

# TITLE PAGE

4th Semester MSc. Industriel Design  
Department of Architecture & Design  
Aalborg University

**TITEL:**

Period:

Group:

Supervisor:

Cooperation company:

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Appendixes:

Supplement:

**VIDEO**

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Copenhagen Living Lab

114

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**SYNOPSIS**

This master thesis concerns the development of a synthesis process for the research company Copenhagen Living Lab, when they are working in cooperation with designers.

VIDEO is a process where the development is incorporated in the user research process, with respect for the ethnological analytical quality.

By letting the designer influence the focus of the user research and get user-empathy and insight by video sequences.



**Thanks to**

We would like to thank Copenhagen Living Lab for letting us into their company and office, and helping us with the practical approach to our project. Furthermore we would like to thank them for their contribution regarding workshops and tests during the entire process.

In addition to this, we would like to thank our supervisor Søren Bolvig Poulsen for his engagement and support throughout the project.

A thanks goes to Anne Marie Kanstrup, Søren Bolvig Poulsen and Janni Nhi Cam Trinh for letting us use their video footage in process of the project.

And furthermore a thanks to our design network for participating in our workshops and giving external inputs to the process.

Denne speciale-afhandling omhandler udviklingen af en syntese proces for research firmaet Copenhagen Living Lab når de samarbejder med design firmaer. Copenhagen Living Lab, som primært består af etnologer, er det første led i en brugercenreret process, hvor de identificerer og analyserer brugerbehov. Projektet undersøger hvordan denne indsigt i brugerne kan leveres videre til designeren i dennes konceptudviklings process.

VIDEO er vores løsning på dette samarbejde mellem de to discipliner ethnologi og design i en udviklingsprocess.

VIDEO er en proces bestående af 4 trin; Framing Workshop, bruger research, analyse og VIDEO Workshop.

Framing Workshop: Copenhagen Living Lab og designerne udpeger retninger for brugerresearchen under et workshop forløb.

Bruger research: Copenhagen Living Lab video filmer bruger researchen, hvorved designerne kan få adgang til brugerne og deres behov,

Analyse: Copenhagen Living Lab analysere bruger researchen og udpeger innovationsretninger der er underbygget med video sekvenser af brugerne.

VIDEO Workshopen: Copenhagen Living Lab præsenterer brugerresearchen via video portrætter af brugerne, samt innovationsretninger med supplerende video sekvenser. På baggrund af dette udvikler designer og Copenhagen Living Lab i fællesskab designparametre, som skal være styrende for konceptudviklings processen.

Forløbet styres af en plade, hvor to tilhørende metodekort opfordre til at udvikle designparametre ved brug af metoderne Bodystorm og Make Tools.



# READING GUIDE

the project consists of two elements, a process report and presentation material

## Process report

The process report documents the work of the project group throughout the project. The process report is divided into eight main phases and one reflection phase. The process report describes the process of the project linearly, for better understanding for the readers, even though the work throughout the project has been iterative.

The references are written and referred to using the Harvard method (writers surname, year of publication), internet sources as (web address). Appendixes are referred to as (See appendix x). Supplements are referred to as (See Supplement x)

The illustration- and reference list can be found in the back of the process report. Appendixes and supplements can be found on the CD.

Throughout the project Copenhagen Living Lab will be referred to as CLL, and the case "Express 2 Connect" will be referred to as "E2C".

A glossary can be found in the back of the report, for the words that are underscored throughout the process report.

## Presentation material

The presentation material for the project consists of three elements; a VIDEO Box, a VIDEO Handbook and a VIDEO CD.

The VIDEO Box consist of tools for the VIDEO Workshop.

The VIDEO Handbook is a guide for the VIDEO process to be used by Copenhagen Living Lab.

The VIDEO CD consists of a presentation film of the VIDEO process, and templates for the VIDEO Workshop.

### PROCESS REPORT

- **FORMALIA**
- **PROJECT FRAMEWORK**
- **THEORETICAL FRAMEWORK**
- **ANALYSIS**
- **1ST ITERATION**
- **2ND ITERATION**
- **3RD ITERATION**
- **4TH ITERATION**
- **REFLECTION**
- **SOURCES**

### PRESENTATION MATERIAL

- **VIDEO BOX**
  - VIDEO Board
  - VIDEO Methods cards
  - VIDEO Rules
- **VIDEO Handbook**
- **VIDEO CD**
  - VIDEO Templates
  - VIDEO Film
  - Relevant literature
  - Appendixes
  - Supplements
  - PDF of report

# ETHNOLOGY IN DESIGN

the scope behind the project

**“As a natural consequence of the interest about the terms user driven innovation and user centred design, the knowledge and methods from anthropologists and ethnologists, have become a part of the design process” (Steiner Valade-Amland, Danish designers 2010)**

Being design students and being use to perform user research and implementing user research into the design process, we as designers have taken the ethnologist methods as a part of the method tool box, but in a modified version. A version that reduces the ethnography and fits the designers solution-oriented approach.

The design field is moving in a direction where the designer becomes more investigating within the field of design and innovation. The designers role is becoming more focused on strategy, communication, information, interaction, product development and service design. (Buchanan, 2008, p.1)

The designers role is getting larger and larger and is taking over a lot of methods and jobs, but can a designer really perform the best in all these methods and jobs? Maybe it is more a question of letting the designer cooperate in a synthesis with the involving disciplines in the design development. -In the context of user centred design the ethnologist.

**“How can the two disciplines benefit from each other, and how do we get the anthropologists report, manly consisting of words, and the designer’s observations, which often consist of sketches and notes, to come together? Where does the line go in terms of what the designer can manage him selves and when is a scientific method beneficial?” (Steiner Valade-Amland, Danish designers 2010)**

For us design informed by ethnology is the best formulation, and that is a qualified hypotheses that this project rely on. For us design means to work in a design-oriented way, using experiments to envision possible futures. Ethnography should not be ethnographic descriptions nicely wrapped as a package ready to be handed over to designers, rather, it should be a practice of inquiry.

The project strives to focus on the “gap” between ethnography practice and design practice, by investigating how the two disciplines can cooperate in collaborative design sessions, that makes the designer able to develop concepts that rely on the users needs.

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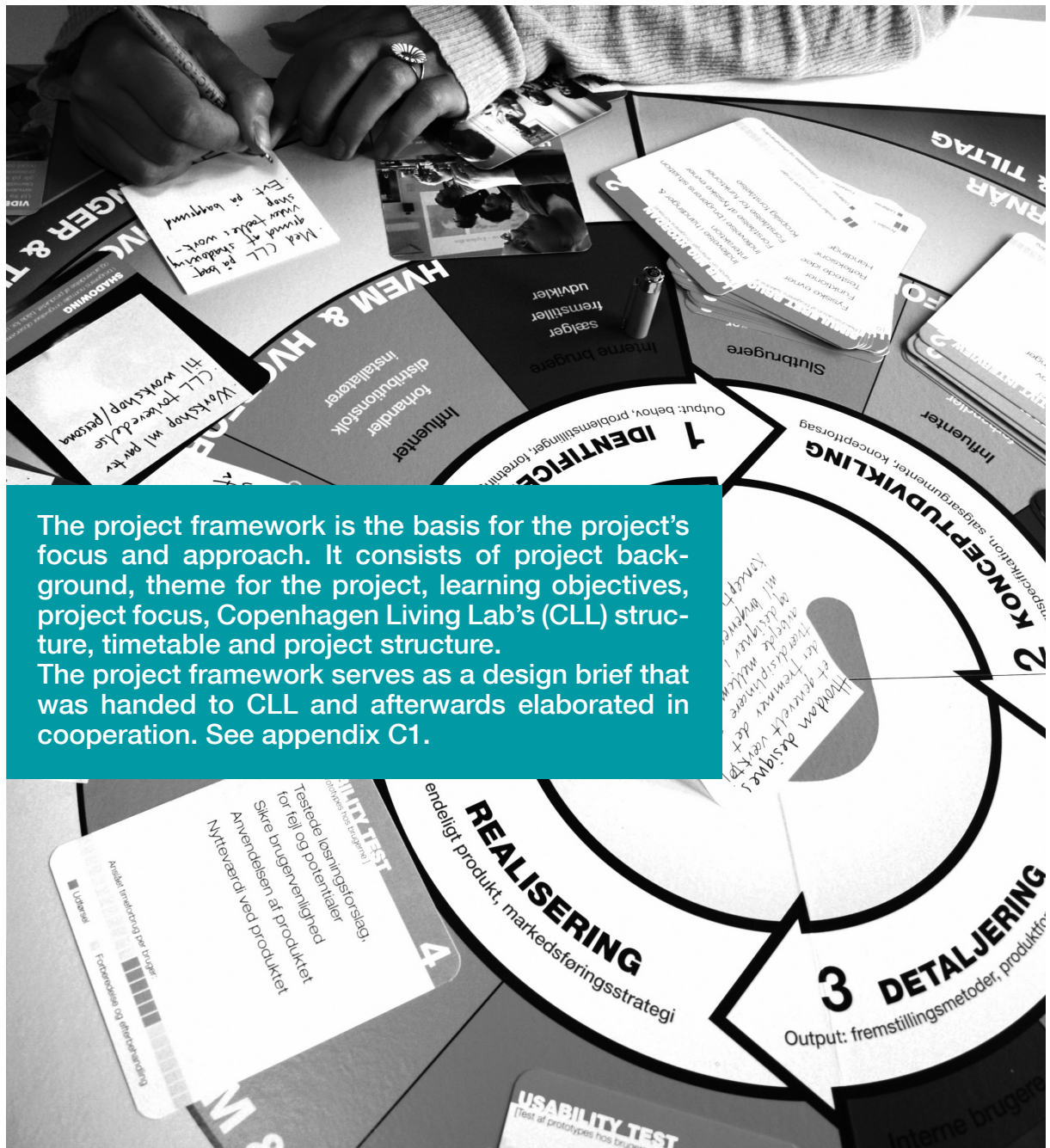
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# PROJECT FRAMEWORK



# PROJECT BACKGROUND

field of interest for the project

With this project we (the project group) want to strengthen our competencies concerning user centred design processes and create a knowledge of how to display these competencies.

## PARTICIPATORY

On the MSc. 3 ID. the project group worked with combining user driven design and strategic design, by designing a tool for making manufacturing companies more innovative in their development process.

The work ended out with PARTICIPATORY which is a tool that facilitates the collaboration between company and designer. The tool helps the company to decide where in the process to involve the users and how.

In the PARTICIPATORY project the planning of the process was in focus, where in this project the focus is on the actual work in the synthesis process, as David Wellman, a sociologist says -**“How people work is one of the best kept secrets”** (Suchman, 1995 p. 56)

By focussing on the actual work, the complexity is increased in this project, because **“we need to reflect carefully on the kinds of secrecy that surround specific knowledges and experiences of working practice and the implications of making them visible.”** (Suchman, 1995, p. 56)

By understanding the process by which we as designers operate, we can become conscious of our own methodologies, and thereby evolve as better designers in practice.

## SYNTHESIS

To focus on the work in the synthesis phase, it is important to understand what the phase is and how the process is. The synthesis is by Associate Creative Director at FROG Jon Kolko defined as:

**“Synthesis is most commonly conducted at a precarious moment between research and definition. At this point in a project, a researcher will have gathered large quantities of data from people; through a variety of primary research methods (...) The designer must do something with the data in order for it to become active, and to actively inform design. They must “use” the data by extracting meaning from it or by generating meaning associated with it.”** (johnkolko.com, 2010, Sensemaking and framing)

John Kolko here points out the focuses of the work that happens in the synthesis phase, and which parameters the project group has to keep in mind when designing a solution for this phase.

The project group's goals with the chosen theme are to investigate the synthesis between user research and concept development (See ill.2) How to integrate the work process of designer and researcher. (Wasson in Squires, 2002 p. 72)

# THEME FOR THE PROJECT

description of cooperation and theme

In order to see the synthesis and thereby the whole development process from a company's point of view, the project group contacted CLL for project collaboration.

CLL offers business user insight and counselling in organising innovation processes. This business focus matched the project group's desire to explore the synthesis between user research to concept development. CLL has focus on user research but less focus in concept development. (See ill.1)

## COOPERATION

In terms of cooperation it is important to understand the working process of CLL and furthermore test concepts with them through workshops.

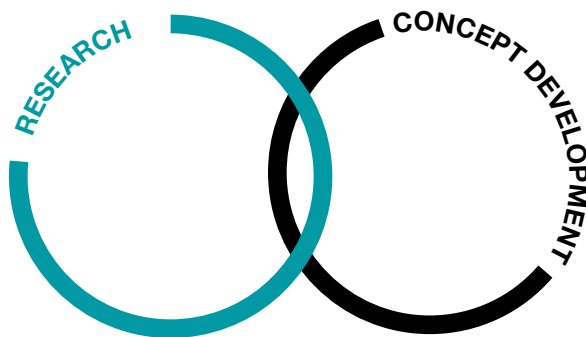
The project will fundamentally be based on the cases "Express to connect" "E2C" (Appendix A1)

and "DANS". (Appendix B1) Both the cases are confidential, there are therefore no supplements or pictures displayed from the cases.

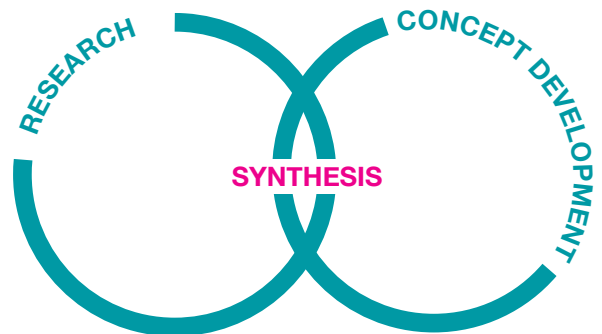
The overall objective for the "E2C" consortium is to develop, test and deploy a web service, which stimulates and facilitates personal storytelling, and enable interest-based connections and communication among elderly people and thereby empower them and enrich their life.

"Dans" is an architectural project, changing a closed down crematorium into a dance- and movement building.

CLL is in both cases in charge of the user research and the developer is a dutch design company WAAG and the Danish architect company DOMUS.



ill.:1: Green is CLL's expert field.



ill.:2: Magenta is the project group's focus field.

# LEARNING OBJECTIVES

purpose and goals for the project

## PROJECT PURPOSE

The purpose of the thesis is portrayed in the study guide as:

**“To give the student the opportunity to independently prepare a project, which comprises an experimental, empirical and/or theoretical investigation of one or more central problem(s) within the subject area.**

**This takes place with the reflected inclusion of relevant theories and methodologies based on skills and competencies acquired throughout the entirety of the master programme in Industrial Design. (studieweb.aod.aau.dk)**

## LEARNING OBJECTIVES

As well as the purpose framed from the study guide, the project group has framed the learning objectives for the project.

The learning objectives are listed in accordance to what the project group aims to achieve concerning to knowledge and wisdom. The objectives are listed in a non-prioritised order.

### Knowledge

- Gain insight in the working process of the ethnologist.
- Gain internal knowledge about CLL's working processes, by interviews and workshops.
- Gain knowledge and analyse the cooperation between the designer and ethnologist.
- Gain and apply knowledge about a theoretical and practical development process.

### Wisdom

- Apply and analyse video in the design process.
- Apply and facilitate workshops with the stakeholders in the project.
- Evaluate concepts based on the involvement of the stakeholders in the project.
- Develop a design approach, based on a practical and theoretical development process.



# INITIATING PROJECT FOCUS

the initiating problem, terms, vision and delimitation

PROBLEM

**How to systematise the synthesis phase, in order to let the designer become able to concept develop on the basic of ethnological user research?**

TERMS

- Translate user research data to design parameters for the concept development.
- Take into account different design fields (service, product, etc.).
- Guide without being to controlling (like a compass).

VISION

- Make user research visible in the concept development phase.
- Design a format that can enhance the cooperation between ethnologists and designers.
- Optimise the workflow at the synthesis between ethnographic user research and concept development.
- Make designers able to concept develop in accordance to user requirements, to ensure high success rate of the products and services.
- Efficient utilisation of data and competencies.

DELIMITATION

- Only focus on the cooperation between ethnologist and designer, and not other disciplines that might be a part of the process.
- When cooperating with a research company it is important to incorporate their business aspect into the project, and not undermine the ethnologists knowledge in the synthesis phase.

# CLL'S COMPETENCY

classification of CLL's competency

To understand the process of a research company and create a solution that can benefit CLL's process, it is important to investigate and classify the competencies and the current working process of CLL.

CLL classifies themselves as a Living Lab: Living Lab can be defined as:

**"Neither a traditional research lab nor a test bed (functionality and usability tests) but rather an "innovation platform" that brings together and involve, or in stronger word, engage all stakeholders such as end-users, researchers, industrialists, policy makers, and so on at the earlier stage of the innovation process in order to experiment breakthrough concepts and potential value for both the society (citizens) and users that will lead to breakthrough innovations." (ami-communities.eu)**

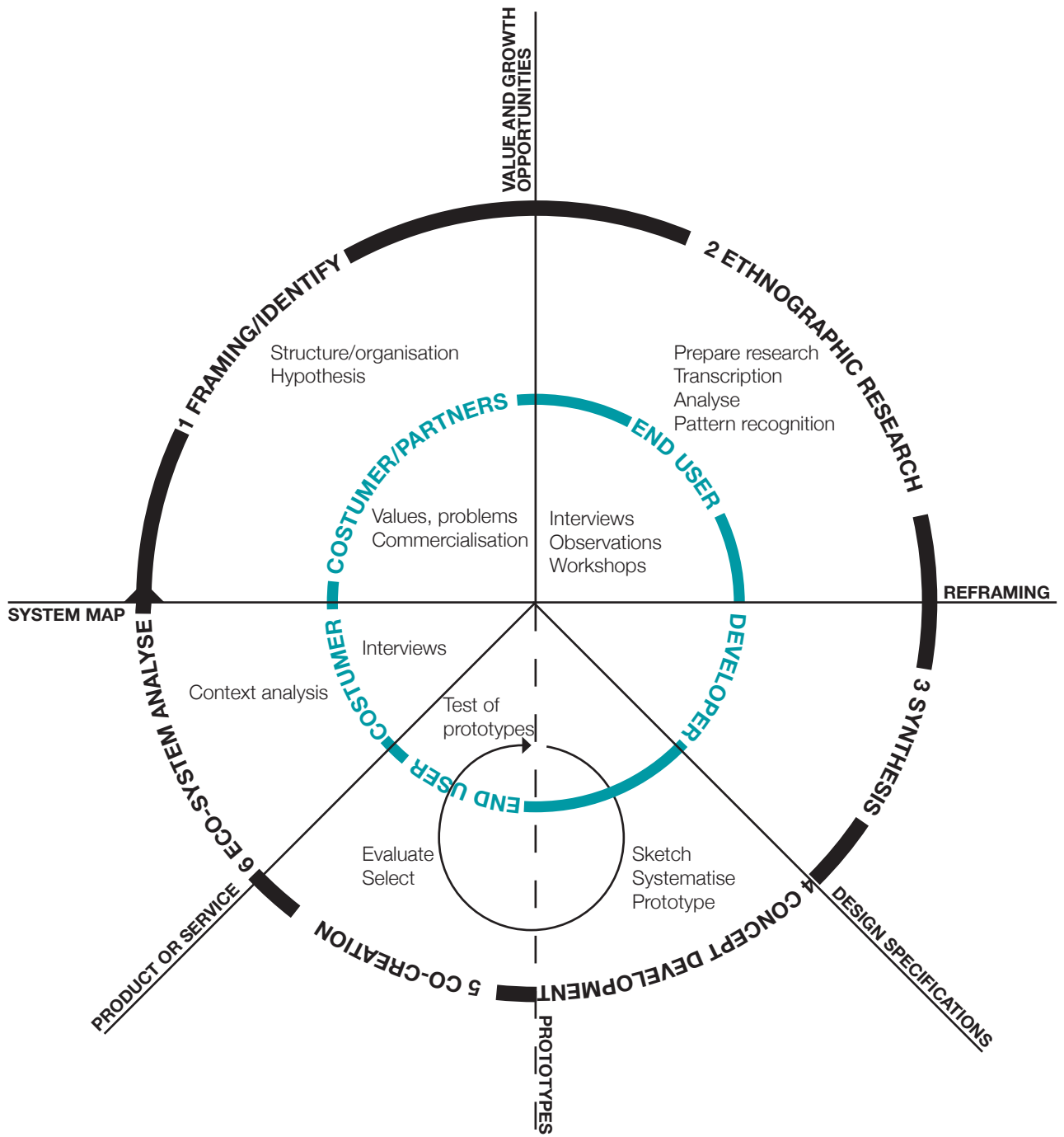
The innovation platform describes how CLL contributes to processes of innovation, especially in the beginning of an innovation process. They possess competencies as business social science and design. On their web site they write:

**"We pursue to make an ideal link between business development and ethnographic methods." (copenhagenlivinglab.com)**

CLL has employees within the areas of ethnography, anthropology, and business. Design was also a part of the academic profile, but their designer stopped the first of September 2010 and after this CLL does at the moment not have any designers. Thomas CEO at CLL expresses requests for delivering design concepts to companies and thereby put emphasis on design competencies again. (Interview Jakobsen 19.08.2010, Appendix C1)

III. 3 Illustrates their competencies during a process. The illustration is an elaboration on CLL's living lab model (See supplement 1). For further understanding of CLL's employees in the project, it is elaborated on page 18, who is responsible for which phase.

(This project will define ethnologists, ethnographers and anthropologies as ethnologists (see definition ethnology p.108), since it is the title of the major part of CLL's researchers.)



ill.:3: Mapping of CLL's process, in accordance to CLL's Living Lab model (See supplement 1).

## **1 FRAMING/IDENTIFY**

In this phase CLL sets up the framework and guidelines for the project together with the customer and partners. Sometimes they involve the users through a workshop with “Lego Serious Play”. This phase also concerns a commercialisation perspective, to determine whether the project creates a sustainable business.

CEO Thomas Hammer-Jacobsen and partner Mie Bjerre are primarily responsible for this phase.

## **2 ETHNOGRAPHIC RESEARCH**

CLL sets the framework for the research and fieldwork as a possible hypotheses. The end users mainly get involved by interviews or/and observation. CLL transcribes the material for the analysis and pattern recognition. This can be further qualified in a workshop with the end users.

The educational-anthropologist Julie Lynge Andersen and the ethnologists Kasper Boye, Astrid Bjerg Caspersen and Mie Bjerre are primarily responsible for this phase.

## **3 SYNTHESIS**

CLL prepares the ethnographic research for the costumers or partners in the project. The categorised material is documented, layouted and verbally delivered to the receivers; this does not have a specific template at the moment and is depending on the project type and partners. It is therefore the projects aim to create a more consistent “template” for the synthesis phase.

CLL’s ethnologists, anthropologists and designer cooperate in this phase.

## **4 CONCEPT DEVELOPMENT**

CLL often out sources the concept development phase to a design company. In some projects CLL’s designer Louise Brønnum was responsible for this phase.

## **5 CO-CREATION**

CLL tests final prototypes with the end user to select and evaluate the product or service. The evaluation can cause a loop back in phase 4. (See ill.3) The researcher whom performs phase two, also performs this phase.

