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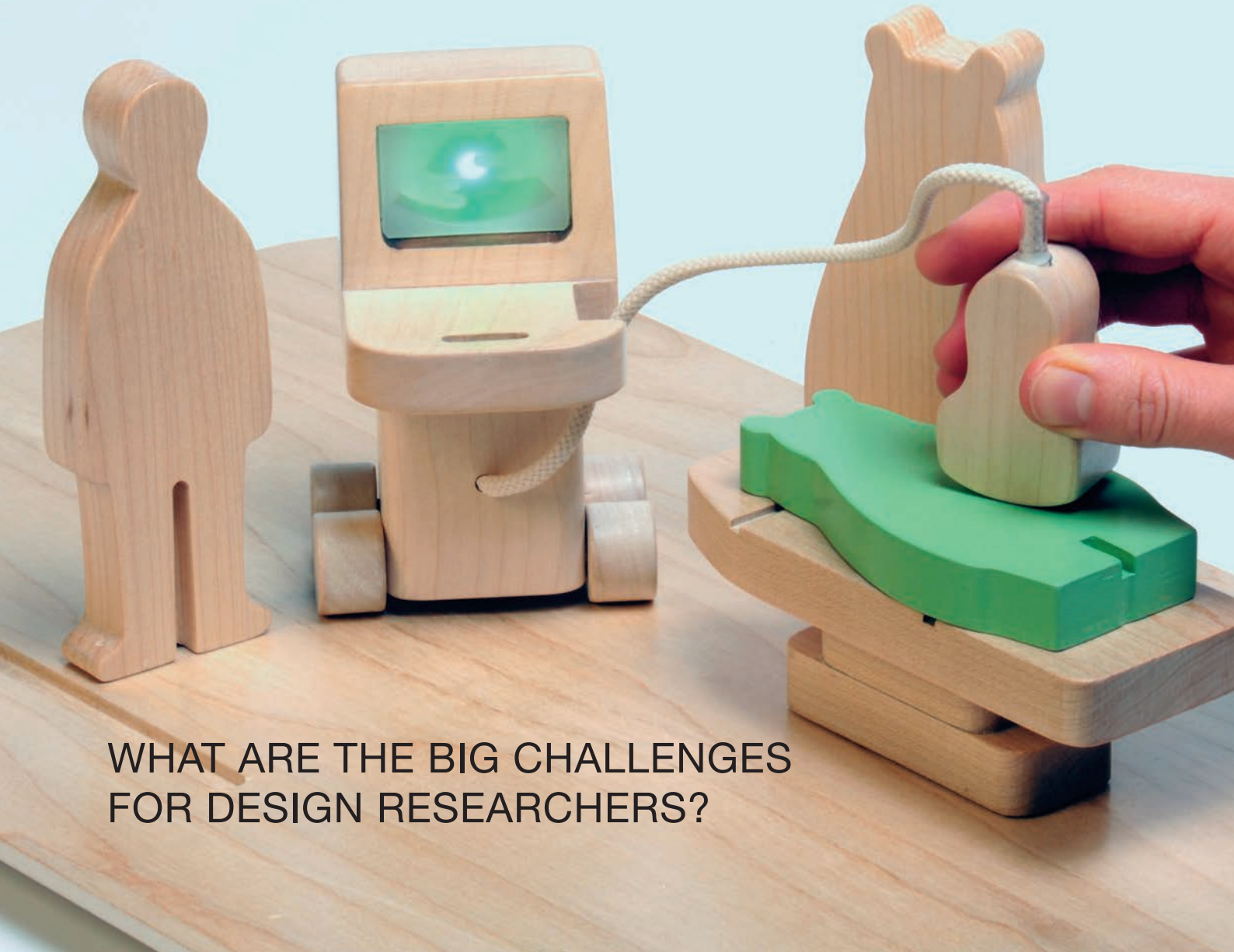
FOCUS: THE NETHERLANDS

Bridge builders



WHAT ARE THE BIG CHALLENGES FOR DESIGN RESEARCHERS?

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COVER:
"Novel Hospital Toys" by Hikaru Imamura, a graduate of Design Academy Eindhoven. The project is based partly on user studies with children at hospitals.

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Mission: The User

PHOTO: CAROLINE LUNDÉN-WELDEN

Eva-Karin Anderman

There is a lot of talk about putting the focus on the customer or the patient or the user. And many people say that cooperating across disciplinary boundaries is the route to success. We read strategy documents and debate articles about the importance of placing the individual at the centre of development processes. As the Swedish adage says, a beloved child has many names. That's because the user, customer, citizen or patient is precisely the person who should be the focus of attention when we are developing new goods, services or tomorrow's political solutions. But so often we say this is important and then stop there. Few people talk about *how* we can achieve this goal in purely practical terms.

In September the report *Design for Prosperity and Growth* was presented. It was produced by the European Leadership Board for Design, mandated by the European Commission. The report gives a broad definition of design: "Design is perceived as an activity of people-centred innovation by which desirable and usable products and services are defined and delivered." Precisely here, with such a definition of design, we get one of the answers to how innovative power can increase. When the users are at the centre of the development process and that process cuts horizontally across knowledge silos, the solutions are often better, more attractive, and more effective.

In Sweden we are good at design – we have design agencies that attract customers from other countries, design educational programmes that are highly ranked internationally, and design researchers who are working at the heart of corporate development. But we need to become better at showcasing all the good achievements: all the people – both colleagues and users – who are contributing to creating better solutions at all levels. This might involve using design to develop municipalities or creating new interfaces in parental insurance. Or, for that matter, developing sensors for taking blood sugar readings.

In October the Swedish government presented its national innovation strategy. Many of the reactions said the strategy was fuzzy about what the government really wants. But it is easy in this context to forget that just a couple of years ago we had a debate about innovation which scarcely mentioned people as the foundation for innovation – not as customers, users, innovators or colleagues. The fact that the view of innovation has shifted within the space of a few years still gives a lot of lift to the wings of those who want to deal with the issue of "how". In doing this work, SVID is therefore collaborating this autumn with researchers, design agencies, design purchasers and business developers to produce a strategic research and innovation agenda for how design can be used as a force for development.

You will find our work concerning the agenda at www.designagenda.ning.com. You're welcome to contribute!

Eva-Karin Anderman, Program Director, Swedish Industrial Design Foundation (SVID)

PHOTO: LOTTA JONSON

THE BRIDGE BUILDER

Design research in the Netherlands has been given a major opportunity. For four years large sums of money are being invested to involve and include the creative industries in a large number of projects. These all focus on nursing care and productivity from a broad perspective. The hope is that the research will improve society on both the social and economic level.

The lift from the ground floor of deWitteDame (the White Lady), a white, modernistic industrial building a couple of stones' throw away from the railway station in Eindhoven, takes me directly to the third floor and into Design Academy Eindhoven, the most prestigious design academy in the Netherlands. Throughout the years, the academy's exhibitions and student presentations have had an unusual appeal. They have exuded humanism, often been playfully poetic, and been considerably more conceptual and exploratory than in Sweden.

Bas Raijmakers

(facing page) leads the CRISP research group at Design Academy Eindhoven in his capacity as Reader in *Strategic Creativity*. He studied cultural issues, the internet and interaction design before completing his doctorate in interaction design at the Royal College of Art in London in 2007. In addition to being a Reader he now also runs the STBY design research consultancy with offices in London and Amsterdam. STBY has focused on "design research in service innovation" and has customers in both the public and private sector worldwide.

Training in design theory has also been well developed at the academy. In contrast, regular design research has not been the focus of particular attention – at least, not before now. Before CRISP.

FIRST MAJOR VENTURE

CRISP stands for Creative Industry Scientific Programme, and is a major government-led investment in design research in the Netherlands. Design Academy Eindhoven, together with the industrial design departments at the technical universities of Eindhoven, Delft and the University of Twente in Enschede plus 60 partners (companies, not-for-profit organisations, municipal authorities, etc.), will develop and establish a scientifically based knowledge infrastructure focusing on how design can play a strategic role in the development of a better and more sustainable society. Or, to put it more simply, to link design research and creative producers of both products and services.

"This is the first time our government has made a major investment into the design field and the creative industries," explains Bas Raijmakers, head of research for the academy's CRISP programme.

"Previously, they only funded chemical or technical research and big, well-established companies. But in recent years the discussions have also focused on the fact that creative innovations can contribute to general social development within a larger economic context. And that we must reach out with new knowledge to creative people, and, before doing so, make a serious effort to find out how this can be done."

Raijmakers says that the inspiration for CRISP comes mainly from the UK. Nowadays even people at the governmental level in the Netherlands are saying that it pays to use more design methodology at an early stage of the development process. Until very recently, design was regarded as being mostly about surface – not wholly unexpectedly – and largely about giving form to an already well-planned concept. But the CRISP project demonstrates that the politicians have discovered 'design thinking' and that design can also be strategically important to the whole process of constructing society.

THINKING OF THE USERS

Raijmakers is especially fond of user-driven design solutions. He gained his master's degree in Social Sciences (Cultural Studies) and then started

his own internet company. During the early 1990s he began to research how the internet is used and and how this understanding can help create better applications for the internet. Already at that time he discovered that all applications must be tested with the people who will use them. Designers and design engineers often didn't have a clue about how the prospective users lived or functioned in front of the computer screen. User studies were done far too late, when it was no longer possible to influence anything.

At about that point, there began to develop a more comprehensive interest in user participation. Raijmakers started to explore which types of research and preliminary studies were really necessary before more concrete design work can start. Nine years ago he began his doctoral studies at the Interaction Design Department of the Royal College of Art in London.

"I've always been interested in films, especially documentaries. As a result, I tried to find shared points of contact between making a film and how we can investigate people and their everyday life at an initial stage of an innovative process. For more than a century, documentary filmmakers have examined human beings and their behaviour in a completely different way than designers look at the people who will use their designed products or services. I felt that the filmmakers' methods were considerably better and more advanced. They often had a greater understanding and a more practical but also a considerably more in-depth philosophical approach. This was something that could also be used in the design field.

"Designers tend to regard people more at arm's length, as 'users' – they feel they must be objective and don't want to disturb people. I usually say: 'No, you have to become involved, participate, interact!' At the most basic level, you have to give something in order to get something. Within the documentary film genre, everyone knows that instinctively. As they do in other academic disciplines such as ethnology and social anthropology. I felt my task was to build bridges between these different ways of thinking. So, you have to involve people right from the very start in all design processes – not least when you are developing services. Or various interactive functions. You have to know about people's situation, their background, their histories, and use their experiences as sources of inspiration – let them be involved and participate in a concrete way in the development cooperation process when you develop your design. So that's the background to how we work with CRISP here at Design Academy Eindhoven."

MORE BRIDGE BUILDING

Bas Raijmakers says that of course there have been pioneers in the Netherlands within both the industrial and design worlds who have also realised what an important role design thinking can play. However, most people know too little and want to know more.

He hopes that in the long term CRISP will change this situation. What is needed is both to interest designers in doing more in-depth research and to get the creative industries to be receptive to input from academia. Once again, this is a matter of building bridges – with the aim of changing society at a fundamental level.

Originally two government ministries – economic affairs and education – were involved in CRISP. Funding was promised and the afore-

Design Academy Eindhoven

Design Academy Eindhoven (DAE) was established in 1947. Fifty years later it moved into Philips' first lighting factory, which was then empty. Called De Witte Dame (The White Lady), the building is located in central Eindhoven. It now consists of 10,000 square metres of teaching rooms and workshops.

DAE has been called "the best design school in the world". Its reputation grew further during Li Edelkoort's decade as its chairwoman (1999–2009). Most of the Netherlands' internationally well-known designers are graduates of DAE. Many of them regularly return as instructors for the academy's master's programme. The well-known design collective Droog Design also has its roots in DAE, and one of the country's most renowned design teachers, industrial designer and jewellery designer Gijs Bakker, was Head of the Master Department

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until he retired this past summer. DAE has about 700 students, of which just over 600 are in the four-year Bachelor programme and just under 100 in the two-year Master's programme.

It's common at DAE to talk about the academy's characteristic 'DNA'. It is claimed that this DNA makes the academy a "conceptual, authentic, creative, flexible, free, passionate and curious" institution. The academy claims that its graduate designers are "particularly gifted conceptualists. Wherever they end up, whatever they do, their main weapon is conceptual thinking. It allows them to ask critical questions about existing things and to introduce new approaches and to design from a bird's eye view. Both with regard to design and research they know what they want and what they can do. They know their strengths and have charted their skills and their limitations. Autonomy and originality are their trademark."

The names of the various courses reveal the academy's humanist, psychological and social focus. The Bachelor programme is divided into departments like Man and Communication, Man and Identity, Man and Public Space, Man and Well Being, and others, whilst the Master's programme has three different specialisations: Information Design, Social Design and Contextual Design.

Even though the academy has been proud of its theoretical approach throughout its history, it does not have the same academic status as the country's other industrial design programmes, that is, those at Eindhoven University, Delft University and the University of Twente in Enschede. There are special domestic Dutch educational policy reasons for this.

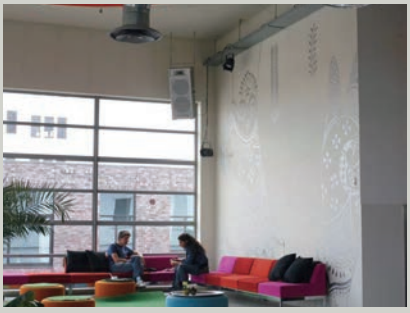
Bas Raijmakers, design researcher at DAE, argues that it is now time to catch up with the rest of the world. For example, being involved in research through design on an academic level, as the CRISP programme does, is something that fits the status of the academy. A next step could be having a doctoral programme.

"My work here is a step towards such a goal," he explains, "but that is still a long way off. For the first time the academy is doing academic research with a whole team, in collaboration with many others outside the academy. We are in the process of also profiling the academy as a knowledge institute. CRISP is just the beginning."

But the CRISP funding will end in April 2014. What then?

"As any academic research group, we are searching for future funding opportunities while we do our research. Also for that reason, bridge building, to academic institutions, industry and governmental organisations alike, is important. If we demonstrate that design research can lead to knowledge that is valuable both inside and outside the academic world, then there will definitely be other bodies willing to provide funding," Raijmakers concludes.

DAE's workshops and general spaces are located in a former Philips factory in Eindhoven.



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DAE and Dutch Design Week

In October, Design Academy Eindhoven held its annual student exhibition featuring all the new graduates' final projects. This year there were 137 of them. Here are two different examples but both have clear social ambitions.

Novel Hospital Toys

Hikaru Imamura
Bachelor's student, Man and Activity (Cum Laude)

PHOTO: HIKARU IMAMURA

Hikaru Imamura's "Novel Hospital Toys" is an engaging attempt to make life easier for hospitalised children. Imamura has spoken with physicians and parents, watched children being treated in hospital, and made study visits, including to the Astrid Lindgren Children's Hospital in Stockholm.

Children often use play to hide their fear. Imamura says that even small children can be prepared in a good way if they learn in advance a bit about what to expect during their hospital visit. The series of toys consists of various diagnostic machines, CT scanners, ultrasound devices, ECG machines, and so on, all made of wood. There is also a picture book for children age three to six.

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www.hikaruimamura.com

Micro Utopias

Daniela Dossi
Master Social Design (Cum Laude)

Connecting and Co-Creating Unexpected Services Today is a concept in many places throughout Europe, says Daniela Dossi. It involves a willingness to participate, to change one's situation via collective means. Dossi says this approach has never been more topical. She points to a range of examples where people, associations, companies and local authorities, all of whom feel the need to change an unsatisfactory situation, have taken their own initiatives.
How can designers use their knowledge and ways of thinking to help in such a process? To give tools to people so they can more easily create social innovations at the grass-roots level? As part of the Micro Utopias project, Dossi studied life among residents of two different housing districts, Rotsoord and Hoograven, in the Dutch city of Utrecht. She then developed a platform to link various individuals' needs with all the available resources so that they can cooperate over various services. The goal is to get people to feel participatory and to stimulate a collective battle against various types of dissatisfaction in everyday life.

www.danieladossi.com

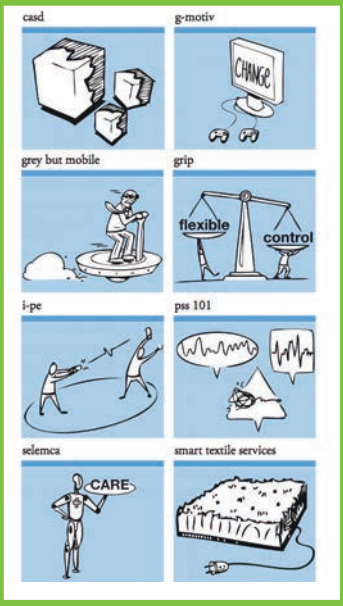
mentioned four design institutions were mandated to draw up a national research programme. “Here are the financial constraints. Develop a proposal!” were the instructions – without any other real demands. Raijmakers says the project began in a typical Dutch manner – with extensive and protracted discussions.

TOUGH PREPARATIONS

The process took two years; Raijmakers himself became involved after the first six months. It took so long because ‘everyone’ had to be involved. The creative industries in the Netherlands, as anywhere, encompass a lot of stakeholders who are often very small and not represented by one organisation. The authorities realised at an early stage that it was not possible to use the same approach with the creative sector as had been used in previous ventures when the target was heavy industry. Raijmakers says that the preparatory years were fairly tough because it was important to bring on board as many stakeholders as possible.

“As is so often the case, it was a matter of finding the right contacts,” he says. “People with a sense of curiosity in companies that were keen to participate. It wasn’t hard to convince them that design research can create good tools for future development. Being able to bring together all kinds of people and get them to communicate increases a researcher’s own credibility. You have to work on all levels.

“All the sixty partners we convinced to join CRISP are open to change and aren’t afraid to question themselves and their own operations. Of course this is especially important for service providers. They must have a more empathetic attitude to the people who will be using their services. But in my experience, companies in the service sector are often both interested and responsive. This applies not only to the purchasers and decision makers but also to the people who are developing the service, that is, the designers and design engineers. And, by the way, our sixty partners include a number of public-sector bodies, such as nursing and health care services, municipal offices, libraries



Read more and follow the projects at: www.crispplatform.nl

CRISP

The Dutch government is investing 11 million Euro in CRISP (Creative Industry Scientific Programme), which runs between April 2011 and April 2015. It is the biggest investment in design research in the country.

The statute states that CRISP “will develop a knowledge infrastructure which consolidates the leadership position and stimulates the continuing growth of the Dutch Design Sector and Creative Industries.” The aim is to develop “the knowledge, tools and methods necessary for designing complex combinations of intelligent products and services with a high experience factor.”

The CRISP programme is being run by Design Academy Eindhoven (DAE) together with the three industrial design departments at the country’s technical universities (Eindhoven University, Delft University and the University of Twente) with the support of 60 external partners, which are involved in various ways in one or more four-year sub-projects. These partners include representatives of all imaginable organisations, private companies, public-sector institutions, service companies, etc. The universities are coordinating the projects, whose progress is reported on twice yearly in ‘design reviews’.

CRISP focuses on the design of Product Service Systems and is subdivided into eight main projects: CASD (*Competitive Advantage through Strategic Design*), G-MOTIV (*Designing Motivation: Changing Human Behaviour Using Game-Elements*), Grey But Mobile (*Enhanced Care Service through Improved Mobility for Elderly People*), Grip (*Flexibility versus Control in the Design of Product Service Systems*), i-PE (*Intelligent Play Environments to Stimulate Social and Physical Activities*), PSS 101 (*Conceptualizing Product Service Networks: Making the Design Network Function Better*), SELEMCA (*Services of Electro-mechanical Care Agencies*) and Smart Textile Services (*Designing and Selling Smart Textile Product Service Systems).*

PHOTO: LOTTA JONSON

The research team at DAE has a centrally located office on the third floor in a glass cube with full visibility. The message is that design research should not occur in separation from other activities. Extracts from some of the CRISP programme's projects decorate the cube – so that everyone knows what the researchers are doing.

and transportation services for the physically challenged."

