, work better and is less stressed. This is a resource seldom used in companies. Rasulzada blame the short term thinking of today. Executives see new ideas and new way of thinking as a threat, the changes cause's delays in the production. However, there is no reason why the structure underlying the building process could not be regarded as a learning organisation and theorising in this area could well be useful. Kline & Saunders (1993) [17] describes the positive effects by using the method of Integrated Learning. Different actions supports the positive process for example: By encourage and help people to be resources for each other the efficiency will increase and will also lead to a spontaneous change of the culture in the organization. A system is needed to give the co-workers new tools for reflection and communication and also to focus on a shared vision of what is going to be achieved. Looking at learning as process of social participation Wenger (1998) [18] describes that we rather talk about change and about new ideas and are not always aware of the learning process. He means that what we learn is the very process of being engaged in, and participating in developing, an ongoing practice. Engagement in practice is the stage and the object, the road and the destination. This type of learning is about formation of an identity, the development of our practices and our ability to negotiate meaning. Organizational learning is described as two different types of concepts (Argyris & Schön 1978). Single -loop learning is to make things better while routines remain the same. Double-loop learning involves thought processes and reflections where organizational members examine and question existing routines and new understanding develops out of the inquiry into conflicting views among members or groups within organizations. The positive effects and power of cooperative interaction are described by Johnson, Johnson and Smith (1991) [19]. They clearly demonstrate the importance of developing cooperative learning skills in our students. This can be difficult, because such behavior often runs counter to well-established values. One mayor outcome of cooperative learning is that people who work together develop positive relationships that are essential for

motivating long- term achievement efforts and for healthy social, cognitive and psychological development. Caring about each other in the group comes from a sense of mutual accomplishment, from mutual pride in the work, and the bonding that results from joint efforts. All this contributes to a group's productivity, because the sense of personal responsibility and of sharing the work. It also increases the willingness to take on difficult tasks and supplies motivation and persistence in working towards the goal. As traditional education programmes are oriented towards competitive and individualistic learning and organisational structures, educators must understand the role of the instructor in implementing cooperative learning. A good innovation climate is fostered by a feeling of general security and trust in a company. Employees need to know that it is acceptable sometimes to make wrong decisions, that testing and experimentation with new ideas is allowed. It is also good to foster in individuals better self-esteem and to support cooperative learning. The greatest threats to good learning results are fear, and hidden agendas, old structures, and traditional culture. By means of group learning such phenomena can more easily be uncovered and processed. It is good to know that you are not alone with this feeling of fear and experience of hidden agendas etc, and through fostering such openness, innovation can be more easily be accepted. Innovative work by definition entails a certain amount of risk taking, and a company must support this way of work, and prove that it does by awarding those who innovate. Johnson, Johnson and Smith give several examples of other sources dealing with theories about collaborative learning. Hill (1966) for example refers to a "Mastermind Method": There seems to be a synergy that produces the most effective method for generating creative thinking when several people focus cooperatively on the same problem.

3.1 The actors involved

The history and the culture within the organizations involved in the process seem to be of great importance for a better co-operation. The motive of why one should work with customer driven processes and the knowledge of how to work with these questions seem to be based on experiences. A short description of the actors involved can give a better background to the discussion. The public Real-estate concern Helsingborgshem [20] was founded in 1946. When celebrating their 40 years as a company in 1986, a book was published describing the ideas and the people shaping their culture (Nordquist et al 1986) [21]. One of the authors declares already in the introduction the similarities to a family and that one of the strength of the company is the manager's sensitive ears for their tenants. The commission from the municipal delegation was to form a company in order to build flats with rental levels decreased by 25 % for people with poor incomes. Tenants taking care of their apartments could already in 1984 decrease the rent with several percents if maintenance costs could be kept at a low level. The history of the company is like an echo of the development of the users requirements. Multi-storey houses were built in different areas filling the needs of different trends. More rooms, elevators, TV-installations, parking spaces and comfortable garbage disposal systems are some examples of new requests. In 1963 the detached houses were available and several flats were built in the Governmental program for building one million flats in ten years. With the aim of increasing the dialogue with the tenants and avoid un-rented areas, an exhibition area is opened in 1972. Several