## **6 ECOSYSTEM ANALYSE**

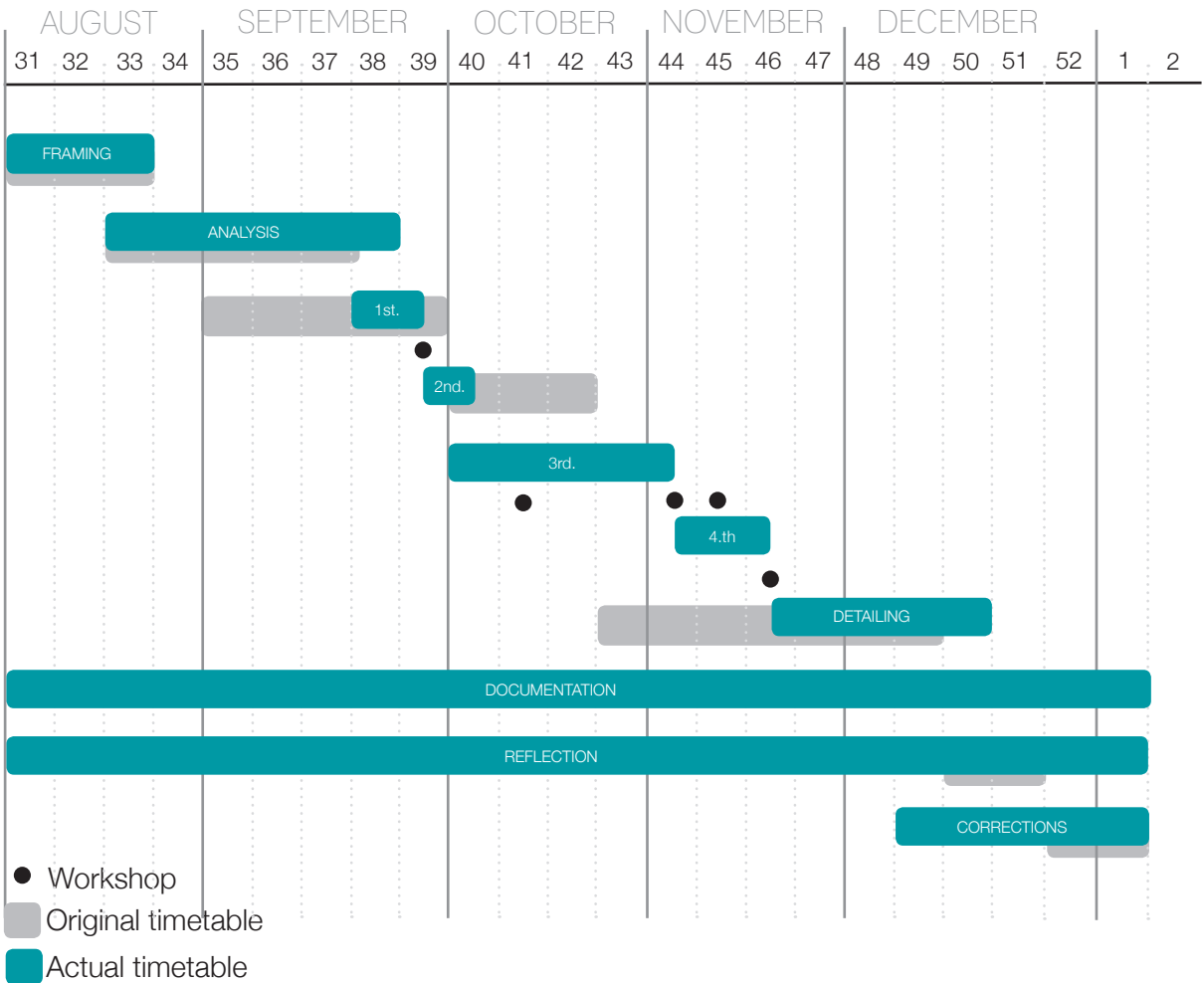
CLL analyses the product or service in its context. This is done, to map the system around the product or service to understand what it affects. Thomas and Mie mainly perform this task. (Interview Brønnum, 31.08.10, Appendix C4)

PROJECT FRAMEWORK

TIMETABLE

overall timetable for the project

The timetable illustrates the overall phases and deadlines in the project. Together with the project structure, see next page, the two schemes create the basis for the project. The four phases illustrate iterations in the development process.



ill.:4: Timetable

# PROJECT STRUCTURE

overall structure of the project

	PROJECT FRAMING	ANALYSIS	1ST & 2ND ITERATION
GOAL	To collect knowledge about CLL. Make a framework for the project. Achieve knowledge about the theoretical approach to the project.	Theoretical analysis of CLL's development process and methods. Analyse the designer's and researcher's working process and the cooperation between them.	To generate concepts on the basis of the gathered knowledge and <u>design parameters</u> of the analysis.
ACTIVITIES	<ul style="list-style-type: none"> <li>Interviews with CLL's employees</li> <li>Observe CLL's working processes</li> <li>Study relevant literature</li> </ul>	<ul style="list-style-type: none"> <li>Interview with CLL's designer</li> <li>Interview with CLL's ethnologist</li> <li>Study relevant literature</li> </ul>	<ul style="list-style-type: none"> <li>Idea generation</li> <li>Study video methods</li> <li>Test concepts through workshop with CLL</li> <li>Casestudies</li> <li>Interview with DOMUS</li> <li>Interview with WAAG</li> </ul>
PROJECT OUTPUT	<ul style="list-style-type: none"> <li>Knowledge about CLL as a company</li> <li>Project structure and theoretical approach</li> <li>Time frame for the project period</li> <li>Initial problem statement</li> </ul>	<ul style="list-style-type: none"> <li><u>Design parameters</u> for the 1st iteration</li> <li>Problem statement and delimitations</li> </ul>	<ul style="list-style-type: none"> <li><u>Design parameters</u> for the 3rd iteration</li> <li>Concepts to test in 3rd iteration</li> </ul>
PROCESS OUTPUT	<ul style="list-style-type: none"> <li>Gain knowledge about CLL's working processes</li> </ul>	<ul style="list-style-type: none"> <li>Gain insight in the working process of the ethnologist</li> <li>Gain knowledge about processes from a theoretical and practical perspective</li> <li>Gain knowledge about the cooperation between the designer and ethnologist</li> </ul>	<ul style="list-style-type: none"> <li>Gain knowledge about analysing and applying video to the design process</li> <li>Perform workshop with stakeholders</li> </ul>

The structure illustrates the expected output for the project and the process. The process output illustrates how and when to achieve the group's learning objectives for the project.

	3RD ITERATION	4TH ITERATION	CONCEPT DETAILING
GOAL	To evaluate concepts and to generate a concept on the basis of the gathered knowledge from 1st and 2nd Iteration.	To test and evaluate concept from 3rd iteration. To generate a concept on the basis of the gathered knowledge from 1st, 2nd and 3rd Iteration.	To detail the final concept by format, graphic, text and structure.
ACTIVITIES	<ul style="list-style-type: none"><li>• Modification of concepts</li><li>• Workshops with designers</li></ul>	<ul style="list-style-type: none"><li>• Workshop with designers</li><li>• Prototype development</li><li>• Prototype and format testing workshop (CLL)</li></ul>	<ul style="list-style-type: none"><li>• Test tool on external company</li><li>• Visual communication of the tool</li><li>• Communication of the process</li></ul>
PROJECT OUTPUT	<ul style="list-style-type: none"><li>• <u>Design parameters</u> for the 4th iteration</li><li>• Concept to test in 4th iteration</li></ul>	<ul style="list-style-type: none"><li>• Prototype of synthesis design</li></ul>	<ul style="list-style-type: none"><li>• Design for the synthesis</li></ul>
PROCESS OUTPUT	<ul style="list-style-type: none"><li>• Perform workshops with stakeholders</li></ul>	<ul style="list-style-type: none"><li>• Perform workshop with users</li><li>• Develop a design based on a theoretical and practical approach</li></ul>	<ul style="list-style-type: none"><li>• Gain internal knowledge about CLL by cooperation</li></ul>

# THEORETICAL FRAMEWORK

The position of the project is not based on only one approach, but both a practical and a theoretical approach, that are joined to complement each other. The project is therefore not following a single direction, theme or understanding, but display different approaches and theories to act as a catalyst for an open minded approach to the project.

The theoretical framework consists of how CLL is incorporated into the project and description of the iterative process and design thinking, and how the theories are incorporated into the project.



# COOPERATION WITH CLL

the cooperation with CLL is based on a user centred approach

The project group addresses the cooperation by a user centred design approach, where CLL is classified as the main stakeholder and WAAG and DOMUS are the secondary stakeholders.

### USER CENTRED DESIGN

**“User centred design (UCD) is a philosophy based on the needs and interests of the user, with an emphasis on making products usable and understandable.” (Norman, 1990 p. 188)**

The output of the project is framed to be used by CLL in the synthesis phase. The project is therefore founded on the needs and interests of CLL. User centred design is an approach where the process is centred on the users. It aims at finding fruitful ways of involving the various stakeholders in the design process. In this project, the stakeholders are CLL, WAAG and DOMUS. (Brandt, 2001, p. 22)

Throughout the project CLL is continually involved, with a equal participation and involvement of the other stakeholders. This involvement and participation of the key stakeholders is the project groups interpretation of the term user centred design.

### APPLIED IN THE PROJECT

The methods to involve the stakeholders are planned with the tool PARTICIPATORY (See Appendix D1,2). In the project there are two general situations for involving the stakeholders. Situations where the research company delivers user research to an external company and an internal situation. See Illustration 5.

The internal situation is where a design company performs its own research and uses this research for its in-house designers. Due to the cooperation with CLL this is not in focus.

The external situation is where a research company delivers user research to a development company. The project group has listed companies that can be the receivers of the user research. (See ill.5) The research and design companies are highlighted with magenta as the project group finds these companies most interesting in relation to future careers and their availability for the project group.

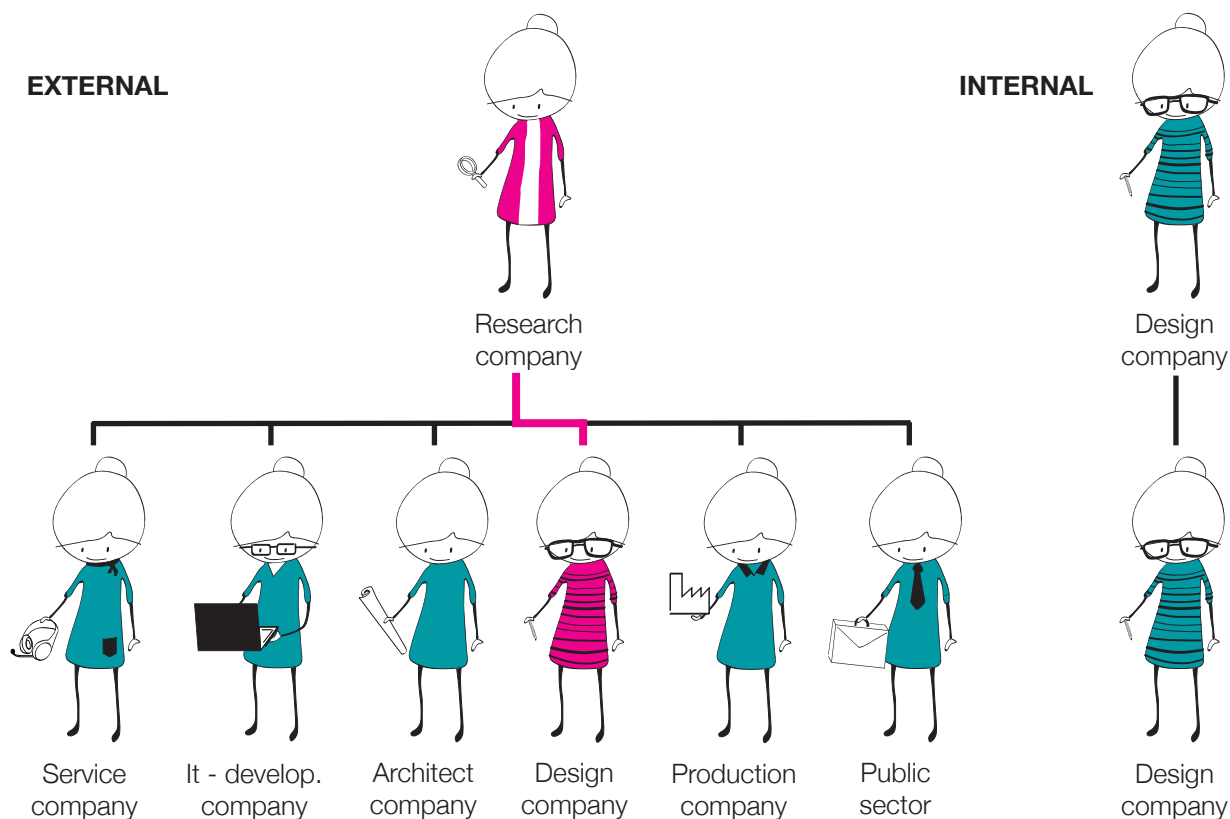
WAAG is an example of a design company that receives user research from CLL and uses this for their concept development. The project “DANS” with DOMUS will work as inspiration to another receiver, where similarities to designers will be excerpt. In addition other designers will be involved during the project.

The project group aims to involve the stakeholders throughout the whole process, on different levels, by interviewing, observing and testing. The research will be based on theoretical knowledge around the project focus and comparison to practical context, where the problems arise. The testing in the iterations will be based on workshops.

The collected data from the practical context will be taped on audio recorders or video. This is due to reflections by looking back at the event; reflection-on-actions as Eva Brandt describes it. She also describes reflection-in-action, as a reflection during an event with the users. (Brandt, 2001, p. 24) She base it on Schöns definition:

**“Much reflection-in-action hinges on the experience and surprise. When intuitive, spontaneous performance yields nothing more than the results expected fir it, then we tend not to think about it. But when intuitive performance leads to surprises, pleasing and promising or unwanted, we may respond by reflection-in-action.”** (Schön in Brandt, 2001, p. 24)

This occurs in dialogue with the users or workshop with users where the participants cooperate and discuss.



ill.:5: External and internal stakeholders.

# ITERATIVE PROCESS

wicked problems as the approach for the project group's design process

By perceiving the problem from a design approach the project process is approached by working in loops to continuously deal with exploring/understanding the problem and to develop/test concepts.

This way of working is also known as the term "wicked problems", which is described by Horst W.J. Rittel and Melvin M. Webber as:

**"One cannot understand the problem without knowing about its context; one cannot meaningfully search for information without the orientation of a solution concept; one cannot first understand, then solve." (Rittel & Webber, 1973, p. 162.)**

The iterative process is applied throughout the project, even though the project is described in a linear flow in the report.

The involvement of the stakeholders in the research will ensure that the project group continually question the problem. The iteration in the development phase will be organised in workshops with the stakeholders, this will generate new concepts and problems.

# DESIGN THINKING

approach for using design thinking as a tool for viewing possibilities

**Design thinking revolves around three key phases: inspiration, ideation, and implementation. During these phases, problems are framed, questions—also about questions—are asked, ideas are generated, and answers are obtained. (Serrat, 2010 p.3)**

Design thinking is consistent with the iterative process, as a opportunity driven approach to solve a problem. This can be described in simple words as ‘breaking the problem into pieces’, ‘putting the pieces together in a new way’ and ‘testing to discover the consequences of putting the new arrangement into practice.’ (Jones 1970, p. 63). By cooperation with CLL the project group aims to make the concept implementable and operationable.

## APPLIED TO THE PROJECT

Design thinking is an approach that combines different competencies into the process and thereby explore new design ideas. Ideas that are human-centred and generates valuable new outcome. (Fastcompany.com). Therefore the project group apply the methods and tools that the project group has used in design processes of products or services in previous projects.

Roger Martin, whom is considered to be one of the leading professors in strategic management and design methods, says that by using a design approach (processes and methods) business can create a strategic potential.

**“The skill of design, at its core, is the ability to reach into the mystery of some seemingly intractable problem – whether it’s a problem of product design, architectural design, or systems design – and apply the creativity, innovation and mastery necessary to convert the mystery to a heuristic – a way of knowing and understanding.” (rotman.utoronto.ca p. 9)**

In this project the project group aims to use design thinking and the approach behind it, to strengthen the user centred design approach in CLL and other companies in order to increase their innovative qualities. This thinking is supported by Tim Brown:

**“When you bring design thinking into that strategic discussion, you join a powerful tool with the purpose of the entire endeavour, which is to grow.” (Fastcompany.com)**

# PROJECT APPROACH

the theoretical approaches for the project

This section is a summary and reflection on how to apply the different approaches to the project. Illustration 6 illustrates how the synthesis will be created from a theoretical, a practical and a test approach.

## THEORETICAL

Understanding the ethnologist's and the designer's working processes and methods from a theoretical perspective.

Investigating different approaches to work in the synthesis phase, both by process and cooperation and looking into which methods are efficient for the delivery and receiving in the synthesis phase.

## PRACTICAL

Practical understanding of the ethnologist's working process, through interviews and case-studies of CLL. Investigate the synthesis phase from both the ethnologist's and designer's point of view, by interpreting how the synthesis phase was in the

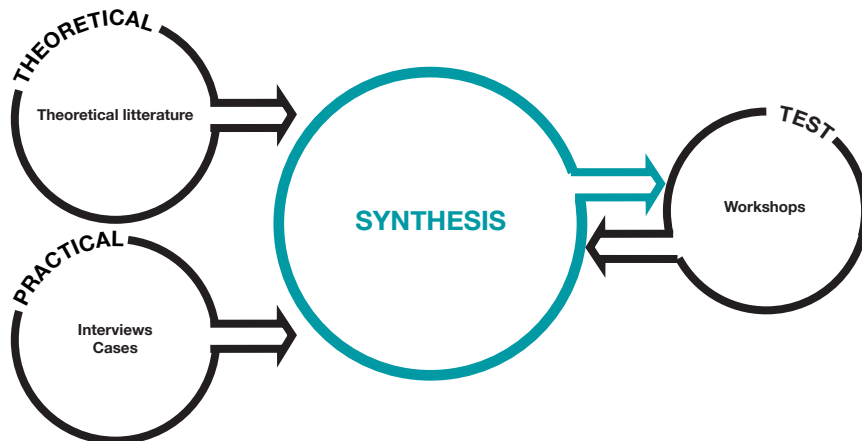
cases "E2C" and "DANS". Likewise interviewing the partners of the cases, to get their interpretation of the process, cooperation and methods used in the synthesis phase in the actual case.

## TEST

Testing the output of the interpretation, the project group has made throughout the research, of the theoretical and practical approach.

Testing in workshops, if the concept throughout the iterations fulfills the problem statement and demands set up for the project. Likewise testing if the concept can be implemented in a "real life" synthesis situation.

The three approaches forms the basis for the project group's own synthesis phase for the project. The concept for the synthesis phase will be tested through different workshops, which will lead to modifications of the initiating concept. The ideation between the projects synthesis phase and the testing will run as an iterative process, as illustrated with the arrows in the illustration below.



ill.:6: The project group's approach to solve the synthesis phase.

# ANALYSIS

The focus of the analysis is set on the designer's and ethnologist's working processes and how to integrate these in order to make the user research becomes beneficial for the development process. This is done by looking at the cooperation, the synthesis process and the designer's and the ethnologist's methods and working processes.

# DISCIPLINE COOPERATION

the different approaches and how the designer and ethnologist can cooperate

The cooperation between the ethnologist and designer is an example of interdisciplinary cooperation and the problems that arise when two different disciplines are delivering and receiving data from each other. Ethnologists and designers are schooled different. Ethnologists do research based on methodological framework, with an open approach, while designers' search for problems to solve. (danishdesigners.com)

Professor in industrial design Poul Skaggs describes the different ways of thinking as:

**"The ethnographer is looking for generalities; the designer is looking for specifics. The ethnographer is concerned with analysis; the designer is concerned with synthesis. The ethnographer is avoiding making judgments; the designer is required to make judgments; the ethnographer looks at a prolonged activity; the designer requires information quickly."** (Skaggs, 2005, p. 1)

Poul Skaggs believes designers and ethnologists think fundamentally different and therefore research for different things, this is also the perceptions of the project group, from the experience of working and analysing CLL.

The ethnologist's focus on the analysis makes him/her independent of others, while the designer's focus on the synthesis forces him/her to cooperate as a link between more disciplines. (Interview Buur 09.11.10, Appendix I) This is relevant when investigating how the two disciplines can benefit from each other in a cooperation.

Poul Skaggs infers from his research that the designer should become a part of the observational research. He writes:

**"The designer who is directly involved in the project development should participate in the observational research. Designers know they are looking for something, they just do not know what it is, but when they see it, they will know. Research reports, no matter how complete, will filter out things that may be termed unimportant or outside the parameters of the research, but in reality may hold the key to the designer's innovation."** (Skaggs, 2005, p. 2)

Researcher in collaborative design Martin Johansson on the other hand argue in his PhD, that designers should not do ethnographies, he says:

**"I am not suggesting that designers should do ethnographies (...), nor do I suggest that ethnographies are what ethnographers should offer design teams."** (Johansson, 2005, p. 42)

Johansson portrays that the synthesis is a matter of how the disciplines can cooperate in a different context towards the same goal, but with different competencies. This requires that the designers and ethnologists think different in their process, instead of the typical thinking as Skaggs points out in the quote. Johansson agreeingly says:

**"We need to start thinking in design terms when we carry out field studies, and we need to be thinking about practice while designing."** (Johansson, 2005, p. 84)

This concerns the process before and after the synthesis, ensuring that the appropriate material can be delivered and is used "right". Delivering the material in the synthesis he points out that for the ethnologist it is important to pass the "user" to the designer and for the designer it is important to receive "the user" with the same empathy. He writes:



**“To utilize the qualities found in field material designers must approach the material in the same way as ethnographers do.” (Johansson, 2005, p. 45)**

Another aspect in this is emphasised by Michael Kræmmer et al. He points out that to benefit from cooperation the participants need a commitment and engagement in the task, to create an ownership. (Kræmmer et al, 2009 p. 10)

Kræmmer mentions it in relation to strategic organisational changes, how companies engage their employers to implement changes. These messages are assessed to qualify the interdisciplinary cooperation as well.

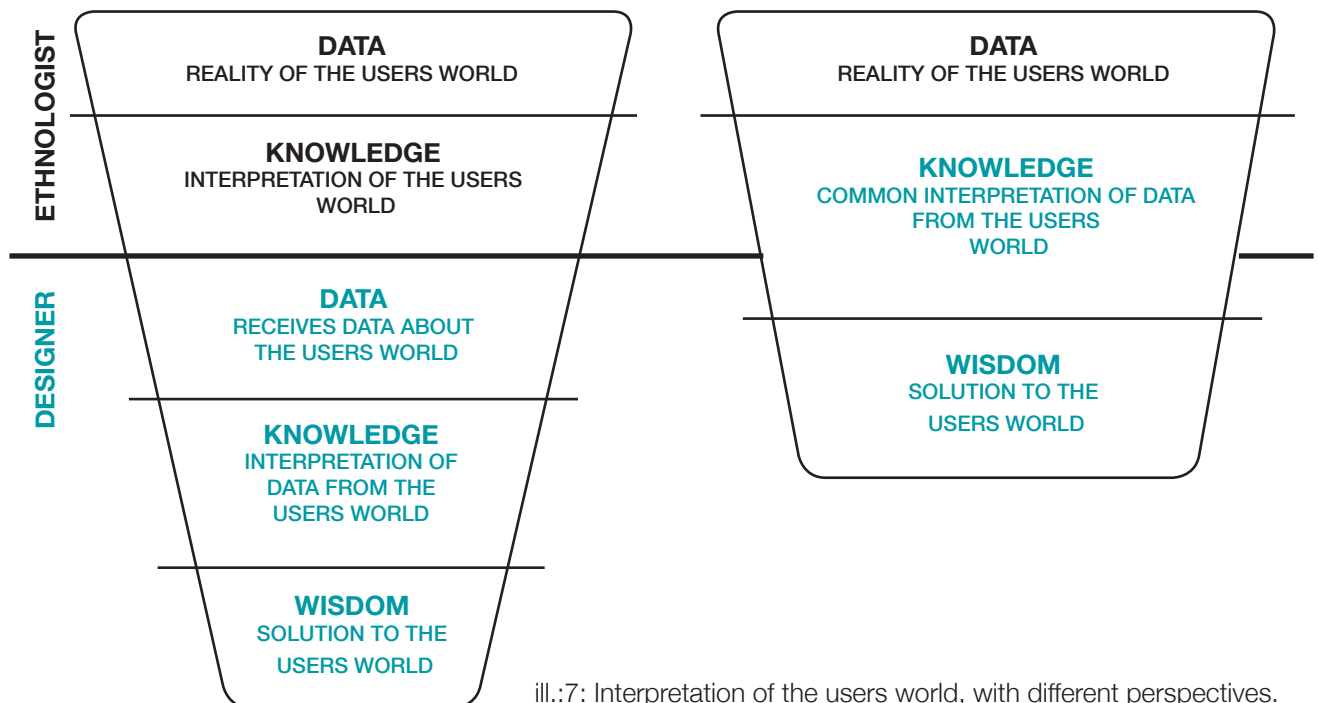
He argues that engagement can be created by co-creation. When working in interdisciplinary co-

operation, Kræmmer defines the co-creation between the disciplines as:

**“They participate to the extent that they actually set the objectives together, plan the change process, make analyses, and define solutions and test them out.” (Kræmmer et al, 2009 p. 91)**

He argues that explanation on the other hand does not give any influence and thereby engagement and commitment. (Kræmmer et al, 2009 p. 90)

By letting ethnologists and designers cooperate in the synthesis process, the designer becomes engaged in the given task, which is fundamental for the designers ability to develop on the basis of the users needs. (Kræmmer et al, 2009 p.10)



ill.:7: Interpretation of the users world, with different perspectives.