MANY SUB-PROJECTS

When CRISP finally got going it acquired a kind of lead slogan: "CRISP focuses on the design of Product Service Systems" the presentations state. They add that the programme's two main themes are care and productivity. It's easy to grasp what care is about but productivity must be understood more widely as also including working terms and conditions.

CRISP is also subdivided into eight main projects. Under the leadership of researchers at the various design schools, each of these main projects runs a large number of subsidiary projects together with one or more partners. A number of these projects are physically located at Design Academy Eindhoven (see page 12).

One important aspect of CRISP is the twice-yearly design reviews. At these, delegates from the various projects and sub-projects meet and report on their respective progress. They share their results and discuss various issues. All this occurs in the form of a one-day seminar. The CRISP organisation also features a number of boards, composed of representatives from the Dutch government, political organisations, universities and the creative industries.

PHOTO: LOTTA JONSON

Bas Raijmakers, at the far right, together with some of his research associates. Team members discuss their research and regularly evaluate their progress. On this particular day they are preparing for the next design review, at which CRISP's researchers, partners and public-sector funding bodies will meet.

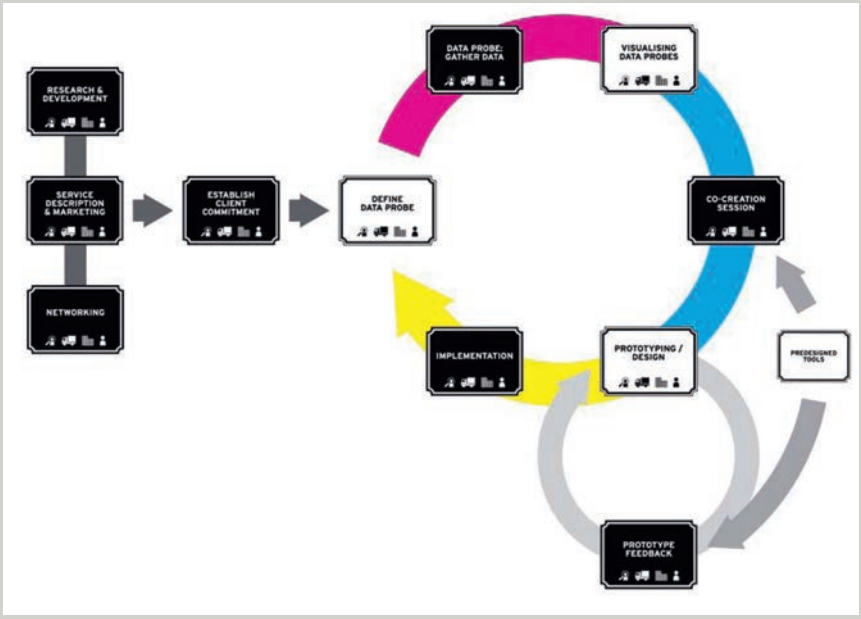
"For example, they would examine a project's scientific relevance and then assess the importance of the results," Raijmakers explains. "It's rather like a preview and the aim is to keep the projects on track and make sure that things really get done. CRISP has a four-year mandate, partly because it includes a number of doctoral projects. Twenty to twenty-five researchers will get their doctorates in design research during the duration of CRISP."

PROJECTS CAN CHANGE

At the design reviews, the projects' results are not simply presented as bare facts but are also analysed from a variety of perspectives. In April 2012 the focus was at the academic level; this autumn it is more from the perspective of the creative industries. The plan is to get a prismatic picture of every tiny component. Projects can change direction following a design review. This is an important possibility, because all research involves feeling one's way forward. Raijmakers says that if everything goes according to the original plan and if the course of events is predetermined or predictable, then it cannot be labelled either research or innovation.

"To complicate things even further, researchers have various roles within the different projects. We have the research students who are doing their doctorates as part of CRISP.

Three of the CRISP projects at Design Academy Eindhoven



A graphic portrayal of the GRIP model in which the work advances in loop-shaped movements. The colours show the various stages of the process. Magenta: Design for analysis (reframing), the analysis stage, framing, definition. Cyan: Design for research (probing), the research stage (probing). Yellow: Design for support (prototyping), design support, the prototype stage.

GRIP

The overall aim of the GRIP project is to explore what the balance between flexibility and control should be like with regard to the design of product service systems.

One part of the project being done by DAE is about stress. Among other things, *Mike Thompson* of DAE, with design researchers from TU Eindhoven and Philips design, has studied how mental healthcare personnel are affected both by their own working conditions and by the stress expressed by their patients. The researchers' partner, GGZE (the municipality's mental health care authority), psychologists, the occupational health care service and ambulance drivers have participated in the research. With service designers, various types of role playing were used to explore new product service systems.

Smart Textile Services (STS)

The Smart Textile Services (STS) project involves designing smart textiles as part of a product service system.

Smart textiles are a combination of soft materials and high tech. The textiles interact with their wearer, who wears them close to the skin. With the aid of sensors and control devices, they can gather data and subsequently influence the wearer's behaviour. This paves the way for many possible applications in the field of nursing care and can give challenged individuals new opportunities to live a better life.

The goal is to find various applications where existing medical knowledge can be combined with varying types of textile techniques (both industrially produced and handcrafted). The aim then is to help create new insights into methods and tools for both producing and supplying services that include the smart products.

A number of stakeholders and user groups are involved in the research work at DAE, which is led by Michelle Baggerman. The groups are actively participating in developing inspirational testbeds, in which the leading role is played by new, smart textile products and services.

The hope is that the results of all the various studies that form part of the CRISP Smart Textile Services project will be of strategic importance

for the textile industry in both the Netherlands and the rest of Europe so that the industry can stay competitive internationally.

Grey But Mobile

During Design Week Eindhoven at the end of October, DAE presented the concrete proposal Aevus, a test that is part of the CRISP project called Grey But Mobile. The aim is to improve old people's ability to move around in society and improve their quality of life by making them more independent. And, of course, also to improve the efficiency and therefore economics of the care sector.

Aevus is a new type of taxi for the elderly. Four electric cars drove old age pensioners around the centre of the city over a two-day period. The taxi drivers behaved in a different way than usual. They helped their passengers into the car and out again to their front doors, carried bags of groceries and were open to chatting without any pressure of time. The aim was to restore normal human interactions that have been lost in society, where time is money even in the social services sector. The researchers, led by Maartje van Gestel, wanted to test whether this model of "a helping hand" was a positive experience for everyone involved.

But we also have postdoctoral and lectureships, such as my own teaching position."

At Design Academy Eindhoven I meet five of the six research associates. They have gathered at the CRISP office, a small, freestanding and completely transparent glass box located in the middle of the academy's open-plan entrance hall.

A research associate is someone who has previously studied at the academy, is interested in research, and is possibly considering doing a doctorate. He or she may already have become interested in a specific field of study but has not yet investigated that particular idea on an academic level.

"We've established one-year half-time positions for these research associates. This gives them a chance to convert that interest into something that might become profitable both for themselves and for society in the longer term. They decide themselves which areas they want to do research in, as long as those come under one of the projects' mandates."

DUTCH MENTALITY?

Both the students and instructors at Design Academy Eindhoven have a great interest in cross-fertilisation. There are – and always have been – many important contacts with other disciplines and cultures. It's part of the spirit of the place that design also looks at the humanities, for instance. Within CRISP, too, an interdisciplinary approach is incredibly important and completely self-evident. Could this attitude be part of the Dutch mentality?

"Yes and no," replies Raijmakers. "Two principles that were established centuries ago are still influential. The first is a very practical attitude the Dutch have, which has to do with our geographical location by the sea. Quite simply, we have to cooperate in order to survive. Our entire landscape is organised according to this practical principle. On a societal level, this practical principle has meant that everyone can do their own thing (have their own schools, church, language training, and so on) without really needing to adapt to any overarching norm. Only over the last decades this has started to disappear.

"The second principle has to do with trade and enterprise. In the 16th Century, if someone in Europe wanted to publish a book but risked being punished for its inappropriate contents, there would be no difficulty in publishing it here – as long as it would sell. If you combine these two principles, you have the Netherlands in a nutshell: practical and open to other cultures and ideas, with a focus on trade and enterprise."

Bas Raijmakers says it's possible to still see this attitude reflected in the field of design, too. There's a great openness to new ideas and approaches, and cultural and economic focuses can go together without too much friction.

That is why the CRISP programme can focus on a more strategic role for designers in economy and society, taking more responsibility for the changes that need to be made in the current timeframe. Grand challenges such as an ageing society and depleting natural resources need radical new thinking and designers can contribute to this.

"And that is why CRISP focuses on product service systems, and not just products, for instance. We need to think broadly and holistically because in our world today so much is connected and dependant on each other."

Lotta Jonson

Theory in practice and the necessary bridge building

More and more design researchers are getting their doctorates and the body of design knowledge is growing. But how and to whom are their research results disseminated? The responsibility for the meeting of theory and practice is split: the research community must make its research comprehensible and industry must listen. We need more forums for natural encounters and more knowledge about what design is at the fundamental level.

It has been said that every individual word is a mini-theory and is therefore a tool for a practice – a pattern for action. In brief, practice doesn't work without theory. This is why design research is so important, because it lays the foundation for a continual development of the whole, consisting of a theoretical knowledge base and the necessary practices. This dissemination of knowledge contributes to greater interest in and understanding of design, as well as a development and expansion of the field and its status.

We can talk about theory and practice in terms of academia and the design profession/industry. As Sweden's doctors of design increase in number, the question arises as to how their research results are disseminated. How and to whom? How do theoreticians and practitioners, academics and businesspeople, encounter each other, and do they understand each other? At present, theoretical training slowly seeps out through the walls of academia, where it creates layers of scholarship in the theoretical foundation that shapes instructors and researchers in the field of design.

One person who thinks about such issues is Bo Westerlund, professor of industrial design at Konstfack University College of Arts, Crafts and Design "with a main task of developing, leading and implementing education, research and artistic development work of high quality". He is also one of four people in charge of initiating research at the college. His specific area of responsibility is called "design driven and formative knowledge production". He gained his doctorate in 2009 from KTH Royal Institute of Technology with the thesis Design Space Exploration, co-operative creation of proposals for desired interactions with future artefacts. The first question, then, is naturally: who has benefited from his research results, and how?

"First, my work forms the foundation of more or less all my teaching," Westerlund replies. "Second, it is the basis for the work of a current doctoral student, Fredrik Sandberg at Linnaeus University, who is researching cooperative service design. Together with the service design agency Transformator, Fredrik and I have recently applied for funding for a joint venture in which theory and practice really get the chance to meet. We hope to get our observers to participate in some of the agency's projects, and will, for example, focus on how it uses concepts, theories and methods. Then together we will consider and discuss everything from spontaneous inconsistencies to what can be improved. After that, we will discuss how theories function in practice and suggest ways to adjust the working methods." Westerlund adds that he hopes that this close interaction will be very valuable for both sides and that the research funding body will also understand this aspect of the project.

MORE BRIDGES NEEDED

The number of doctors of design is growing rapidly. With their in-depth knowledge of design approaches and methods, some stay within academia whilst others go to industry. Wherever they end up, they continue to spread new ways of thinking and reasoning about design. It is just as important to articulate what design research is: to understand design as a method and to regard design as a way of creating knowledge.

Illustration: Olle Wågström

As knowledge production increases, it would be good to have more bridges, both cross-disciplinary between various research topics and between academia and practice. Today it is still mostly up to the new holder of a doctorate to ensure that the contents of his or her thesis are disseminated.

But it is also the responsibility of the design profession and industry at large to be interested, to seek out, and to be willing to receive this information. Quite simply, to be willing to listen. Westerlund says that today it is the young service design agencies which are the hungriest when it comes to absorbing new, developmental knowledge. They, if anyone, have realised that design is an important tool for change in the efforts towards a more sustainable society. But interest is also growing in parts of the more 'traditional' industries, and examples exist of design research having directly benefited such industries' development.

"Of course it has," confirms Kristofer Hansén, head of design at Scania, and cites how an in-depth study of how vehicle drivers sit has led to concrete design measures.

"We can call it cross-disciplinary, since it was at the interface of design, technology and ergonomics," he adds. "Design research related to ergonomics has traditionally been more widespread at Scania, but as the field broadens and its credibility increases, we are now seeing how design research is also adding value in other areas, which benefits us and our sector – work vehicles."

Hansén adds that he dislikes the fact that the research is often inaccessible:

"It benefits almost no one outside the immediate circle and must be marketed better. True, here at Scania we can be more active and seek out information, and the best solution would be a mutual exchange. In addition, a shortened, popular science version would be really good – today there are masses of doctoral dissertations which no one reads because the material is so extensive, the language impenetrable, and it's hard to find the time."

DIFFICULT DEFINITIONS

A far smaller company than Scania is Fov Fabrics in Borås. The firm develops technical textiles in polyamide, nylon, and polyester. Business development manager Fredrik Johansson believes design research is an important field, with which his firm should have a closer relationship.

"We participate in a number of different research projects, which are unfortunately confidential. Aspects of those projects can be labelled as design research, for instance when it comes to developing materials and functions. We are also part of the MISTRA-funded project Future Fashion, which has links to both the materials and fashion industries. Personally, I feel that the definitions are difficult – what is pure design research, really?

"In order to develop our own research, I would like, first, to visit the design colleges and universities and trigger their interest by telling them about the challenges we face. And, second, I would like them to contact me with the words: 'Hello, we're doing this project now, would you like to get involved?' Then I'm sure there would be many fruitful results."

One especially beneficial result is described by Anna Sirkka of the Interactive Institute in Piteå. Via the LJUDIT project (on sound as an information bearer in industrial and service applications), which is funded by the EU structural funds, she and her colleagues came in contact with the Smurfit Kappa paper mill in the same city. The mill had long had problems handling the various alarms in the control room, a situation which could lead to a range of undesirable consequences.

"Sometimes a shift team could even miss an alarm because the previous shift team had lowered the volume to avoid hearing the sound," she explains. "Our task included developing new types of sounds which both inform about and guide responders to the production section involved. Sounds which also convey the level of priority and are accepted – perhaps even liked – by the operators."

Sirkka says the results met with a very positive reception.

"Here at the Interactive Institute we like to work with applied research which is close to the users. In the LJUDIT project we want to explore how sound can be used in new ways and in areas where it has not traditionally been used. The concept we developed at Smurfit Kappa can also be applied in other fields such as medical care. Currently we're working to compile the results of our work and we aim to spread our newly won knowledge via a number of publications."

A CONFUSING TERM

Let us return to that earlier question by Fredrik Johansson of Fov Fabric: what is design research, really? And perhaps we should start with: what is design? A former student at the University of Skövde, design engineer Karin Holmquist, now works at Autoliv, which is a leader in vehicle safety solutions. She is a project engineer there and can confirm how problematic her design expertise can appear to be.

"Older managers in particular can find it hard to understand what

design can contribute and how design methodology is very different in its approach to solving problems, in that it is more creative than traditional methods," she says. "As a result our expertise is not used to the maximum, and I want to change that." Holmquist got her job with Autoliv thanks to her graduate project at the university and despite the company's initial uncertainty as to what a design engineer could contribute.

"The design colleges and universities happily use the descriptive term 'design' and create many good new educational programmes but forget to tell the rest of the world what those programmes are really about. The result is that all these new programmes and titles create uncertainty at companies about the new students' real ability and skills, because the companies can't keep up with all the changes within academia. In turn, this means that new graduates have difficulty establishing their careers."

Holmquist adds that while she was a student she contacted some alumni, and even they often found it hard to define their professional identity following their training as design engineers.

"Knowing what kinds of job they can apply for becomes a major challenge to many design students when people aren't really sure what you really are," she says. However, she is hopeful about the future because Autoliv has a work environment "which is alert and open to new things".

Her proposal for further creating an understanding of design students' unique expertise is to invite design research students to the company in order both to describe their work and to analyse how the company currently uses design methodology and whether some methods can be adapted to better suit the company's operations. Yet another way of building bridges between practice and theory.

Susanne Helgeson

FLEXIT

Just under 20 percent of the approximately 400 million kronor used by the Swedish Central Bank's anniversary foundation, Riksbankens Jubileumsfond (RJ), to fund research is targeted at specific well-deserving research fields or structural problems. One of these is the gap between the worlds of research and industry. In 2008 RJ launched a pilot project called Flexit. The project's main aim is to build bridges between research into the humanities and social sciences on the one hand and industry on the other. The plan is to stimulate contacts so that more organisations outside academia can benefit from the expertise of humanists and social scientists with doctorates – and vice versa. Concretely, this means that Flexit funds three-year post-doctoral projects in which holders of doctorates can work in-house at a company. RJ plays 75 percent of their salary and the company pays the rest. In its first four years the project has funded ten researchers and ten companies. Of these, three (a psychologist, a social anthropologist and a specialist in computer technology/interaction) have begun working at three design companies and doing further research in the design field. The researchers are recruited via a process involving experts. The companies then interview at least three people and rank them before the most suitable person is selected. The project stipulates that all the research done at the companies involved should be publishable. Flexit has a limited time span and will be evaluated when the first research projects wind up in 2013. However, a new selection round will also be held next year.

"I've learned masses here," comments Sara Ljungblad, who has a doctorate in human-machine interaction, and who is working at Lots Design in Gothenburg until 2014. "And I believe that the designers I'm working with have gained new perspectives into how they can benefit from having a researcher involved in their work. We can now discuss our differing approaches and see how our various skills can interact in a fruitful way. For example, I now have a completely different understanding of how service design can be done at the totally practical level outside the research world."

Read more at www.rj.se. Interested design researchers or design companies can contact maria.wikse@rj.se for more information.

Sara Ljungblad at Lots Design in Gothenburg.

A divided view of Swedish design research abroad

How far have we come in Sweden? Has Swedish design research anything to offer in the international arena? Is there any speciality which stands out? Could the funding be used in a better way to strengthen design research? Design Research Journal asked five people who know the situation in their differing areas of expertise. Together their answers give a fairly divided view of the situation.

FOTO: FREDRIK PERSSON

Johan Redström

Professor and Research Director, Umeå Institute of Design, Umeå University

What position does Swedish design research have from an international perspective?
"It's fair to say we're in a relatively good position, especially in some areas where we were early starters and where we've been active for a long time. But international design research is far from unified, so a leader in one research field can very well be completely unknown in another."

In which areas do you see Swedish design research as being the strongest in an international context?
"From a long-term perspective, we're best known for research related to use and users, especially issues of usability and participation in the design process. Recently, more experimental, critical and artistically oriented design research has become stronger and stronger, whilst we are also doing well in technology-related fields such as interaction design."

Do you believe that a shared vision for the design field in Sweden might help to develop the research? If so, how?
"A vision of how design research can grow as a discrete field would be very desirable because research investments into design are often made in contexts where the real aim is to create a value for a different field. Design then becomes one of several tools used to create innovations, for instance. There's nothing wrong with that but at the same time there's a great need for research that drives design forward as a distinct field. Research that takes on sets of problems and also the risks that an often hard-pressed professional practice cannot accommodate."

Can existing resources and innovation funding be used in a smarter way? If so, how?
"Design, in terms of both the process and the profession, is particularly well suited to achieving quick results. But if we look instead at what we currently do not know about design, and what we may have to learn more about for the future, then there are issues that don't rise to the surface when doing fast-paced work. Issues that first emerge as part of a more long-term and unfortunately often slow development process. One example might be what sustainable development really means for the relationship between design and consumption. So when it comes to new ideas and innovations in the long term, I believe, somewhat paradoxically, that we must start considering how we can better access the most conservative aspects of design practice that only change very slowly over time."

Anna Persson

Designer, Instructor
Division of Industrial Design,
Lund University

What position does Swedish design research have from an international perspective?
"Does it have any?"

In which areas do you see Swedish design research as being the strongest in an international context?
"Potential – if we assume that leading research starts with a good basic education, then I can in the long run picture an exciting future for Swedish design research. For an extremely small country, Swedish design has a remarkably high international reputation."

Do you believe that a shared vision for the design field in Sweden might help to develop the research? If so, how?
"No, but I do believe in a joint investment in research as a whole. Investing in the future, increasing the degree of freedom / space for creativity and getting away from immediate quarterly report tendencies. For the design research field itself, the first priority should be to ensure the future of the Graduate School of the Swedish Faculty for Design Research and Research Education (http://www.designfakulteten.kth.se/english) – it's invaluable as a common platform."