environmental investments were paid back with municipal awards for creating good environments. The insight of the positive effects from involving the user in the development of the housing areas in stated in 1983 described as a necessary vitalization of the public Real-estate market. The aim is to give a satisfactory alternative to the private sector. The head of the company clearly states that the first focus shall be at the tenants and second at the houses. The book from the 60 th anniversary is called "Living with belief in the future" (Fredriksson 2006) [22]. The vision: Individual living and be received as an individual, changed the organizational structure in the year of 2000. Seven area-offices were closed, and in order to increase the dialogue with the tenants and empower the "frontline" eighteen customer-hosts were employed. A program for the benefit of ethnic, demographic and social integration was stated in 2005. Helsingborgshem have 20 000 habitants and measures satisfied customer index, SCI by using a Customer Score Card that gives both Service-index and Product-index. The results are fully integrated into the internal organizational process. Every area manager is responsible for dealing with questions from the tenants. The collected data from this ongoing dialogue are used in business plans and budget processes. In 2004 a housing project by Helsingborgshem in Maria Park was described in a report from The National board of housing, Building and planning (Boverket 2004) [23] in the development program Construction Cost Forum (Byggkostnadsforum). With a governmental order in 2001 Boverket formed the forum with the commission to increase efficiency and decrease costs in housing by having the function as a competence-bank for Real-estate owners, municipalities and other authorities and for Contractors. Experiences from this project were used as a base for the next project Maria Sofia. The project leader for the Forum, Sonny Modig declares that Real estate companies can provide well designed apartments with rents adjusted to tenants with low income, even in highly expanding areas. In a summary this is possible if: It's a company with a sustainable and long-term perspective. All the actors involved must have the will to create this; simultaneously and in the same project.

SWECO [24] is the company that provides the Project leader. Their Business concept is*: SWECO's business concept is to create value by delivering qualified consulting services.* Their Vision is: *SWECO's vision is to be one of Europes' most respected knowledge companies in the fields of consulting, engineering, environmental technology and architecture.* Their Mission is: *SWECO's mission is to actively contribute to a sustainable development of society.*SWECO is a flat efficient and client driven organization with few central functions. The Group's aggregate strength focused on the core business and the joint resources and business sytems are designed to give the individual consultant and architects optimal support in their work with clients. Efficient collaboration between SWECO's various business unites generates value added in the client relationship. The Construction Company NCC [25] works with a Code of Conduct: *The foundation for our conduct is reflected in our values.* Honesty: *We are honest to ourselves and to our stakeholders.* Respect: *We respect each other, both privately and professionally.* Trust: *We trust each other and behave n a manner that generates the trust of others*.

NCC strives to achieve long-term business relations as a basis for generating customer value, shareholders value, and secure workplaces conducive to development. Partnering – cooperation creates added values. Partnering is based on complete honesty and openness among the partners.

Based on experiences, we have seen how cooperation creates added value for al the partners involved. Economical benefits are described as the positive effects of establishing project budget early on in the partnering process, so that all participants have a financial framework to go by.

One of the architects involved is SWECO FFNS [24] in Helsingborg, the company declares that they meets the challenge of the future architectural role with focus on the development of the individual employee, efficient net-working and strong designing competence. To achieve good architecture FFNS value a dialogue with the customer in order to deliver functional solutions with a modern design, expressive made special for the project. The other architect Möller Arkitekter AB in Ängelholm [26] says that: *"In all planning functionality, economical, environmental and building technology considerations must be in focus. We have the ambition to always deliver a product of the best quality, which will result in beauty and usability, environments where the individual is top priority, concern of resources and cost, building with healthy material ageing with dignity. Our strength is a combination of creativity and knowledge, enthusiasm and experiences."*

3.2 The Project Maria Sofia in Helsingborg

The area called Maria Sofia in the northern part of Helsingborg will offer a variety of dwellings and habitants in multi-storey houses and detached houses. In the project Maria Sofia the goals where clearly stated in the early stage based on using the end-user perspective. In a brief general Project description (2004) [27] the most important ambition and ideas were clearly stated. The goals for the project are: *"Steering the costs towards the goal (10.100 skr/per sqm), All actors involved from the start, To achieve housing blocks with good functionality, quality and aesthetics, Insight into the building process, Extended service to the end-users, Develop methods when delivering the product, Built-in flexibility for former changes.* The form of collaboration is: *The climate for the cooperation is based on an open and honest dialogue where the collected competence will lead forward to achieving the goals.* The process will be performed as following: *Experiences from other projects will be used for the discussion. The municipal planning office will be invited in the dialogue as well as end-users and several people from the organization of real-estate concern. The project declaration clearly states the importance of the attitude, ability and ambition in each actor involved. The project demands: to work in collaborative way, with a creative open and innovative attitude towards the goal. The process of involving the end-users is the most important issue. The main principle of the project is to work with "open books". The process and the way of cooperating imply great expectations on the engagement and the competence of the actors involved.*