**KNOWLEDGE MANAGEMENT**

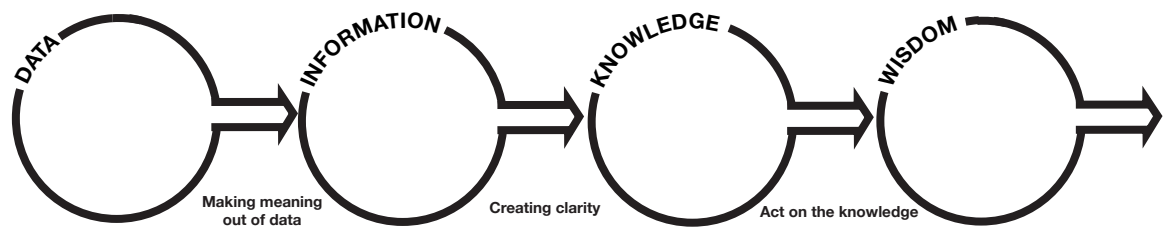
Both Skaggs and Johansson suggest that the ethnologists analysis of users should be a shared task with the designers, to enable them to make an interpretation of the users world and behaviour together.

By letting the disciplines interpret the users world together, the data will not go through as many layer of interpretation, and the understanding of the users world might be more as it is. See ill. 7. As a result of this the disciplines are thought to benefit from each other when analysing the data together.

When the data is selected, processed and systemised by the ethnologist, it becomes information. When the ethnologist process the information by own experiences it becomes knowledge for the ethnologist. To get to a level of wisdom the ethnol-

ogist needs to put the knowledge into a perspective and act on the knowledge. (Agå Hansen and Borup, 2001, p. 85) This process from knowledge to wisdom is called the knowledge management model, see illustration 8.

The knowledge both consists as explicit and tacit knowledge. The explicit knowledge is the written knowledge which is permanent and available for everyone. The tacit knowledge is personal and based on experiences. A knowledge which is hard to explain and is used without thinking about it. (Agå Hansen and Borup, 2001, p. 86-88)



ill.:8: The knowledge management model.

## CLL'S PERSPECTIVE

CLL's designer expresses the importance in gaining ownership in the given task, by engagement. The user research is not her main task, but she cooperates with the ethnologists' in the synthesis phase. (Interview Brønnum, 31.08.10)

CLL's ethnologist Astrid emphasises that designers and ethnologists think in different terms. In the case "E2C", they cooperate with developing Personas for the synthesis workshop (See Appendix A3), where the designer handled WAAG's perspective, of how they can develop on the material, while the ethnologist's handled the user perspective. (Interview Bjerg, 10.09.10, Appendix C3)

In the "E2C" case the designers and ethnologists did not act in each other's roles, but cooperated with their own competencies. The situation is reversed when they delivered the material to Waag in the synthesis workshop.

At the synthesis workshop all the partners in the case "E2C", concept developed in interdisciplinary teams on the basis of Personas. Thomas (CLL) comment on this: **"It was difficult to stop thinking in users needs, and start thinking in solution."** (Jakobsen 01.10.10, Appendix C5)

Astrid on the other hand is of the opinion that everyone can generate ideas. Both Astrid and Thomas agree that if the ethnologists are to take part in any concept development in the synthesis phase, it has to be in cooperation with a developer (designer) so they can benefit from each others competencies. (Interview Bjerg 10.09.10, Appendix C3)

## REFLECTION

### Knowledge management model

To ensure that the user research data generates the same knowledge for the designer and ethnologist, it is important to work with implementing the data into the synthesis phase.

### Beneficial cooperation

By letting the disciplines cooperate and benefit from each other, they work together towards the same, but with different competencies.

### Ownership

Both ethnologist and designers need ownership of the project, to be engaged in the task.

# SYNTHESIS PROCESS

the different approaches to working with the synthesis, both in process and cooperation

There are different ways of working with interdisciplinary cooperation in the process. This section elaborates on three different processes for cooperation during the synthesis. The project group is aware that other processes can occur, but has chosen to only focus on these three processes. The processes are defined as sequenced, parallel and dynamic parallel, while being conscious that a process can possess several of these processes characteristics in one process.

## Sequenced process

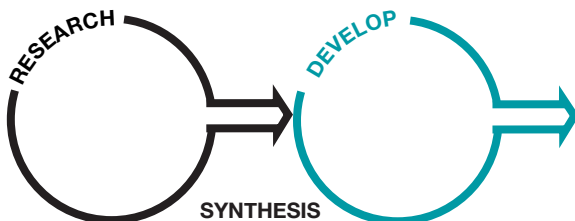
The process can be seen as a sequenced process, where the material is handed over in a linear flow. The different stakeholders/disciplines are involved in the process at different places. (humantific.com) (See ill.9)

VanPatter comments on this by saying:

**“Many fields were working on various aspects of information processing in humans and in organizations without always having views into each others work. (humantific.com)**

Furthermore it refers to Kræmmer's thought about cooperation, where he emphasises that explaining or handing over information does not give any commitment to the task. (Kræmmer et al, 2009 p. 10)

■ ETHNOLOGIST  
■ DESIGNER



ill.:9: Sequenced process.

A sequenced process is ideal when the different stakeholders are working external. There is no need for the two parts to meet when delivering or receiving the data, securing low resource consuming in the process.

## Parallel process

The process can also be seen as a parallel process. Here the different stakeholders/disciplines are involved from the start to the end of the process. In this example no material is handed over. The material is instead obtained as an information flow, where the “streams” from each stakeholder/discipline are interconnected. (humantific.com) (See ill.10) VanPatter quotes:

**“As practice and study zones the paradigms within design exist in parallel. The various operational states of design exist simultaneously. There are often competing and conflicting interests between the zones which tends to generate a lot of heat in the marketplace.”(humantific.com)**

The parallel process can be used both externally and internally. The information flow is constant because the different stakeholders are working individual side by side throughout the whole process. This refers to Johanssons thought that ethnologists have to start thinking in design terms and



ill.:10: Parallel process.

designers have to start thinking about practice, but without letting the ethnologists become designers and reverse. (See p. 28) This process is medium resource-consuming depending on the “format” of the information flow, if its physical or virtual meetings.

### Dynamic parallel process

The parallel process can also be seen as a dynamic process, where the different stakeholders/ disciplines are included in the whole process so they receive a thorough insight in the process. They work together throughout the whole process, but with different stakeholders in charge of each phase. This refers to Skaggs thoughts about the designer becoming part of the observation. (See p. 28) Like in the parallel process the material is not handed over but obtained as an information flow. (Squires et al., 2002 p.165) (See ill.11)

Anthropologist Mark Dawson quotes: “(...) **each discipline leads at different phases of the project, so that each discipline dynamically moves between the role of project lead and support staff.**” (Squires et al., 2002 p. 166)

The dynamic parallel process is suitable for when the different stakeholders are working internally, because the stakeholders are working so closely

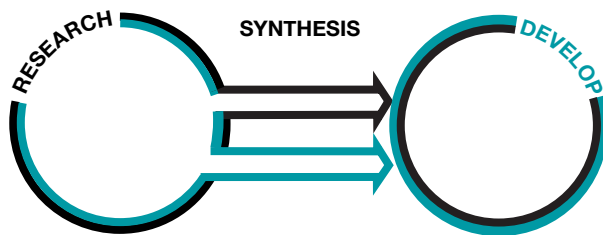
together in each phase. Having different stakeholders in charge of each phase, raises the question of how the knowledge is maintained throughout the different phases and with the different stakeholders. Likewise the constant role shifting can be disturbing for the stakeholders and the whole organisation. In addition the process is high in resource consuming due to the involvement of all stakeholders throughout the whole process.

When working with an information flow, it is required that the involved disciplines work together in interdisciplinary teams instead of working alone. It is important to understand what is crucial for this cooperation.

### COOPERATION

Interdisciplinary teams, who are engaged in the design process must learn team skills and need to work with visual representation to coordinate actions and report where they are in a process.

“No one individual can handle the number of issues because there are so many aspects to them. You have to get people working on inter-disciplinary teams inputting their piece because nobody knows everything. Often we have to operate in areas of uncertainty where the team, assembled from diverse areas of expertise puts together the best it can from many fragmented pieces of the puzzle. (...) Most problems are multi- faceted today. Long gone are the days when you could say that a problem is just a product development, or a marketing problem or a purchasing problem. Often problems are interwoven, mixed together, to form larger issues facing the organization.” (Basadur in Friis, 2007 p. 76)



ill.:11: Dynamic parallel process.

Visual process representations force teams to reflect about process as separate from content and individuals in addition the teams have something tangible to return to later in the process.

VanPatters design thinking theory points out the importance of visualisations in the interdisciplinary process:

**“In teamwork the presence of a visible process is most important. When you get a group of people together, unless they have a common articulately process that they can follow together, chaos results and much time is wasted. Without process orchestration, common teamwork problems tend to occur, among them.” (Basadur in Friis, 2007 p. 77)**

This statement leads to look at the working process of each discipline to understand their work and methods.

## REFLECTION

### Recommended process

A parallel process is considered suitable for the project as the external process with CLL is in focus. The process creates a constant information flow, that allows the ethnologist to incorporate the designer's perspective and desired outcome in the process and allows the designer to become aware of what the ethnologist base his/her knowledge on. The designer does not become researcher and vice versa.

This process also support the vision of respect for the competencies, letting the disciplines cooperate and benefit from each other, working together towards the same goal using different competencies.

This cooperation can engage the stakeholders and create ownership in the project.

The parallel process is less resource demanding than the dynamic parallel process.

### Interdisciplinary cooperation with visual representation

Cooperation between disciplines where visual representation can make a common focus that encourage to take advantage of each other's competencies.

# ANALYSIS ETHNOLOGIST

the research phase

The ethnologists process is defined as a part of a broader design process, where the research aims to end in a solution to the problem. Jacob Buur describes the ethnologists in a design process as:

**“When anthropologists have come under the spotlight in the user-driven innovation it is often motivated by the fact that there among users are ‘hidden needs’ that companies can capitalize on. And that these ‘hidden needs’ can not be found through questionnaires and interviews, but requires deeper, ethnographic studies.”(Ebst.dk, 2009)**

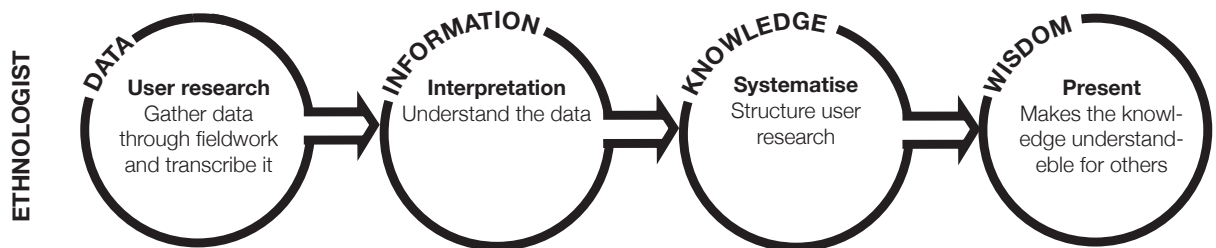
This argument for the ethnologist position in an in-depth design process. Ill. 12 illustrates the ethnologist studies. How the ethnologist structures and systematises the fieldwork to create meaning of it.

The ethnologist contributes with a tacit knowledge, which creates an optic on the user research.

**The most valuable knowledge will often stay as tacit knowledge(...) This kind of knowledge is hard to appraise and estimate, because it is dynamic and attached to living people. (Agø Hansen and Borup, 2001, p. 88)**

Tacit knowledge is with other words, the same as intuition, Professor of Social Sciences Sarah Pink describes it as: **“a process of creating and representing knowledge (about society, culture, and individuals) that is based on ethnographers’ own experiences.” (Pink, 2007, p. 22)**

The process is not a linear process as illustrated, but the ethnologist may return to the data and information. (Charmez, 2006, p. 10)



ill.:12: The ethnologist's process during the research, based on CLL (Julie 08.09.10, Appendix C2) and Susan Squires (Squires et al., 2002 p. 105) and compared with the knowledge management model.

THE ETHNOLOGIST’S METHODS

This section systematises methods that can be used in the synthesis to deliver material from the user research. Jon Kolko defines these methods as:

“Synthesis methods are the ways in which ethnographic insights lead to new, innovative, appropriate, or compelling ideas. These principles and methods are teachable, repeatable, and understandable. They are creative activities that actively generate intellectual value, and they are unique to the discipline of design. (jonkolko.com, 2010 sense-making and framing)

Kolko systematises the methods after the knowledge management model, working from data to wisdom, he emphasises:

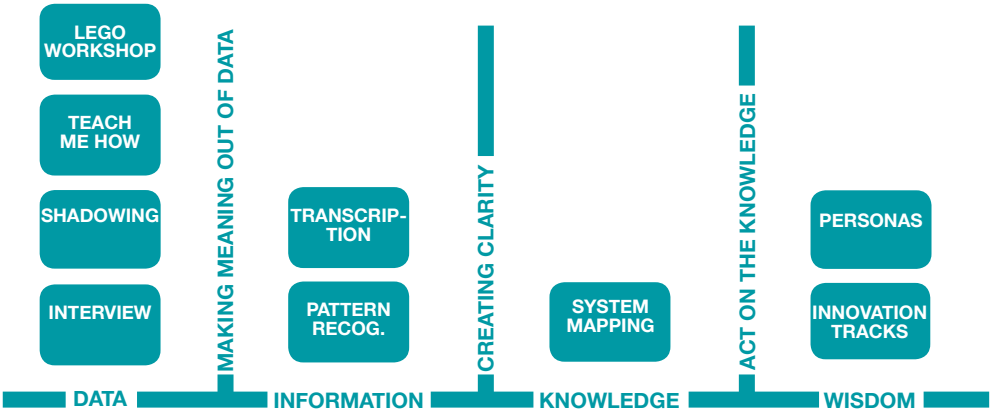
“Design Synthesis is the push from data to knowledge” (Jonkolko.com, 2009 p. 6)

This assumption is relevant due to the conclusion of having a constant information flow between ethnologist and designer, where the designer constantly communicates with the ethnologist during the process.

Based on this the project group has systematised the methods learned and used throughout the education and the methods experienced at CLL, after the same system as Jon Kolko, to create consciousness about which methods the ethnologist uses in each phase of the process. The systematisation is created from the ethnologists perspective and from how the project group experiences it to be now. (See ill. 13) Each method is described in Appendix F1.

The x-axis illustrates the knowledge management model. The y-axis is not prioritised.

In order to present/deliver the user research so it stimulates the designers multiple senses, visual ethnography is investigated.



ill.:13: Systematisation of the ethnologist’s methods, based on the knowledge management model.



## VISUAL ETHNOGRAPHY

Visual ethnography is a sub discipline for ethnologists using visual media as photography and video in their research.

**“Anthropologists had at origin based their work on written texts and verbal presentations such as lectures, and had overlooked the valuable contribution of a visual perspective.” (Grimshaw in Pink, 2010 p. 345)**

Sarah Pink describes the potential of visual ethnography, in relation to interdisciplinary collaboration.

**“Visual methodologies across the social sciences is leading to exciting new interdisciplinary approaches” (Pink, 2010, p. 347)**

This supports the project groups overall vision for this project. By using visual ethnography, the material becomes easier to share without the ethnologist's interpretation of the material and might give a better understanding. Cognitive Anthropologist Ivo Strecker emphasizes that:

**“Images play a central role in the human mind and in human discourse which is metaphorically grounded” (Strecker in Pink, 2007, p. 32)**

The designer needs visual stimulation to understand the material. Furthermore it states that visual material is participating and can gather people around the same data. (Pink 2007, p. 110)

Video is a more nuanced media instead of photography when it comes to visual stimulation. Anthropologist John Collier emphasises:

**“The special value of film and video lies in their ability to record nuances of process, emotion, and other subtleties of behaviour and communication that still images can only suggest. With the still photograph one can quantify human content, describe it in detail, measure distances, define spatial relationships. But with film or video it is possible to deal precisely with not just “what” but also “how” behaviour happens, not only to see but also to understand the sparkle and character of an event, a place, a people.”(Collier in Bolvig, 2008 p. 89)**

So by using video to document the user research, the ethnologist captures emotion, behaviour and communication. But video has some negative aspects as well, when applying video, it can affect the scenery it is brought into, and as Jean Rouch, visual anthropologist emphasises:

**“When people are recorded, the reactions that they have are always infinitely more sincere than those they have when they are not being recorded” (Rouch in Bolvig 2008, p. 90)**

It is therefore important, when working with video, to be aware of the situation and to have an understanding of how the presence of video media can affect the situation. The video media reproduces the concrete situation, but due to the media's limited grounds in terms of the human mind, it will only show a segment of the actual reality. (Bolvig 2008, p. 91)

Another consequence of using video in displaying the actual reality, is the optic seen from the person recording. The placement of the video camera, recording angle, focus and zooming are all subjective choices, which affect the degree of actual reality. Furthermore a subsequent processing by editing will add a further optic.

## CLL'S ETHNOLOGIST'S PERSPECTIVE

CLL primarily use methods as qualitative interview, observation and "Teach me how". They work by the motto: **"Real people in real life places."** ([copenhagenlivinglab.com](http://copenhagenlivinglab.com))

The methods CLL uses, gives insight about the users. To make directions they analyse the user research, and try with a high level of abstraction to systemise the information into an approach. This approach often consists of Innovation Tracks, a framing of directions and problems for the project. (See p. 42) CLL's purpose with the Innovation Track is to ensure a systematic development process based on these needs (Jakobsen, 19.11.10)

CLL does not have a standard formula for the methods they use in the synthesis. Mainly they deliver research from the knowledge and wisdom phase, which mainly consist of written text like Innovation Tracks. In "E2C" Personas and Innovation Tracks were develop by CLL and delivered by a workshop with WAAG. (See Appendix A2 and A3)

CLL's analysis consists of the ethnologists interpretations, which is interpreted again through pattern recognition. Due to the transcriptions it becomes important to be able to go back in time and read what the user actually said and get a better understanding of the research material. (Interview Lynge 08.09.10, Appendix C2)

CLL uses photography in their research, to document "the real world" without interpretation. Video as a visual medium, is not a normal part of CLL's research process but it has been used in some cases. It depends on the task's type and research methods. Thomas (CLL) emphasises

that in cases where the context and actions are important, video might be a relevant tool. While cases as "E2C" where interviews are used to get an insight in people, their feelings and emotions, video might not be relevant. (Interview Jakobsen 10.09.10, Appendix C5)

Furthermore CLL's researcher emphasises that video as a media in the research phase can create a distance to the user, especially during observation. Julie (CLL) comment on the use of video: **"(...)the researcher stands out of the context and do not becomes the "fly on the wall" (Interview Lynge 08.09.10, Appendix C2)**

### REFLECTION

#### Visual media

Using visual media in the ethnologists research process makes the data easier to understand and share between disciplines. It is a participative medium, that can make a common language between disciplines in the process.

### CLL'S PERSPECTIVE

#### Innovation Tracks

Directions can be presented through Innovation Tracks.

#### Visual media

Video can be relevant when the users context and actions are important. Video can create a distance to the users. CLL has not been using video in the synthesis phase so fare.

# DESIGNER

the concept development phase

The designers' process can be described from the identification of a problem, to realisation of the solution. Design, in a user centred perspective is the process based on needs, where relevant and valuable products/services/strategies are developed. (Friedman in Bolvig 2008, p. 2)

The designers' concept development phase is described in according to the knowledge management model. (See ill. 14) Where the designer interpreters data to become knowledgeable. Knowledge is then transformed to solutions by development.

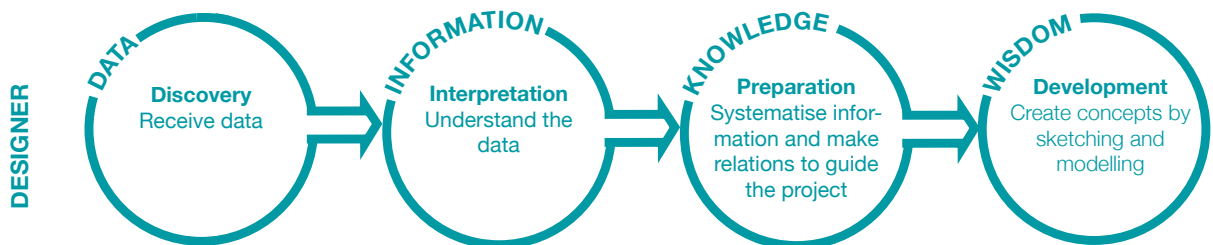
The explicit knowledge consist of the data the designer in this case receives from the ethnologist and the designer's methods, described on next page. The tacit knowledge is the designer's own intuition that influence how he/she works. (Hansen and Borup, 2001, p. 88)

Donald Schön, thinker in theory and practical learning, describes that the human **"is knowledgeable on a particular manner. It is often the case that we can not explain what knowledge we posses."** (Schön in Bolvig 2008, p. 99)

This supports, that designers base their design on systematised and interpreted data, as well as intuition. When the designer designs on intuition it becomes important for the designer to create tacit knowledge about the user, to be able to base the design on the users needs. This puts demands on the material of the user research, which the ethnologist hands to the designer, because it should give the designer the ability to create user empathy.

Schön points out that designers work in format of sketching and modelling. Therefore should the material of the user research stimulate the designers multiple senses. (Schön in Johansson, 2005, p. 45)

Even though the model illustrates a linear process, the designer often works with overlaps between the phases. The process becomes iterative and runs in loops between and in the phases, to constantly search the opportunities and explore the problem. (Rittel & Webber, 1973, p. 162.) The designer works with "wicked problems" as a way of exploring opportunities (Johansson, 2005 p. 33)



ill.:14: The designers' process based on Jon Kolko (jonkolko.com, 2010) and compared with the knowledge management model.

THE DESIGNERS' METHODS

In the section “Ethnologist” the ethnologists’ methods for the synthesis phase are described. These methods should meet the designers’ way of thinking and thereby the methods used by the designer. (jonkolko.com, 2010)

In this project the data for the designer is delivered from the ethnologist, therefore there is no methods for the designer in this phase. As reflected on in the section “Ethnologist”, using visual media makes the data easier to understand and share between disciplines, the project group therefore sees a potential of working with video as a synthesis method.

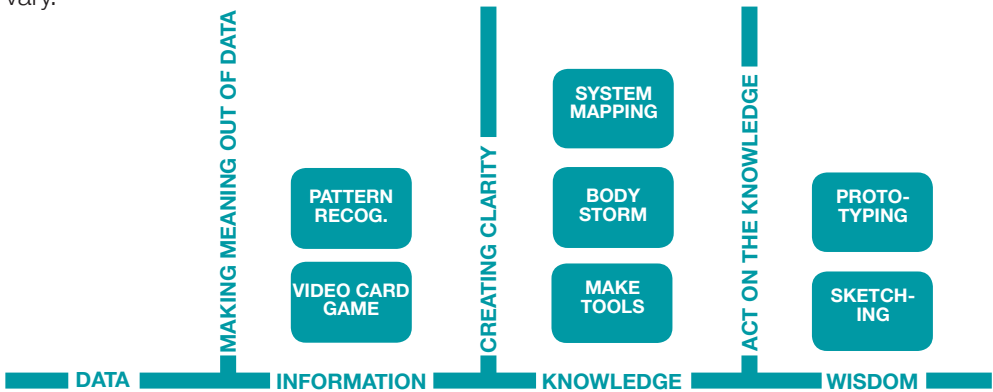
The methods the designer uses in the phases are illustrated in accordance with the knowledge management model. (See ill. 15) The designer works in an iterative flow, between these phases, the methods are therefore hard to categorise according to the knowledge management model, and might vary.