Can existing resources and innovation funding be used in a smarter way? If so, how?
"Yes. But that requires courage, a long-term approach and confidence at a high level – all of which are in short supply."

Håkan Edeholt

Professor of Industrial Design,
Institute of Design, The Oslo School of Architecture and Design, Oslo

What position does Swedish design research have from an international perspective?
"My experience is that international colleagues actually don't 'see' any Swedish design research at all. Instead, they seem to either see Nordic design research or the individual (Swedish) researchers who publish internationally."
In which areas do you see Swedish design research as being the strongest in an international context?
"The Nordic area has above all carved out a position for itself in interaction design and in things that result from a fairly pure user focus. We might then ask ourselves who has so far been less successful. Unfortunately I must then admit that my own field of industrial and/or product design is a very strong candidate."

Do you believe that a shared vision for the design field in Sweden might help to develop the research? If so, how?
"I actually believe that all the attempts involving a shared vision are much of the cause of the problems I see today. The Umeå Institute of Design is a good example of an environment whose educational programme has achieved, in a thought-provoking way, far greater international recognition than what its research has done. At the same time, those people who are currently largely shaping the contents and methods of design research today come mainly from more traditional academic environments. To me, this reflects the different ways used by different traditions to produce new knowledge, and what it is in this that creates legitimacy in what we can rather loosely call academia. We could argue that one of the things in which a designer is specially trained is to develop completely new alternative (in contrast to optimised) solutions. Unfortunately, the academic establishment seems to be extremely divided in its view of this, which in itself seems so useful but which also seems to be performed in such an "unscientific" way. The question I believe we must ask ourselves is what risks being lost if the design

universities and colleges increasingly develop both their educational and research programmes using traditional academia as the only model. Of course, both traditions have a right to exist, but given the current imbalance, I believe that a more individual development of the respective differences would be more constructive than continuing to focus on what they have in common – if this particular aspect doesn't become part of the shared vision, of course!"

Can existing resources and innovation funding be used in a smarter way? If so, how?
"What's interesting is that one of the most important features of innovation is precisely to do something new and different. At the same time, it is design's tendency to focus on this particular aspect that seems to make it harder to achieve any scientific legitimacy. So what, then, is the smartest approach for innovation – and what for design? It depends entirely on what you mean by "smarter". Is it the more short-term 'street smarts' we're aiming at or is it a more fundamental smartness that at least occasionally lifts its gaze beyond the moment's basis for legitimacy, the latest applications, and today's users' ultimate satisfaction? Because if both design and innovation are ever to become more than a commercial end in themselves, we need to start discussing greater visions (in the plural) than that. Or, as Russell Ackoff apparently said: '…the righter you do the wrong thing, the wronger you become. If you're doing the wrong thing and you make a mistake and correct it you become wronger. So it's better to do the right thing wrong, than the wrong thing right.'"

FOTO: BENT SYNNEVÅG

Otto von Busch

Assistant Professor in Integrated Design, Parsons The New School for Design, and Professor of Textiles at Konstfack University College of Arts, Crafts and Design, Stockholm

What position does Swedish design research have from an international perspective?
"My experience has been that there is a great interest abroad, especially in what artistic approaches can contribute to research methods and to the research field in general."

In which areas do you see Swedish design research as being the strongest in an international context?
"Vi have an undeniably strong school in the field of interaction design and its spinoffs that is still very dynamic and exciting. Sometimes we also have a permissive attitude, driven doctoral students, and fearless supervisors, which creates an experimental spirit."

Do you believe that a shared vision for the design field in Sweden might help to develop the research? If so, how?
"No. Most of us are unconsciously imprinted by our society with regard to the research questions we ask, and that can be vision enough. But if I were to suggest a vision then why not themes like 'enabling' or 'reconciliation'?"

Can existing resources and innovation funding be used in a smarter way? If so, how?
"I believe we must think about what other academic formats we can create for design research, other seminar formats, publication platforms, types of workshops and ways to exchange knowledge. I believe that the Graduate School of the Swedish Faculty for Design Research and Research Education has done a fantastic amount to open up doors and test new methods. Less angst, more experiments. Now we're getting going!"

Anna Rylander

Senior researcher,
Business & Design Lab,
University of Gothenburg

What position does Swedish design research have from an international perspective?
"I have the feeling that Swedish design research is on the verge of an almost explosive development. An incredible amount has happened in recent years, and we will soon see its fruits. One important indication is the development of the Swedish Faculty for Design Research and Research Education, which is the national research school in design. When it was founded just over five years ago only a handful of designers were associated with the Faculty – today there are over fifty. It will be very exciting to see the development of the crop of theses that will be appearing in the next few years.
"Sweden is also beginning to become ever more visible internationally, not least by hosting large conferences, such as the European Academy of Design with HDK School of Design and Crafts as the host this year, and the Design Research Society, which is holding its next conference on the future of design research in Umeå in 2014."

In which areas do you see Swedish design research as being the strongest in an international context?
"In Sweden we have a tradition of collaborating between disciplines, which I believe is reflected in design research and the ability to find interesting areas at the interfaces between design and other fields. From my perspective, as a researcher in design management, I see above all that we have been skilled at highlighting and describing the practice of design. And that the knowledge, approaches, processes and methods associated with design practice can be used in other contexts, such as design services and in various forms of innovative processes.
"In connection with this, I believe we can see that we're in the process of developing a broader expertise and stronger position with regard to design methods and how these can be developed and applied in research contexts."

Do you believe that a shared vision for the design field in Sweden might help to develop the research? If so, how?
"I'd like to turn the question around and consider what design research can do for the field of design as a whole. In that respect, I believe above all that design research can contribute by creating a vocabulary around design as expertise and as a formative process, something I believe is central to creating a platform for developing the design field as a whole."

Can existing resources and innovation funding be used in a smarter way? If so, how?
"With regard to innovation I believe above all that it's a matter of integrating designers and building on a design perspective within more general innovation programmes which previously lacked a design component.
"With regard to design research, the big challenge in future is to make use of the experience offered by the new holders of design doctorates. How can we capture their expertise and ensure that they have the opportunity to continue advancing design research?
"Then of course it's also important that these investments in research and innovation are integrated in and of themselves, and are linked to current issues relevant to business and society. The foundation of design research is, of course, its close link to practice and to creative processes."

Big challenges for tomorrow's researchers

Design research in the future will be about… what? Which sets of problems will occupy tomorrow's design researchers? A couple of trends analysts with links to both the design and research worlds visited Sweden recently. Here are some of their many predictions.

Sweden, and specifically Umeå, have the chance to be a memorable dot on the map for designers and transdisciplinary researchers around the world. That's because the Umeå Institute of Design at Umeå University has been given the great honour of arranging the next international Design Research Society conference in June, 2014. Planning has already started. Anna Valtonen, the Institute's rector and also chairman of the board of the Swedish Industrial Design Foundation (SVID), is both pleased and energised.

She laughs, holding up a grainy black-and-white photo of some young people sitting on the grass and listening to a bespectacled middle-aged gentleman.

"This was one of the first design research seminars in the Nordic region. Victor Papanek was visiting the University of Art and Design, Helsinki in 1968."

A HIDDEN ROLE

She says a lot has happened since then.

"We design researchers have increased in number and have functioning networks. We don't need to constantly justify our work. For example, design research is included in various innovation-promoting programmes funded by public authorities like the Swedish Agency for Economic and Regional Growth and Vinnova. They often have a hidden operational role and are involved in order to exemplify results in other interdisciplinary fields. Design research can have difficulty being regarded as a separate discipline. That's something we have to work with prior to the big Design Research Society conference."

As a warm-up, Valtonen and her research team invited a number of colleagues for a couple of days' discussions this past September, starting off with an introductory seminar. A number of important questions were posed – ones that will help make the conference really topical.

One of the guests was Jamer Hunt, director of the experimental graduate programme in Transdisciplinary Design at Parsons the New School for Design in New York.

Hunt argues that future design research must focus on the major systems and on system changes. Crucial fields such as health care, climate issues, food and food distribution, water supply and the like are large systems – complex constructions – designed at one time or another by human beings. How were they designed from the beginning and what errors were made then? All of them are incredibly complex. This is therefore not a matter of linear systems – not a matter of engineering – but rather of non-linear systems. These require a holistic approach rather than a mechanical one.

"Human beings are good at creating systems from scratch – just look at the Internet," Hunt says. "But they are not so good at changing those systems that already exist.

"Look at the traffic systems in all the big cities. They were originally constructed in a linear way. Experience shows that the bigger the roads, the more cars there are. It is thus impossible to build away the defects – you have to attack the problems in new ways."

As a result, he says, one of the biggest issues for design research in the future is: can design be used to alter large-scale infrastructures?

Within an ecosystem, small changes can immediately cause all the other conditions to be different. Hunt calls

PHOTO: DANIELA ROTHKEGEL

Jamer Hunt and Anna Valtonen draw up the guidelines for the next Design Research Society conference to be held in Umeå in June 2014.

Scale framing (according to Jamer Hunt)

The problem of "Cycling in New York" can be tackled in a number of ways and is a good example of scale framing:
1. For the individual person (on the human scale or level) an improvement would involve product development of the bicycle to optimise its suitability for city traffic. A task for the industrial designer.
2. The next level or scale (street scale) is about sidewalks, the roadway, the relationship with other road users, road junctions, etc. A task for urban and traffic planners.
3. The next level deals with parking issues, for example bicycle stands inside and outside people's homes and workplaces. A task for architects.
4. The next level might deal with the possibility of bicycle sharing, creating bicycle pools and so on. A task for the service designer.
5. More overall issues to do with the infrastructure and traffic system. How can long journeys to and from workplaces outside Manhattan be combined with cycling, the integration of various types of traffic, etc? A task for the systems designer.
6. The national level: If having more cyclists is a desirable goal then why are there so few bicycles in New York? The influence of habits and priorities, attempts to change attitudes to exercise habits, such as travelling by car. This level also involves environmental aspects, emissions and environmental questions. A task for politicians.
7. The global level: Manufacturing bicycles locally instead of in low-cost countries; global shipping vis-à-vis the environmental aspects. A challenge for all designers and design researchers.

"Cycling in New York" has implications on all imaginable levels. The same is true for every acute problem today: there are no small issues. Everything forms part of a larger context, says Jamer Hunt. Every designer and design researcher, every human being must ask him- or herself: What capacity do I as a unique individual have? What can I do? And on which level?

this "the revolt of the slave" variable. This must be studied, as it is present in everything which governs our lives.

He argues that we also need bottom-up solutions. To achieve these, we must get help from ordinary people and employ user-driven methods so that we can hopefully turn things around completely.

"A bottom-up approach makes it possible for designers to create local solutions," he says.

"Design research must then go further and see what can be changed in the same way in larger contexts. How can we scale up local solutions? What's required so that they can function in a larger perspective? 'Scale framing' must be one of the themes of future design research." (See the sidebar!)

Tomorrow's design research will include studies of social behaviour, information issues and social networks. Open-source collaboration will be more and more important, and new forms of cooperation must be explored.

"Collaboration is the only possibility in the future," Hunt concludes. "And that requires research into effective ways of cooperating. Another future important research field will be questions to do with what form is, when there is no form. What is a beautiful service? What form should it take?"

FOUR IMPORTANT THEMES

Carl DiSalvo, an assistant professor in the Digital Media programme at Georgia Institute of Technology, also had a long list of desires for and demands on future design research. In his own studies he has combined the humanities, natural sciences and technology with interaction design. His aim is to increase the general public's engagement with technological objects and to analyse the social and political uses of digital media. He has written books and organised public art and design events.

DiSalvo perceives four increasingly important themes which future design research must address:

1. The social and socialist theme
One important issue will be to use social aspects as a starting point. Nowadays these are found within every sector of the design field, and a new social orientation exists, which is bringing with it new forms of products and services. This requires different tools and platforms for design research. A new term being used is "scientific citizenship." At issue are various attempts to develop methods which involve the man on the street in order to develop technological solutions and create a new social practice for design work. This poses

PHOTO: DANIELA ROTHKEGEL

Carl DiSalvo in the break after his inspiring and thought-provoking presentation at the Umeå Institute of Design in September.

questions in the field of design research such as: how should we talk about this type of social interaction? And what forms can it take? We need to go outside the design field, such as to the social sciences and public art, to bring back different types of experiences. In addition, we must try to get used to not seeing any distinctions between social and technological issues. How can we involve all this so that it becomes comprehensible and meaningful within design research? This is one of the biggest future issues to be solved.

2. Criticality and engagement
Being critical is characteristic of our times: we have a critical focus (a "critical what"). But what is it we are critical about? Where is our real involvement? Could our approach sometimes be expressed in the wrong way? DiSalvo loves critical design but argues that we must ask ourselves what the design is critical of, and what consequences this criticism has within a wider social context. Design researchers must question their own field: what social benefit does design actually have? What does design do? How does it function globally? Does it adopt colonial standpoints? What are the limits of design? Are there places where design does not belong? Fundamentally, such questioning involves taking a self-critical approach.

3. The return to the object
Many things have happened within the design field which have steered it towards the formation of other things than just objects: new materials, new services. A number of books have raised more philosophical questions and discussed the role of the object in our times and the role of the non-material in a material world. Also at issue is the development of the computerised society. Perhaps we are starting to perceive that even the immaterial has form. Future design research must discuss and analyse the relationships between humans and objects and between humans and immaterial objects.

4. Epistemic community
All research occurs in dialogue with something that has already been said. But what is the situation in design research? Does any real dialogue occur, any knowledge exchange between the various sectors of design research? DiSalvo would say no. So how can we get this conversation going? How many design researchers read the texts published by others? A living discourse exists within all self-evident research fields, but not in design research.

Di Salvo mentions theorists such as Bruno Latour and Peter M Haas. Both men have written about the importance of knowledge exchange, and design researchers can learn a lot from them.

So what is happening on the purely epistemic level within design research? It is a real challenge to think about design research from this aspect. The problem is that design research is not a discrete, well-developed field; instead, it is pluralistic and encompasses so many areas. How can we make design a cohesive field?

"It's not enough just to convince the world at large that design is important," DiSalvo concludes. "If we believe that design is important, then we also have to convince other people that design research is important – and that it can create a better world."

LARGE AND WEIGHTY ISSUES

Undoubtedly these are large and weighty issues. But Hunt and DiSalvo were both engaged and inspiring. The discussions continued for two days and a preliminary outline for the Design Research Society conference, DRS 2014, was drawn up. Right from the start, Jamer Hunt made it clear that he hates conferences and the term "parallel session" makes him shudder. Accordingly, it is not enough to just offer a splendid programme of conference events – the conference form itself must also appeal. Despite this, Anna Valtonen is filled with confidence.

"It feels good," she says. "We've decided on the title – the theme will be 'The big debates'. Exactly what design research should be about."

Lotta Jonson

The Design Research Society

The Design Research Society (DRS) is an interdisciplinary association consisting of design researchers in some 40 countries. The DRS was founded in 1966 to facilitate contacts between design researchers. Its chairman is British design researcher Nigel Cross.
The DRS holds an international design research conference every second year. The next conference will be held for the first time in a Nordic country. Umeå will host DRS 2014 from 16 to 19 June 2014. Previous conferences were held in Bangkok (2012), Montreal (2010), Sheffield (2008), Lisbon (2006), Melbourne (2004) and London (2002).
www.designresearchsociety.org

Designing with the user

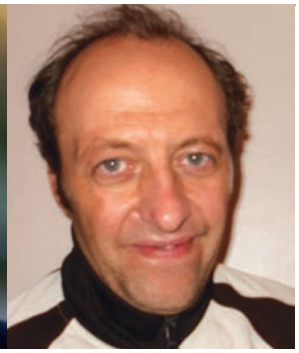
LISBETH SVENGREN HOLM
Professor, the Swedish School of Textiles, University of Borås, Borås, Sweden

The design process has changed and is today both more inclusive and more open. Design research is also more open to including developments in other fields, such as innovation and organisational advances. These conclusions are confirmed by research such as the article in this issue of *Design Research Journal* by Emma Murphy and David Hands. Co-creation and crowdsourcing, which have long existed in fields like software development, have also become more common in design projects. What is new is that users are not just being listened to but are also actively participating in the creation of products, or, as described in the above-mentioned article, of specific environments. Users are also being involved in various ways that motivate them to take part even in difficult projects. This development has above all affected how the design brief has developed and become a process rather than a document. Even within a design field such as architecture, users are being involved from new perspectives in order to provide a better basis for urban development. Claudia Scholz and Louise Brandberg Realini demonstrate how a multi-dimensional approach that focuses on relationships and experiences of places can provide a better basis for architects' work – an approach that can also be regarded as a briefing process.

Industrial designers' commissions and customer bases have also changed. Many industrial design consultancies have broadened their customer base and range of offerings, for instance with regard to the service sector. At the same time, many design consultants have difficulty justifying a certain price for their design work. In his article, Magnus Eneberg argues that it is the understanding of design as an enabling service more than as a relieving service that creates the conditions for understanding and communicating what design contributes to. He uses organisational development and sensemaking as a theoretical starting point for his discussion of design as a service.

Throughout history, many countries have invested in design to increase their competitive ability. One contemporary example is South Korea, which some 50 years ago was one of the world's poorest countries and is now one of the richest. Of course design is not the only reason for this. Technological advances are crucial but the training of designers and companies' increased use of design knowledge have been an important factor in developing global competitiveness. In Poland, too, there are national investments in design, but it takes time before companies adopt a more strategic view of design. That is the conclusion of a study by Justyna Starostka which is presented in this issue of *Design Research Journal*, and in which she compares Swedish furniture companies' view of and work with design to that of their counterparts in Poland. Design is part of a complex weave of factors that contribute to development, but the design quality produced by a nation's companies is one indication of that country's competitiveness.

Lisbeth Svengren Holm



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WISDOM OF THE CROWD: HOW PARTICIPATORY DESIGN HAS EVOLVED DESIGN BRIEFING

BY EMMA MURPHY & DAVID HANDS

INTRODUCTION

''…It's the metaphor of the dance; and in briefing it's the tango… shifting of leadership all the time…sometimes you are leading and sometimes you are following and you give each other signals, and together that pass off is very fluid…it is about these parties finding a communication method that they are comfortable with – it's like the difference between dialogue and discussion. We are beings that want to dance." (CEO of multi-national design firm)

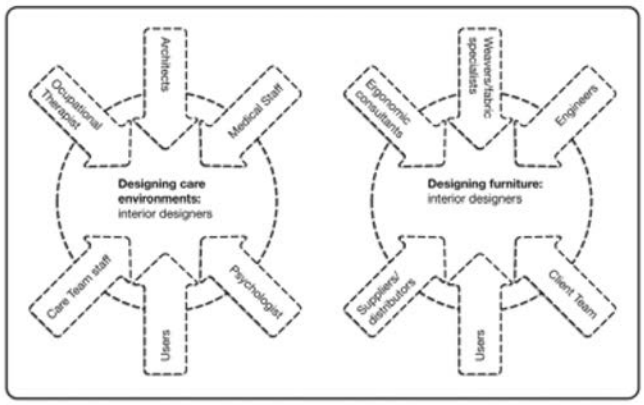
Design has changed considerably over the last two decades, adopting and embracing a wider remit of responsibility and application (Thomson, Sissons and Montgomery, 2012). Instead of being viewed as the sole activity of a lone practitioner, it is now being recognized as more inclusive, with the role of non-designers in the process becoming increasingly important (Murphy 2011; see also Brown, 2008; 2009; Sanders and Stappers, 2008). Some may argue that the lines between designers, clients and users are gradually becoming blurred (Maciver and O'Driscoll, 2010). Consequently, the authors propose that this drive towards participation (and more recently, taking this further – co design) means the design briefing process has also evolved, from a specification document to a dynamic, non-linear, process, which engages the clients, designer, users and other stakeholders in this age of participation. Formerly, the client would present a problem to the designer, and the designer, knowing their "place", would dutifully respond with a solution, using their design expertise to design something with the "user in mind", but not involved. Evaluation would take place at the end of the project, and performance metrics likely to be determined by the client at the outset (Phillips, 2004). Today however, we see a remarkably different client/designer relationship – and we posit that this has had a significant impact on the briefing process, cultivating a more inclusive and engaging learning experience. Designers are now framing the problem and developing solutions with clients and users – and actively involving users throughout the entire process. This dynamic relationship becomes a trade-off between the designer's *Expertise* in design, the client's *Experience* of their business and indeed the user's *Engagement* in the whole process, which the authors propose as the 3E approach. The whole process makes for a "mutually-engaging" briefing experience, which enhances participation and provides a collective learning opportunity.