The Project started in February 2004. Several meetings and visits at housing areas with all actors involved gave all the possibility to discuss experiences and formulate the goal for the new project Maria Sofia. Meetings for "brain-storming" and Workshops were held at a conference centre in order to: *Create a common understanding for the end-users needs and requirements.*

Come to an agreement concerning common gaols and the "rule of the game, establish the efficient project-team. Ensure an effective partnering- process, perform a common declaration for partnering (the moral contract). In the invitation all the actors involved were requested to read information concerning the other actors. The bonus effect of these meetings was the possibility to have the important socialization process and to better get to know the co- players. At the Workshop the agenda contained information about the way of co-operating in a partnering project. Information and discussions about prejudice towards the roles and responsibilities gave an interesting picture of the culture and tradition in Construction Management. Examples of well-known and outspoken meanings of the actors were revealed: *the architects have poor understanding of the construction process, the client wants it all- at no cost. The municipal authority declares visions but wants to steer the details. The contractor is stuck in "the way they are used to work".* To better be prepared for things going wrong in the partnering process possibilities and risks were discussed and as an example of possibilities a good working-climate were declared. As an example of a risk situation the unclearness of responsibility were mentioned.

The project Maria Sofia was delayed because of the infrastructural planning from the municipal planning office. The research project was also delayed but can now be finished in order to evaluate the outcome of the investments in the early stages in the process. The former project Västra Allén can also be used as a comparative project in order to learn what can be done better. Most of the housing area in Maria Sofia is finished now and further research will collect information and data in order to summarize the experiences. The results of this project seem to be very good both the quality goal and the goal of production at low costs seem to have been achieved. The most important positive result is that when the tenants move in to their apartment there are no problems or faults. This can be an effect due to a different way of working together in this project. One example is that the knowledge and the competence of the building inspector were used when one apartment was done. After the inspection of this role-model apartment mistakes of the same kind were avoided. The craftsmen learned how to do things better when a dialogue and discussion was used as a tool to achieve better quality. Everybody seems to be pleased to do a good work together with others.

4. Conclusions

Every actor and individual involved is important when working together in a project. The companies organizational-history/-culture/-tradition seem to be of importance. Results from the case study clearly indicate the effect of individual performance can be explained as a product of both company values and team-member co-operation and collaboration. Team-building efforts give a positive effect for the process. The sense of working together is more fun than the traditional way of working as counter-parts. Each part has different interests and it is necessary to draft what goals that can be shared. Using each others competence in a safe and encouraging atmosphere can give positive effects on the process on the product. Working with a joint

ambition can give positive results. The ambition and good experiences of working in a more cooperative climate can be traced in the official description of every actor involved. Their policies and codes of conduct can be meaningless if the will to work in this climate does no exist. But it seems that these companies have good experiences and knowledge of its opportunities.

The cultural clash between the chaotic and complex design process and the restrained culture of management can give rise to both opportunities and obstacles. Laws, regulations and economic factors can impose restrictions, or conversely act as design generators, and negative attitudes and poorly exercised leadership can be a concern. Manufacturing industries use a range of methods and models to support new product design and these could be used in the building trade as well. Experience gained from mistakes is used to adjust the working methods, in the interests of improving both the product and the production process. Unfortunately, it is not uncommon to see the same mistakes made over an over when producing buildings: it seems as if we keep building full-scale prototypes without ever learning from our mistakes. The ability to build sound, healthy buildings that are economically viable over the long term requires both good planning and good organisation, i.e. an appreciation of architectural management. The architect's role combines several perspectives on the product: functionality, aesthetics, economics and constructability. A dynamic and creative process needs the right attitude towards the task from all the actors involved and the architect can be both interpreter and guide through this complex process. The architect should initiate the dialogue and maintain good communication between the users and the professional team. If the appropriate role is given to the architect and if the architect's attitude towards the task is appropriate, user involvement in the design process can be positively affected. Different working models and methods can be used to obtain effective communication. Both full-scale models and 3D modelling at the computer can be used to describe to users how designs are proceeding. The architects in this case study clearly expressed the challenge to work with the restrictions and frames given by the goal to produce houses with a fixed cost. Other colleges would find these circumstances as a restriction to the artistic and creative process. The attitude towards the role and to the other parts involved can be discussed during the time of the student's architectural education. At a Workshop in this case study several prejudicial meanings of different actors were discussed. Maybe it is time to have more respect of each others competences and be part of a process where all the knowledge can be used in a generous and safe atmosphere. Time- pressure and stress is an obstacle to this ideal situation. Lack of time to reflect and consider the best solutions and above all restrict the dialogue, seems to create a "collective stupidity". Hopefully more customer driven processes give a smart and elastic working- model that can change these conditions. The winners if changing towards a better organizational development are both the companies and the individuals.