The methods listed are the methods learned and used throughout the education at Architecture & Design and the methods experienced at CLL.

The analysis of the designers’ process showed that the designer needs directions to guide the process as well as empathy for the user to be able to concept develop on the ethnographic research. Directions can be presented through Innovation Tracks, and to support the culture at CLL, the project group chooses to work with Innovation Tracks as a synthesis method.

The x-axis illustrates the knowledge management model. The y-axis is not prioritised.

The systematisation is from the designers perspective. Systematisation from a business perspective and researchers perspective is described in Appendix F2.



ill.:15: Systematisation of the designers’ methods based on the knowledge management model.

## CLL'S DESIGNER'S PERSPECTIVE

At CLL the designer (Louise) mainly worked in the synthesis and concept development phase. She was normally not involved in the research phase, but received written text about the user, (sometimes with pictures). Together with the ethnologists she systematised the research. Small quotes from the user stimulated her senses and made her able to create empathy for the user.

In "E2C" Louise had the responsibility for the synthesis phase, because CLL assumed that she was able to see what the designer at WAAG was able to concept develop on. The material Louise got from the research was a document with systematisation of the users and their needs followed by quotes from the users. She was not able to understand the material on her own and therefore needed the ethnologists to be part of the synthesis process. (Brønnum 31.08.10, Appendix C4)

This is an example of how the ethnologists knowledge can be difficult to understand, without understanding where it comes from. Furthermore it illustrates how cooperation between disciplines creates the synthesis. Louise brought her designer knowledge to the user research and thereby created meaning out of data together with the ethnologist.

### REFLECTION

#### Directions and empathy

The designer develops concepts on systematised and interpreted data, as well as intuition. To base this on the user, the designer needs empathy for the user, created through the material of the user research.

Video and Innovation Tracks can create directions and empathy, and are therefore further elaborated.

#### Stimulate multiple senses

The material of the user research should stimulate the designers' multiple senses.

#### Iterative process

The designers' process is not a linear process, but an opportunity-driven approach.

### CLL'S PERSPECTIVE

#### Insight

The designer needs to understand what the ethnologist base his/her knowledge on.

#### Cooperation

Integrating the designer's and ethnologist's knowledge by cooperation creates the synthesis.

# INNOVATION TRACKS

CLL's methods to frame directions, based on the user research

Innovation Tracks are CLL's methods to present existing situations and identify opportunities for innovation within the situation. The Innovation Tracks are divided in different focus areas as output of the user research and the analysis process. The user research might already be structured on the basis of some focus areas. In the analytical process they unfold these focuses and might add new. (Interview Bjerre 08.10.10, Appendix C3)

Example of Innovation Tracks can be taken from one of the cases at CLL "Det gode ældre liv". Due to the confidential criteria of the cases "DANS" and "E2C" are the case "Det gode ældre liv" brought into the project for explanation of the Innovation Tracks.

The analysis is divided into eight tracks with 4-6 questions, which frames the directions of the Innovation Tracks. Each track is described as:

## Overall relevance

Describes the importance of the theme for the receivers (in this project, the designers), might be supported by quotes from one of the users, as this example from the case "Det gode ældre liv".

**"Memories and experiences take up a lot of the nursing home residents every day life. Some dwells in the past and are very attached to it through different objects, which reminds them about the good experiences and important relations. It is important for the residents to have access to and benefit from these memories."**

## Needs to be addressed

Describes the users problems within the theme and ends out in questions as this example from the case "Det gode ældre liv":

**"How can new experiences be kept fresh in the recollection?"**

## REFLECTION

### Benefits

The Innovation Tracks explain and frame directions for the project.

### Requirements

The Innovation Tracks are based on analysis of often complex user research, which requires good analytical skills.

## CLL'S PERSPECTIVE

### Innovation Tracks

Innovation Tracks are already a part of the research culture at CLL, and the interviewed partners in the cases "E2C" and "DANS" are content with the direction and insight the tracks gives for the development phase. (Appendix A5 and B2) Likewise it is chosen to use Innovation Tracks in the solution, in order not to make the culture changes too big for CLL, which could jeopardize the productivity in the company.

## ANALYSIS VIDEO

as a method in the synthesis

Video stimulates multiple senses, which allows the designer to experience the users world, without being in the context. Johansson explains:

**“The quality that videos from field studies have in design work is that it helps the design team staying close to the actual practices.” (Johansson, 2005, p 84)**

Using the ethnologist research video as the user research, makes the process non-dependent on the presence of the designer, which makes the user research less resource consuming.

The material is not filtered by the ethnologist and thereby removed from its context, even though an optic is put on, both in the work of recording and editing the material. Johansson explains:

**“the design team can gain ‘first and a half’ hand observation from the video snippets -a half, due to the fact that it is filtered through a video recording and that the selection is made from the entire field material. (Johansson, 2005, p. 51)**

It reveals an ambiguity and open-endedness of interpretation that makes it surprisingly dependent on the participation of stakeholders, recorders, editors and viewers. (Buur, Binder & Brandt p.1) Furthermore video puts up requirements for the ethnologists technical skills, time consumption and for the companies disposal of video camera and editing programs.

The format of the video is crucial for where and how in the process it can be used, and for whom. Video can be a participating medium that allows collective analysis or development of ideas. (Buur 2007, p. 21) This will be further investigated in the 1st iteration.

### REFLECTION

#### Benefits

Video is a visual media, that emphasis the designers’ way of experience and understanding.

Non dependent on the presence of the designer in the user research.

Video can create transparency of the process, by getting an understanding of how the wisdom is created.

Video can be a participating media.

#### Requirements

The ethnologist needs technical skills to record and edit video material.

The company needs video camera and editing programs.

Video creates an optic on the researched subject.

### CLL'S PERSPECTIVE

Video might jeopardise CLL's working process, both with recording the user research and editing in the analysis.

CLL is a bit skeptical towards video, and it might be a challenge to convince them about the effects for the designer.

# CONCLUSION

puts up design parameters for the 1st iteration, based on the analysis

The analysis leads to statements, which are divided in three terms: process, cooperation format and methods. These terms are all important due to the designers ability to concept develop on the basis of ethnological user research.

The illustrations 16 and 17 and a new problem statement will guide the 1st iteration.

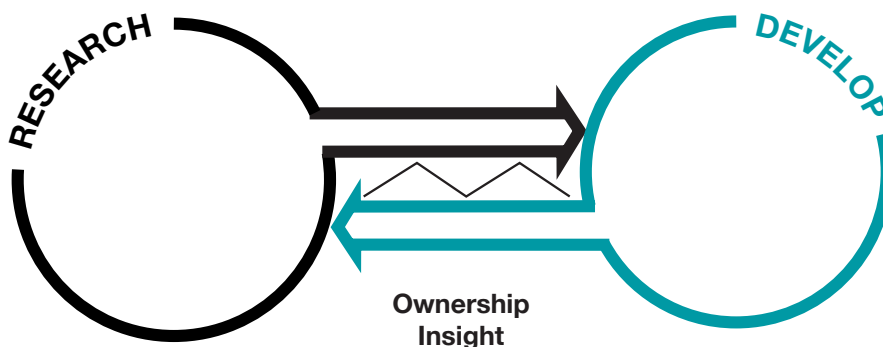
## PROCESS

The process should support the vision of respect for the competencies, letting the disciplines cooperate and benefit from each other, as they work towards the same goal, utilizing their different competencies in a constant information flow. The ethnologists hereby start thinking in design terms during the research and the designer thinks of the users practice during the development. This is based on GK VanPatter's and Johanson's theory and case study at CLL.

## COOPERATION FORMAT

The cooperation must provide both disciplines with influence so each of them gain ownership of the task, this is not done by explanation but by physical cooperation meetings. Therefore this project will deal with a participating format where ethnologists and designers can share their knowledge. The cooperation format should give the designers insight in the ethnologists' process through a constant information flow.

The insight is important due to letting the designer understand what the ethnologist interpretation is based on and thereby be able to use conclusions of the interpretation in the development.



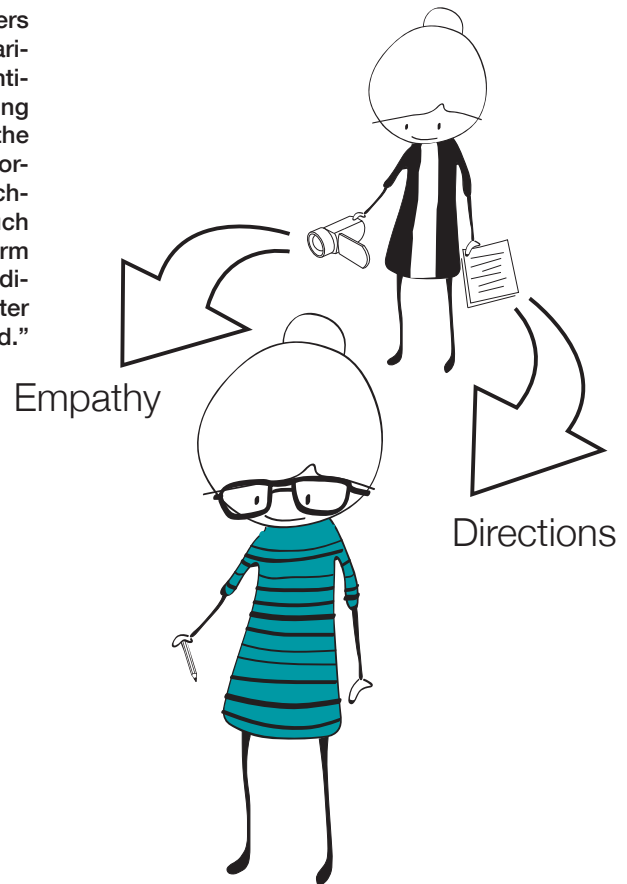
ill.:16: Terms for the 1st iteration, describing the process and cooperation format.



## METHODS

The designer needs directions that can guide the development. Furthermore the designer needs user empathy because he/she designs on intuition. Video and Innovation Tracks meet these condition. The format of these will be further elaborated in the 1st iteration to see how the methods can be used in the synthesis in order to create value for both disciplines.

**“In a joint session of practitioners, researchers and designers looking at the recording, the various groups might have overlapping but not identical goals. All might share the goal of understanding better what happened in the interaction, though the participants might be reflecting on interactional organization of the work, and the designers searching for ideas for new prototypes. We hope that such cross-perspective cooperation become the norm in the future. (...) We believe that the video medium can catalyse such collaboration to the greater understanding and imagination of all concerned.”**  
(Suchmann 1991, p. 87)



ill.:17: Terms for the 1st iteration, describing the methods.

# DESCRIPTION OF VALUES

a visual explanation of the values for the project

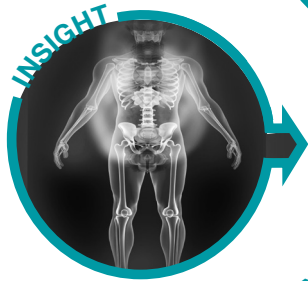
The conclusion of the analysis on p. 42, frames the values the designer should get during; the process, cooperation format and methods. The values are described with pictures and metaphors in order to give a common understanding of the words meaning in the project.



The ability to identify yourself with and understand somebody else.



Guidance, like a compass.



Creating clarity and transparency in the process.



A united feeling of responsibility and passion, throughout the process.

ill.:18: ill.:19: ill.:20: ill.:21: Value pictures.

# PROBLEM STATEMENT

frames the problem and delimitations for the further process

PROBLEM

**How to establish a format for the cooperation in the synthesis phase, which creates a balance between the disciplines and enables them to contribute with their full value, while using video and Innovation Tracks to generate user empathy and directions for the designer?**

DELIMITATION

- It is determined, based on the analysis and the projects focus on an external process, that the parallel process is the most appropriated in the cooperation between the designer and the ethnologist. This will not be tested further.
- The communication between the designer and the ethnologist in the research phase and concept development phase, will not be further processed. But it is determined that they share knowledge in these phases.
- How the designer works further in the development phase, after the cooperation in the synthesis phase is a delimitation. Likewise the methods used by the designer in the development process is also a delimitation.

# 1<sup>ST</sup> ITERATION

The 1st iteration of 4, has its starting point in the conclusion of the analysis. It consist of a workshop with CLL, which works as a test of and as inspiration for new concepts and directions.

# VIDEO VALUES

values created from different formats of the video

The project's analysis framed that the designer should get directions and empathy for the users in the synthesis phase. This is in accordance with Jacob Buur's and Salu Ylirisku's video model. They add to this, by saying that video also can create opportunities. **The video model: "outlines how different kinds of video artefacts can be edited from the user study video footage to facilitate design discovery into particular areas."** (Buur 2007, p. 119) (See ill. 18)

Arguments for the importance of the three terms, according to the project:

## Empathy

To let the designer become able to put him/herself in the user's position, to let the interpretation be based on the user's needs.

## Opportunities

To inspire and create opportunities for the development process.

## Directions

Innovation Tracks can give the designer written directions from the analysed user research, but Buur claims that video is also able to make a clear framing of the problems guiding the development in a clear direction.

Jacob Buur argues that these values are created on the basis of three video formats; stories, portraits and collages. He defines them as:

## A video story

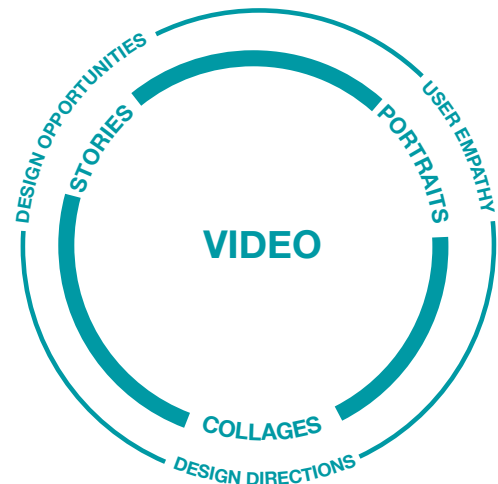
Shows how things happen, an observation of real life, which can lead to design opportunities.

## A video portrait

To convey empathy. Combining voice, image and activities to illustrate a certain person, which gives the designer empathy for the user.

## A video collage

Provokes thought and gives the designer new areas, or design directions, to move in. (Buur 2007, p. 119)



ill.:22: Video model. (Tlirisku & Buur, 2007, p. 118)

# “AS IS” PROCESS

in accordance to the knowledge management model

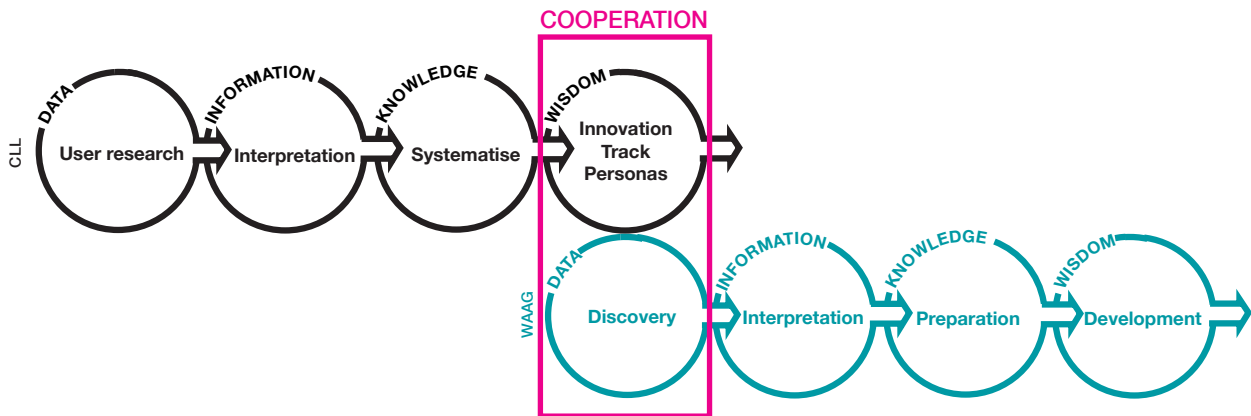
To determine what the process looks like, to enable the designer to get empathy for the user and become a part of the interpretation and organisation, it is important to look at how the knowledge management model functions in the process now in accordance to both ethnologist and designer. Ill. 23 shows that, the information flow for a typical project process for CLL often ends up with CLL delivering their information at a wisdom degree to the designer.

The information flow starts with the ethnologists gathering data in form of user research. Afterwards they interpret this data, which then becomes information. They process the information in form of pattern recognition, and it becomes increased in value and is obtained as knowledge.

To be able to hand over this knowledge, CLL needs to process this obtained knowledge into a physical quality, that can be understood by the designer for the further development.

The designer then receives this physical quality, which in the case of “E2C” is in form of Innovation Tracks and Personas. The designer then starts his /her own information flow, by discovering the data from the ethnologist and involving this into the development process. Ill. 23 frames the situation in “E2C”.

The project’s analysis framed that this physical quality should be video, in order to give the designer empathy and Innovation Tracks for directions. The question is how does the designer gets the third term opportunities, as Buur mentioned.



ill.:23: The process in the case “E2C” from CLL’s perspective (“as is”).

## 1ST ITERATION

# INITIATING CONCEPT

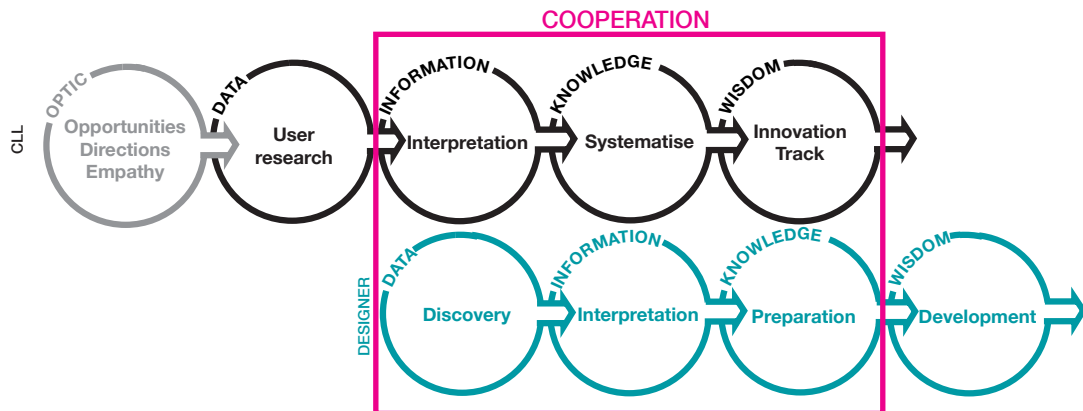
description of the process of the concept, “to be”

On the basis of the analysis which determine that it is most efficient for the designer and ethnologist to work in a parallel process by which the designer is aware of the ethnologist's research and the ethnologist follow up on the development, it is important for the ethnologist still to perform the user research, but replace the notebook with video.

In order for the designer and ethnologist to share their knowledge and insight it is important for them to have a knowledge management flow throughout the process. Instead of handing over material at a wisdom degree, which has been interpreted through two levels, the project group stage a

qualified hypothesis where the ethnologist lets the designer be a part of the interpretation and organisation of the user research. See ill. 24.

The designer and ethnologist therefore meet after the user research has been video recorded and the ethnologist has organised the video into sequences. Together they interpret and organise the sequences into a preparation for the concept development. The ethnologist interprets it from an analytical user perspective and the designer interprets it from a solution oriented design perspective.



ill.:24: Concept process (“to be”).

## OPTIC

In accordance with the model (ill. 24), it is important that the ethnologist includes the values in the research. The research therefore needs an optic in order to focus the research to the desired output. Based on Jacob Buurs model (See ill. 22) the project group base a hypothesis that by focusing the research towards actions it brings opportunities and by focusing the research towards people by making portraits it brings empathy.

The project group is aware that the steps in the knowledge management model do not consume the same amount of time, but is displayed as the same size for visual appearance.

This hypothesis will be tested through a workshop with CLL, where the project group presents the models.

## REFLECTION

### Visibility of process

In order to obtain empathy, directions and see opportunities the designer needs to feel and understand the user in his or her context. It is therefore important for the designer to receive part of the user research before the ethnologist has interpreted and organised the research material.



# WORKSHOP WITH CLL

test of the 1st concept and “methods”

## PURPOSE

The workshop with CLL has two main purposes;

- To test the concept, if the project types influence the process and thereby allow an optic on the user research to investigate the input for the designer.
- To test the qualities of the “methods”; video, picture and transcription. This should be evaluated in terms of empathy, opportunities and directions in order to show that these parameters are important for the designers. (See ill. 22)

The test of information that CLL has to deliver, is mainly tested in order to let CLL see the qualities of video. At the moment they do not use much visual ethnography. The project group wants to show CLL the qualities this can bring the designer. This is done by comparing transcribed data with video sequences. See Appendix C5 for an overview of the entire workshop.

## PARTICIPANTS

Project group (Facilitators)

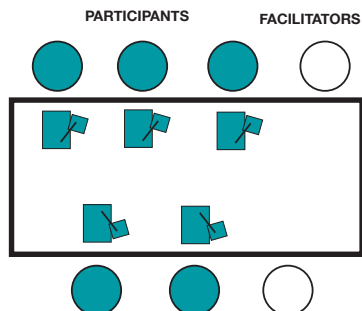
Thomas Hammer Jacobsen (CEO, CLL)

Mie Bjerre (Partner and ethnologist, CLL)

Kasper Boye (Ethnologist, CLL)

Louise Pape (Ethnologist, CLL)

Astrid Bjerg Caspersen (Ethnologist, CLL)



ill.:25: The participants' position.

## PREPARATION

The workshop is based on a situated interview by Søren Bolvig and Janni Trinh with Lilly Madsen at a care home in Odense.

The interview is turned into three different “methods”:

- Transcribed text with a picture of Lilly.
- Transcribed text of the sequences.
- Video footage with sequences from the interview with Lilly.

Each “method” is presented one at a time, in the order illustrated above. For each “method” a card is made. Each card illustrates which “method” the card is displaying and at the back there is room for the participants to write their comments concerning the topics; perception of Lilly and her needs and problems.

The participants are placed around a large table, and the facilitators are placed at the end of the table. (See ill. 25) The participants are placed close together to make them feel safe and give them room to elaborate with each other throughout the workshop.



ill.:26: Workshop with CLL.

**COURSE OF WORKSHOP**

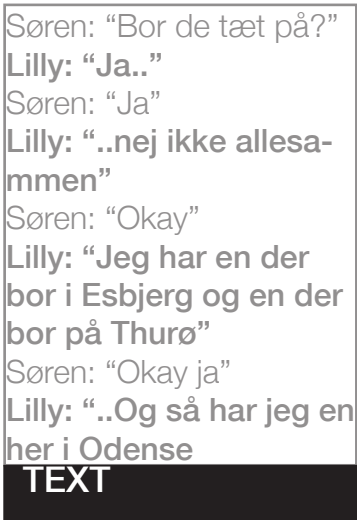
Based on the written/transcribed text the participants had to write their perception of Lilly and her needs and problems on the back of the related card. (See ill.:27)

Next they got three pictures from the interview of Lilly sitting by her dinning table. On the related card they had to write what new perceptions of Lilly arose plus needs and problems. (See ill.:28)

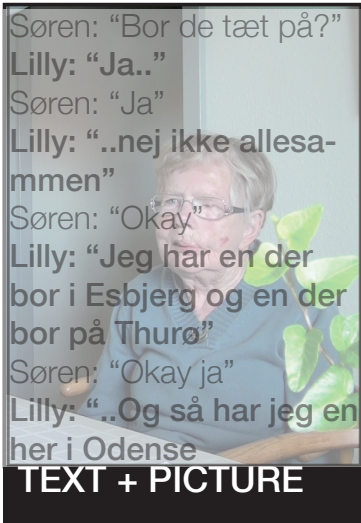
As the last step they saw the sequences on the original video, and again they had to write new perceptions of Lilly plus new needs and problems. (See ill.:29)

After the creative section the participants were presented with an illustration illustrating the project group’s initiating concept. The illustration was explained, in terms of cooperation, knowledge management flow, process and optic.