And so, we propose that the shift towards participatory design (which in itself, is not a new phenomenon) has enabled the evolution of design briefing; changing it from what was once a Request for a Proposal (RFP) given to the designer, to what is now a mutually engaging, dynamic, participative process. This paper will begin by outlining the drivers behind enhanced participation in design projects. We will then offer an overview of the evolution of design briefing, drawing attention to the paucity of literature on design briefing as an interdisciplinary, dynamic process – rather viewed as more linear and prescriptive (e.g. Blyth and Worthington, 2001; see also Phillips, 2004; Royal Institute of British Architects and Phillips, 2008). The paper will then discuss a case study project, (Royds Housing Association, Yorkshire, UK) which provides a rich insight into dynamic participation in the design process. The authors then summarize the features of dynamic, participative briefing as exemplified in the case study, and the conditions conducive to this. The paper concludes with some key lessons for those engaged in the briefing process as well as suggestions for future research.

WHAT ARE THE DRIVERS FOR PARTICIPATION?

Before examining the impact of Participatory Design on design briefing, it is useful to consider the reasons for the move towards participation in design. The authors propose five key drivers:

- **Driver #1, Complex, wicked problems:** it is well documented in the literature that in performing their more strategic role (Borja de Mozota, 2003; see also Best, 2006; Bruce and Bessant, 2002), and being recognized as more than just "felt-tip fairies", designers now face more complex, wicked problems (Rylander 2008; Brown 2009; Murphy, 2011). Due to this increasing complexity, they cannot solve these design problems alone – and therefore must collaborate with other specialists. Murphy (2011: 36) provides an overview of just some of the stakeholders that designers may have to interact with in the course of a project. The relationships given in Figure 1 are by no means exhaustive, but merely an illustrative example.



]Figure 1: Design interactions (Murphy 2011: 36)

↘ **Driver #2, The expanding role of the designer:** In addition, it is well-observed that designers' roles are expanding beyond the traditional notion of "design" as a sole activity (Tan, 2009; see also Han, 2010; Press and Cooper 2003: 199). This has seen them become more adept at facilitating as well as designing – and therefore not only focusing on "design" but on other roles too, such as facilitator, active citizen, knowledge worker and strategist. More notably however, the landscape of the design industry has changed during, and in response to the recession (Murphy 2011), meaning that designers are increasingly working as freelancers (Design Council, 2010) – and therefore find themselves faced with performing more than one role – making them more comfortable with participation, and more likely to bring this to the next project.

↘ Driver #3, More complex funding streams: There are occasions where, with larger projects, or projects of a wider scope – e.g. community regeneration – non-design team members may need to be involved and coached because they are important to the process.

↘ Driver #4, Active Citizenship: The last decade has seen a move towards active citizenship and the general public taking an interest in community issues (Taylor, 2004; see also Taylor and Wilson, 2004; Brannan et al., 2006; Brannan et al., 2007). This is especially true of projects such as the case study, which means that there are more community members and non-designers involved in the process. What's more, the rise of social media has helped to mobilize interest and encourage participation. In addition, during the recession, active participation in community initiatives and regeneration has increased and support sought and gained through social media.

↘ Driver #5: The importance of the user: Designers are now well-informed about the benefits and effectiveness of involving the user in the design process. Today, the processes and methods for engaging and managing non-design team people are becoming more sophisticated and complex (e.g. user groups, consultation, workshops – emerging methods etc). This is further enabled by digital technology (Baumann 2012).

This leads us to question: in the diversity we now see in projects, the complexity of design problems, the blurring of roles and responsibilities and the drive towards engagement and participation, what streamlines these stakeholders and processes when multiple stakeholders are participating? We propose that it is the design brief – or rather the design briefing process that has evolved, and adapted and embraced participation, re-defining briefing as a holistic 'democratic' activity.

DESIGN AND BRIEFING

Murphy and Press (2007) highlighted that early views on design briefing are dominated by documentation and rigidity (see for example Phillips, 2004; Cumming and Malins 2006). Here, we offer an overview of the literature which begins with the brief viewed as a written document; either produced by the client and given to the designer, or a product of a process which is linear and still rigid in nature. We will then highlight some studies which begin to uncover briefing as a more dynamic process – and this is the view which this paper provides and the true and emerging nature of design briefing today, as enabled by, and now an enabler of, participatory design.

Numerous authors have written on the subject of briefing (Blyth and Worthington, 2001; Cumming and Malins, 2006; MacPherson, Kelly and Male 1992; Nutt, 1993; Phillips, 2004; Smith, Love and Heywood 2005). Earlier views of "the brief" (as opposed to briefing) have focused on the brief as a written document (Design Council, 2012) – in some cases given to the designer by the client (Lloyd, Lawson and Scott, 1997).

This view has since evolved to the view of briefing as a process (Phillips, 2004). This process however, is linear, prescriptive and tends not to embrace complexity; focusing

on the production of a written document rather than being an emergent process, which enhances participation. These traditional models of briefing have brought a degree of order to the briefing process, and therefore could be useful in educating clients and designers about briefing in the first instance, rather than them struggling with the complexity of briefing from the start. However, it could be argued that this rigidity could actually stifle a more varied, non-linear process of design briefing (Murphy and Press, 2007).

The literature is rich with authors seeking to establish a simple linear model which can be followed in projects of a certain discipline (Phillips, 2004). A linear approach could be useful in embedding principles, however, could be considered too inflexible. For example, the RICS (Royal Institute of Chartered Surveyors) have stipulated strict guidelines for their 'type' of projects. In addition, RIBA (Royal Institute of British Architects) has devoted a vast amount of study into formulating their Plan of Work and have stipulated particularly firm guidelines on briefing an architect (Royal Institute of British Architects and Phillips, 2008). However, none of these studies deal with what is paramount; the reality of embarking upon design briefing to enhance participation of all stakeholders; to gain an insight into the client's experience of their business, and for the designer to utilise their expertise in design and managing the process, regardless of discipline, in a complex, rapidly changing, turbulent environment.

Peter Phillips (2004) has sought to bring order and structure to the process of design briefing, which again, is useful, but favours the linear progressive model and the production of a written specification. In his work, he suggests numerous headings under which project information must be assembled, such as project background, business objectives, and budget. These are undoubtedly key pieces of information, which are core to the development of the design brief, however Phillips' work, in the sense of briefing, has a number of limitations. For example, his work is mainly concerned with the graphic design industry with an in-house design team. As more and more design projects move towards becoming inter-disciplinary, crossing the boundaries between graphic and interaction design, interior design and branding, the process needs to be more flexible in its application. Therefore, the fact that Phillips' work is based on his experience of one discipline suggests it may be difficult to apply his principles to an interior design project, for example. In addition, the fact that Phillips' work is mainly based on the work of in-house design departments suggests that his principles may not take account of the more problematic role, which an external design consultancy may have. Consultancies face a more challenging situation, as the information surrounding their client's business is not as freely available to them. They have to make more of an effort to 'get under the client's skin' and to probe into the culture and values of a new organisation for each project they undertake.

In addition, Phillips places great emphasis on the design brief as a finished document, however, the process is also important (rather than the end result); the interaction between client and designer which occurs during the briefing process, the shift in leadership, the mutual knowledge creation and exchange, the journey of mutual education and enhanced participation which drives the content, and is the crucial contribution to participation, regardless of discipline. Phillips' work is a meaningful contribution, however, it does contrast with the case study, which will be shown as more informal and an internalised form of explicit knowledge, rather than a raw and explicit form, like Phillips' approach.

Another key contribution to the literature on design briefing is the vast research conducted by Blyth and Worthington (2001). In the discipline of architecture, their work has brought much desired order and structure to understanding the design process. They emphasise the need for continuous feedback and evaluation and the iterative process of design and briefing, which suits the very nature of architecture—large building design projects must be rigidly planned and structured. Their extensive work is highly commendable and relevant to the discipline of architecture; however, their linear models and principles cannot as easily be applied to other design disciplines.

This would suggest that a wider, more flexible approach is needed to suit inter-disciplinary design projects, but also to facilitate broader application of the briefing process as a means of enhancing participation and providing a collective learning experience. The work of Nutt (1993) in the field of facilities management certainly outlines the limitations of "traditional" briefing. Nutt (ibid) acknowledges the similarities between facilities briefing and the RIBA Plan of Work, in the respect that both begin with the *"identification of the client's requirements, as expressed in the core business philosophy, its corporate strategy and mission statements"* (Nutt, 1993:29). However, Nutt (ibid) suggests that traditional briefing has limitations, in that one cannot predict the future, and therefore it is necessary to find ways in which to be comfortable with this uncertainty. She proposes that *"continuous adjustment to briefing arrangements will need to be put in place to support a*

dynamic management process with which to face the future as it unfolds" (Nutt, ibid). This clearly embraces the idea of the future being uncertain, and that any briefing process must be flexible enough to cope with the unknown.

Similarly, other significant authors in this field have made valid contributions, which move away from the traditional modes of the written design brief, and focusing on the process, iteration and participation. For example, Tomes, Oates and Armstrong (1998) in their research, outlined the need for designer and client to both participate inclusively. They suggest the briefing process moves iteratively through the 'verbal to visual translation' whereby business objectives are expressed visually and verbally through the process by designer and client in order to reach an agreed design brief for sign-off.

Tzortzopoulos et al. (2006) conducted research into designer and client interactions on healthcare projects. The research provides some insight into the business-related requirements that inform the design brief and activities in which the client and designer should engage (such as definition of business operations and stakeholders), in order to gather client business-related information pertinent to the design brief. This study is helpful in guiding novice clients rather than novice designers.

The brief discussion on design briefing forms a useful framework from which to consider design briefing in a more collaborative, participatory, emerging sense, as proposed through the case study.

BACKGROUND TO THE CASE STUDY

The area covered by Royds Community Association (RCA) consists of three local authority housing estates: Buttershaw; Woodside and Delph Hill. They are situated alongside one another to the south west of Bradford in west Yorkshire, UK. There are around 3,500 houses with an estimated population of 12,000. The estates are characterised by poor housing and flats built during the 1950s; lack of community facilities; high crime rates and barren open spaces.

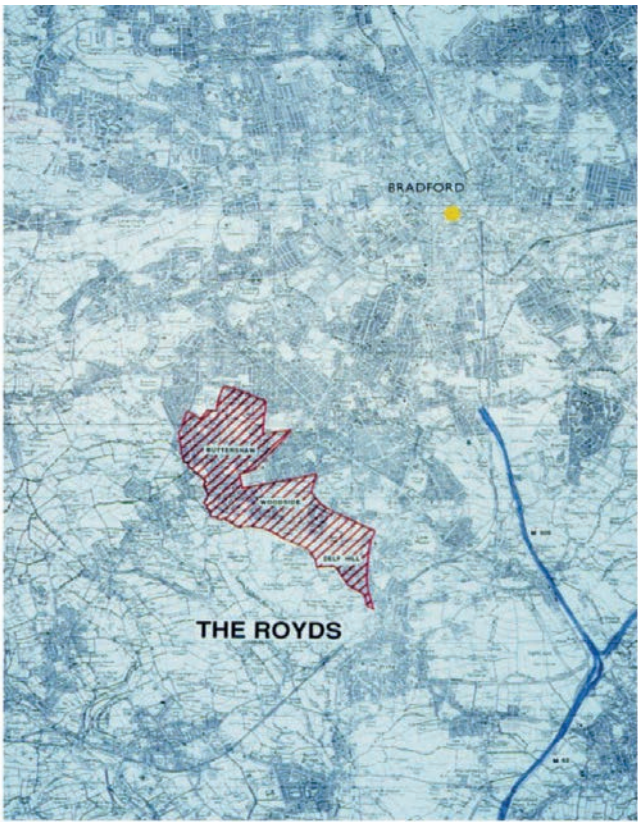


Figure 2: The three Royds housing estates
(Source: Royds Housing Association, 2001)

Figure 3: Typical 1950's Dwellings on the estates
(Source: Royds Housing Association, 2001)

(Source: Royds Housing Association, 2001)

The RCA was founded to improve the existing housing stock and to radically transform the physical, economic and social infrastructure of the three estates. The three resident associations initially had wanted to regenerate the estates but the local authority had insufficient funds to embark upon the redevelopment. The residents association suggested to RCA that a partnership be established between the local authority, Brunel Housing and the developer Keepmoat Plc. It was this partnership that was key to attracting a mixture of public and private funding for the massive regeneration programme. In 1995 RCA successfully secured £31m from the Single Regeneration Budget (SRB) and with contributions from RCA partners and other agencies, the total spend of the programme between 1995 – 2002 was £108m.

Having secured the funding from both private and public sources, RCA were committed to creating a sustainable community where the local residents were involved from the outset in identifying and contributing to achieving their future needs. Their goals were to:

- Take action to address poor housing quality through the refurbishment of houses and replacement of flats.
- Identify and reduce problems associated with drug abuse and prostitution on the three estates.
- Make significant improvements to the social and physical infrastructure of the estates – roads; parking; shops; health centres; upgrading community centres; improving schools.
- Provide facilities for both recreation and leisure activities.

DESIGN 'BRIEF' DEVELOPMENT

At the very beginning of the pre-briefing stages, PC Stephen Town (Bradford District Architectural liaison officer, ALO) became involved in consultation and refurbishment of the three housing estates. A tripartite working partnership was established between the ALO; Tony Dylak, Director of Royds Housing Association; Webb Seeger Moorhouse (architects); and importantly the residents themselves. Crime was of a major concern to all stakeholders with the Royds Housing estates suffering from chronic levels of high crime and anti-social behaviour. In 1995 the Royds area had a burglary rate of 138 per 1000 population, which was on average more than five times the UK national average. With this in mind, the multi-agency partnership chose to approach the re-design of the estates using Secured by Design (SBD) principles to significantly reduce the opportunity and occurrence of criminal activity.

The resident's representatives on the Board of Directors were particularly keen to voice the views and opinions of homeowners and residents of the three estates. In order to create a comprehensive and flexible design brief the Board decided to adopt a series of creative and unique ways of soliciting the views of stakeholders. Tony Dylak explains:

"… we established a very strong series of mechanisms working directly with the people who were involved, the tenants. We also did front room meetings, as it were, so somebody would say, I want a meeting in my house, so we'd say, well get the ladies round and we'll meet in your front room. You get the biscuits on and we'll be round. We did road shows, gosh we must have done road shows about six or seven times a year, and we'd take the plans out and people would be able to identify their own house and their own area and we'd say, we haven't got to this bit yet, but what's proposed, is this. No, I don't like, what do you - the neighbours think, and we all agree we don't like that. […] Right, ok and we'd leave it out and we'd get people's

Figure 4: A resident Director and planner discussing proposals with resident (Source: Royds Housing Association, 2001)

Figure 5: Two resident Directors discussing proposals with a resident (Source: Royds Housing Association, 2001)

The travelling road shows visited a variety of different locations around the three estates, in schools, local parks and playgrounds, providing a forum whereby the design brief / feasibility proposals could be displayed, discussed and commented upon. In order to raise public awareness of these 'events' they also offered complimentary attractions such as face-painting and bouncy castles for the children to enjoy. There were several of these events proving both popular for the children and successful for Royds Housing Association in soliciting vital and much needed input from the residents.

Figure 6: Children's activities during the consultation road show (Source: Royds Housing Association, 2001)

ROYDS COMMUNITY DEVELOPMENT: URBAN CODES

In conjunction with the series of consultation 'road shows', the Royds Housing Association were working closely with Webb Seeger Moorhouse (consultant architects) developing a design document that captured the views of the residents whilst also creating a masterplan for the regeneration of the area. The Urban Codes (1995) document in essence was an organic design brief that was continually developed by the architects, reflecting the views of residents and other key stakeholders. Tony Dylak (2004) explains:

"… we developed something called Urban Codes and they were developed by consultant architects through a huge amount of consultation and basically, the Urban Codes document stated the kind of external developments, so physical features such as doors, windows, roofing, chimneys, fencing, all that kind of thing. Urban codes also very cleverly introduced things like lets get rid of thickets; passageways; particularly unlit ones, unmade ones, ones that had a bad reputation; so Urban Codes said principally, we'll get rid of them."

The Urban Codes document aimed to embrace the vision of the regeneration plan, with particular emphasis on quality (in terms of materials and workmanship); sustainability; aesthetics (appearance of dwellings; and the housing estates); and the reduction of criminal activity that blighted the three estates.

In conjunction with the development of the Urban Codes, PC Stephen Town (ALO) worked very closely with the Council, Housing Department and residents to develop a more specific 'technical' brief that focused on specifying more technical 'secured by design' features of the dwellings. In particular he focused on reducing the high levels of burglary on the estates by identifying the causes of burglary and implementing measures that would make it difficult for the offender to break into the dwellings. Tony Dylak (2004) comments:

"…Obviously burglary was a key issue. Burglary and repeat burglary was a key issue with people that they wanted to see addressed. The terror, particularly for old people, of being burgled seven or eight times a year, sometimes by the same people, not being able to get insurance on their property – that was a major issue that they wanted to see addressed."

By drawing upon research undertaken by the local Police and conducting extensive consultation with the residents,

Stephen Town managed to source window frames with limited apertures complete with locking mechanisms. The windows were certified to the BS 7950 standard (Windows of Enhanced Security) which were able to withstand considerable physical abuse and tampering in an attempt to gain unlawful entry. The door frames were designed to withstand attempts to force entry, and when tested could hold secure for 20 minutes. The residents on the Board of Directors were sceptical about the security attributes of the window frames; approaching Tony Dylak to conduct an 'experiment' to see if a 'burglar' could actually break into a house fitted with the security enhanced windows and doors.

COMMUNITY PLANNING

On a macro scale, the residents were involved right from the outset in the briefing stages of planning community facilities on the three estates. New facilities that were being planned or refurbished included playgrounds; a new community centre, healthy living centres and educational facilities.

Figure 7: Residents showing initial plans and a sketch model of new community facilities
(Source: Royds Housing Association, 2001)

Figure 8: Recently completed community centre
(Source: Royds Housing Association, 2001)

As a result of their direct involvement, the residents decided upon and agreed on the strategic placement of key community facilities.

SUMMARY OF CASE

This case example has discussed the significant and important role of the residents in determining a new all embracing vision for the Royds estates, that not only aims to reduce crime but to create a social and environmentally sustainable future for the residents. Firstly, the input of Stephen Town, Architectural Liaison Officer, has been considerable in terms of driving consultation and the engagement of residents; secondly, Tony Dylak, Director of Royds Housing Association, his vision and ability to listen and support the wishes of the residents has been immense. Combined, it is suggested that the design briefing stages was the catalyst for change and the mutual sharing of vision. The design briefing process provided a platform for all stakeholders to envision a future for the estates, providing a common ground for residents, the police, housing authorities and architects to meet, discuss and implement the wishes of everyone that embraces a crime-reduced future. Referring back to the central focus of this paper, the 5 key drivers for participatory engagement are clearly explicit within the case discussion. Firstly, the designer's **role** within the initial briefing stages embraced a **wider** remit of responsibility. They carefully orchestrated a series of planned events to both appeal and entice the residents to the consultation 'roadshows'. Secondly, with the opportunity to meaningfully participate and be an equal part of the consultation process, the residents responded wholeheartedly to expressing their requirements

and ambitions to reinforce positive changes within the design and development process. As such, this then leads us to the issue of **blurring boundaries** between the various domains of knowledge, which traditionally remained distinctly separate and isolated. With the erosion of these perceived 'boundaries' by the residents, they actively engaged through all stages of the project duration, often contributing specialist knowledge and experiential understanding of complex design considerations.