Further research will be performed in this case study. The project Maria Sofia will soon be finished and the experiences from the actors involved can be collected. Interviews and written documentations can give a summarized version of what effects a process with a joint ambition can give. Further research will try to identify which experiences that can be transferred into the next project in order to produce good quality houses. The Nordic/Baltic research project

CREDIT gives the opportunity to put this Swedish project into a larger perspective. It is interesting to see if one can identify the end-users requirements and then measure the result in the product. How did the cooperative way of working support the building process? How did the joint ambition contribute positively to the process? The change seems to come from the positive economical effects when working in a collaborative way.

References

[1] Byggkostnadsdelegationen (Building Cost Delegation) 2000, *Från byggsekt till Byggsektor 2000:44 & Byggkostnadsdelegationens betänkande bilaga 2 –byggprocessen.* Fritzes Stockholm.

[2] Josephson P-E & Lindström J 2007, *Measuring the performance in Construction Projects. The case of the Swedish "best practice tool"* Construction for development CIB world congress. Cape Town S Africa.

[3] Grange. K, 2005, *Arkitekterna i byggbranschen (Architects and the Building industry)*, Chalmers Tekniska högskola Göteborg

[4] Emmitt. S, 1999, *Architectural Management in Practice*, Addison Wesley Longman Limited Essex

[5] Svetoft I, 2005, *The end-users requirements in Construction process-a case study (Brukarnas krav i byggprocessen- en fallstudie),* Lunds tekniska högskola, Lund, KFSAB

[6] De Ridder H A J, 2007, *Living Building Concept for market dynamics, innovation and sustainable buildings,* Keynote speech in proceedings WCPM 2007/CIB 2nd International Conference, World of Construction Project Management, TU Delft October 2007

[7] Persson M, 2006, *Lessons learned in Knowledge Management* , Lund University Lund

[8] Hornyánsky Dalholm. E, 2000, Att *forma sitt rum- fullskalemodellering i participatoriska designprocesser R1:1998(To design your room- full-scale modelling in a participatory design process)*, Institutionen för Byggnadsfunktionslära KFS AB Lund

[9] Kaufman G & Kaufman A, 1998, *Psykologi i organisation och ledning (Psychology in organization and management),* Studentlitteratur Lund

[10] Labowitz G & Rosansky V, 1997, *Det total fokuerade företaget (The power of alignement),*Svenska förlaget Stockholm

[11] Bergman B & Klevsjö B, 1990, *Kvalitet från behov till användning (Quality from need to use)* omarbetad   upplaga, Studentlitteratur 2001 Lund: Studentlitteratur.

[12] Schéele A & Rundlöf B, 1998, *Ombyggnad som partnerskap (Reconstruction as a partnership),* Högskolan i Örebro, Örebro: DB Grafiska AB

[13] Sebastian R, 2007, *Managing Collaboative design,* Eburon Delft Netherlands

[14] Bolman L & Deal T,1997, *Nya perspektiv på organisation och ledarskap,(Refraiming organization. Artistry, Choice and Leadership),* Studentlitteratur Lund

[15] Argyris C & Schön D A,1978, *Organizational learning: a theory of action perspective.* Reading, Addison-Wesley.

[16] Rasulzada F 2007, *Organizational creativity and psychological well-being,* University of Lund, Lund

[17] Kline P & Saunders B,1993, *Tio steg mot en lärande organisation (Ten steps to a Learning Organization)* Skogs Grafiska AB, Malmö

[18] Wenger E, 1998, *Communities of Practice-learning, meaning and identity.* Cambridge University press, New York.

[19] Johnson. D, Johnson. R & Smith. K, 1991, *Collaborative learning*, The George University Washington, Washington

[20] www.helsingborgshem.se 080210

[21] Nordquist et al 1986, *Helsingborgshem –en minneskavalkad i ord och bild, (Helsingborgshem- memories in Words and in Pictures)* Schmidts boktryckeri AB Helsingborg

[22] Fredriksson J 2006, *Boende med framtidstro (Living with belief for the future),* Fälth och Hässler Värnamo

[23] www.boverket.se 080210

[24] www.sweco.se 080210

[25] www.ncc.se 080210

[26] www.moller-arkitekter.se 080210

[27] SWECO, 2004, *Kort allmän projektbeskrivning (General project description)* 040325

Other links mentioned in the paper: www.constructingexcellence.org.uk, www.psibouw.nl, www.byggradet.se/utmarkt/