The concept was discussed and evaluated by all the participants, in an open discussion, based on the degree of empathy, directions and opportunities the “methods” gives. This lead to a discussion about qualities with video versus transcribed text as a synthesis’ “method”.



ill.:27: Transcribed/ written text.



ill.:28: Text and pictures.



ill.:29: Video sequences.

# EVALUATION OF WORKSHOP

output and further considerations

On the basis of the observations, discussions and comments from the workshop the “methods” and the concept are evaluated. (CLL 01.10.10, Appendix C5)

## “METHODS”

### Written/ transcribed text

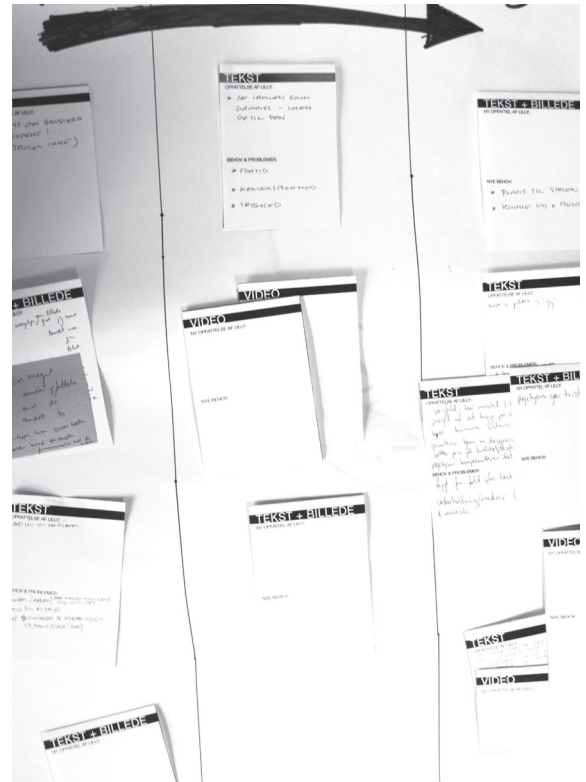
The participants argued that a written document gives each participant the ability to control the pace of the data. Likewise it gives the participants the opportunity to go back and forward in the data themselves and to underline and make notes mean while.

### Transcribed text + pictures

The pictures of Lilly being interviewed did not give the participant anything new in terms of interpretation of Lilly, and her problems and needs. The participants argued that if the pictures had shown action instead of still-frames of Lilly at sitting at her table, it would have given a more detailed framing of her problems and needs in that particular action.

### Video sequences

The participants agreed with the hypothesis that video can contribute to create empathy for the users. The voice and footage of Lilly identified some emotions.



ill.:30: The participants evaluation of the “methods” in terms of degree of directions.

“If I saw more of her apartment it might have given me something more” (Louise CLL, 01.10.10)

“I think video gives empathy, but it also makes noise, there is a lot of other elements (...) it becomes hard to navigate and conclude what is relevant”

(Thomas CLL 01.10.10)

## VALUES

CLL did not think that opportunities was a relevant criteria, instead Thomas suggested to evaluate data on relevance and depth of the research, in order to see if it can be analysed. (CLL 01.10.10)

The engagement or ownership was also discussed with CLL concerning their workshop with WAAG. If the designer gets the ability to discover problems and orientation him-/herself, he/she creates a bigger engagement and understanding. From this assumption CLL does not have to deliver final conclusions, but instead open conclusions where the designer gets the ability to do discoveries themselves.

Concerning empathy, CLL did not really understand the necessity for the designer. In terms of directions CLL argued that the Innovation Track works well in creating directions for the development, directly based on the user research. Even though the project group still continue working with the value empathy due to experiences and written theory. Jacob Buur also concludes in one of his projects that empathy is crucial for the development: **“empathy with users is crucial for the success of a project like this (or any user-focused development task for that matter.”** (Buur, 2007, p. 4)

“If we presume that the designer’s process is iterative (...) what is then the knowledge in the different steps (...) what is the difference of the knowledge (...) there might be something with the extent of clarification” (Thomas CLL 01.10.10)

“I think it is about level of innovation (...) to improve existing products or services, we can observe existing to understand these. If it is new products or services we can not see any interaction and we have to understand it in another way.” (Thomas CLL 01.10.10)

## PROCESS

When discussing the model showing the initiating concept (ill. 24), the participants questioned the benefits of cooperation during three process steps, instead of one. Thomas commented that his immediate opinion was that it will produce extra consumptions and it will confuse the interpretation and thereby give a more unclear result.

Further a question about the relevance in letting the designer get data instead of wisdom arose. Thomas questioned what the essential understanding of the users had to be.

CLL deliver deep processes of realisation and argue that the importance might be the ability to communicate the background for the conclusions. This is supported by Andrew Dillon, Professor of Psychology, and Information who says:

**“I see designers as fundamentally well-intentioned but largely ignorant of the necessary methodological steps to follow to ensure that user issues are fully addressed.”** (Dillon, 1998, p. 2)

## Optic

Thomas commented on optic, as being a level of innovation, that can guide to different research methods and thereby different transitions. If an existing product or service needs to be optimised, it might be relevant to make video observations of an existing situation. Whereas a task with an open thesis the research does not have a specific focus and concerns understanding of people in a lot of situations. In this case video might not be obvious. The depth of interpretations might also be different in the two situations, which is crucial for the ability to do the interpretation together (designer and ethnologist).

When presenting the thesis that the designer needs empathy and orientations to start concept development, Thomas says it might be the ownership created through cooperation, where the designer gets the ability to discover the problems and orientation himself that carries the effect. From this assumption CLL does not have to deliver final conclusions, but instead open conclusion where the designer get the ability to do discoveries. This is further based on a hypothesis that the designer get most inspired by problems and needs he/she has discovered.

### **WORKSHOP EXPERIENCE**

The project group has experienced that when being an external partner, cooperating with a company, it can be complicated to present ideas or concepts that points in other directions than the company is used to. The ideas and concepts should therefore always be presented with consideration and respect for the cooperating company.

The project group, as facilitators, controlled and structured the workshop through the first phase and opened up for a more loose discussion in the last phase to give the participants room for comments and open up for ideas and criticism, which worked well.

At the first phase of the workshop, the project groups idea for letting the participants work individual by taking notes and reflect on the material and then afterwards structuring and discussing the notes in plenum, gave a dynamic to the process and opened up for at more thorough discussion on the basis of their individual reflections.

### **REFLECTION**

#### **Need of wisdom**

The processing of the research data is a very comprehensive job, which can not be done in a workshop. Furthermore the designer does not possess the competencies to perform the processing of the research, instead the ethnologist and the designer should exploit each others competencies to full value. Meaning that the designer should not become the ethnologist and vice versa. The transition of the research should still give the designer the opportunity to digest the research on his/her own, in order to bring in the designers solution oriented design perspective and to create an ownership of the research.

#### **Physical element**

The participants liked the idea of having a psychical piece of paper with text in front of them while watching the video, which gave them the opportunity for underlining important sections and words.

#### **Diversity of process**

Both a process and a project task are difficult to categorise and therefore an optic structuring of the projects and methods are difficult, instead the process should enable diversity of the process.

#### **Values**

Opportunities are not a relevant criteria to extract from research data, instead evaluating data on relevance and depth of the research would be of relevance. Directions and empathy are taken further as values in the project.

# 2<sup>ND</sup> ITERATION

The 2nd iteration is an ideation of the initiating concept and evaluation of the workshop with CLL, which gave some adjustments for the next iteration.

These adjustments are furthermore elaborated by case studies of CLL's "DANS" and "E2C" projects, which are supported by interviews with receivers of the user research from CLL.

# MODIFICATION OF CONCEPT

on the basis of workshop with CLL

The workshop with CLL showed that modifications of the concept had to be done. The reflections from the 1st iteration are used as modification parameters. The parameters for the process are; give the designer visibility of the process and need of both data and wisdom from the ethnologist. Underneath the parameters are listed in terms of how they are implemented in the modified concept.

## Visibility of process

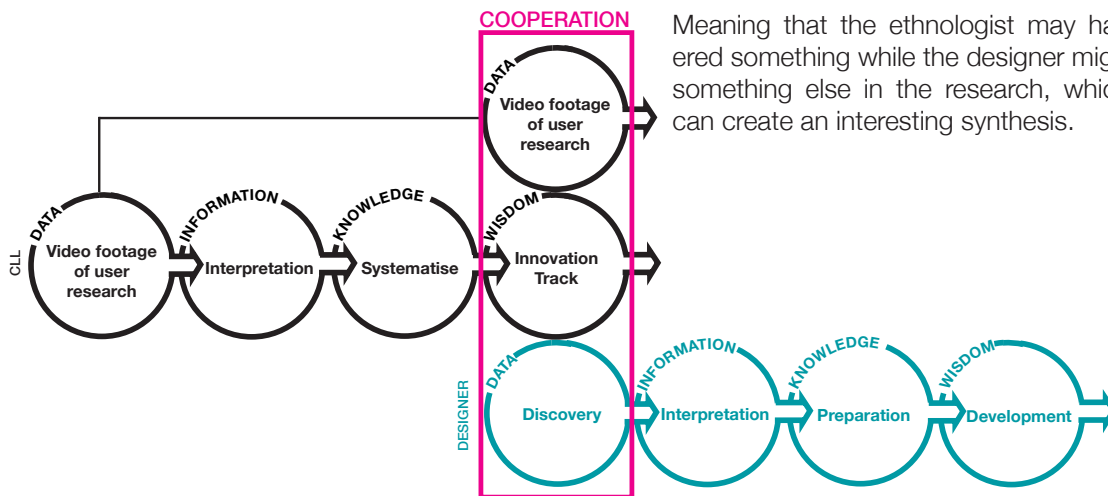
In order to obtain empathy and directions the designer needs to feel and understand the user in his/her context. By letting the ethnologist show video footage of the user research, the designer sees the user research as data and without the ethnologists interpretation, and thereby gives the designer visibility of the process and understanding of the ethnologist's conclusions.

## Need of wisdom

The processing of the research data is a very comprehensive job, which can not be done through a workshop, so to exploit the ethnologists competence to full value they process the research material on their own, and then give the designer their wisdom in form of Innovation Tracks, which gives the designer directions for the development process.

Still the designer needs to investigate research data in order to bring in a design perspective. The idea of video footage is therefore carried on. Buur emphasis:

**“While video collages, portraits and stories convey an analytical perspective, they maintain an ambiguity that allows the design team to play with alternative readings. Involving others in analysing ethnographic material helps them relate their competencies to concrete user practices.” (Buur and Sitorus, 2007, p. 148)**



Meaning that the ethnologist may have discovered something while the designer might discover something else in the research, which together can create an interesting synthesis.

ill.:31: Cooperation process between ethnologist and designer.



# CASE STUDIES

experiences from CLL's projects "DANS" and "E2C"

To examine what the cooperation format should look like when using the concept as a process, the project group interviewed the cooperating partners from the projects "Express to Connect" ("E2C") and "DANS", to understand the processes and cooperation.

## "EXPRESS TO CONNECT" ("E2C")

### Course

The process between WAAG and CLL is illustrated in ill. 32. The other partners in the project and their involvement in the process are not illustrated, due to the complexity. All the partners can be seen in appendix A1.

The project started in Finland with an info meeting where the participants set the framework for the project. It contains amongst other a structure of the user research, to ensure a common approach. Four different research companies in Sweden, Holland, Finland and CLL in Denmark performed the user research in the respective countries. The research was then gathered and CLL was the only company in charge of the analysis and systemising of the research. The research was resolved into Personas and Innovation Tracks.

The Personas and Innovation Tracks were delivered at a workshop in Holland, where all the participants from the four different countries were gathered. The Personas were presented and afterwards name, country and a picture for each Personas were chosen in groups among the different participants. The workshop also included a small concept development section, where the different participants were divided in groups, mixing disciplines and origins. The ethnologists and the designers were then set to brainstorm on ideas for the web service together, on the basis of the information from the Personas and Innovation Tracks.

After WAAG's concept development phase the participants meet again to plan the testing phase of the concepts in the different countries.

"E2C" is a large project, with many different participants, from different countries involved in the process. This makes the process complex, both for the format of the workshops and the constant information flow. The process might be categorised as a sort of sequenced process where each stakeholder finishes their work and then hand it over to the next stakeholder in the process. In the synthesis phase the data from each stakeholder is delivered at a physical meeting in form of a workshop.



ill.:32: The cooperation process in "E2C". Black illustrates CLL and green illustrates WAAG.



## Interview with WAAG

The project group interviewed WAAG using Skype. The interview can be seen in Appendix A5.

Dick van Dijk, concept developer from WAAG tells that in “E2C” they had workshops together from the beginning, which made WAAG a part of the research process. From the start this gave indications of the direction the research were going in.

When talking about how to get ownership, Dick explains that the idea of having a workshop like in “E2C” where the researcher explains the material, and gives the designer the opportunity to, in a more creative way, make it one’s own, works well. To get the designer and researcher in a joint workshop, to understand what the research is about, in more than just words. The researchers start to understand how the designers interpret things and what other things the designer might need for the development process.

**“Making a video, or more visual presentations of the users is important and thinking about methods that makes the designers able to digest the research even further”. (Dick Van Dijk, WAAG)**

WAAG needed to dig into the research to really understand what was said, and thereby become a part of the conclusion. Not only is this important for the designers, but also for the company who is doing the market research, to understand where the conclusions came from. Dick also emphasis the visual presentation is important due to the designer’s process and thinking. Buur support this by saying:

**“Neither are insight bullet points, as they submit to the logics of rational argumentation that hardly provokes questioning and engagement. Instead, we find it paramount to develop ways of engaging the organisation in sense-making through the use of visual and physical ethnographic material.” (Buur and Sitorus, 2007, p. 149)**

Thereby he supports that the designers need to give meaning to the research themselves in order to understand it and ascribe it value, which can be done by the use of visual material.

### REFLECTION Using video

Available video footage would make it easy for the designer to return to the research at all times, and makes all the participants in the project aware of where the conclusions in the research came from.

### Cooperation workshop

A workshop makes the participant have a joint understanding of the process and project, and give them an opportunity to make the research “their own”.

## “DANS”

“DANS” is a smaller project that CLL did in co-operation with DOMUS Architects, Dansens Hus, Jordan Acoustics, Wissenberg and Peter Holst Architecture and Landscape from Copenhagen Municipality.

### Process

The development of this project is a parallel process where all the participants are involved at the same time. (See ill. 33) The participants used each others data and knowledge for developing in their own field. Meetings along the process gave them opportunity to share their results and cooperate on the next step.

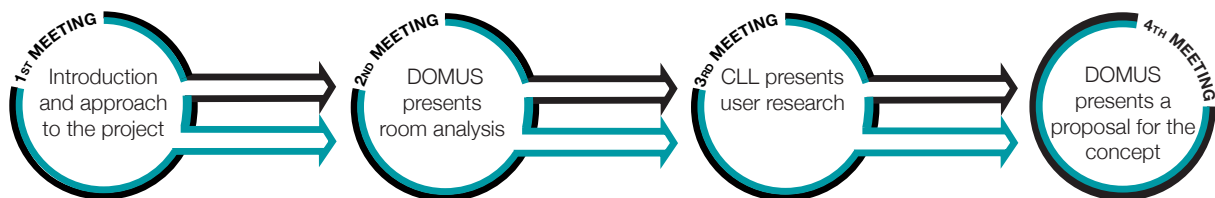
The participants had an open dialogue throughout the project, and each stakeholder understood what the other stakeholders were doing, as they had followed each others work during the entire process.

The process had four dialogue meetings. The project was organised by the municipality, who consequently participated in the meetings, together with some of the users of the building. This set some limitations according to the research where only positive comments was accepted.

### Interview with DOMUS

The interview with DOMUS can be seen in Appendix B2.

Claus Smed Søndergård architect and CEO at DOMUS explains that besides the dialogue meetings, CLL and DOMUS had some internal workshops and meetings. At the 1st internal meeting they defined four terms that should structure the research and the development. The four terms were important for the dialogue because they ensured that the participants talked in the same terms and kept the discussion to these terms.



ill.:33: The cooperation process in “DANS”, between CLL and Domus.

Claus thinks the cooperation really got interesting during these intern workshops, as they could qualify the user research together, and because CLL was passionate for the project. On the other hand he does not believe in big user meetings where every body needs attention and are equal. Instead he believes in meetings where professional people can complement each other and find a common language.

The cooperation with CLL stopped as planned after the 4th dialogue meeting, where DOMUS presented their overall concepts for the building. This was due to resources for the project. Claus thinks it would have been interesting to have continued the communication and cooperation to some extent.

He emphasis that the users' emotional needs can support or challenge the ideas of a room, if the user research is qualified. The user research was qualified because they had made common guides consisting of the four terms. The terms were further qualified by some words that states the users values and needs. The words were defined in cooperation between CLL and DOMUS. Due to this, the words brought a lot of value for the development.

Claus had during another project met a lot of the dancers (users). He had followed them on two study trips to London, were they together experienced different dance studios. In that sense he had a good insight in the users, which may have effected that he was able to put himself into the users mind set and design to their emotional needs.

Furthermore he walked around in the chapel with some of his ideas and thereby met some of the dancers and discussed his proposals.

To meet the users himself was crucial for the project. CLL's work was more analytical to give a broader perspective of the users, and to make a mapping of the users by professional people.

## REFLECTION

### **Relevance**

To create themes for the research in cooperation, ensures that the designer gets the "right" material for the development process, and the research gets more relevant and structured for both disciplines.

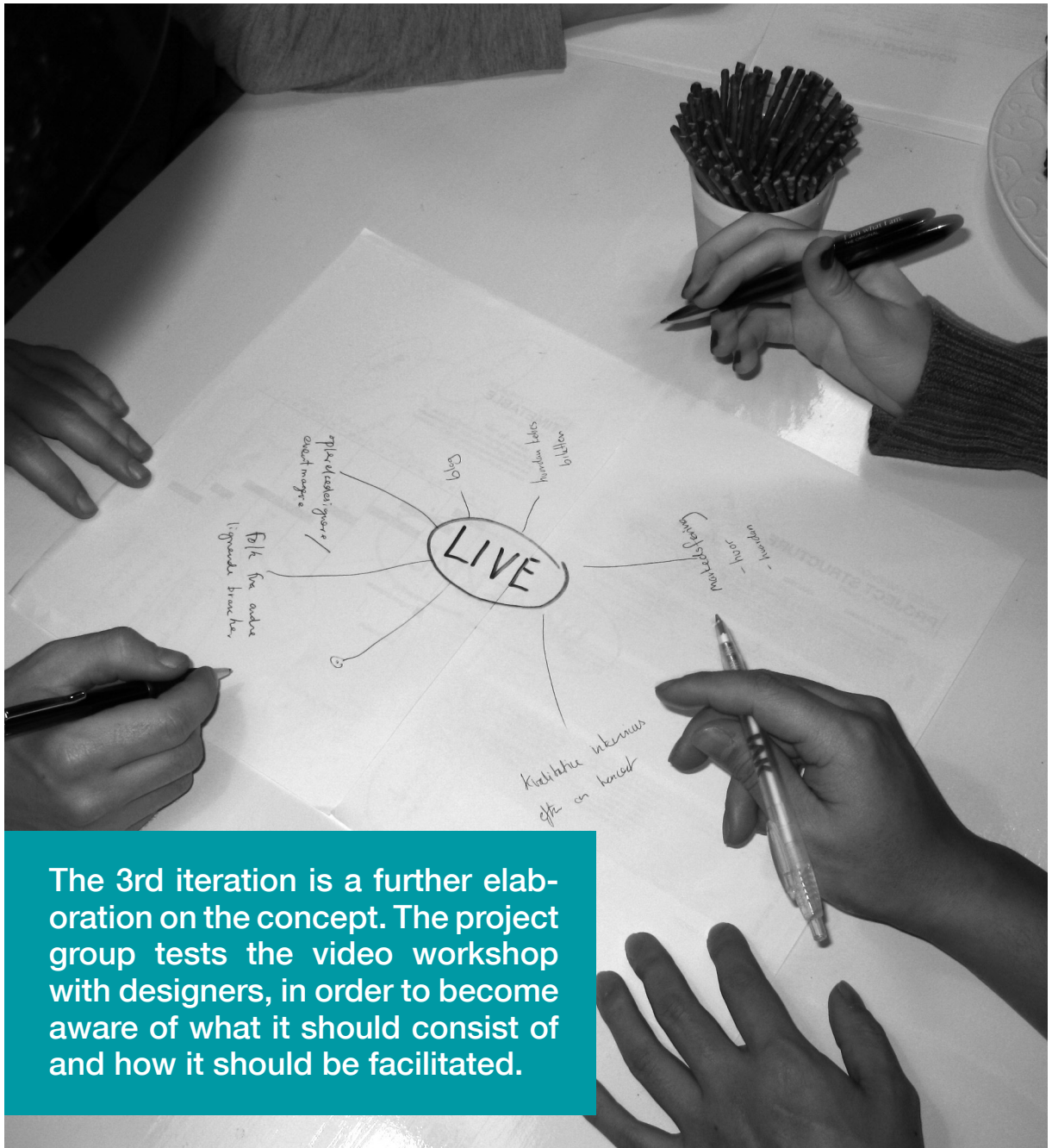
### **Cooperation workshop**

A workshop makes the participants have a joint understanding of the project task, and give them an opportunity to complement each other.

### **Continues communication**

Give the participants opportunity to communicate and cooperate throughout the project, and thereby benefit from each others competencies.

# 3<sup>RD</sup> ITERATION



The 3rd iteration is a further elaboration on the concept. The project group tests the video workshop with designers, in order to become aware of what it should consist of and how it should be facilitated.

# MODIFICATION OF CONCEPT

on the basis of interviews with WAAG and DOMUS

The interviews with WAAG and DOMUS gave modifications for the concept. The reflections from the 2nd iteration are used as parameters for the further development of the concept. The parameters for the process are;

- Using video in the synthesis.
- The disciplines should cooperate in a workshop, to make the research relevant for the designer in the development phase.
- Give the disciplines opportunity to communicate in an information flow throughout the process.

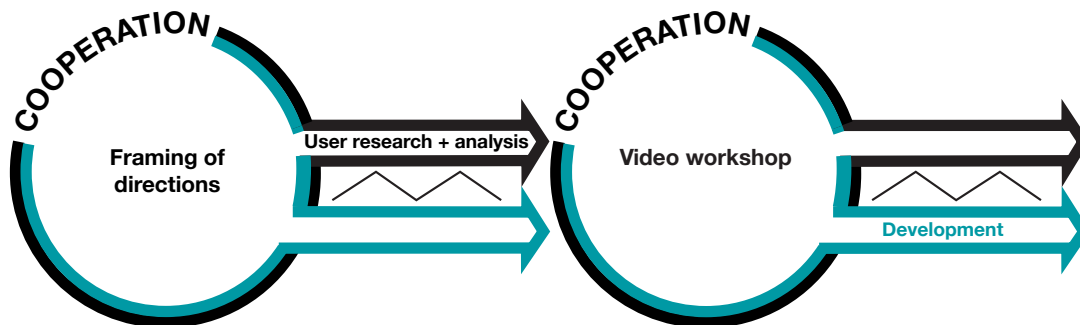
Underneath (See ill. 34) the parameters are elaborated and listed in terms of how they are implemented in the concept.

## Using video

By using video as a synthesis tool the designer becomes able to digest the research on his/her own. By implementing a platform for cooperation between the project participants, where the ethnologist can display the entire video footage of the user research, the designer can return to see the research at all times.

## Cooperation workshop

Using workshops enables the participants to have a joint understanding of the process and project, give them opportunity to make the research “their own” and to complement each other.



ill.:34: Concept of the process. Black is CLL and green is the designers. The lines between the two represents the digital platform (p. 68) and the constant information flow.