CONDUCIVE CONDITIONS TO DYNAMIC, PARTICIPATORY DESIGN BRIEFING

Through exploration of the literature and empirical evidence, it could be argued that five key elements (or discreet variants of) are often found within 'dynamic' participatory design briefing; these may be surmised as follows:

1 – Design leadership: Design leadership is the ability to take an idea from inception right through to full implementation. However, leadership is the skillful 'art' of ensuring integrity and intent of the original idea is maintained and embedded within the final designed outcome (Cooper, Wootton, Hands, Daly and Bruce (2002). One key element of sensitive and intelligent leadership activity is the ability to reach out and engage diverse audiences under the aegis of one collective vision and unified purpose (Cooper et al, ibid).

2 – Flexible process: taking an idea from A to Z requires the ability and confidence of the design team / or sponsor to critically reflect on the appropriateness and effectiveness of the approach to the design 'task'. Through the utilisation and adoption of a flexible and 'fluid' design briefing process 'change' can be accommodated for and embraced as new information arises through continual dialogue, understanding and reflection. The necessity of a dynamic, bespoke process which adapts to the context further reinforces the need for engagement rather than following an off the shelf process or 'going through the motions'.

3 - Clear purpose: This is crucial for the avoidance of project 'creep'/ambiguity right at the initial stages of the design project. Clear purpose could be considered the manifestation of strategic intent providing a firm 'focus' to obtaining long term strategic objectives throughout all stages of project duration are met.

4 – Culture (energy, enthusiasm): Through clear and sensitive 'leadership' and the encouragement to take risks, all stakeholders within the briefing process can significantly contribute to the overall success of the project. By fostering a culture of creativity and enthusiasm, the benefits are considerable both in tangible and intangible outcomes. Again, one key determinant of this philosophy is through successful design leadership, and also the use of creative research methods.

5 – Designerly methods to engage the masses: design is both a verb and a noun. 'To design…' is equally as important as the designed outcome at the end of the project. The design team has many diverse and dynamic tools and techniques at their disposal to use throughout the differing stages of the design process. Through the careful combination and deployment of these techniques, invaluable information can be gleaned from a variety of differing sources (to read more about appropriate design methods in the literature see Sanoff (1983, 1991; Hanington and Martin, 2012).

IMPLICATIONS FOR FUTURE RESEARCH

This research has outlined some of the core principles of dynamic briefing as a result of participatory design. While this is only one case, it is useful to outline these principles to lay the ground and to inform future research. These guidelines will be useful to clients and communities wishing to be more involved in projects, designers who find themselves needing to engage with diverse stakeholders, and for project managers who may be overseeing budgets or process. In addition, it is anticipated that future research will explore the impact of co design on the briefing process, as there may be some potential for further change when hierarchies are not present and the non-designer and user is equal to the process, rather than 'brought in' when and how it is deemed appropriate.

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MULTIPLE PERCEPTIONS AS FRAMING DEVICE FOR IDENTIFYING RELATIONAL PLACES

BY CLAUDIA SCHOLZ & LOUISE BRANBERG REALINI

ABSTRACT

The relational web of a place, made of interactions between people, spaces, stories and times, produces certain cultural and social developments, business ventures and friendships, while disallowing others. Hence, an understanding of the various relationships configuring a specific urban network is required before the architect intervene rearranging the relations between buildings, places, people and their meaning.

Architectural objects are *visible*, but relationships are not. Relationships lie on different layers: 'inner' worlds, linked to emotions and feelings and 'outer' worlds, linked to the physical and tactile. Thus, revealing only mathematical and formalistic dimensions of an urban situation would be insufficient for the design of a collaborative environment.

In this paper we propose a multi-dimensional approach for analysing of the urban situations that should provide a better ground for architectural designs to respond to the specific contextual features of an urban space and support an overall positive urban development, where visionary and pragmatic projects are aligned and not competing with each other.

An existing urban reality - Lugano - is analysed by the ways people use specific spaces and what they mean to them. These multiple views, 'living stories' (Boje, 2011), will be combined with the architect's perception and traditional spatial reading of space (maps, drawing, sketch …). The paper shows ways in which the integrations of narrative interviews can enhance the groundwork for design and urban representation, influencing the resulting architectural urban project that in turn has an impact on the relational web of a specific place.

INTRODUCTION

To change a city is to propose a subtle yet determined combinations of projects, to articulate a re-interpretation of the world that is partial and fragmentary, but as context specific as possible. The architect's role in the game is that of a mediator, interpreter and catalyst for the experience of the others.

That is to say she needs an insightful knowledge of the reality in which she intervenes, before she rearranges its relationships by adding new projects. It requires a sifting through various messages, shedding light on what is already known while tracing unexpected awareness.

In his book *The production of space* (1974), Lefebvre described the city not by an accumulation of people and things in space, but by their interrelationships. Hence, space is not only an abstract container in which life occurs. It is produced and re-produced by interrelationships of constructed environment, geographic form, symbolic meanings and everyday manifestation of culture. This relational dynamic provides every urban reality with its own spatial praxis, with its specific time and times, with its centres and the coexistence of many centres, thus making the temporality of places a central aspect to urban life.

Most notable about Lefebvre's thesis is that our environment is defined not only by physical objects but also by a variety of territorial, political, psychological and social processes, that neither are all on the same surface, nor are they all visible. This difficulty suggests to classify space according to function rather than form or, in other words, according to its felt presence rather than its visibility. As a consequence, we have to be able to see also 'invisible' connections between things to build a city from within and not only from outside – as globality does, permanently moving from the past to the present and vice versa (Lefebvre, 1974. 334).

This relationality between the components of any urban reality requires an understanding that goes beyond the mere spatial composition, aiming instead to consider the proper relational web of the city.

But what relevance does the understanding of a 'relational web' have for its spatial analysis? Architects need to acknowledge the actual presence of every relational web considering that some elements are visible and other invisible to naked eye. Although some components may be invisible, they contribute in the same way to our orientation as visible landmarks, streets and places (Buchanan 2012. 2). Memories and affections make places stay active and coloured.

The description of urban space is generally linked to the means of production in the mathematical and physical space: codified drawings and survey maps, leaving out of the picture all multiple relations a certain location or building already has or potentially could have. The question is, *"How does it look?"*. This addresses external conditions, but ignores rich internal worlds of experience. But everybody knows, that sometimes we walk along streets for the most irrational reasons. Let it be for a particular bakery, a past encounter or just because of the way it makes us feel. By contrast, we are looking at the interiority of the space production process, including invisible dimensions of the lived space, through questions like *"What are the local centers and what are their times?", "What is the relational web of a city?"*

In this paper we present a method in which narrative interviews with citizens are used to describe urban space

offering a different representation of an existing urban reality.

PROJECT BACKGROUND

We start from the assumption that cities are living environments, where time and space are inseparably entangled, and together create a spatial texture ('relational space'), that is coined by active knowledge and ideologies. That very '*relational space*' is described by its *physical attributes* (container), *use* (activity), *ambience* (feel) and *historical significance*; and by how these connect to the surrounding environment (White, 1999. 57-96; Frey, 1946).

These considerations are part of a project among researchers stemming from architecture, economics and organizational communication [1)] . It aims first to create a deeper understanding on three aspects of urban relationality, namely the *spatio-temporal* relationality, the one between *multiple users* of urban space, and the one of the *people ideating, financing and constructing* urban space; and second to propose 'relational projects' that will be able to account for the specific contextual features of an urban space, and support an overall positive urban development, where visionary and pragmatic projects are aligned with and not opposing each other.

Referring to Lefebvre, spatial praxis has different times which are all inscribed in space and thus still present, albeit some of these sensations and non-facts can neither be experienced nor seen today (Tiessen, 2007). However, by its actual presence through the linkage to the present day, the 'invisible' past, with all its active relations and interconnectedness, exists and is perceptible.

More precisely, a city's past offers inspirations and linkage for contemporary tasks. Hence, the materiality of past events, inscribed in buildings, determines anchor points for future development, and needs to be considered. Using this awareness as a framework for new projects calls for thinking about new objects as being part of an existing reality, that is also made of various emotions, materiality and stories of places.

THE INQUIRY METHOD AND DATA COLLECTION

In the act of assessing '*relational space*', the lived experience plays an important role. It creates memory that in turn assigns the space its meaning, making it an identifiable place. We start by interviewing citizens about their daily life and their stories linked to a specific urban reality (Boje, 2011). We use the *narrative interview technique* to create site-specific knowledge.

Stories, including ephemeral memories, are seen as evidence for a specific social and cultural context and a testimony for an emotional involvement, a proper 'lived experience'. Pearce (2008. 21) argues it is stories that define places, that give us the consciousness of their existence, and produce space. Every place is thus part of a network of stories that always can be spun further and makes it part of a collectiveness. Their plot helps to understand the experiences (Jensen, 2007. 215). In turn, stories' anchor points are material objects (Schatzi, 2003. 89). They are organized around specific places, that can be located.

Our observation site is the city of Lugano, actively involved in an important urban transformation process, which offers a good opportunity to study the relations among people and between them and the existing and future built environment.

In the cultural domain, the focus in this study, Lugano is currently realizing a 169 million Swiss Franc art center - Lugano Arte e Cultura (LAC) due to open in 2014. LAC reflects in many ways the idea that an iconic art center may enhance a city's image attracting private investments and tourists (Rodríguez et al., 2001).

Given the amount of public funds involved in this project, and the relevance of relationality for it's capability to transform the urban reality and contribute to a sustainable city life, we focus, next to the LAC project, on two other cultural existing objects of the city, which are conceptually related to it: Lugano's Congress Center, and the Off-space cultural center 'Nuovostudiofoce'. Their similarities and differences allow us to compare and contrast them to one another, to identify meaningful patterns and engage in theory-building (Yin, 2003).

1. From a *spatial* perspective, all three projects are situated along the lake and adjacent to the historical city center. Whilst there are multiple connections between the projects (in terms of the nature and content of the offerings), it is not clear to which extent they are thought of and planned together.
2. From a *temporal* perspective, the projects are similar but also differ in terms of the time of their construction (70s vs. 2000s), the duration of their realization (2 vs. 10 years), and the temporal procedure of its realization.
3. From a *stakeholder* perspective, all three projects have been commissioned by the city of Lugano. Yet they differ

1) Swiss National Science Foundation "The role of relationality in urban transformation processes"www.urbanrelation.org

in terms of the involvement of private investors and of the active participation of lower level groups within the municipality as well as of political parties and the general public. The involvement of these stakeholder groups differs, ranging from rigid hierarchical and top-down processes to more collaborative partnerships.
4. From a *users'* perspective, the projects differ in terms of the users' local provenance or their socio-economic standing. There is also a certain degree of user permeability between the projects and it is believed, for example, that parts of the users of today's Congress Center will migrate to LAC and the Congress Center will lose attractiveness for hosting large-scale and up-market concerts.

To attest the three projects' relationality we cartographically set up three so-called observation areas. They are defined by the reasonable walking distance of 500 meter in each direction starting from the respective project. Then we trace the *places* – made of memories and stories – in those areas. As informants, we met with citizens in their environment and interviewed them about their daily urban experiences and their perception of the three projects. The 29 interviewed people live or work in the immediate surroundings of the three key projects. They were selected carefully (Sorenson et al., 1975. 14), keeping the variance among them as high as possible in terms of age, sex, place of birth and socio-economic profile.

There were not a rigidly fixed questionnaire as we wanted the persons to say as much as possible, letting ideas and thoughts surrounding places deliberately come into light. Then we asked them for a 10-30 minutes common explorative walk, to show us an area of their choice. That 'being in the physical space' (Rasmussen, 1957; Polanyi, 1966; Corner, 1999. 249) is an essential part as the immediate physical and social presence of the city evokes special memories and relations.

The narrative interviews and explorative walks took place over a time span of 4 months. We met with the citizens in a place of their choice, at a time of their convenience. We began with general questions about their daily life and walks moving on to the 3 projects, ending with problems and desires for the future. This allowed us to find the 'personal' city and not the 'representative' city linked to the official image of it. We collected their stories and asked: *What do people see and observe? What do they cherish? Where do they pass day-after-day? What places serve the people's well-being? What are their affective places?* The themes we threw into the narration were: activities, problems and strengths around the key projects as well as in general; felt changes and dreams. At the end, after the walk, we raised one last question: *From all the cited and found places, which place would be the one they feel particularly attached to?* In total, interview and walk together lasted approximately 1 to 1 ½ hour each time. They were recorded in their full length and, subsequently, transcribed word-for-word.

DISCUSSION AND ANALYSIS RESULTS

Many beautiful and unexpected stories unfolded, but what are the relationships among them? How do we understand them? How can we map them and make them visible?

We must say that people were very open to meet with us. During the conversation, they became eager to describe their proper point of view, thus also becoming more precise the more we asked about the surrounding. Because of our background in architecture people's observations remained framed and focused on specific urban and architectural settings. It is a first linkage among the stories, and an essential reason for the interviews to be carried out by architects and not by other researchers.

During the first stage of the inquiry session the participant's memories played a major role, whilst later the immediate physical impact was of greater importance. The walk triggered more precise statements than in the calm and protected environment of bars, where the interviews were hold. However, the descriptions in the first part were more discursive, more sequential or even more story-lined. While moving through the space in its proper sequence, people become aware of prior unnoticed spaces, thus activating spaces (creating places). The material presence made it possible to see connections over time and space. Past places became enacted, whilst remaining anchored in today's reality. Places became an inspiration source for future projects.

At a first view, we provoked an uncommon collection of situations that hardly seem to relate to each other. Actors and plots are different, feelings are different and paths are different. But they have something in common - their spatial information. Therefore the first step was to draw all explorative walks into the city map and to highlight all memories, public discourses and affections, linked to locations in the transcripts. Places did not merely emerge by a logical or deductive process, but sometimes there was an intuition that led to either ignore or choose them.

All places that were named and described, were LISTED. The list was subdivided into spaces "walked by" and "talked about", keeping the sequence and repetitions of places intact. Out of this we created a separate LIST of places in

which we grouped diverse story fragments and expressions. We had to break people's narration into single pieces in order to assign diverse story-elements to one and the same place. This allowed us to obtain a first feeling for a place's importance in the urban reality.

In certain narrations, there were also story elements, that position the place in the existing 'collective mind', revealing stronger relations between past, present and future. Hence, we decided to classify our locations in three categories and mapped them (Corner, 1999):

↘ *Collective places* are places that have a *collective* perspective, or are carriers of memories that refer to a bigger issue than an individual episode. They evoked stories (narrations) that are part of a broader common discourse, one that could have been experienced by many. There are memories which belong also to others. The stories are linked to their origin (place) and their value (content, form) and cannot be isolated from them. Thus the place (artifact) can stem from different epochs, might even have been erased, but is still there as a virtual trace.

↘ *Places of orientation or of reference* are places that are only mentioned in the narrations or are used to define the location of another place or the presence of a theme, like an architectural style.

↘ *Individual places* are places that refer to an individual episode or expression.

The interviews rendered momentarily visible, what otherwise exists only in the form of memories or desire lines. Different temporalities became visible on one layer. We obtained an indication of what people value in their environment and which places are 'present' or 'active'. What we notice is also that these collective places have different cultural and emotional importance for citizens. Some places are felt more, meaning also that they have a stronger anchorage in time and place than others. Consequently there are places with their origin in different periods or styles that have a similar importance to citizens today.

From the classification it follows that 'collective places' are not necessarily only public entities like squares, gardens or cultural venues but also smaller private venues like bars, bakeries and factories. It is the human contact that ingrained them into the collective mind.

The interviews and how people speak about different places helped us to divide the collective places into 5 groups that allow for a general overview of the diversity in the observation areas. To illustrate a first idea of the places anchorage in time and place we have given the groups different labels; '*dead*', '*floating*', '*lasting*', '*malleable*' and '*moving*' (Appendix 1).

Thanks to this subdivision we can also extract some conclusions for how to treat the different places. When people speak about the **'dead' places** they rather use a past tense, without being nostalgic and without referring a physical trace to the present day. These places are gone, but the idea of them is still there and makes people smile. the notion clearly indicates the chance of doing something about it. It can be used as an inspiration source for a new program, a new form in another place.

Speaking about the **'floating' places** they also use the past tense, but they are nostalgic and still rather upset about the alteration of the place. The place mentioned doesn't exist anymore in its shape, hence it cannot be brought back to life. Here also the anchorage in space is strong. The opinion expressed may be used as an indication for new programs and forms in other sites. The indication is more definite in comparison to dead places.

The **"lasting" places** are rather stable places in the urban system. People speak about them in a present tense and use them daily, meaning they have a strong anchorage to the contemporary reality. These are places that persist, no matter their shape or style. They are ingrained in the public mind and hence shouldn't be changed. There is no need to.

When it comes to the **"malleable" places** the stories are also in the present tense but we find traces of nostalgia, or better, a need for the place to alter a bit to still keep its presence in the collective mind without being neglected. People care about places. They are present in just the way they are. However, small changes are possible, people wouldn't mind improvements although only to a certain threshold.

The **"moving" places** are on the go. The stories about these places are projected towards the future. They are strongly anchored in time and place, but new ideas and proposals for the specific sites emerge, showing a will for future transformations. The notions may be used as inspiration for the very same place.

Also more general wishes emerged on the surface: the desire for more greenery in the city and for more direct contact with the immediate nature and with the lake. The public space that coincides with the local geography is most appreciated, even though it is felt that the city of Lugano does not make full use of it. What people look for are places of withdrawal, where objects and ornaments tell something, where the gaze is held for example by statues, windows, frames, doors, painted facades, graffiti, flowers. People

miss our floral portals, colored glass ceilings, patterned pavements… they miss the inventiveness of past movements with their fanciful life projects.

We conclude that the temporal aspect is not necessarily linked to the time of conception of a place or a building, but that it can rather be related to its cultural and emotional importance for citizens today, and hence to their internal worlds. This conclusion gives us new possibilities to handle the transformation of places.

CONCLUSION

We have presented an inquiry method in which citizens talk about their relationships to their built surrounding, raising problems, strengths, changes and dreams. It allows citizens to understand and describe their urban experiences and makes it easier for architects to recognize frameworks and rules inside the context in which they are asked to intervene.

We would like to underline three main results: First, **stories materialize**, also past ones, and they become visible identity points. Memories are not flying rootless in the air, but they can take tangible forms. Hence, we can locate them through their relationship with material situations, and this allows us to make the invisible stories present.

Secondly, a deeper urban portrait of the areas surrounding the three key projects is drawn by identifying local centres ('identity points') with their actual presence ('time') in the public mind, discovering furthermore that they are not only representational buildings and places, but also minor, less conspicuous venues, like bars and restaurants and anonymous buildings. These places are culturally and emotionally more important for residents and have a stronger anchorage in time and place. But their 'times' are independent from the date of conception and stylistic form. They can be animated and hence change their status of presence through new interventions.

Thirdly, identity places with a higher spatio-temporal relationality allow for more playful handling of changes by enacting linkages between past-present-future. As *reference points* for future developments they may ensure a certain continuity of thoughts and times enabling new interventions that are immediately integrated into the urban tissue supporting an overall positive urban transformation. Although they are not stable, identity points may still indicate which way to go, by offering a loose framework for new projects as part of an existing reality. We would therefore like to emphasize that the **identity points can be seen as switchers** in an urban reality (Weichensteller). Hence it is important to know which are the identity points in a context and how they are inscribed in space and time, because their temporality, as described before, can inform planning and design processes. It might also help to decide when to protect, adjust or transform certain places. By acknowledging this aspect, we start to **understand the long-term tendency** of an urban system, that includes both subjective information (invisible emotional relations) and existing spatial relations.

We thus transcend the impetus of a spatial order and suggest to take also temporality as an inspiration source for new architectural projects. Using this awareness as a framework for new projects calls for thinking about new objects as being part of an existing reality, that is also made of various emotions, materiality and stories of places. Hence, a city's past offers inspirations and becomes a foothold for contemporary tasks, without wanting to recreate the past.

The outcome is another reading of today's reality, where artefacts - beyond functionality, form and usability - mediate between individuals and society, between past and present and represent the territory from the citizens point of view. In the view of this, we offer another view on the urban reality, grounding projects on the stories, not only the histories, of the places involved.

Through a dialogue within a specific spatial setting, we limited objective available data by positioning inhabitants in the framework of an emerging urban project and thus, acknowledging their role as co-creators of urban space, without removing the creative process of the architect that can be built upon this different urban portrait.

Based on the experience gained so far we argue that a narrative interview technique can be used to increase the context awareness. The method better supports small areas of observation, as it helps people to stay focused and tell more stories rather than just list places. We believe that this kind of analysis through the eyes of people, linked to memories of their lives and related to intervention areas, can be of incredible value for the architect. A personal, yet *multiple perspective* on the urban reality, through an intuitive understanding, might help to suggest new patterns or structures that respond to a larger group of people. This attitude allows both a more human-centred and context-specific approach to urban planning, which is of relevance beyond the city of Lugano.

OUTLOOK

We collected a variety of spatially located information in relation to emotions, sentiments and affections, but there is still the challenge in mapping that "lived space" without losing the essence of it. Thus the portrait needs

to be enriched by additional visual evidences (drawings, archival and/or contemporary photography) and deeper site observations (user behaviour, activity pattern, spatial orientation, stakeholder involvement). We propose that all this different information should find a common ground in the form of 3 storybooks, one for each key project. Pieced together by a new narration, they might help an overall social and historical understanding of the site to unfold.

The storybook will be an open story, a lived story, where the leading plot is composed by the story elements extracted from the narrative interviews. People's voices, that are embedded in specific places (Lefevbre, 1974), will be arranged in a simple sequence (ante-narrative). Their expressions will remain leading characters in the text, because they include more context, more meanings, motivations and attitudes, than mere descriptions of specific built elements. They describe best the way people live the city today. Otherwise, fine information like: *saying every day hello to the man who is selling chestnuts in front of the pastry shop, a child's accident with a car on the main square or citizens' project proposals* would be lost.

Our ambition is to create a city portrait out of what ordinary people appreciate, of how they lead their lives, rather than out of what experts see or want to see and represent. By acknowledging spatial narratives, the architect might be able to generate projects which emerge from within, recognizing the creative potential of the relational web inherent in the place. This 'collective frame', made of local knowledge such as emotional, visual, functional and spatial relations; could help and inspire architects and planners offering codes that await a translation into form.

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APPENDIX 1

Levels of consciousness indicating culturally and emotionally important collective places for citizens with their diverse activity levels.

1 'dead' place	2 'floating' place	3 'lasting' place	4 'malleable' place	5 'moving' place
"There was a nice garden,…"	"There was a nice garden, we went always, I miss that atmosphere…, because today there is …."	"There is a nice place, I go there, but in the past it was slightly better."	"There is the place, I came when I was a child, I do always come today."	"Here we have this wonderful building, I don't understand why they don't do anything about it."
It is a mere description of something that happened in the past. The place only exits in people's memory.	It is a mere description of something that happened in the past. The place only exits in people's memory.	The place exists in the same manner as in the story.	The place exists in the same manner as in story.	The place exists in the same manner as in story. Place is very present in people's mind as they feel the need to do something about it.
What they refer to is gone. There aren't necessarily physical traces anymore. We are *unable to be in direct relationship* with the artifact.	What they refer to exists in the form of an empty shell. One *is able to be in direct relationship* with the artifact.	What they refer to exists, is experienceable. One *is able to be in direct relationship* with the artifact.	What they refer to exists, is experienceable. One *is able to be in direct relationship* with the artifact.	What they refer to does not exists yet. A new 'image' emerge in the story (project proposals). One is unable to be in direct relationship with the artifact.
While speaking people are using the *past tense*. The discourse stops here. There is no direct link to the present, no desire for bringing it back to life.	While speaking people are using the *past tense*. There swings nostalgia in the peoples' voice. The desire it back to life or stay alive.	While speaking people use *present tense*. There is no nostalgia. There might have been alternations, but they are to almost everyone the same (visible legacy). They can't be more what they already are.	While speaking people use use *present tense*. There swings a kind of nostalgia in the voice for a past that makes the experiences not being the same for everybody.	While speaking people use an imperative or future tense.
The story indicates a lack of meaning in the contemporaneous realty. It can be inspiration source for the setting of the program or form.	The story indicates a lack of meaning in the contemporaneous realty. It can be inspiration source for the setting of the program and form.	There is no intervention really needed. It is appreciated the way it is.	There might be some minor changes needed.	It can be inspiration source for new projects.

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DIFFERENT APPROACHES TO DESIGN MANAGEMENT

– comparative study among Swedish and Polish furniture companies

BY JUSTYNA STAROSTKA

INTRODUCTION

In recent years design has grown to be one of the most important tools in winning the customers' attention and loyalty (Perks, Cooper, Jones, 2005). Properly used, it can turn into a strategic tool helping companies to gain a sustainable competitive advantage enhancing products, environment, communication and corporate identity (Sun, Williams, Evans, 2011). Companies become more and more aware of the benefits that design can bring into their actions, which is reflected in growing literature in this field.

At the same time, the level of knowledge and interest in design management differs from country to country. In Poland, very little research has been done in this field. The biggest research project conducted in 2007 by the Institute of Industrial Design in Warsaw indicated that there is a lack of resources and specialist knowledge on design management and many shortages in the process of collaboration between designers and other specialists, especially marketing managers. On the other hand, Sweden is well known for its excellent design and a lot of research in the field of design management knowledge has been done in this country.

The aim of this paper is to present the results of a comparative study conducted among Swedish and Polish design-oriented companies from the furniture industry. Research conducted by Swedish Industrial Design Foundation shows that in Sweden, the furniture industry buys more design than any other manufacturing sector (Nielsen, 2004). Despite the fact that analysis will be about only one sector, we think that some findings could be useful for other industries. We also aim to present managerial implications – by identifying gaps existing in design management practices, we intend to provide some recommendations and best practices.

LITERATURE REVIEW

Today design is not simply about aesthetics or making a product easier to use. The traditional role of design in business was on skills associated with the intuitive, visual and sensual ways of working (Cross 1993). Whyte, Salter & Gann (2003) suggest that leading companies recognise that design is an intellectual asset and they invest in extending this capability. The role of designer in a company is growing and those complementary design activities are from marketing, management and market research area. This shift is most recognizable in the new product development process, where the role of designer is most important. Perks, Cooper and Jones (2005) suggest that three distinct roles can be discerned: functional, integration and process leadership, where the last two being far away from traditional scope of designers' work. Designers more often take actions to manage and lead the development process, along with non-design functional actions. Different roles lead to different management structures and the value of design management to business has been recognize for many years, as Bruce and Bessant (2002) put it: 'Good design does not happen by accident, but rather as the result of a managed process'. At the same time however, literature provides the view that the term 'design management' presents a significant challenge, as it contains a contradiction between the remits of the disciplines of design and management. Borja de Mozota (2003) stress that design is based on exploration and risk-taking, whilst management is founded on control and predictability.

DESIGN LADDER

The role of design is changing. However, there is a question of how fast companies adapt to this trend. As an answer to this issue, Danish Design Center developed a tool called 'the design ladder'. This is a four-step model for grouping companies' design maturity on the basis of their attitudes towards design. The higher a company is up the ladder, the greater strategic importance design will play. A company at the top level where design is seen as innovation considers design to be of such critical importance that it can reformulate some, or even all, aspects of its business. The designer works closely alongside the company's owners/management on complete or partial renewal of the total business concept. Companies on the 'design as process' step see design as an important aspect of its business – design is also incorporated into much of the corporate philosophy and integrated into the early stages of the development processes. Design is not a result but a method and the production outcome requires contributions from a range of specialists. Below this is 'design as styling', where design is seen solely as relating to the final physical form of a product. This can be the work of a designer, but is usually created by other personnel. 'Non-design' situation occurs when design is a negligible part of the product development process, usually performed by other professionals than the designer (Nielsen, 2008).
Studies conducted by Swedish Industrial Design Foundation in 2004 and 2008 show that the general number of companies in non-design group is going down (27% in 2004 to 23% in 2008), at the same time the number of companies in the group 'design as strategy' is growing (22% in 2004 to 31% in 2008). (Nielsen, 2008). We don't have that specific information about Polish market, but we can assume that, due to the fact that Polish market is still in pre-maturity phase, those numbers can be significantly lower.

RESEARCH

Objective of our study was to empirically explore the nature of the current role of design within design-oriented companies ('design leaders') from Sweden and Poland [1]. This project was qualitative research aimed to compare managers' attitudes towards design; to look into existing processes in companies connected with design issues and to explore the different roles that designers play in organizations.

We've decided to narrow our study only to 'design leaders' in order to identify and compare best practices in both countries. In the process of selecting those companies, the following criteria have been taken into account: number of design awards ('Red Dot Design Award', 'The Design S' in Sweden and 'Dobry Wzór' in Poland), industry publications, consultations with design specialists and designers, companies' web pages.

In this research project 24 in-depth interviews were conducted among two groups of respondents: marketing managers/CEOs and designers. Interviews were carried out over a period of six months (from January to July 2010). Interviews were guided by a semi-structured questionnaire, ranged from one to two hours, were taped and transcribed. The broad themes of the questionnaire encompassed the following: company and respondent characteristics, attitudes towards design, design management, processes and strategies connected with design, the role of designer in a company and design-marketing interplay. In the next section we present briefly the results of our study. As this article is limited in space, we present main conclusions in three areas:

1. Definition and nature of design;
2. Design management;
3. The role and place of designer in the company;

Company names are omitted for confidentiality reasons.

RESULTS

THE DEFINITION AND NATURE OF DESIGN

Our project has shown many differences in almost all fields of our interest. The most fundamental area was the definition of design.

Among the Swedish respondents design was seen as a process referred mainly to the design of the product. Managers and designers emphasized the interdisciplinary nature of the concept. Typical definition that was used by respondents can be presented as this:

> *Design is an interdisciplinary process of creating a product that is the answer to many questions. It is a system of creating products, when you think about everything; from materials through functionality, ergonomics. This process includes all of these aspects.*

Most of the interviewees pointed to the fact that good project should be coherent with the brand and that design refers to the strategy and philosophy of the entire company, cannot be identified only with the product. One respondent described design as the essence of the brand, ensuring the consistency and clarity of communication and actions. The following quotation illustrates this point of view:

> *Design for me is the strategy of the company. (…) Design has an impact on the design of the product, but the product is a matter of secondary importance. Design allows you to specify certain values that the brand offers.*

Polish respondents expressed more diverse opinions on how they understand the term 'design'. The main line of division concerned the definition given by the managers and the designers. Managers often identified design with the physical objects, referring it to the final result (product) rather than to the process. Statements often oscillated around expensive, luxury products, addressed to the affluent group of customers. This approach was very heavily criticized by Polish designers. They claimed that this perspective is causing that in general perception of people design is the 'art of making things weird and more expensive'.Polish designers understood design as a process with great social value.One of them gave the following definition:

> *Design is life. It's simple and modest life. It should serve this elderly lady that lives on the fourth floor.*

The majority of designers claimed that their work is very important, because it is responsible for the whole human environment; many of them stressed this social mission of the designer's work.
Perhaps the discrepancy between the opinions of managers and designers on the merits of design stems from the fact that - as one respondent pointed out - in Poland, well-designed products are still rather luxury, and the design is an investment that increases the price of the products.

1) Research in Sweden was founded by the Swedish Institute via the scholarship from the Visby Program.

THE ROLE AND THE PLACE OF DESIGN IN THE COMPANY

This difference in perceiving the definition of design was reflected in different roles that designers play in companies in both countries.

Most of the Swedish interviewees agreed that design is now an essential tool for managing a company; a tool that improves functioning of the whole organization in all areas. As a result of this approach, designers were playing very important roles. In most cases they were involved in issues that go far beyond the traditional realm of their work. Despite the fact that the Swedish companies often worked with external designers, usually with one or more of them they were establishing very close cooperation. Often, these designers were invited to meetings of the company 'strategists'; referred to by respondents as: 'Design Advisory Board' or 'Board Product'. At these meetings, issues related to the development of new products, new trends, marketing, public relations were being discussed. In this approach, designers were consultants, advisors, while taking over the role of interpreters of market changes. One respondent described this phenomenon as follows:

Most of the companies that strategically approach design, receive help from designers who act like creative directors for these brands. For example, the company Offecct has Eero Koivisto who is a designer for them, but he is also the unofficial art director of the company…he leads them, advises them, looks at the ideas of others.

Respondents emphasized that in recent years, more and more companies have increasingly became a 'virtual enterprises', focusing mainly on designing and building a brand name, outsourcing production to external entities. This change has had a direct impact on expanding the requirements for designers work.

One of them said that today being a designer is like having several different jobs at the same time. He stressed that in order to convince the company to his concept, he often has to create an advertising campaign around his idea, allowing the company to immediately see the additional value of new product. It is also more often required to provide the technological know-how associated with the manufacturing process or the materials used. Those changes are well illustrated by the following quotation:

The myth of the designer doing a sketch on a napkin, in a bar somewhere, has nothing to do with reality. …Companies now very often don't own production, don't have the knowledge, technological know-how, which means that we [designers] have to go to the sub-contractor to gain this knowledge to sell our idea to the specific company.

Polish respondents pointed out that in Poland awareness of the role and importance of design is now increasing, but – especially in the opinions of designers – is still at a very low level when it comes to proper understanding of the nature of design. The interviewees paid attention to the fact that public awareness of what is the subject of the designer's work is still rather limited. Designer is usually seen as an artist, not having anything to do with the reality of business. Polish managers confirmed these opinions – very often they argued that more and more companies are 'being forced' to start working with designers. These statements were revealing that in some cases establishing a co-operation with designers were not a result of company strategy, but rather more of external pressure, the result of design-related fashion.

As a result of this way of thinking, the majority of Polish companies are not making the most of opportunities offered by the design. The designer, even if it's pulled into action, still works as a stylist, concerned with issues related to the external appearance of the product:

In Poland there is still this perception that the designer is a stylist: 'We produce furniture, but more and more we have a signal that they are ugly, so we need someone to do it nice.'[…] In most cases it's still very schematic, stereotyped way of thinking and complete fear of doing something creative, something different.

Representatives of Polish companies were expressing opinions that design is very important marketing tool, claiming that the designer's name higher prestige of product, and thus the brand. Designers have criticized this approach, arguing that they are employed by manufacturers mainly just so the company can use their names and ultimately – to raise the price of the product.

EXISTING PROCESSES – DESIGN MANAGEMENT

In the majority of Swedish companies, design management structure was based around the position of design manager. Respondents emphasized that design management is not only about a product, but every aspect of the company matters – style, graphics, and ways of communication. All these aspects must be subordinated to the essence of the brand and brand values. Typical in this respect was the statement of one of the managers:

In every decision we make, regardless of what it refers to, design is always present in this decision. It all starts with the 'design thinking'. Design plays a role in how we dress, what cars we drive, how our website looks like... Even this how we serve coffee and answer the phone - everything is design management, because you cannot stop the half way.

Respondents repeatedly emphasized that design must not only relate to all areas of the company, but also to all employees. In particular, it is important that at every stage of work, every employee feels like a co-author of a new product. One respondent described this as follows:

It's not just about that it was your idea, but this project must become a part of the entire company, so that every employee will identify with what you and your team are doing. […] Every employee should feel somehow a part of this creative design process.

As emphasized by Polish respondents, the majority of Polish companies were formed in late 80', during the system transformation in Poland. Those businesses were funded mainly from private capital, with a critical role of the founders, who, in most cases, are very often still in charge, taking every decision, including those connected within the design management domain.

Situation described above relates mainly to small companies, larger companies usually situate design management in the responsibility of marketing department. One such marketing managers responsible for design, admits that the process of learning how to cooperate with designers usually takes place through trials and errors. Many respondents were stating that Polish companies don't have enough experience and know-how on how to cooperate with designers:

We have the money, we have the equipment, we have technical experience, but now there is all about the establishment of design with which we have no experience at all. We do not have the march of conduct, we do not know to what end who should decide whether the designer should have a main sentence, or the technologist, or perhaps the head of the company? We learn all this while we work, during trial and error.

Respondents often stressed that they have considerable problems in clarifying the expectations for designers, and that this often lead to conflicts and misunderstandings. In addition, one of the managers emphasized the fact that it is very hard to make everyone in the company to understand the essence and importance of design. Often, new solutions offered by designers, reluctantly accepted by other employees, are most often seen as 'hindering their work'.

Only two of the surveyed Polish companies had a position of design manager. The scope of their activities, however, differed greatly from the activities of Swedish experts. In Poland, design manager was the link between business and design, and the responsibilities of design managers were associated more with creating a corporate image, publicity and PR, than seeking innovation and building company strategy and culture based on design.

Table 1. Summary of main findings and conclusions

Area of interest	Main conclusions from Swedish respondents	Main conclusions from Polish respondents
The definition and nature of design	Design is an interdisciplinary process Design is a business tool used as a mean to reflect the essence of a specific brand	Design is a luxury product - in the opinion of managers Design is a social phenomenon aimed to improve life of ordinary people - in the opinion of the designers
The role and the place of design in the company	Design is regarded as a strategic tool Increased responsibilities of designers who are consultants, advisers Designers included in forming company strategy (Design Advisory Board, Product Board)	Poor public awareness of what is the essence of design and what is the object of the designer's work Designer is treated as a stylist Design is the foundation of marketing and PR activities
Existing processes - design management	Responsibilities for design in hands of professional design managers Design management connected with all aspects of the company, not just products Design becomes the responsibility of every employee	Design management in hands of business owners (small business), or the marketing department (larger companies) Lack of specialist knowledge on how to work with designers

Source: own study based on research.

Table 1 presents main conclusions from our study. We can observe considerable differences in perceiving the role of design, the role of designer in the organization and also different approaches to design management.

CONCLUSION

There are many roles that design can play in organisations. It can be source of good marketing strategy, and designer by himself can be a promotional tool for a company. Thanks to those actions companies can gain publicity, media attention and good PR.

On the second level, design can be perceived as 'process of making things better'. In this case companies can achieve more effective product development process, new tools and technologies.

On the third level we have the situation when designer work alongside with company managers with the whole business concept. At this level, designers' work looks more like a brand consultant, a strategist. In this approach design should be reflecting certain brand name and brand values.

As our study presented, Swedish companies operate on those two, higher levels, while Polish still limit the scope of design. We strongly believe, that Polish companies, as they gain more experience with design activities, will be more likely to perceive design in this more mature approach. In the meantime, presenting best practices from companies from other, more mature countries could be a good way of promoting design as a strategic asset rather than promotional tool. We believe that in order to fasten this process, Polish companies should as follows:

1. Work more often with external and foreign designers;
2. Expand the area of designer responsibilities in companies;
3. Place the responsibility for design in hands of professional design managers.

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ORGANIZATIONAL SENSEMAKING THROUGH ENABLING DESIGN SERVICES

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ABSTRACT

It is argued that the focus of design is becoming increasingly intangible. At the same time as design consultants are expanding their offerings with new services aimed at enhancing innovation and the strategic process in client firms, studies indicate that industrial design consultancies have a problem getting commissioned and paid for the intangible parts of their service. One possible explanation is that design is regarded as providing a relieving service that delivers aesthetic competence at the end of a product development process. This indicates a problem in communicating the contribution of enabling design services to client firms.

The aim of this paper is to increase the understanding of enabling design services. This is done by comparing the characteristics of design thinking, its methods and processes with sensemaking theory as described by Weick (1995).

INTRODUCTION

This paper presents and positions organizational change theory influenced by a sensemaking perspective with the concept of design thinking, two perspectives with different epistemological origins that seem to have common denominators. The results of a literature study regarding the characteristics of design thinking, and hence the competencies of the designer (Eneberg, 2011), are compared with the properties that Weick (1995) argues form the basis for a sense-making process. The purpose is to clarify the role of the designer in organizational sensemaking and thus the contribution to organizational development in client firms. Sensemaking theory originates from Weick (1995) who in this way brought social construction into organizational theory (Hatch, 2006). Basically, sensemaking highlights how individuals and society create each other. The individual makes sense of experiences through an ongoing inter- and intrapersonal dialogue, which in turn creates the culture of, for instance, an organization. This paper does not present a complete picture of design competencies, but aims to be part of an ongoing dialogue among design researchers and within the design industry about the enabling service contribution the industrial designer provides.