## **Relevance**

Implementing themes for the research in a cooperation between all involved partners, ensures that the designer gets influence on the research material and thereby beneficial data for the development process, and the research gets more relevant and structured for both disciplines. Furthermore it ensures that the end customers request for the project is incorporated. Jacob Buur express that the research companies have to understand that companies do not request for user insight but for opportunities to create new products, services etc. (Interview Buur 09.11.10) This emphasises that the companies influence in the research is important, due to the research companies ability to incorporate their requests.

## **Continues communication**

By implementing a platform, continues communication between the participants throughout a project, can be possible.

## **CONCEPT**

The concept implements two workshops in the process. Between the workshops there is an information flow between the disciplines. (See ill. 34) The two workshops ensure that the idea from the analysis of having respect for the two disciplines and having them work separately, but with guidance in each others work is maintained. As Martin Johansson says:

**“We need to start thinking in design terms when we carry out field studies, and we need to be thinking about practice while designing.” (Johansson, 2005, p. 84)**

### **1st cooperation workshop/Framing**

The first workshop is a Framing Workshop, where the designer and ethnologist in cooperation frame the directions for the user research. After the workshop the ethnologist preforms the user research.

### **2nd cooperation workshop/Video**

At the second workshop the ethnologist returns with video sequences of the user research and related Innovation Tracks. The designer and ethnologist brainstorm on ideas on the basis of this material, each using their own competencies. After the workshop the designer starts the development process.

CLL is going to be the facilitators in both workshops. In “E2C” they have been facilitators of several workshops during the process, and are therefore used to performing the role as the facilitator for different participants.

The process of the workshops is going to be different from what CLL is used to. From focusing on their own work and process, they now have to focus on the work and process of two disciplines and facilitate the learning process between the disciplines.

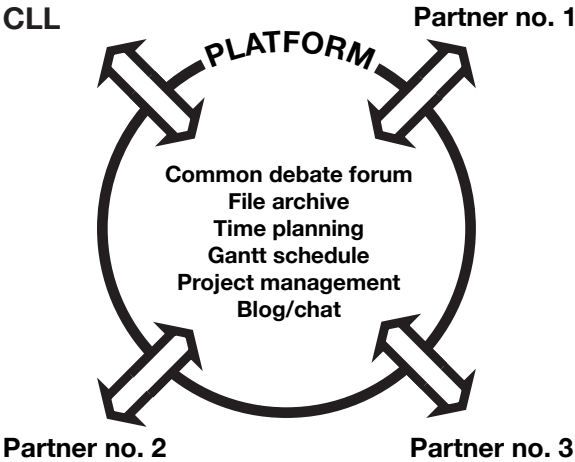
The concept provides CLL with tools for structuring and facilitating these workshops. In addition to this, the project group incorporates a platform to ensure the information flow throughout the process of the project.

**Platform**

A digital platform where the disciplines can communicate, display research material and plan the process is a fundamental idea for the 2nd concept proposal.

The idea for structuring and planning several projects on the basis of one general model/structure can not be done, due to the different factors of the projects, which cannot be generalised in such a way. Hence the idea of having a platform, where the disciplines can structure the project on their own terms, but with some guidance of how to structure and plan.

There are several platforms (for instance Groupware & SharePoint) which already take these factors into mind, therefore the project group will not dig further into the appearance, function and structure of this platform, but just add that the information flow between the different disciplines can be done through such a platform. Ill. 35 illustrates the functions such a platform could provide between the partners in a project.



ill.:35: Concept for digital platform.



# VIDEO WORKSHOP WITH DESIGNERS

to test how the workshop should be constructed

## PURPOSE

To test the format of the Video Workshop from the concept. The workshop with CLL consist of six main purposes;

- Did the designers get empathy for the users and how is that important?
- Did the designers generate an ownership of the material and task?
- Did the video and Innovation Tracks guide the designers in clear directions?
- Was the user research relevant in terms of developing upon it?
- Did the video and Innovation Tracks give the designers opportunities to idea generate?
- How can the workshop be constructed?

For the entire workshop see appendix G1.

## PARTICIPANTS

All the participants involved in the workshop are designers or designstudents who are a part of the project groups social circle.

Project group (facilitator)

Anders Backe (student M. Sc Industrial design)

Carina Kæsler (M. Sc. Industrial design)

Jonas Holm Christensen (student M. Sc Industrial design)

Jonas Pedersen (MAA)

## PREPARATION

The workshop was based on the same case as the workshop with CLL. The material consist of three interviews with three elderly people. The project group analysed the video and divided it in two types of users: disabled people and elderly people. For each of these there was three focus areas: acceptance of situation, social dependency, physical dependency. This generated six Innovation Tracks.

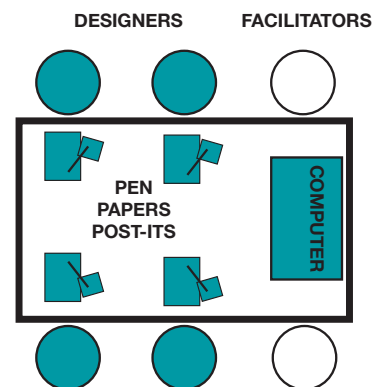
The task was; How to design a robot that creates value for elderly people at a care home. Furthermore the project group should acquaint the participants with their situation in the workshop, that they together with the ethnologist had framed the focus areas and the ethnologist had done the fieldwork and analysed this.

## COURSE OF WORKSHOP

The designers were placed around a table with a pen, paper and post-its. At the end of the table the facilitators and a computer was placed. (See ill. 36) The facilitators started with presenting the case and how the workshop would be carried out.

The designers in the workshop read the first Innovation Track on the computer screen, followed up by video sequences. This continued during the six Innovation Tracks. Meanwhile the the designers were asked to write down directions for the project and ideas on post-its.

After the viewing videos, the Innovation Tracks were on the computer screen and there was a discussion about the format.



ill.:36: Workshop setup.

# EVALUATION OF VIDEO WORKSHOP

output and further considerations

## Empathy

The video generates empathy for the users, especially their voices creates an understanding of who the users are. Some also got sympathy for the users, which were motivating for creating solutions. To generate a better understanding of the users and who they are, some video in the beginning illustrating a portrait of the users would be helpful. In accordance to this one of the designers relates the users to own relatives, which leads to the discussion about designing on own intuition. When you design you base it on personal experience and references, so if the material you hand over can evoke intuition in the “right” direction it might help to create solutions for the users.

## Ownership

The designers thought it was nice that the research was done by others, and when video supports the ethnologists’ interpretation they understand it and can discover it themselves. Video also allows them to investigate other things themselves.

## Directions

One participant thinks the Innovation Tracks should not become an overruling guidance because he wants to make his own interpretations of the material. The other three think it was nice to have some directions and clear guidelines when the video supports the ethnologist interpretations, so they understand where they came from.

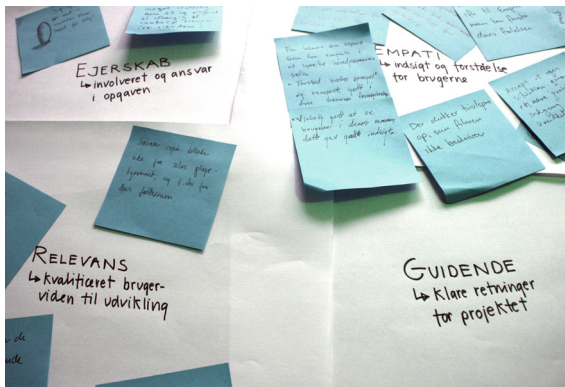
## Relevance

The comments were mainly concerning more precise Innovation Tracks. The video only consists of sequences from interviews with three users, which may not be enough to get depth and relevance of the user research. The participants especially missed another research method as observation where the users context and interaction might have been relevant.

While they saw the video, questions and suggestions occurred. One suggested that it may be possible to watch the entire video, to check if some themes might be more interesting or needs that could be understood better.



ill.:37: Workshop setup.



ill.:38: The participants evaluation with post-its.

### **Idea-generating**

The participants were all able to generate ideas from the video sequences. If the participants had shared the ideas and developed them further they might have come up with more ideas and a clearer orientation of where to take the project. With the case material the participants were presented to, they were still a bit unsure of which direction to take the project.

They all thought video inspired and engaged them to think of solutions. If problems were clearer in the Innovation Track they would have given further inspiration. The project group must further consider how the idea generation process, after the presenting the video material, should be facilitated, so participants can share ideas and develop them further.

### **Format**

Both video and Innovation Track were presented on a computer screen. The Innovation Track was presented before each clip and then gathered in the end. The participants thought that it should be presented differently, for an example on a paper, giving them the ability to mark important things in the text and add comments.

If the Innovation Tracks were more guidance the designers think they could have generated more ideas. Four designers, as there were in this test, seems to be a good amount as it created a good discussion where everybody participated. If more participants are involved it might be considered to divide in groups.

### **WORKSHOP EXPERIENCE**

It proved difficult to evaluate the degree of ownership, directions and relevance, as the Innovation Tracks were made by the project group, who only know the study case from three video sequences with three users. Hence the Innovation Tracks did not become guidance to the extent they were intended to be. Furthermore the workshop was based on a fictive study case which the designers were not familiar with or engaged in.

The participants consisted of design students and newly graduated designers, who therefore have little experience with design in praxis. The workshop must be evaluated with this condition in mind.

**Portrait to create empathy**

The video could start with a portrait of the user to present who he/she is and create empathy.

**Clear direction**

The Innovation Tracks should be clearer and frame problems and directions. The video must support these problems and directions, guiding the designer in a beneficial direction.

**Availability**

More video sequences should be available, enabling the designer to explore further.

**Idea generating**

The idea generation must be a co-creation process between designers and ethnologists and facilitated in a structured way.

**Format**

Innovations Tracks must be presented in a format allowing individual comments and marks.

The video clips should contain interactions, context and speaking.

**Groups**

If the workshop consist of more than five participants, they may be divided in groups containing both ethnologists and designers.

# FRAMING WORKSHOP

with designers, to test how it should be constructed

### PURPOSE

To test if the designers are able to create directions for both research and project, making the research more relevant for the designer in the development process. The workshop consists of five main purposes;

- Who are the users?
- Brainstorm on directions for the project.
- Select 3-5 directions.
- Brainstorm on sentences for each direction.
- Select a sentence for each direction.

### PARTICIPANTS

Project group (Facilitator)

Anders Backe (M.Sc Industrial design student)

Carina Kæsler (M. Sc. Industrial design)

Jonas Holm Christensen (M. Sc Industrial design student)

### PREPARATION

The participants were handed a project description from CLL's "LIVE" project. A project concerning live concert experiences, where CLL delivered the research. See appendix G2 for project description. The participants were confronted with the initiating problems: "How is it experienced to go to live concerts today? And how can we make the concert experience even better?"

The participants were placed around a table with one member of the project group placed at the table as a facilitator the other project group member video recorded the workshop.

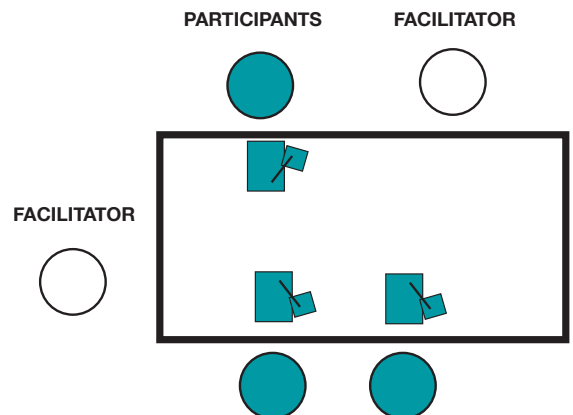
### COURSE OF WORKSHOP

The project group explained the course of the workshop and the roles of the participants. The project group represented the ethnologists and the participants the designers.

The first step of the workshop was to identify the users of the project on the basis of the project description and the initiating problems. The workshop group brainstormed on who might be relevant, followed up by a discussion, systematisation and choice of the users.

Afterwards the participants brainstormed on directions for the user research with the chosen users kept in mind. The directions were discussed and structured. Five directions were chosen for the research. (See ill. 35)

At the end the format of the workshop was evaluated and discussed.



ill.:39: Workshop setup.

# EVALUATION OF FRAMING WORKSHOP

output and reflection

The workshop is evaluated on the basis of the themes; Identifying users, finding directions and relevance of workshop.

## IDENTIFYING USERS

The participants needed help to get the brainstorm on the possible users of the project started, this can be seen as a result of the fact that the participants are not real partners in the project and therefore not involved at the same degree as if it was a real workshop with real partners.

The participants had a good discussion about the users and they thought that it gave them a good idea of all the users that can be important to investigate in the project.

## FINDING DIRECTIONS

The discussion and brainstorm about directions was a bit difficult for the facilitator to control. The brainstorm quickly got very broad. The participants brainstormed both on solutions for the project and directions for the research. This might be due to the fact that designers often start thinking in solutions instead of problems.



ill.:41: Framing workshop.

The discussion was structured by the facilitators and the directions were structured into two overall directions; user types and before, during and after the concert. Subcategories for these were spirit, communication and practical consideration.

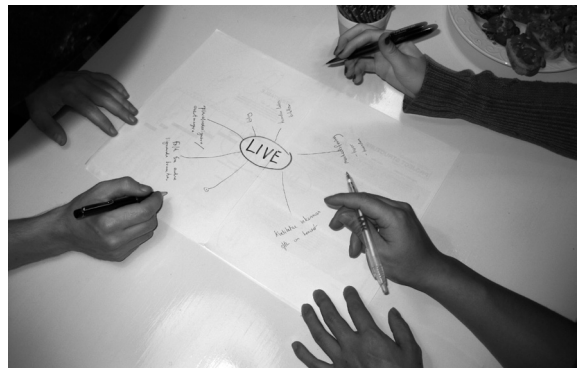
Throughout the brainstorm directions were discussed and explained, ensuring that every participant came to know what each direction meant.

The project group had demanded that the participants were to attach a sentence to each direction in order to generate a common understanding of the direction. As it turned out the discussion and reflection during the brainstorm gave the participants a sufficient understanding.

**“I thought it was suppose to be apparent during the brainstorm, and I think it was good that it was apparent in the discussion and brainstorm.” (Carina, 01.11.2010)**

## RELEVANCE OF WORKSHOP

The participants thought the idea for structuring the research by choosing directions is useful for



ill.:40: Direction brainstorm.

the further process, and they could see the relevance in terms of the next workshop. (Which was tested on the same participants earlier. (See p. 69)

The participants questioned the output of the workshop if it was to be carried out by ethnologists instead. They argued that a combination of ethnologist and designers at the workshop would enhance the relevance of the directions.

A structured workshop format that can be used on all projects is difficult to design, due to the complexity of each project. The complexity can be in terms of how concrete the project is, the problem statement, the innovations level and the partners.

## REFLECTION

Consequently the idea of having a workshop at the start of the project with all partners present, is very important in terms of relevance of the further research and development. Brainstorming on the initiating problem statement, users and possible directions will give a visibility and structure to the user research and the partners will be a bigger part of the process.

After the workshop the project group will not investigate the format of the workshop further. Only determine that a cooperation about the directions in the project is important, and can be carried out by a brainstorm process as this workshop was.

## REFLECTION

### Research directions

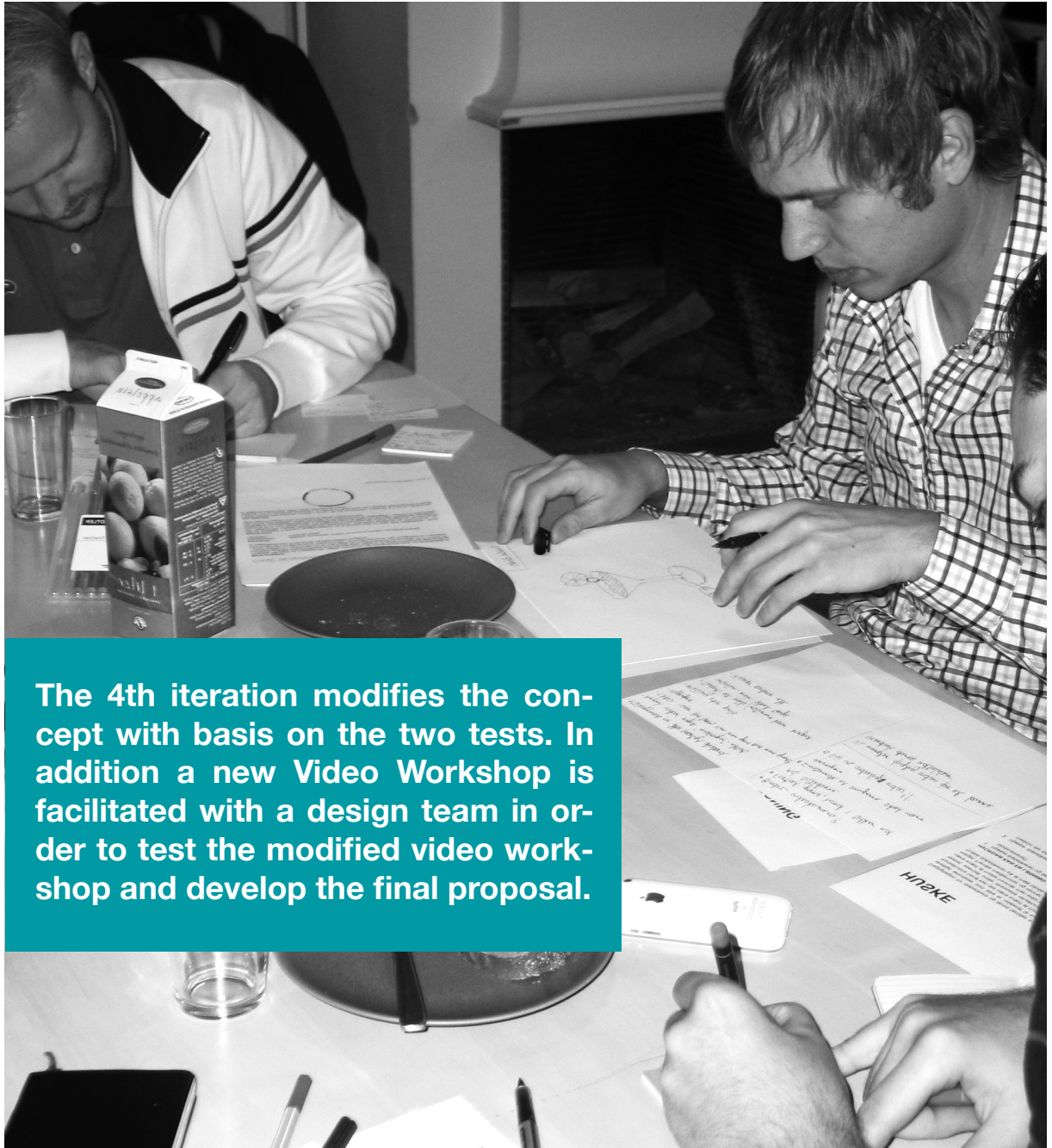
It is important for the designer to have an influence on which directions the ethnologist performs the user research, to ensure that the research becomes relevant for the development process.

### Structure

The workshop has to be structured and contain methods that can open up for discussion and reflection over the directions for the research. The project group tested brainstorming, which gave a clarity and understanding to the participants. The workshop must be open for the diversity of the different projects and companies methods. The workshop format is not further elaborated.

# 4<sup>TH</sup> ITERATION





The 4th iteration modifies the concept with basis on the two tests. In addition a new Video Workshop is facilitated with a design team in order to test the modified video workshop and develop the final proposal.

# MODIFICATION OF CONCEPT

based on the workshops in 3rd iteration the group increases the focus

The two workshops with designers in the 3rd iteration created new focuses and parameters in the project.

The focus will be put on the Video Workshop, due to the project's focus on synthesis between research and development.

## CONDITION

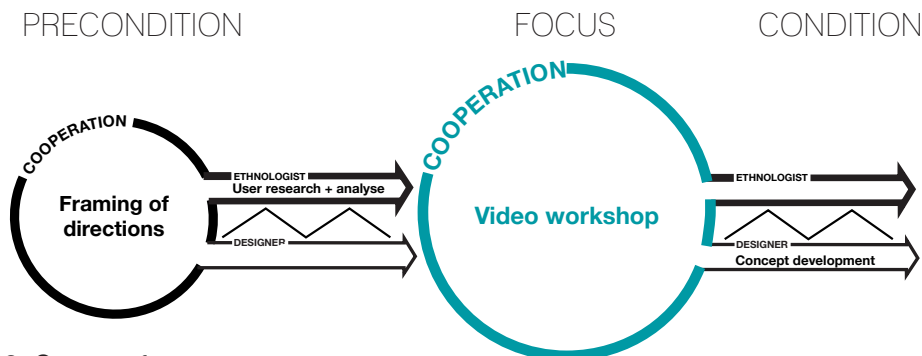
The preconditions are important due to the synthesis and have to be communicated both to the facilitators of the workshop (CLL) and the participants of the workshop. The conditions for the process after the workshop have not been developed, only researched in this project, and will therefore only be presented as a proposal. The format of the communication for these conditions will be elaborated in this iteration.

## FOCUS

The further process will focus on elaborating the Video Workshop, this will be done by use of a workshop with a design team and be based on a user driven project using video in the user research. Based on the previous Video Workshop, the project group is able to set up criterias for the format of the video:

### The video should consist of:

- A Video Portrait of the users, generating empathy for the users. The video may describe the user and the user's relation to the certain task, as a video diary.
- Video Sequences to support the Innovation Tracks, giving the designer an insight of the ethnologists' conclusions and inspiration to concept develop. The video should consist of actions in relation to the certain problem and selected quotes that support the ethnologists' conclusions.
- The video must be presented in a PDF document which also contains a short description of the research output and the Innovation Tracks.
- Besides the digital presentation the participants needs the Innovation Track in a physical format, in order to be able to mark "important" words and add notes.



ill.:42: Concept focus.

The video combined with the Innovation Tracks aims to create empathy and generate directions for the project. The directions are in accordance with the ethnologist desire to ensure a systematic approach for the development process.

To meet the designers more solution-oriented approach of prototyping, the project group aims to create a workshop that meets the area of tension between the disciplines' approaches. (See ill. 39) (Interview Buur 09.11.10, Appendix I) Therefore development methods are incorporated as a part of the workshop.

### Development methods

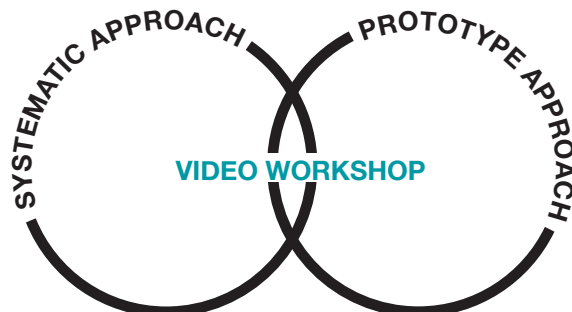
To develop concepts in a common language between ethnologists and developers, the project group has elaborated on different methods. The project group decided to test how bodystorming would work in the workshop. Bodystorming is chosen due to the following:

- Bodylanguage can create an understanding of how the concept will work in the context/situation.

- The ethnologists use to write and the designer use to sketch. Bodylanguage could be a common language for both disciplines to communicate in.
- Bodystorming can easily be documented with video, making the concepts easily accessible for everyone after the workshop.

However bodystorming might be challenging for some, as none of the participants are used to expressing themselves with bodylanguage in this context.

Furthermore it is important to keep in mind the purpose of the workshop, with video and development methods; to create a dialogue between the participants in order to specify directions which frames solutions. The specific concepts created during the workshop, might not be as important as the design parameters, but be a step on the way to create these parameters. (Interview Buur 09.11.10, Appendix I) In which case all the participants (ethnologist, designer, end customer etc.) influence the development process.



ill.:43: Tension field to meet in the Video Workshop. (Interview Buur 09.11.10, Appendix I)

# 2ND VIDEO WORKSHOP

with three designers from Creative Gears

## PURPOSE

To test the modified Video Workshop with a design team. To test if they were able to develop concepts based on the video collages; if the video engaged the design team for discussion leading to concepts. Furthermore testing the structure of the workshop; if any tools to guide and run the workshop were needed and the course of the workshop.