According to Verganti (2009) the essence of design is making sense of things. However it can also be argued that the designer can facilitate the sensemaking process through an enabling service, and that the artifact mediates the designer's interactions with and inside client firms. Designers have integrative and visualization skills that promote the negotiation of perspectives among organizational actors and hence create affordance in the social environment (Norman, 2002). A service can be either relieving or enabling (Norman, 2001; Vargo and Lusch, 2008). A relieving service means that the supplying organization performs a task for the other party, which is the logic behind outsourcing. A relieving service can be exemplified by an industrial design consultancy performing some part of a product development process on behalf of a client firm. An enabling service, on the other hand, is more relationship dependent and based on cooperation between the supplier and buyer. The competencies of the supplier are applied in the customer organization with the aim of making some kind of improvement or change. Designers who use their competencies to facilitate a sensemaking process in client firms demonstrate an enabling service (Eneberg, 2011). This could further be exemplified with the designer using their visualization skills to externalize tacit knowledge and hence enhance interaction in client firms.

THE CHANGING FIELD OF ORGANIZATIONAL DEVELOPMENT

One field in organizational theory that has been the subject of an intense debate, both in the community practicing it but also in the scientific community, is organizational development (OD) (Bradford and Burke, 2005; Marshak and Grant, 2008; Werkman, 2010). It has been criticized for its positivistic origin, relying on a methodology based on quantitative data in search of an objective truth in contrast to the subjective perception of organizational actors. Classical OD is argued to treat deviations from an objective truth as misperceptions that are to be corrected (Marshak and Grant, 2008). OD as a field is argued to be undergoing a change of its ontological view and the methodologies used (Bradford and Warner Burke, 2005; Marshak and Grant, 2008; Ford and Ogilvie, 1996). Part of this change is the acknowledgement that multiple realities can exist simultaneously among different organizational actors. Nonaka (2004) argues that organizational theory has been dominated by a paradigm that views organizations as closed systems that process information and solve problems in a simple input-process-output sequence.

According to Nonaka, individuals in an organization are co-creators of the problems that are to be solved and the information that is used in problem solving. The reality of a situation is the result of a negotiation among participating actors. This perspective is in line with Dewey's (1929) understanding of the internal and external world as something that is not complete but created through the

mediation of intentional operations. Action has always been an important part of OD. In literature about "new" OD, (inter)action and the facilitation of a sensemaking process (Weick, 1995) are at the very center of attention (Marshak and Grant, 2008; Werkman, 2010).

THE EXPANDING SCOPE OF DESIGN

The concept of design thinking has become popular not the least in business press (Carmel-Gilfilen and Portillo, 2010; Martin, 2010; Leavy, 2010; Ungaretti et al., 2009; Brown, 2008; Boland et al., 2008). One reason for the boosted interest in design thinking may be that it is argued to be a potent force for innovation (Verganti, 2009; Cooper and Press, 2001; Bruce and Bessant, 2002). Several scholars argue that the role of industrial design is expanding from being a product development oriented practice towards also contributing as a strategic resource of knowledge proposing new ideas and stimuli in client firms (Delléra et al., 2008, Valtonen, 2007). The aesthetic perspective is no longer as apparent as it used to be (Ullmark, 2007). With the changing role of design there is a need to understand the characteristics of design or in other words what is typically "designerly" (Rylander, 2011: Cross, 2006)

According to Buchanan (1995), the search for a new integrative discipline that will complement arts and sciences is one of the central themes of intellectual and practical life in the 20th century. By drawing attention to the concept of technology, as defined by Dewey (1929), Buchanan highlights the similarities between design thinking and experimental thinking. He emphasizes design thinking as integrative and universal in scope, not having a fixed subject matter and thus it may be applied to different areas of human experience. In addition, Buchanan argues that design thinking can be applied to different kinds of problems and that the meaning of design itself is expanding. Dewey signifies experimental thinking with what he calls "direct activity", which he contrasts with "thinking" as something cooped up within the "mind". In this sense, design *action* would be a more suitable term than design *thinking*.

Through a literature study I found that the concepts *integrative, collaborative and experimental* summarize the competencies of the designer (Eneberg, 2011). Design is integrative in that it integrates hands with thought and theory with practice. It is collaborative in that interaction between individuals is a necessity to solve the complex, open-ended problems they face. Finally, it is experimental in that its methods and processes aim at ingenuity and focus on how things ought to be rather than on how they are.

The integrative and collaborative characteristics of design are closely connected to the concepts of affordance (Norman, 2002) and what Döös (2007) calls "relatonics"; affordance in the sense of creating an environment that allows an individual to perform actions and relatonics as a key concept for organizations to develop competencies and hence facilitate innovation. From the perspective of relatonics, competencies in an organizational are constantly changing since they exist in relations between human beings. Individuals take their experiences and expertise with them when they enter and leave organizations (ibid.). According to Döös, "relatonics concerns the inter-related existence of ongoing relational processes that bear and develop competencies" (2007: 142). An individual's understanding can be described as a thought network. Thought networks are "cognitive structures, open to change through the questions the individual poses, and as a result of the actions involved" (Döös, 2007: 146). Different thought networks merge in the relation and through interaction between individuals as a sensemaking process take place. With the help of the integrative and cooperative characteristics of design this interaction could be enhanced.

DESIGN THAT FACILITATES SENSEMAKING

Sensemaking takes place inside individuals and through interaction between individuals. Weick claim that individuals are active agents that construct sensible events and he argues for seven properties, which are grouped into 4 headings in this section of the paper. The properties that form the basis for sensemaking processes are 1) social and 2) grounded in identity construction, 3) ongoing and 4) retrospective, 5) enactment and 6) focused on and by extracted cues, and finally, that sensemaking is 7) driven by plausibility rather than accuracy. In the section below, Weick's sensemaking properties are compared with Eneberg's (2011) characteristics of design summarized as collaborative, experimental and integrative.

Social and grounded in identity construction

All humans have several identities, what Mead (1934) calls a *parliament of selves*. Identities are created in interaction with other individuals. The development of a common language and social interaction are vital components to maintain the network of inter-subjective agreements of which an organization consists. Within an organization, identities are partly constructed based on how the individual experiences how others view the organization (Weick, 1995). An organization that is perceived as creative enables the

individuals to project a creative identity. Designers are mostly known for being creative, and collaboration with a designer has the potential to help individuals inside an organization, but also end users, to project an identity of creativity.

Sawhney and Prandelli (2004) claim that new knowledge is created when it iterates between being tacit and explicit, that is, between being individual and social. Explicit knowledge is, as Nonaka (2004) argues by referring to Polanyi, transferable in formal language, while tacit knowledge is difficult to formalize and communicate through words. With the help of visualization, the designer facilitates the iteration between explicit and tacit knowledge. The designer internalizes (ibid.) explicit knowledge in a kind of dialogue with the object. Externalization of knowledge occurs when the designer facilitates an integration of different stakeholders in a process with the help of visualization skills (Eneberg, 2011). Boland et al. (2008) argue that multiple models evoke emotional involvement from participants, which facilitates the process and leads to several possible alternative explanations of a problem. Further on, the collaborative characteristic of design can be exemplified by how the designer aims to integrate dissimilar, often contradictory perspectives from different stakeholders such as limitations in production, communication requirements from marketing and branding, and the needs of the end user (ibid.). Visualization tools such as prototypes or sketches are often used during a design process. Several models are developed and each model represents an alternative perspective to be tested (Boland et al., 2008). This offers a potential to expose organizational actors to different perspectives. Thus, the collaborative characteristics of design (Eneberg, 2011) would question what is taken for granted in the client organization by introducing new perspectives at the same as it would enhance an institutionalization of new shared perspectives (Selznick, 1949).

Ongoing and retrospective

Weick (1995) argues that sensemaking is an ongoing process but at the same time, the ongoing flow of action is punctuated when we focus on the past from a point beyond it. It is in these moments that meanings are crystallized in, for instance, an organization. Weick claims, by referring to Berscheid, that arousal is triggered by interruption of an ongoing activity. Arousal leads to a search for answers and to make sense of the situation. Individuals understand actions after they have taken place. Attention is always directed backwards in time and sensemaking is based on the memory of what has already happened. Hence, everything that affects the memory will influence a sensemaking process.

By moving into a fictive future, it is possible to make sense about what has not yet taken place (Weick, 1995). A focus on what has already happened leads to the problem of creating something new. Dunne and Martin argue by citing Pierce that "The process of forming an explanatory hypothesis is the only logical operation which introduces any new ideas" (2006:518). The experimental characteristic of design (Eneberg, 2011) highlights the skill of an abductive mode of thinking (Dunne and Martin, 2006; Ungaretti et al., 2009; Edeholt, 2004). Several hypotheses are often developed, each working as an argument in a dialogue with different contexts (Boland et al., 2008). In this way, several futures or as Simon expresses it, "how things ought to be" can be tested (1996: 114).

Enactment and extracted cues

As individuals we are often caught in a Cartesian anxiety and thus a mind-body dualism is created. We understand the world as stable and objective and hence are only on a quest to understand an objective and complete reality that we believe exists outside of ourselves (Weick, 1995). Another ontological perspective would be to understand the individual as co-creating the world at the same time as it creates us.

> The inquirer's relation to this situation is transactional. He shapes the situation, but in conversation with it, so that his own models and appreciations are also shaped by the situation. (…) he is in the situation that he seeks to understand. (…) he understands the situation by trying to change it, and considers the resulting changes not as a defect of experimental method but as the essence of its success (Schön, 1983: 150).

Sensemaking is often understood as the product of the process rather than the process itself. One reason is that sensemaking is instant as we use extracted cues that come from familiar structures created out of earlier sensemaking. The context of the situation is of significance since it is the context that determines what cues are to be extracted. The context also affects how we understand the situation. An event may have several meanings just as words may have several meanings depending on the context in which they are used (Weick, 1995).

During a design process, the focus is on the whole rather than on details to gain an overall understanding of different contexts relevant to the solution of a problem. The

designer searches for and matches patterns by relying on the brain's intuitive ability (Ullmark, 2007). Thinking with the hands facilitates intuition, integrating hands with thought (Eneberg, 2011; Boland et al., 2008). As mentioned earlier, Buchanan claim that design is an integrative discipline: "Designers are exploring concrete integrations of knowledge that will combine theory with practice for new productive purposes" (1995: 4). Ideas are formed at the same time as interaction takes place through the use of sketches and prototypes (Stolterman, 2007) and as reflection takes place in action (Schön, 1983).

Driven by plausibility rather than accuracy

Accuracy is not necessary in sensemaking. What is necessary is something that preserves plausibility, coherence, embodies past experience and resonates with other people (Weick, 1995).

> What is necessary in sensemaking is a good story. (…) a good story, like a workable cause map, shows patterns that may already exist in the puzzle (…) patterns that could be created anew in the interest of more order and sense in the future (Weick, 1995: 60-61).

Design is experimental in nature (Eneberg, 2011) and designers are innovators intend to be engaged in the fuzzy front phase of various development and change activities in industry and society (Hargadon and Sutton, 1997). Innovators tend to be venturesome, use multiple information sources, and have a greater propensity to take risks (Ainamo, 2009). Designing is a divergent task, in most cases leading to several contextually dependent results rather than one correct answer; the designer is constantly switching between an open and inclusive creativity and a critical review (Ullmark, 2007). Past experience is embodied in sketches and prototypes and the physical object can be used in the creation of shared stories and plausible explanations in client firms.

CONCLUSIONS

The seven properties of sensemaking have been compared with the three characteristics of design thinking to reveal similarities and differences and hence the contributions of an enabling design service. An enabling design service involves elements of learning and interaction to a greater extent than a relieving design service and thus would create a greater value since it generates new knowledge and competencies in the client firm. In contrast to relieving design services, the full potential of design is utilized in an enabling design service.

OD in contrast to design has had a history of treating deviations from an objective truth. Using a sensemaking perspective of OD moves the focus away from the search for an objective truth towards the existence of multiple perspectives. This view stresses that problems and the information used to solve them are not something that exists outside an organization but is co-created by the individuals inside the organization and the value network in which the organization participates.

Design on the other hand has had a focus on integrating dissimilar, often contradictory perspectives and contexts. The design consultant creates affordance when supporting an environment that allows the individual to perform actions and in this way facilitate the opportunity for different thought networks to merge and new competencies to be developed. In this context the design consultant would provide the client organization with a tool to enhance iteration between tacit and explicit knowledge, integrating hands with thought, and thus provide a common visual language that can facilitate intra- and inter organizational interaction.

Design education is argued to train students to become experimental and use an abductive mode of thinking with several explanatory hypothesis of the future. This could be contrasted to management education that often is characterized by an inductive or deductive mode of thinking. Since sensemaking takes place retrospectively (i.e. after an action has occurred), organizations would gain by using an abductive mode of thinking and hence the competencies of the design consultant in the OD process. By doing so, the ongoing flow of actions in the client organization is punctuated and the conditions created to present several fictional futures and contexts to be "tested" and meanings crystalized among the participants.

There is an obvious resemblance between the ontological and epistemological perspectives of organizational change theory influenced by sensemaking theory and the concept of design thinking. At the same time, they originate from dissimilar traditions and hence bring different methods and competencies to the table. In this paper some of the characteristics of design thinking have been discussed in a sensemaking context and hopefully this will contribute to the ongoing dialogue about the contribution of enabling design service in client organizations.

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This section presents dissertations and books in the design field. Have you read something that you think *Design Research Journal* should write about? If so, e-mail us at: designresearchjournal@svid.se.

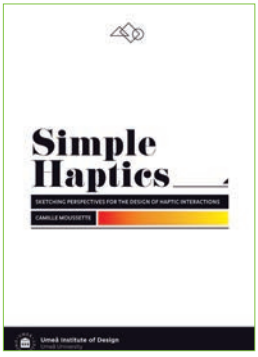
New research field

Camille Moussette's doctoral thesis in industrial design is the first at Umeå Institute of Design and is therefore "a milestone for the institute and its research". He became the latest and eighth doctor of design linked to the Swedish Faculty for Design Research and Research Education (www.designfakulteten.kth.se/english) when he successfully defended his thesis called "Simple Haptics; Sketching Perspectives for the Design of Haptic Interactions" on 30 October this year. In his research, Moussette explored how interaction designers can use theories of touch to develop interfaces and experiences that go beyond traditional visual- and form-based aesthetics. Developing products that feel right creates completely new challenges and possibilities than developing products that "just" look good. One example he gives is how a vehicle safety system could warn a driver via the sense of touch.

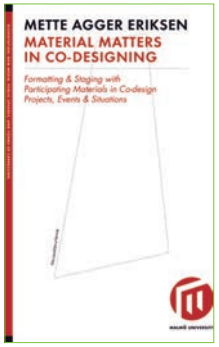
"In my thesis I've used concrete examples, guidelines and recommendations for how an interaction designer can work when it comes to developing touch-based products," he explains. "All to accommodate the fact that users are more and more interacting with products via touch."

Moussette's ambition is to develop haptics – the science of the effects of touch – in a design perspective that is based on the individual's needs. And to inspire all kinds of design workers to value haptics as a basic component of all new design projects. A totally new field – haptic interaction design – has now been opened up.

Susanne Helgeson



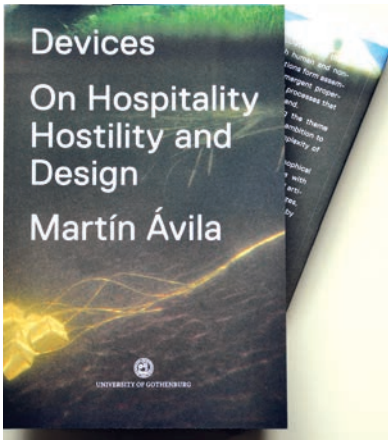
SIMPLE HAPTICS
Author: Camille Mousette
Publisher: Umeå Institute of Design, Umeå University, 2012



MATERIAL MATTERS IN CO-DESIGNING
Author: Mette Agger Eriksen
Publisher: Malmö University, 2012

Materials matter

Mette Agger Eriksen's practice-based thesis "Material Matters in Co-designing" is about creative collaborative processes, in particular the multidisciplinary design collaboration between the designer, users, and other stakeholders. As a design discipline, the field is related to such fields as traditional industrial design, but has another form of practice, both in its organisation and in "socio-material" practice, which Agger Eriksen has explored. She uses a broad concept of 'material' and a performance perspective, and her ambition includes contributing practical materials knowledge to future co-design processes in interaction- and participatory design.



DEVICES
Author: Martín Ávila
Publisher: University of Gothenburg, 2012

On the qualities of interrelations

In his thesis "Devices. On Hospitality, Hostility and Design", Martín Ávila explores and discusses the possibilities of understanding and influencing the interaction of artefacts with human and non-human agents. In order to grasp the overlapping and changeable ecologies which are created, and their particular delimitations, contexts, and dynamic dependencies, the thesis draws in part on biology and philosophy. In his reasoning, Ávila also draws inspiration from literature, the design world and contemporary art.

He himself describes his approach as "a series of different experimental design projects in which the nature, potential and risks of interrelations have been explored. To create changes of perspective, generate new possibilities and catch sight of consequences, linguistic means in the form of prepositions have been tested in game-like situations. Further, the development of various types of symbiosis has been studied through practical tests in which a simple and archetypical artefact, a radio, has acquired its energy from various natural and synthetic sources."

The need for change in industry

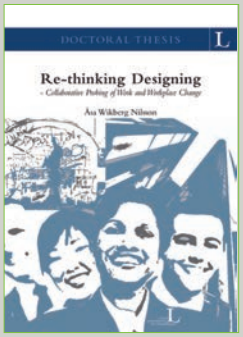
How can industry become a more attractive workplace for young people and women? After such stakeholders as Teknikföretagen (the employers' organisation for Swedish engineering companies) asked that question, Åsa Wikberg Nilsson of the Department of Innovation and Design at Luleå University of Technology was invited to contribute her knowledge. That was developed in a project called Framtidsfabriken (factory of the future), which focused on how design can be used in working for change, and which was initiated by her colleagues at the Department of Human Work Science. The project ran from 2008 to 2011 and this past spring she submitted her doctoral thesis called "Re-thinking Designing".

The work was based on reports that young people are choosing not to work in industry, and that women are a minority in the Swedish industrial sector. The ambition was to design a vision of a future factory. However, Wikberg Nilsson chose to channel the processes via a variety of design labs (a kind of workshop) rather than create solutions for a specific industry. This working method also became the final method, that is, to work with visions for the future. In addition, participants then each worked within their own business to implement step by step activities for change in order to realise the vision.

In one feature of the workshops, managers in industry met with workers and union representatives in a range of what were termed "future workshops". In other labs, secondary school students and women played roles as managers in industry. The workshop work produced both utopias and dystopias, which were then used to discuss consequences and alternative solutions.

"My biggest 'aha!' experience came when a simple thing like changing the gender of a persona and clearly showing how the gender roles function made many people raise their eyebrows," explained Wikberg Nilsson, who can now call herself a doctor of engineering in industrial design.

Based on the results of possible future scenarios, she then developed methods, practical tools and guidelines for both innovative and reflective work and workplace design. Her theoretical research contribution is the link between theories and concepts like change, learning, gender and reflective design.



RE-THINKING DESIGNING
Author: Åsa Wikberg Nilsson
Publisher: Luleå Universiy of Technology. 2012

"In brief, it was a very concrete and hands-on project, and it was very rewarding to design and work in the various design labs with different participants," she says.

"I've presented my thesis in a variety of industrial contexts and in future I'd like to follow up how things went for some of the participating companies, which have already begun processes of change using my suggested methods. It's clear there's a need for change!"

Susanne Helgeson

The Swedish Faculty for Design Research and Research Education: NEWS

Bo Westerlund, Professor of Industrial Design at Konstfack, will become the new head of the Swedish Faculty for Design Research and Research Education in February 2013. He succeeds Peter Ullmark, who will then retire.

The Faculty has a constant number of about 50 doctoral students. The future of the Faculty's operations after mid-2014 is uncertain. The Swedish Research Council allocated SEK 5 million per year during 2008 to 2012. However, these funds have been used in a very cost-efficient way, with the result that it has been possible to extend the duration of the Faculty's Graduate School. At present, this involves 18 months but work is continuing to create a more permanent funding solution.