## PARTICIPANTS

Project group (Facilitators)

Allan Bjerre (Innovation Director, Partner)

Christoffer Mørch (Creative Director, Partner)

Thomas Broen (Strategic Director, Partner)

## PREPERATION

The workshop is based on the MAXI project, which is among others run by Anne Marie Kanstup, Department of Communication, Aalborg University. The MAXI project is a project concerning people with chronic diseases such as diabetes, in their daily life. Additional description of the case, see Supplement 2.

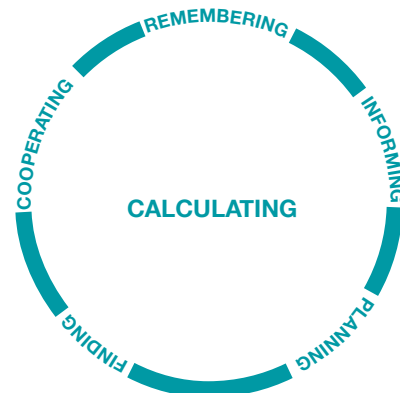
The project group had a meeting with Anne Marie to discuss the MAXI project and the approach to the project. This intend to get video material from the research. The project group received video footage from interviews with six families with one or more diabetic members. The material was not optimal according to the constructed criteria. The video did not contain actions, did not give a description of the users and did not show the faces of the users. This was due to an agreement of hiding the users identity. Since it was difficult to retrieve better video material, the group used the video. In the editing of the video portrait, the project group added pictures of the families and a video dairy of a diabetics, found on the internet.

In addition to the videos, the project group got the analysis of the research (See Supplement 2) The research was divided in six activities. (See ill. 44) Calculating is a central activity and forms a part of each of the other activities. The project group based the Innovation Tracks on these activities and selected calculating and remembering to be the focus areas in the workshop due to the time available. Two hours were allocated for the workshop, and the project group estimated that there was not time for the other Innovation Tracks.

A short description of the case and the Innovation Tracks was sent to the designers before the workshop. (See appendix H1)

## COURSE OF WORKSHOP

The Innovation Tracks were printed on cards for the workshop. The cards allowed the designers to mark important notes or add comments. (See ill. 48). The Innovation Tracks were further made as a PDF document for presentation with the video collages. The presentation made for structuring the workshop contained:



ill.:44: Research areas and their relation.

- Description of the contents of the workshop.
- Short description of the case.
- 8 minutes Video Portraits: Video diary from the internet, statements from the four chosen families from the research, which describe their relation to the diseases.
- The relation between the Innovation Tracks.
- Innovation Tracks for calculating.
- 6 minutes Video Sequence of statements that support the Innovation Track. During the video the designers notes directions and ideas for the development.
- 15 minutes discussion and further development of directions and ideas.
- Collecting ideas to one concept, Bodystomping the concept for further elaboration and videotaping it.
- Innovation Tracks for remembering.

- 6 minutes Video Sequence of statements that supporting the Innovation Track. During the video the designers notes new directions and ideas for the development.
- 10 minutes further discussion and development.
- Evaluation of the workshop.

See appendix H2 for PDF document with video collages.

In addition “Inspiration cards” were brought to the workshop, in case the designers need input to develop or start and guide the discussion. The “Inspiration cards” illustrate pictures of different scenarios, such as: Baker, Holiday, Sport or Shopping. Several parameters will effect the workshop, and had to be in mind for the evaluation. (See ill. 45)

#### PARAMETERS OF ERROR

Not the optimal video, according to the concept's aim.

Only designers participate in the workshop, no ethnologists are represented.

The case is fictive for the designers

Limited time, only two hours

#### ASSUMED CONSEQUENCES

Difficult to evaluate if the designers created empathy for the user and are able to see problems and opportunities which engage to develop.

The ethnologist can not bring the designers perspective up to discussion.

The designers, have difficulty understanding what has happened before the workshop. Furthermore the output of the workshop will not affect them, and it might be difficult to become engaged and create an ownership.

The workshop will only last a short part of the time in comparison with the time the imitated workshop would last and the development process can therefore not be worked in depth.

ill.:45: Parameters assumed to effect the workshop.

# EVALUATION OF WORKSHOP

according to the purpose

On basis of the observation, video observation, discussions and comments from the workshop the Video Workshop is evaluated.

## CREATING IDEAS

During the Video Sequences the designers noted important directions for the design and developed small sketches. This created a good foundation for a shared discussion, where the designers start structuring their ideas. The design team is used to work together and has a common approach and language, which made the discussion fluent. They did not need further input for the discussion, even though an input could have lead the design team into a desired direction. This might have been different if the design team where mixed with other disciplines. They all agreed that the "Inspiration cards" could have been relevant in other situation, and give good visual focus to gather the discussion.

The workshop did not lead to creating concepts using bodystorming, due to the time limit. But in

the evaluation two of the designers expressed that they did not feel comfortable with expressing themselves using Bodystorming, they would instead have preferred the method Make Tool. On the other hand they express that this approach might be different depending on the participants in the project and the project type.

The concepts the designers developed were similar with the concepts developed in the MAXI project. This illustrates that the designers got an insight in the users and felt inspired. One comment was: **"I think it gives a tour de force of the users and the research done. This will be enough for me to start designing."** (Christoffer Mørch 12.11.10)

## STRUCTURE OF THE WORKSHOP

The participants often refers to the users with "as Line said..." In the discussion. Here it might be relevant to have pictures of the users on cards, so everyone are aware of whom the others are referring to. Furthermore it frames the importance of the ethnologist work.



ill.:47: Development of ideas during the Video Sequences.



ill.:46: Discussion and development after the Video Sequences.



One of the participants used the printed document with Innovation Tracks to mark “important” comments or add notes, the two others did not. They found it a bit confusing. A few highlighted sentences might have made it more clear.

The video material was not optimal in terms of the project group’s aim with the video, which the designers also emphasised. The designers’ comment, that the video diary gave a good idea of the user’s context, everyday life and relation to diabetes. Furthermore they emphasised that video of action and context could have been relevant. As the video mainly consists of audio, the designer were able to sketch and write during the 6-8 minutes of Video Sequences. If the video had consisted of a more visual story the video might with advantage have been split up in smaller clips with breaks to sketch and write in between.

They all feel that it is important that the designers are (or have been) a part of the process deciding which directions the research should focus on. They however still found it interesting to create new directions for the development of concepts. Which is consistent with the actual process of the MAXI project.

The designers requested the end costumers requirements for the solution, to help specify the solution. Furthermore they would have liked to ask the ethnologist questions about the users.

The designers underlined that the design process is an iterative process, for which reason this workshop might put up new questions for the research. This argues for a flexible process, where more workshops might be relevant. As a natural consequence of creating knowledge is to ask questions back to the data.



ill.:48: Cards with Innovation Tracks.



ill.:49: “Inspiration cards”.

## WORKSHOP EXPERIENCES

The parameters of error makes it difficult for the designers to give valuable critique of the workshop. Even though the workshop showed that the Video Portraits and Sequences inspired to create ideas.

The facilitator's role in the workshop is important for the flow and the output of the workshop. The facilitator needs to have a sense of the situation, to be able to modify the workshop depending on the participants and the specific case. This relates to, time for sketching before moving on, asking the right questions, organising the participants in interdisciplinary teams and to bring in methods for development. For this it might be relevant with a guiding tool.

### REFLECTION

#### Guiding tools

The facilitator's role can be supported by tools which guide different situations depending on the participants in the project and the project type.

Different methods for developing ideas, as Make Tool and Bodystorming.

Physical pictures of the users, ensuring that everyone is aware whom the other participants are referring to.

"Inspiration cards" to inspire or guide the development towards a certain situation.

#### Templates for workshop tools

Write text on cards in small sentences with bullet points

#### Max 4 minutes per Video Sequence

The Video Sequence should maximum last 4 minutes, followed by a small sketch break.



## 4TH ITERATION

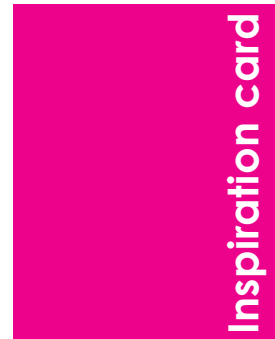
# COMMUNICATION OF CONCEPT

development of the concept for the physical output of the project

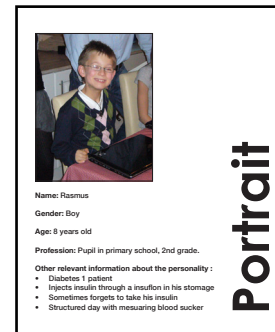
With main focus on the Video Workshop, the project group wants to design tools which can help the facilitators role. Furthermore the project group needs to inform the facilitators about how to handle the entire process. In this project the facilitators will be CLL and the communication will therefore be targeted towards their needs.

### Guiding tools in the workshop

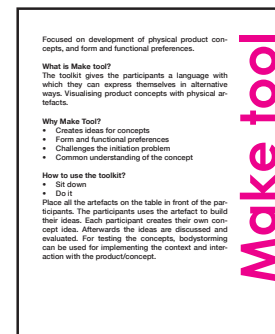
- Inspiration cards: to guide the development in a certain direction or inspire to new discussion or concepts.
- Innovation Tracks card.
- Portrait cards: ensuring everyone is aware of who the other participants are referring to and to frame characteristics of the user.
- Innovation Tracks card: so the participants can mark "important" words or add notes.
- Methods card: Make tool and Bodystorm are the development methods, that can be used for the development process in the workshop. To help the facilitator, the concept consist of cards illustrating the methods and explaining why an how to use them.
- Toolbox: Consisting of glue, scissor, modelling wax, cardboard etc. for the Make Tool process.



ill.:50: Example of an Inspiration cards.



ill.:51: Example of Portrait and Innovation cards.



ill.:52: Example of a Methods card.

# PRESENTATION TO CLL

to get feedback on the reality of the concept

## PURPOSE

To test if the project group has managed to target the concept towards CLL's processes and cases. If CLL could see the project implemented in their work.

## PARTICIPANTS

Project group (Facilitator)  
 Thomas Hammer Jacobsen (CEO, CLL)  
 Mie Bjerre (Partner and ethnologist, CLL)  
 Kasper Boye (Ethnologist, CLL)  
 Julie Lynge Andersen (Educational Anthropologist, CLL)  
 Astrid Bjerg Caspersen (Ethnologist, CLL)

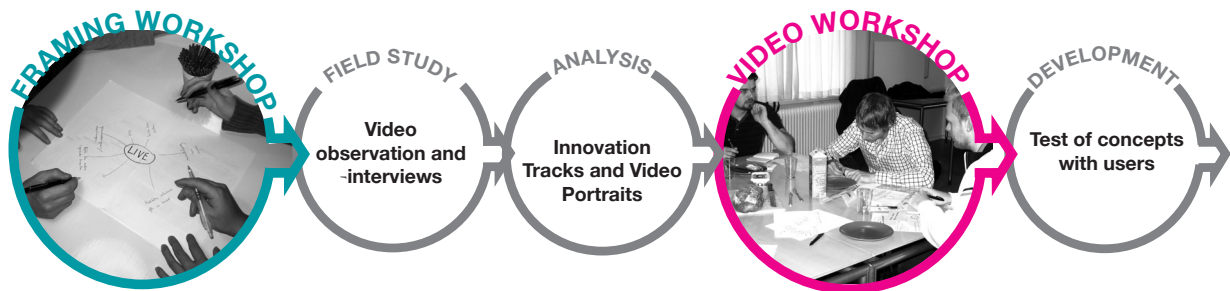
## COURSE

The project group presented the main conclusions of the project together with the concept and a concept example supported by audio and video sequences from the process which underlined arguments for the concept. The entire presentation can be seen in Appendix C6. The effects it will have to CLL's process is illustrated in ill. 53.

## EVALUATION

The ethnologists was fond of the idea of using video to support their analysis, in some cases. They find video and the workshop as an interesting way of delivering research to their partners in. On the other hand they still have some concerns with the use of video in their user research.

As researcher it is important to create trust with the users, which they think can be difficult when using a video camera. Some people might also wants to be anonymous, due to their personality or ethics for an example. This is consistent with the project group's experiences about getting in possession of video from a user research. This can be a hurdle for the concept. On the other hand the project group is convinced that such a hurdle can be less critical if the video research method and importance is presented in the "right" way, to the user. If the researcher before the meeting present that they would like to record the interview or observation due to the projects quality and final result.



ill.:53: CLL's process with video.

Furthermore CLL points out that video camera gear in some cases will disturb in the context. This is important in relation to the video recording technique. The camera technique influences the researchers social relation to the users. The video camera gear can in most situation be placed discreetly in the context, so it does not disturb the researcher and user; a discreet camera. This technique might not catch a vivid picture of the users, the context and actions, in relation to the Video Workshop. If the camera on the other hand becomes a more active part of the research it can capture a more exact and vivid picture of the users, the context and actions, but will in a greater extent influence the research; the engaging camera. (Blauhut and Buur, 2009, p. 3-5)

In the research and analysis phase CLL is a bit sceptical concerning the technical challenges video includes. Both in terms of costs and the skills to ensure audio and visual clarity in the video. The video needs to be in such a quality that the receiver can clearly hear and see what is going on, while it is not intended that the video is professionally edited or recorded.

Concerning the format of the workshop, CLL finds it interesting to combine the analytical approach with the prototype based approach. For them the aim is to ensure that the designer systematically designs on the users needs. CLL find the idea of a Framing Workshop with the partners of the project interesting, in concerns of letting the designers influence the user research and thereby make it relevant due to the development process. Furthermore this gives the designer an ownership of the research.

The Inspiration cards could be an interesting element, but it is a bit unstructured and unclear how and when to use them in the workshop,

## REFLECTION

### Challenges concerning video

- The video recording technique effects the social relation to the user.
- A discreet camera is discreet but will not capture as vivid a picture as an engaging camera.
- If the users want to stay anonymous.
- Ensure visual and audio clarity, which demands skills and video camera quality.

### Workshop format

- Inspiration cards are unstructured and needs a clearer description of use.
- A procedure guiding the workshop flow and ensuring the designer design on CLL's user parameters is needed.

# MODIFICATION TO VIDEO WORKSHOP

presentation of the final concept for the VIDEO Workshop

Based on experiences and feedback from the presentation to CLL, the workshop is modified. The process and workshop is called VIDEO, to reflect on the most important part of the whole workshop process; use of video as a common communication between the disciplines.

The project group's vision with the VIDEO Workshop is to create the frames for a negotiation of requirements between the disciplines in the workshop, where every participants professional knowledge are brought into play. The challenge is to develop tools that might bring the participants in this direction

The video support a discussion concerning design parameters and the tools in the workshop should structure this video together with tools that support the designers working process by developing.

## Guiding tools in the VIDEO Workshop

The guiding tool now consist:

- VIDEO Board with a game brick: to ensure the workshop flow.
- VIDEO Methods cards.
- VIDEO Contract document: to ensure the discussion and parameters created in the workshop is carried out in the development phase.
- VIDEO Portrait card.
- VIDEO Innovation Track card.



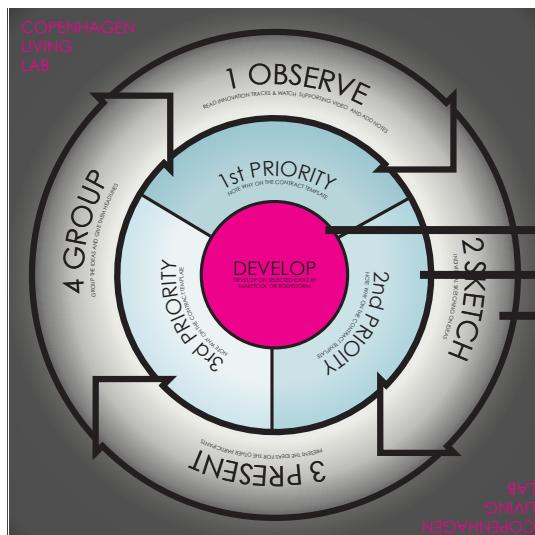
ill.:54: VIDEO Workshop tools.

## VIDEO BOARD

At the presentation to CLL, the company expressed that they were uncertain of how to run and structure the workshop. That they did not know when to do what and which activities should be handled at what time at the workshop.

The VIDEO Board helps and guides the facilitator through the workshop, and displays clearly which phases the workshop consists of, and how many. (See ill. 55)

The board is divided into three different phases. The phases represent three different actions in the VIDEO Workshop. The board has a flow from outside and inwards. A game brick is moved around the board to indicate which phase to focus on, and thereby control the discussions. The game brick is placed and moved by the facilitator, thereby the participants do not have doubt about where the starting point of the game is and which area is being “played”.



## Appearance

The board is made in to a consistent board, to make it appear as a professional tool for CLL. The round shape makes it easy for all the participants to read the text and follow the direction of the board, in terms of not having a front- or backside. Thereby it invites everyone to participate on equal terms. Furthermore the round shape of the board indicates an iterative flow at the first phase.

The round shape displays the three phases of the board and that the most important part is the middle, and the flow works towards the middle. The flow is likewise enhanced by using colour to indicate the importance of the different phases.

The size of the board is 30x30 cm, which is determined by the interaction of the participant and the fact that the text on the board is minimal. The most important factor in terms of the size, is that the game brick can be moved around on the different areas of the board. If the participants in the workshop are divided in groups, each group might have their own board.

3rd phase; DEVELOP

2nd phase; PRIORITISE

1st phase; OBSERVE, SKETCH, PRESENT & GROUP

ill.:55: VIDEO Board.

## 1ST PHASE

### “OBSERVE, SKETCH, PRESENT & GROUP”

The 1st phase consists of four different areas. The game starts at the area “OBSERVE” where the participants read the Innovation Tracks and watch the supporting VIDEO- Portraits and Sequences, while noting personal notes. At the next area “SKETCH” the participants sketch ideas on the basis of the observed Innovation Tracks and video. After sketching the area “PRESENT” encourages the participants to present their ideas in plenum. At the next area “GROUP” the participants group all their ideas into several idea families and give the different groups a headline.

Depending on the amount of Video Sequences and Innovation Tracks, the phase is “played” over and over again. Where the participants observe the next VIDEO Sequences, sketch on ideas, present the ideas and group the ideas into the categorise or make new ones.

## 2ND PHASE

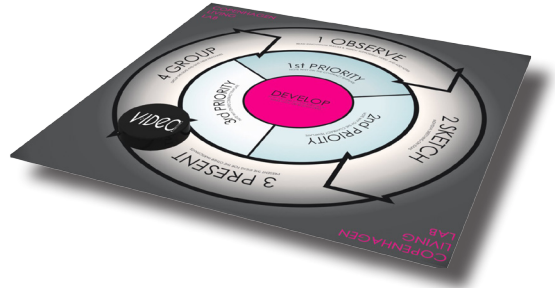
### PRIORITIES

The grouped ideas are prioritised after the areas on the board; 1st priority, 2nd priority and 3rd priority. The participants note on the Contract document why the grouped ideas are prioritised in this degree of priority in order of further design parameters.

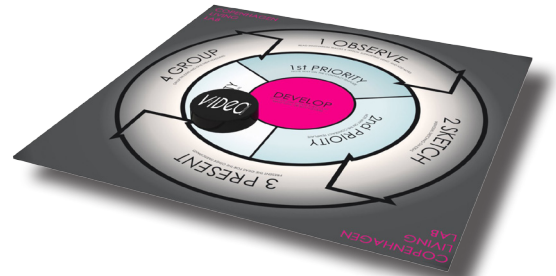
## 3RD PHASE

### DEVELOP

The participants discuss the two method cards; Make Tool and Bodystorm and choose to perform one or both of them, depending on time amount of the workshop. Pros and cons for the developed concepts are noted on the Contract document, in order of further development.



ill.:56: The game brick indicates the 1st phase.



ill.:57: The game brick indicates the 2nd phase.



ill.:58: The game brick indicates the 3rd phase.





ill.:59: Front side of a method card.

## VIDEO METHOD CARDS

To the VIDEO Board are two associated methods card; Make tool and Bodystorm. The two methods are development methods, that can be used for the development process in the workshop, at the 3rd phase on the Game board; DEVELOP.

To help the facilitator, the card illustrates the method with a picture on the backside. This is done to make the method more visual and give the facilitator a scenario, to explain the method from.

On the front side the method is explained in accordance to what kind of method the card is referring to and what the method can bring to the idea development. Furthermore the card explains why the facilitator and participant should choose this method and how the method is performed.



ill.:60: Back side of a method card.

The idea behind the method cards are that the facilitator can be guided towards choosing a method for the idea development phase in the VIDEO Workshop. The facilitator can also hand over the card to the participants in the VIDEO Workshop, and together in plenum choose which method they want to use for developing idea at the workshop.

Along with the method Make Tool is a toolbox. This toolbox should consist of all sorts of material to build physical product concepts/ideas.

The idea behind the toolbox is that the facilitator fills the box before the workshop with things that can be beneficial for the creative Make Tool process.

A toolbox could consist of; glue, scissor, modelling wax, pens, paper, cardboard etc.

Together with the VIDEO Board and VIDEO Portraits and Sequences, are associated Portrait- and Innovation Track cards.

The VIDEO Portraits and VIDEO Sequences are displayed in a PDF format that is shown on a screen at the VIDEO Workshop.

All the different cards are made into templates, so they are consistent at every workshop and are easy for CLL to fill in. All the preparation material for the VIDEO Workshop are gathered on the VIDEO CD and consist of:

- Template for Presentation in Adobe InDesign.
- Template for Portrait card.
- Template for Innovation Tracks card.
- Template for Contract document.

## PRESENTATION TEMPLATE

The presentation, structure the 1st phase in the VIDEO Workshop, together with the VIDEO Board. The structure of the presentation is important for the flow of the workshop and is therefore made into a standard structure but with a flexibility for each project. Furthermore it ensures an identical visual profile for all the tools in the workshop.

The structure is:

- Project Background.
- VIDEO Portrait.
- Innovation Tracks.
- VIDEO Sequence.

The image shows a template for a portrait card. It consists of a large rectangular box on the left, labeled '(PICTURE)' at the bottom left. To the right of this box are four labels: 'NAME:', 'GENDER:', 'AGE:', and 'PROFESSION:'. Below these labels is a line of text: 'OTHER RELEVANT INFORMATION ABOUT THE PERSONALITY:'. At the bottom of the card, there is a large pink arrow pointing to the right. Inside the arrow, the word 'PORTRAIT' is written in white, and below it, in smaller white text, it says 'Displays the user and personal information'.

ill.:61: Portrait card template.

## PORTRAIT CARD

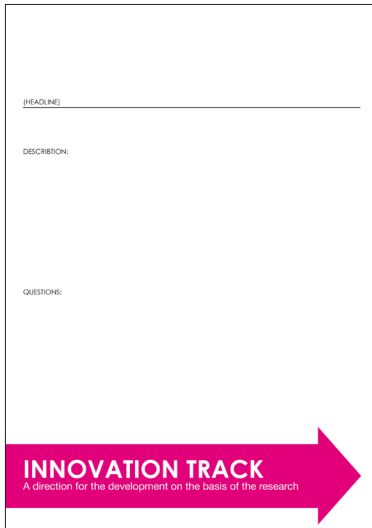
The Portrait card is handed out by the facilitator at the 1st phase at the area “OBSERVE”.

The Portrait card portrays the different users of the project and their situation, for the designers ability to create empathy and understanding for the users. Likewise the Portrait card ensures that the participants are aware of which user the other participants are referring to.

The Portrait card displays a picture of the user and his/her name, gender, age and profession.

The card also gives a short description of useful information about the users personality.





The Innovation Track card template is a vertical rectangular card. It features a white background with a thin black border. At the top, there is a horizontal line labeled "(HEADLINE)". Below this, the word "DESCRIPTION:" is followed by a large empty space for text. Further down, the word "QUESTIONS:" is followed by another large empty space. At the bottom of the card, there is a large, solid magenta arrow pointing to the right. Inside the arrow, the text "INNOVATION TRACK" is written in white, bold, uppercase letters, and below it, in smaller white text, "A direction for the development on the basis of the research".

ill.:62: Innovation Track card template.

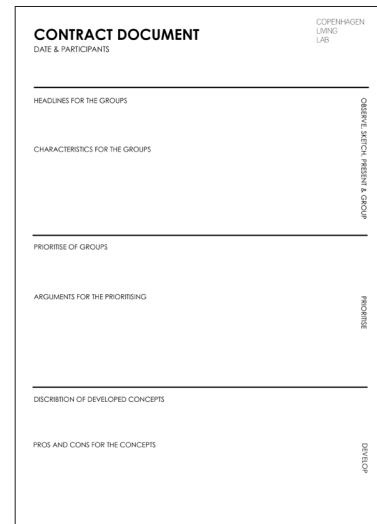
## INNOVATION TRACK CARD

The Innovation Track card is handed out by the facilitator at the 1st phase at the area "OBSERVE".

The Innovation Track card frames opportunities and make directions that can guide the designer's development process. The card provides parameters from the users perspective.

The Innovation Track card displays a headline for the Innovation Track and a description of the innovation Track. The card also frames questions supporting the Innovation Track.

The card can be used to add directions for the development process.



The Contract document template is a vertical rectangular card. It has a white background with a thin black border. At the top left, the title "CONTRACT DOCUMENT" is in bold, uppercase letters, followed by "DATE & PARTICIPANTS" in a smaller font. At the top right, "COPENHAGEN LIVING LAB" is written in a small font. The card is divided into four main sections by horizontal lines. The first section is labeled "HEADLINES FOR THE GROUPS" and "CHARACTERISTICS FOR THE GROUPS". The second section is labeled "PRIORISE OF GROUPS" and "ARGUMENTS FOR THE PRIORISING". The third section is labeled "DESCRIPTION OF DEVELOPED CONCEPTS" and "PROS AND CONS FOR THE CONCEPTS". On the right side of the card, there are three vertical labels: "OBSERVE" for the first section, "PRIORISE" for the second, and "DEVELOP" for the third. At the bottom right, there is a small label "DATE".

ill.:63: Contract document template.

## CONTRACT DOCUMENT

The Contract card is handed out by the facilitator at the start of the workshop, to the participant that has been chosen to be the "Contract person". The "Contract person" is in charge of filling out the Contract document throughout the VIDEO Workshop.

The Contract document ensures that the decision taken in the workshop is carried on in the development process. CLL has to type up the document after the workshop and make it available on the digital platform.

The Contract document displays the summaries of each of the three phases of the workshop. Under the 1st phase the headlines of the grouped ideas are notes and the characteristics of the grouped ideas. Under the 2nd phase the prioritised groups are noted and the arguments for the priority. Under the 3rd phase the description of the developed ideas are noted and the pros and cons for the ideas.

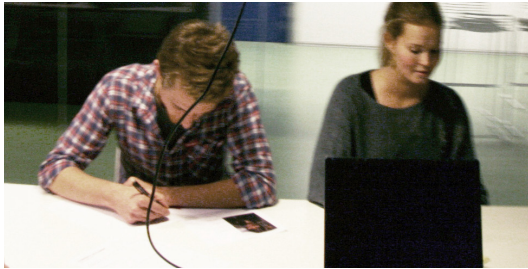
# SUMMARY OF VIDEO WORKSHOP

illustration of the flow and the actions in the VIDEO Workshop



## OBSERVE

The participants observe the VIDEO Portrait and Video Sequence, while adding personal notes.



## SKETCH

The participants sketch on ideas, based on the VIDEO Portrait and VIDEO Sequence.



## PRESENT

The participants are gathered in groups of 3-5 participants and present their ideas for each other.

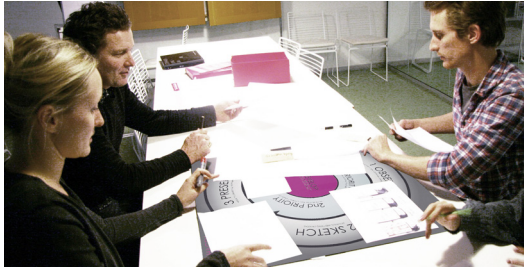


## GROUP

The participants group their ideas and give each group a headline. Characteristics for the grouped ideas are noted on the Contract document.

Depending on the amount of Innovation Tracks and VIDEO Sequences the four steps are done over again.

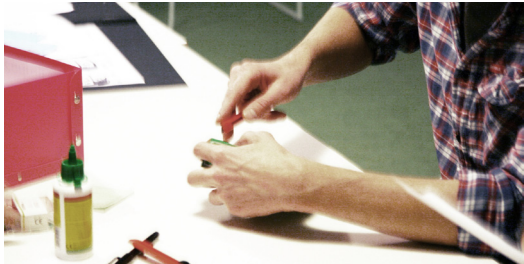
ill.:64: Flow of the 1st phase.



## **PRIORITISE**

The participants prioritise the grouped ideas in 1st, 2nd and 3rd priority, due to the criteria for the project and the users needs.

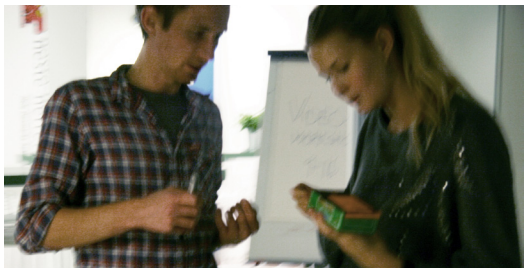
The arguments for the prioritisation are noted on the Contract document.



## **DEVELOP**

The participants start a further development of the ideas of 1st priority. The methods cards inspire the participants to develop by Bodystorm or by Make tools

Pros and cons for the developed concepts are noted on the Contract document.



ill.:65: Flow of the 2nd and 3rd phase.

# TOOLS FOR VIDEO PROCESS

Illustration of the element in the VIDEO process



ill.:66: VIDEO Handbook.

Further presentation and information of the VIDEO Workshop and the VIDEO Process, is presented in a VIDEO Handbook, a VIDEO Film and a Video Box. They aim towards different phases in the process

## THE VIDEO HANDBOOK

Serves as a guide for CLL to advise them during the VIDEO Process with special focus on how to use and produce the video.

The Handbook is used before the process and as a reference work during the process. It can therefore be read in a flow and each phase of the process can be read individually.



ill.:67: VIDEO Box.

### **VIDEO BOX**

To guide the VIDEO Workshop, with a set of rules for how to use the board. The VIDEO Box consists of; a board, two methods cards and a game brick.

The Box is used in the VIDEO Workshop.



ill.:68: VIDEO Film on CLL's web site.

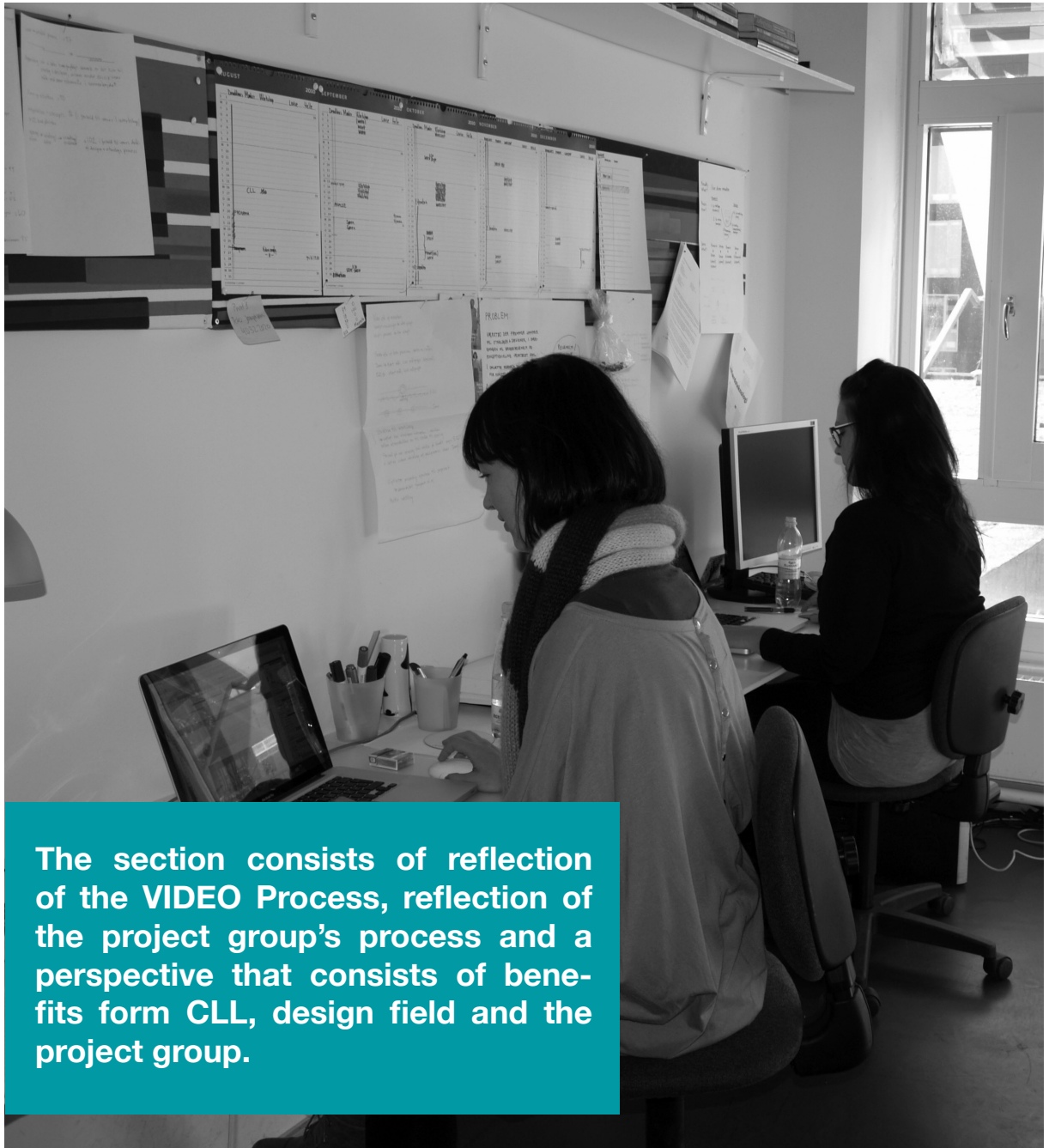
### **THE VIDEO FILM**

Is a presentation film, that aims to be placed at CLL's web site, to give awareness about and commercialise the VIDEO Process for potential costumers and partners in the process.

The VIDEO Film is for potential customers seen before a cooperation with CLL. For partners in a VIDEO process the VIDEO Film is seen from the project start.

The VIDEO Film is placed on the CD.

# REFLECTION



The section consists of reflection of the VIDEO Process, reflection of the project group's process and a perspective that consists of benefits from CLL, design field and the project group.



# REFLECTION OF VIDEO

to understand and explore the challenge and opportunities VIDEO creates

This is a reflection of the solution VIDEO process to make a throughout reflection of forces and challenges.

## VIDEO PROCESS

### Interdisciplinary cooperation

The project only relies on the cooperation between the design and ethnological discipline. This is done to bury deep in the material and make a thorough analyse of the user research, from few disciplines instead of overall one from many disciplines.

The process with a defined structure aims to guides the cooperation, but open enough to allow other disciplines to participate in the process. This is done by building up the VIDEO Process as “building blocks” where other building blocks can be added on top or underneath, or be removed, in terms of adjusting the process to each individual project. Thereby the process is a changeable factor that can be moulded into CLL’s existing process and cooperation with different partners.

### Cooperation with CLL

During the entire project the project group had an office at CLL and have thereby become a part of the company. This has furthermore included meetings every friday morning, where each employees present ongoing projects and future projects. These meetings have sometimes lead to interesting discussions, for instance about the ethnologist role in development projects. Futuremore these meetings have giving a good insight into CLL’s culture, which may not have been achieve by working together with the company from a distance.

The close cooperation with CLL may appear in the solution, which had some pros and cons.

This is like any another project cooperation with a customer, were the costumer may have some expectetions for the solution and a culture that has to be taken into account when designing the solution. But the solution is charaterised by CLL’s culture instead of their expectation.

### Cooperation culture

It is difficult to design a cooperation process and workshop, in terms of the diversity of the participants and the interpersonal chemistry between the participants. With the solution the project group tries to design from caracteristica and generalisation of how the ethnologists and designers think.

The project group experienced in a User Workshop with CLL concerning the “E2C” project, that the interpersonal chemistry between participants in a workshop is extreemly important for the output. The user workshop was a two days workshop were “WAAG’s” developed concepts were tested, with two groups one day and two groups the second day.

The communication and dynamic in the groups and their view upon the concepts were extreemly different the two days. This is an example of how the energy and attitude towards something influence the whole culture in the workshop. Therefore the solutions sucess, among other things rely on the participants interpersonal chemistry and ability to cooperate.

### FRAMING WORKSHOP

The Framing Workshop aims to involve the designer and the design mindset in the user research. Thereby the user research becomes focused towards the output. This can also be seen as an



limitation of the ethnologist open minded focus. As Sperschneider define good ethnographic field research:

**“You want to go there with your mind as open as possible. You want to be surprised and you want to let yourself be surprised, and you want to put yourself where you can be as surprised as possible, and then you wonder what it is like, how does it hang together, what is the picture and what should be your stimulus to intellectual work analysis” (-ist.massey.ac.nz)**

Thereby he argues that the picture is created after discovering, where we argue to put up an initial picture before discovering. By our point of view, the ethnologist field in a design process needs to be focused towards the output, because the designer needs parameters to design upon, in order of bringing something abstract down to something concrete.

## **USER RESEARCH**

Use of video in the user research insures that the designer can get access to the users, which is important in order of understanding the user and create empathy for the user. By still letting CLL perform the user research and analysis, the designer furthermore gets well structured user research that outlines clear directions in form of Innovation Tracks and classify the video footage in form of Video Sequences. CLL thereby uses their competencies to outline directions for the development process, but by using video allows the designer to discover and understand the users themselves.

VIDEO thereby add a visual perspective to CLL's processes and delivering of user insight. The implementation of a visual perspective in CLL re-

search process would effects some strategic and structural change for CLL, which can be a big challenge for a company. At first it is about the perception of visual anthropology. Gareth Davey emphasis:

**“it is not clear how the field is drawn together, and how to distinguish between visual anthropology and other subdisciplines. The interdisciplinary nature of the field means that projects can often be placed elsewhere.” (Davey, 2010, p. 348)**

We recommend CLL to engage in interdisciplinary cooperation to a greater extent than they already do. For example employ disciplines with a greater knowledge concerning video, editing and visual presentation. Furthermore we recommend CLL to employ designers that during the process help implement the aim towards development. The idea is to help the ethnologist to structure the Innovation Tracks towards development from the start of the analysis.

## **VIDEO WORKSHOP**

The VIDEO workshop tries to link the ethnologists structured and analytical approach with the designers ability to conceptualise. Based on the structured Innovation Tracks with supporting VIDEO Sequences and VIDEO Portraits that creates empathy and understanding of the users, the participants develop design parameters with the designers methods as; Sketching, Bodystorm and Make Tools.

The methods might challenge the ethnologists and their extent of involvement. On the other hand it will express CLL's openness towards the design teams and their methods.

The number of participants in the VIDEO Workshop are crucial for the flow of the workshop. If there are more than five participants in the workshop we recommend to split up in interdisciplinary groups. It will create some challenges concerning how to share ideas and reach common design parameters. If the workshop needs small sum ups in plenum regularly through the workshop or the groups will run a parallel process with different outputs is difficult to conclude, though the test only have consist less than five participants. This is one of the factors that needs to be developed through a potential implementation periode.

# REFLECTION OF THE PROCESS

to explore and understand which experiences we have gained through the process

This is a reflection of the project group's process in the designing of VIDEO.

## OUR APPROACH

When designing a process it is important to understand the process that we currently are designing in and the solution we are aiming for, but also reflect on this process from a general design perspective. This hypothesis is described by Daniel Fallman, into three disciplines of design; design practice, exploring design and design studies.

We have been working in loops between these three design disciplines throughout the project. We have designed the process we, ourselves are working in, by exploring the design process and by studying the process. It has learned us to develop a design approach, based on a practical and theoretical development process.

## PROCESS DESIGN

Working with process design is a "wicked problem" and to address this kind of problem requires the competencies of problem solving. Through the process we have worked with a problem oriented approach, where knowledge through a practical and theoretical approach is tested by workshops in order to put up new questions. This requires that there are no "solutions" in the sense of definitive and objective answers. (Rittel & Webber, 1973, p.155)

A challenge has been to design a process that guides and structures, but without becoming too controlling and rigid. A question of the degree of control the process should possess.

## Tests

When working with "wicked problems" and thereby processes, it can be difficult to prove that the process is beneficial. We have made some assumptions, based on workshops that focus on fragments of the process, consisting of the workshops. It does not illustrate the big picture, but has given us an idea of what works and what does not.

The problem behind this fragmentation of process design, is that we are working with a project where another project is simulated in this process. This has given us challenges in making the workshops as realistic as possible and making the participants acquainted with the case. Because the participants need to imagine to be in the synthesis even though they have not been apart of the previous or become a part of the preceding process.

Unfortunately we have not been able to test the VIDEO Workshop where both disciplines participated at the same time. We can therefore only build our assumption of VIDEO on how it worked in workshops with each discipline individually and on others' experiences.

## Use of video in our process

It has been a challenge to base the workshop on qualified material. This is due to the use of video. We had from the beginning of the project assumed they could use CLL's cases, but because they do not use video in their existing research, their cases and material from them, did not fit the requirements for the workshops. Instead we searched other places for thorough user research where video was used. It was difficult to find qual-

ified material that fulfilled the projects criteria, such as video with actions, video displaying the users context and video displaying the users face.

Use of Video to record research and tests in our process was very usefull for reflection-on-action. Furthermore the video was usefull for the presentation to CLL, because it gave them an insight in the designers perspectives. We thereby used video in the same sence as we recommend CLL to do it; as a tool to let the reciever understand their customers and the analysed conclusions.

### **ETHNOLOGIST IN A DESIGN PROCESS**

This project relies on a hypothesis that the designer can benefit from the ethnologist in a user centred design process. This hypothesis is primarily based on a long and thorough research process.

The ethnologist have studied for many years and is an expert in reading and interpreting the users. We do not want to undermine this knowlegde and say that the designer has the skills and competencies to perform the research as thorough as the educated ethnologist.

**“Academic studies of human behavior are complex, difficult to perform and require some understanding of theory to appreciate their outputs in many cases. When practitioners in these fields bemoan the lack of understanding outsiders demonstrate, they miss the point. Social science studies, in and of themselves, do not exist to serve outside purposes, be they design or otherwise, but to increase our understanding of humans, and we should never demand of the social sciences in their pure form that they offer direct guidance.” (Dillon, 1998 p.2)**

As Dillon points out the work of an ethnolog is not direct suited toward finding solutions, but to understand people. Which can be seen as a quality for the design process, given that it open up for identifying relevant needs. Accordingly we argue that a cooperation between the two disciplines can lead to innovative products and satisfied end customers, where the ethnology is bend in a direction towards the design field.

In addition we still argue that in user centred design the research can be performed by the designer in order to create innovative products, due to the statement that ethnologists not are the only ones that can make important observations. But the optic for these observations and thereby the outputs are different depending on the discipline. Ethnologist view it from a lifeworld perspective and the the designer from a useworld perspective. (Merit & Nielsen, 2007)

We have during our iterative process realised these different perspectives. This is among other things created through a greater insight in the ethnologist work and qualities by cooperation with CLL. This has given us an respect for the insight of the users life world the ethnologist can bring to a design process.

This is a description of the future perspectives regarding VIDEO, in correlation with the benefits for CLL, the design field and the project group.

### **BENEFITS FOR CLL**

To implement the VIDEO Process into CLL some consideration of the future perspective has to be made.

Our experiences in cooperation with CLL are that they create insightful user research and are talented within their field of user research and analysis. This insightful user research is important in order of creating user centred design that focus on fundamental user issues. Jacob Buur emphasis:

**“to move collaboration beyond requirements talk among the design team, organisation and participants, needs well-crafted ethnographic material to frame the encounters to focus on fundamental issues and perceptions.” (Buur 2007, p. 147)**

We have designed VIDEO in order to keep CLL's strength in creating insightful user research, but added the designer's approach and mindset.

With the VIDEO Process and VIDEO Workshop we have created a solution to the problem statement:

**How to establish a format for the cooperation in the synthesis phase, that creates a balance between the disciplines and enables each to contribute their full value, with use of video and Innovation Tracks that creates empathy and directions for the designer?**

But we only see it as a solution when it is implemented into CLL, and CLL incorporate the VIDEO Process into their own process, so it becomes a natural process for CLL and their culture. Horst W. J. Rittel explains:

**“With wicked problems, the solution, after being implemented, will generate waves of consequences over an extended--virtually an unbounded--period of time...The full consequences cannot be appraised until the waves of repercussions have completely run out, and we have no way of tracing all the waves through all the affected lives ahead of time or within a limited time span.” (Rittel & Webber, 1973, p.163)**

To see if the solution really is beneficial for CLL, we have to implement the process into their process, which would create “waves of consequences” as Rittel explains. And only when these “waves” have run out, it shows if the solution was beneficial, and this can take many years.

### **BENEFITS FOR THE DESIGN FIELD**

**“For designers who have begun to explore the impact of their work on organizations and organizational life, as well as the impact of organizations on their own work, the trend and the conferences are important.” (Buchanan, 2008, p. 1)**

This project investigates how to exploit the design competency toward finding ways to improve organisations and their effectiveness. The role of a designer is getting broader and more investigating.

Designers are capable of combining different disciplines and seeing organisations and their process as a product that needs to be designed.

**“They further elevate the idea that organizations are products, as well as the idea that, like other products, organizations can be designed by intelligent forethought and appropriate action.” (Buchanan, 2008, p. 1)**

### **BENEFITS FOR THE PROJECT GROUP**

We are thought throughout our education at Architecture & Design to work with an analytical and testing approach to design, and applying this analysis to solve problems with action. This problem solving approach is used for designing products and services as well as processes.

Working with creating a synthesis and a synthesis process have given us as designers some benefits in terms of broadening our competencies within the design field.

The VIDEO Process is made for CLL and to strengthen their synthesis process when cooperating with designers. We are therefore not going to be using the VIDEO Process as a tool in the future, but the mindset behind the process.

After this project and process we see ourselves as being capable of going out and consulting in the use of user-centred design-, design and interdisciplinary processes, as the mindset behind VIDEO. Furthermore we are able to perform in a user-centred design process where more disciplines are involved.

Our cooperation competencies have during the project been strengthened as well, in terms of working together with CLL as a company and being a facilitator of various workshops.

In addition to this we have gained a lot of knowledge of working close together with another discipline as ethnologist. We as designers have achieved a greater acknowledgement about the work of an ethnologist and the process they operate with.

Likewise we have achieved knowledge about our own design process and the way we operate in this process to resolve to a solution.

# SOURCES

## SOURCES

# GLOSSARY

### **DESIGN PARAMETER**

Essential qualitative and quantitative characteristic that set criteria (such as performance requirements, dimensions, weight, reliability, ruggedness) to be satisfied in designing a component, device, product, or system. (businessdictionary.com)

<http://www.businessdictionary.com/definition/design-specification.html>. 23.08.10

### **ETHNOLOGY**

The study of single groups through direct contact with the culture, ethnology takes the research that ethnographers have compiled and then compares and contrasts different cultures.

Within the subject anthropology, you former distinguished between anthropology and ethnography. Ethnography was the name for the data collection you gathered under the fieldwork, while anthropology was the process where you analyse the data you have produced. Nowadays you do not distinguish between the two, because you do not see them as two different things.

([http://antropologi.ku.dk/uddannelser/soegende\\_kopi/spoergsmaal/](http://antropologi.ku.dk/uddannelser/soegende_kopi/spoergsmaal/))

### **SENSEMAKING**

“is a constant process of acquisition, reflection, and action. It is an action oriented cycle that people continually and fairly automatically go through in order to integrate experiences into their understanding of the world around them.” (Kolko, 2010)

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