The breadth of the Faculty's doctoral students' subject areas is great. This is shown not least by the latest students to join the programme. Ariana Amacker and Andrew Whitcomb at HDK School of Design and Crafts at Gothenburg University are exploring the methods of design research and design respectively. Ulises Navarro Aguiar's research field is entitled Design and Organizational Change, Transformation Design. Elsa Vaara at Mobile Life at the Swedish Institute for Computer Science (SICS) is researching how interaction design can contribute to the fact that our experience of time plays a central role in our lives and for our health. And at the School of Arts and Communication at Malmö University, Eric Snodgrass is focusing on media ecology.

In October a half-day seminar was held at the Museum of Architecture in Stockholm. Both the current situation and new challenges were presented at the seminar. Read more at: www.designfakulteten.kth.se/english

PHOTO: SJOERD EICKMANS

Inspiring World Design Forum 2012

Big conferences are all very well but parallel sessions and many side arrangements can often cause a lot of stress. Another way to arrange meetings was practised at the World Design Forum (WDF) with strikingly good results.

The WDF runs for half a day and consists of about 50 presentations of about 20 minutes each. Every contribution presents a project or issue. All participants listen to all the presentations, and everyone can take part in the discussions the sum up after three or four presentations. With a highly professional moderator, one gets the feeling – which remains for long afterward – of really having learned something lasting. Last year the main theme was "Care"; this year it was "Igniting social enterprise", which meant that the entire event involved encouraging and reinforcing organisations and the private sector in various attempts to create better relations with their users, that is, ordinary people. This effort was assisted by research work, primarily by design researchers.

The audience was a mix of public sector employees and decision makers with various functions in society: academics, economists, etc. The projects they presented were organised in three categories: learning, co-creating and "igniting". One presentation was about developing the possibilities of growing food in urban areas, another was about the transformation of a factory site in Arnhem into a functioning housing environment, and a third was about the MAAT network that works to improve care environments in the Nijmegen region. It might seem like there was a lot of domestic Dutch content but the fact is that a number of the projects are also active internationally.

Money to Borås

The "fundamental relationship between body and space" of clothes is one of the main themes of a research project that will soon get underway at the Swedish School of Textiles in Borås. The Swedish government's budget presented in September allocated SEK 1 million to the University of Borås for artistic research. Soon after, the Swedish School of Textiles at the same university received a further SEK 3.2 million for artistic research from the Swedish Research Council. The money will go to studies into design, fashion, and the clothes people wear.

PHOTO: ULF NILSSON, MIMBILD

"We will study clothes from an interactive, architectonic perspective," explains Clemens Thornquist (at left), professor in fashion design. "In concrete terms, this means we will conduct experiments in which we will dress people in various kinds of textiles and non-materials, and place those people in various situations. This way we can explore the relationship between body and space."

Collaborating on the research project is the Department of Architecture and Design at Royal Melbourne Institute of Technology. Professor Lars Hallnäs of the Swedish School of Textiles plus a number of the School's doctoral students will also work on the project. A post-doc position will also be advertised.

A wider readership

As of this issue, the research sections of *Design Research Journal* will also be published electronically via LiU E-Press (www.ep.liu.se/index.sv.asp). This means that the peer-review process and submission procedure of research articles for possible publication will change. The published articles will be freely accessible and searchable in a number of databases and can be accessed by interested readers world wide.

The other sections of *Design Research Journal* will be available free of charge via SVID's website. For a trial period we are also publishing both a Swedish and English version to further widen the appeal and make *Design Research Journal* accessible to more people: writers, researchers and others who want to know more about design research.

PHOTO: SJOERD EICKMANS

The World Design Forum 2012 was held for the third year in Eindhoven, the Netherlands in September. It was a concentrated programme of interesting presentations and discussions, not least the contributions of the moderators. Photo far left: design theorist, author and more John Thackara made the event well worth attending.

"1000 of the Algera" was also very much relevant to others. It is a really interesting attempt at bridge building between users, engineers and design researchers in the audience.

One sponsor of the World Design Forum was the Dutch Ministry of Infrastructure and Environment. The forum calls itself (sic) "an independent international (project) organization with business leaders and politicians which sets the agenda to the power of design and design thinking in shaping regional and global agendas."

The website offers masses of interesting reading, including this year's programme with the names and addresses of all the presenters at the forum. In other words, everything needed for anyone who is curious about various new possible methods of collaboration between people of differing fields of expertise, both in the research and design world and outside it.

Lotta Jonson

Best in the world

Though not the design industry's Nobel Prize, the Red Dot Design Award is nonetheless a highly prestigious prize in the industry. It is awarded by Design Zentrum Nordrhein Westfalen in various categories, including one which ranks various design schools around the world. Topping the most recent list is Umeå Institute of Design at Umeå University, Sweden.

"We first received a Red Dot in 2011, when we were ranked number two," says the Institute's rector, Anna Valtonen. "We were very satisfied then but that was nothing compared with how happy we are now."

The Institute's design training has thus outranked some of the world's most prestigious design schools, such as the Royal College of Art in London. Students from the Umeå Institute of Design have also won Red Dot Design Awards in the "design concept" category ten times.

Design for better wellbeing and growth

At the beginning of 2011 the European Commission established the European Design Leadership Board. We have written about their work several times (e.g. *Design Research Journal* #2.10 pp. 20–23). The European Design Leadership Board will make recommendations on how design can have more influence on Europe's innovation policies. The mandate also includes developing a shared vision, priorities and activities so that design can in the longer term be integrated into the EU's innovation programme, Europe 2020.

One of the first results is the report *Design for Prosperity and Growth*, which was presented in Helsinki on 17 to 18 September. *Design Research Journal* was there, of course. The report makes 21 recommendations in six strategic areas, and points to the need to create frameworks and infrastructures that enable design to have a long-term influence on Europe's capacity for innovation. In addition to making the recommendations, the European Design Leadership Board also underlines the need for strong, clear leadership from the Commission in order to achieve real change.

During the presentation of the final report, a clear challenge was also made in Helsinki to everyone who works with design and innovation to use the report.

People can use the report as an inspiration to create the changes that are needed in their own particular sphere of activities.

The report can be downloaded from www.svid.se

Eva-Karin Anderman

All the members of the European Design Leadership Board have signed the report (above).

Design agenda

Sweden's innovation agency Vinnova recently called for funding applications within a programme entitled "Strategic Research and Innovation Agendas 2012". One application to receive this funding is called "Design for increased competitiveness – a cross-industry research and innovation agenda for the development of competence and knowledge in design". The aim of the project is to create a clear vision of how Sweden's competitiveness can be strengthened via design and its effects on innovation. Because the concept of design has been broadened, there is a need for a broad oversight, one that also describes a vision and discusses aims and the need for future measures to increase the effectiveness of design. SVID is leading this work, which is based on workshops with users, design companies and development managers in both the private and public sectors, whose needs will form the basis of the agenda.

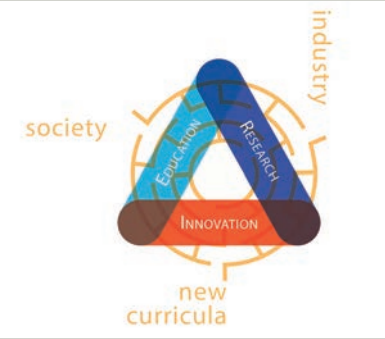
How should design's developmental force be utilised? How should it be communicated? What overall research needs exist? How do these fit into today's innovation systems? These are some of the questions that the agenda should be able to answer.

"Today it's hard to get an overview of what exists or is planned in terms of design research," explains Eva-Karin Anderman, who is responsible for research and education at SVID. "Design research is being funded via a range of research programmes, such as Vinnova's, but it isn't being catagorised as design. That means it's not being used as much as we believe is possible.

"We want to create a platform with a clear overview, so that stakeholders know where they should turn in order to contribute to the process involved with a shared innovation and research agenda."

Lotta Jonson

More at: www.designagenda.ning.com



New Nordic network

A couple of months ago, on 11 to 12 September, the new design network Nordtek Design Network launched its programme with a workshop and seminar. The host was the Department of Industrial Design at Lund University, and Anders Warell and Viktor Hiort af Ornäs were in charge. The aim is that the design network should organise annual seminars and other events, and in various ways support collaboration initiatives organised in knowledge triangles consisting of research units, educational institutions and industry. Warell and Hiort af Ornäs are working with colleagues in the Nordic countries. Bursaries or other funding may be available in future to stimulate innovative knowledge exchanges between academia and private and public stakeholders. The Nordtek Design Network is supported by Nordtek, which is funded by the Nordic Council of Ministers and represents 23 technical universities in the five Nordic countries. The network aims to be open and inclusive. Accordingly, it welcomes ideas from other universities than those that are already members of Nordtek as well as contributions from other public or private sector bodies.

"All involved parties are welcome to join the network to participate, initiate and lead activities that focus on cooperation and knowledge exchange," is the message from Anders Warell and Viktor Hiort af Ornäs.

For more information: www.nordtek.net/project/design.html and www.norden.org.

Collaboration pays off

Collaboration is a key concept for all design consultants. Much design research also describes situations in which collaboration with, for instance, ordinary people – the users – is absolutely central. But how to create a fruitful sense of community, that is, the security necessary to achieve really creative collaboration? At Helsinki Design Lab, which is run by the Finnish innovation fund Sitra, people have thought about this issue a lot. The results are published in Creative Collaborations, a small document in which 19 rules of thumb on the topic are formulated. The authors are Marc Downie, Shelley Eshkar and Paul Kaiser. Together they comprise the artists' group OpenEndedGroup, which

has been doing an extended, cross-disciplinary art project for a couple of decades now. In these collaborations, they have worked with people like dancer Merce Cunningham and theatre director Robert Wilson, as well as musicians, light designers, architects, scientists and engineers. Both the authors and Sitra seem to believe it is in unexpected encounters that creativity is born. And, above all, that creative collaboration is achieved when people interact. *Creative Collaborations* can be downloaded from www.helsinkidesignlab.org/dossiers/cc.

7–9 JANUARY
ICoRD'13
MADRAS, INDIA
Theme: *Global Product Development*
The fourth in a series of conferences intended to be held every two years in India. Some topics are: Design Theory and Research Methodology, Eco-Design and Design for Sustainability.
www.icord13.iitm.ac.in

23–25 JANUARY
9th International Conference on Environmental, Cultural, Economic and Social Sustainability
HIROSHIMA, JAPAN
This interdisciplinary conference is for scholars, teachers, and practitioners who share an interest in sustainability in an holistic perspective.
onsustainability.com/conference-2013

5–7 FEBRUARY
Smart Design Conference 2013
SYDNEY, AUSTRALIA
Smart Design will bring together researchers and practitioners to discuss issues and share findings in the areas of design, materials and technology.
www.uws.edu.au/hca/school_of_humanities_and_communication_arts/events/smart_design_conference_2013

6–7 FEBRUARY
First International Symposium for Creative Pattern Cutting
HUDDERSFIELD, UK
About creative pattern cutting within contemporary fashion
www.hud.ac.uk

6–8 FEBRUARY
IESS 1.3
PORTO, PORTUGAL
The 4th International Conference on *Exploring Service Science*.
Topics include: Human concerns in service design, engineering and management etc.
www.paginas.fe.up.pt

20–22 FEBRUARY
5th International Conference on Sustainable Construction and Design
GHENT, BELGIUM
About the interaction between academic research and industrial applications, aiming to create a platform where today's research developments meet tomorrow's end users.
www.scad.ugent.be

21 FEBRUARY
Research Prototype Workshop
GHENT, BELGIUM
The workshop is a part of the fifth conference on Sustainable Construction and Design (SCAD'13).
www.industrialdesigncenter.be/researchprototypes

6–8 MARCH
Seventh International Conference on Design Principles and Practices
CHIBA, JAPAN
Theme: *Enthusiasm*. Evan design professionals must adapt to circumstances. How are designers and researchers enthusiastic about design?
http://designprinciplesandpractices.com

8–12 APRIL
ICDE 2013
BRISBANE, AUSTRALIA
The conference addresses research issues in designing, building, managing, and evaluating advanced data-intensive systems and applications etc.
www.icde2013.org

9–10 APRIL
9th SIDeR Conference
AARHUS, DENMARK
Theme: *Empowering Interactions*.
Interaction design is now pervasive in all areas of life and there are few activities that are not in some way augmented, supported or even made possible by information technology.
sider2013.au.dk

15–16 APRIL
Ergonomics and Human Factors 2013
CAMBRIDGE, UK
This conference covers multiple sectors where ergonomics and human factors are studied and applied.
www.ehf2013.org.uk

17–19 APRIL
Crafting the Future
GOTHENBURG, SWEDEN
10th Conference of the European Academy of Design. Theme: *Designer's practice knowledge*. How can the specific knowledge of designers be made visible and be understood and used in contexts like innovation, business development and social change?
www.craftingthefuture.se

18–19 APRIL
2013 Design Business and Service Conference
ROME, ITALY
Theme: *Design(ing) Business and Services*. The aim is to develop the necessary discourses around designing in the contexts of business, services and management.
www.dbs-2013.com

27 APRIL–2 MAJ
CHI 2013
PARIS, FRANCE
The Conference on Human Factors in Computing Systems, CHI 2013, is about changing perspectives. This year's conference has made special efforts to serve communities in the areas of: design, user experience etc.
http://chi2013.acm.org/

30 APRIL
agIdeas 2013
MELBOURNE, AUSTRALIA
agIdeas 2013, Research Conference, Design for Business. Issues that might be addressed include branding, industry-competitive design research, value-driven design research etc.
www.agideas.net/coming-event

14–17 MAY
DRS CUMULUS Oslo 2013
OSLO, NORWAY
The 2nd International Conference for Design Education Researchers is a springboard for sharing concepts about design education research.
www.hioa.no/DRScumulus

15–16 MAY
Product Design + Innovation 2013
LONDON, UK
The third Product Design + Innovation conference will explore how product design can drive economic growth. This conference is specifically for industrial designers.
www.pdesigni.com

15–18 MAY
CAADRIA 2013
SINGAPORE
18th International Conference of the Association Computer-Aided Architectural Design Research in Asia
Theme: *Open Systems (in Practice)* and the topic is interdisciplinary computational design research, including for example collaborative design and user participation in design.
www.caadria2013.org

22–23 MAY
Knowing (by) Designing
BRUSSELS, BELGIUM
The conference "strives to explore the developments in research around creative practices – focusing on architecture, design, arts and music."
http://bydesigning.net

29 MAY–1 JUNE
EDRA44Providence
PROVIDENCE, RI, USA
Theme: *Healthy + Healing Places*. The architecture of settlements, landscapes, buildings, and interiors is sensual, influencing our physical, social and emotional health – be it for good or ill.
www.edra.org/content/edra44providence

5–9 JUNE
CUMULUS
KALMAR, SWEDEN
Theme: *Global Thinking - Local Action – Future Life.* A Cumulus conference is being held in Sweden for the first time, at Linnaeus University in Kalmar. Keep updated about the programme of lectures and workshops at:
www.cumuluskalmar2013.org

9–13 JUNE
Nordes '13
COPENHAGEN, DENMARK
MALMOE, SWEDEN
The fifth Nordic Design Research Conference. Theme: *Experiments in Design Research: Expressions, Knowledge, Critique*. Nordes 2013 invites designers and design researchers to explore the many aspects of design research as experimental practice.
www.nordes.org

17–20 JUNE
ACM Creativity and Cognition 2013
SYDNEY, AUSTRALIA
Theme: *Intersections and Interactions.* General topics may include the study of creativity in an individual, in a group or a team, or in a particular cultural context.
www.cc13.creativityandcognition.com

18–20 JUNE
PIN-C
LAHTI, FINLAND
Theme: *Participation as Performance*. The 3rd Participatory Innovation Conference, PIN-C, will bring together researchers, artists, designers and practitioners. It combines theories and methods across academic fields that describe how people outside an organisation can contribute to its innovation.
www.lut.fi/en/pin-c2013/Pages/Default.aspx

2–3 JULY
Include Asia 2013
HONG KONG, CHINA
The 2013 International Conference
Theme: *Global Challenges and Local Solutions in Inclusive Design.* Include Asia 2013 marks a major international departure for the Include series after six success-ful conferences in London. Now in Hong Kong during Design Week 2013.
www.hhc.rca.ac.uk/4989/all/1/include-2013.aspx

1–3 JULY
ISDRC19 2013
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The 19th Annual International Sustainable Development Research Conference aims to promote dialogue of a high quality, building bridges between different research communities, and between research and its applications in society.
www.isdrc19.co.za

3–5 JULY
2013 Design 4 Health Conference
SHEFFIELD, UK
This conference seeks to explore the relationship between design, and health and wellbeing. Good design can deliver widespread benefits to society but how can design practice and processes meet the challenges of health and wellbeing in the 21st Century?
www.design4health.org.uk

4–5 JULY
EKSIG 2013
LOUGHBOROUGH, UK
Theme: *Knowing Inside Out*.
EKSIG (Experiential Knowledge, Expertise And Connoisseurship) is set up by the Design Research Society (DRS) and invites contributions from design, architecture, engineering, craft, music, fine art, curation, philosophy, knowledge management, education, health, cognitive science, gastronomy, professional practice and research etc
www.experientialknowledge.org

Design can help prevent mental health at work

Although mental ill health is so widespread, we seldom do anything about it. A lot of whispering goes on and many people are afraid to be open about their own experiences, not least at the workplace. Did you know that mental health conditions are the most common cause of long-term sickness absence? According to statistics from the Swedish Social Insurance Agency, mental health conditions are involved in four of the five most common diagnoses which lead to sickness absence. However, there is also a lot of knowledge about what we need to do in order to prevent people taking sick leave due to mental ill health at the workplace. The knowledge is there but how can we use it?

I work with these issues on a daily basis as part of the Hjärnkoll project. Over this past summer we have tested new ways of using the knowledge we possess. We also entered into an exciting partnership with the Swedish Industrial Design Foundation (SVID), Previa [a major provider of health care, work environment, and rehabilitation services to Swedish companies and organisations] and Swedbank. The concept is called "Sommardesignkontor" (Summer Design Office) and gave a number of students the opportunity to use design methodology to work on issues concerning how to prevent people taking sick leave due to mental ill health resulting from work-related factors. Not exactly a small task.

The design methodology turned out to be an exciting and rewarding method of developing an idea into a service. The three students, Disa Reutersvärd, Max Unestål-Ortlieb and Maria Björlund, threw themselves into the work with unbelievable energy and enthusiasm. They had seven weeks to do the job. Their first proposal was a box. A first aid box for psychological well-being (see photo). Something for employers to place by the photocopier or the toilets. A first aid box with concrete advice for colleagues and bosses as to what they should do to support colleagues who are in the risk zone. A creative proposal which can encompass all the existing knowledge on this topic.

In my view, the clearest benefit of design methodology is its focus on the end users of the product. Users' actual needs are surveyed at an early stage of the project and then used as the basis for ideas. A more traditional approach might have been to compile the existing knowledge in an academic paper, hope that someone reads it, and then pray silently for change. Instead we now have a product concept and we can invite other players to participate. Are there any manufacturers who perceive a potential future market? What do companies and public-sector organisations think about raising issues of mental health with their employees? And what potential do occupational health care services see to develop their offerings in order to reinforce psychological well-being at the country's workplaces? We are already seeing a lot of interest from many directions.

It has been rewarding to see that design opens up possibilities of finding new solutions, and also that it is possible to use relatively simple and self-evident concepts to create the circumstances in which to address complex and challenging issues. This has given us new perspectives on our work and made us eager to do more. I hope that a first aid box like this one can help lead to discussions about mental health and can raise our readiness for action in our encounter with ourselves or with our colleagues who are in the risk zone of taking sick leave. It is the encounters between people which lead to change. We all need to dare to ask questions and remain as active participants in such encounters. This creates the foundation for a different society in which participation in working life is not just dependent on unceasing performance.

Rickard Bracken

Rickard Bracken is a project manager of Hjärnkoll, a national Swedish campaign being run by the Swedish Agency for Disability Policy Coordination (Handisam) at the mandate of the Swedish government. The goal is to increase knowledge about and reduce negative attitudes to mental ill health.

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