DIA LO GUES

FOR SUSTAINABLE DESIGN AND ART PEDAGOGY
THE AH-DESIGN PROJECT

KIRSI NIINIMÄKI & MIRA KALLIO-TAVIN (EDITORS)

A! Aalto University

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NEW APPROACHES
EMPATHY

EXHIBITIONS

INTRO
DUCTION

MIRA KALLIO-TAVIN, HENNA HARRI & KIRSI NIINIMÄKI

AH-DESIGN: THE TANGO PROJECT

Participatory design and accessible exhibitions have played an essential role in the fields of fine art and design for a long time. In the two-year AH-DEsign Accessible and Sustainable Design project involving three European universities, we wanted to rethink those important efforts from the perspective of everyday life and various stakeholders and audiences.

New approaches were tested, developed for, and displayed in three TANGO exhibitions (TANGO=Towards A New interGenerational Openness) organised as part of the project in Nantes (FR), Milan (IT) and Helsinki (FI) during the spring of 2013. This book is the final publication of the project, offering further discussion of the ideas and processes raised during the past two years. The AH-DEsign project was funded in collaboration with the European Commission Culture programme, and between the leading Aalto University, and partners Politecnico di Milano and L'École de design Nantes Atlantique.

Contemporary design and up-to-date perspectives on exhibitions place humans in the centre of the processes. The methods of participatory design and radical art pedagogy have over the recent years had similarities in their views of different publics and stakeholders. Pedagogical approaches have been found to be meaningful and informative in the AH-DEsign project, because here human-centred design and accessible exhibitions are understood to be crucially important. They are in fact so important that we can even talk about an educational turn in design. Engaging users as co-designers is not a new approach to design practices. However, it becomes a new approach when the pedagogical perspectives are well acknowledged. While participatory design looks at the process as something that gathers information from people to aid the design process, educational approaches are concerned with the learning and engagement of the participants, and with eventually revealing something new either for or with the participants.

The AH-DESign project offered a great opportunity to bring participatory design and art education together in the shape of different workshops and interventions with local communities. In the travelling TANGO exhibition, the solutions were developed even further by collaboration with the same and other people in the exhibition context. Bringing together the different fields was thus the core of the project. Students in the three different universities played a key role in defining what participatory design and accessibility in education and curating could mean.

It was not only the three countries and universities that took part in the dialogue in the project. Collaboration took place with local communities, individuals and stakeholders, such as school pupils and their grandparents, and also with local cultural partners, such as museums. Within the universities the process offered quite unique and new kinds of dialogue between different degree programmes. For example, at Aalto University, the three Master's programmes, Art Education, Curating, Managing and Mediating Art (CUMMA) and Creative Sustainability (CS), worked on the project together from its beginning. In the student-orientated culture of the university, the skills of working in groups, conversation and learning by doing are central. In taking part in the AH-DESign project, the students had the opportunity to practise their skills in cross-disciplinary and international teams. Communication with students in other professional fields was eye

opening, and they discovered how ways of thinking can change in radical ways when several fields of expertise collide.

The articles in this book concentrate on the six study courses that were held, two in each university, during the two-year project. The overlapping themes and contents within all of the courses dealt with social and environmental sustainability and intergenerational situations in the context of participatory or co-design. Four of these study courses were dedicated to participatory design processes, such as ageing and empathy, system design, urban design, communities and intergenerational accessibility. In all of them, the students were involved with local communities and surroundings, finding ways to discuss everyday realities with stakeholders in the three cities: Nantes, Milan and Helsinki.

The fifth study course, held in Nantes, dealt with the graphic design of the TANGO exhibition catalogue and the publication at hand, while the sixth, in Helsinki, explored audience approaches and accessibility to all generations of all three exhibitions.

This publication tells the stories behind the collaborative processes during the AH-DESign project. It presents the experimentations and learning outcomes from Nantes, Milan and Helsinki. The book offers an introduction to how participatory design, art pedagogy, and curating and mediating these materials can be seen as outcomes of the educational

turn in design, and thereby offers new approaches to all three fields: design, art education and curating. The book also introduces a better understanding of the phenomena of everyday life and their relationship to design, and how culturally contextualised and embedded they are.

The first section, Dialogue, starts with the chapter, 'Dialogue and participation in a good neighbourhood' by Kirsi Niinimäki, which delineates the learning outcomes of the course, 'Repicturing the Suburban Neighbourhood' in Kannelmäki, Helsinki, in spring 2012. This chapter discusses intergenerational dialogue, good everyday living in a neighbourhood and the meaning of people's own participation in social wellbeing. The participating students describe their learning processes and experiments in the Kannelmäki neighbourhood. Malin Bäckman's participatory experiments connect to her Master's thesis for the Creative Sustainability MA programme in Aalto University. In their text, Claudio Sarcì, Alberto Aprea and Solene Constant open up a system design concept for peoples' own activity in their neighbourhood. Tuula Mäkiniemi describes a one-week experiment with the moving café 'the Cube' and how design experimentation can create meaningful dialogue. In their article, Elisa Bacchetti, Marie Paquier Le Thiec, Marie Serrano and Swanny Serrand explain a design concept to increase communication opportunities in the Kannelmäki area.

The sustainability section starts with Carlo Vezzoli's chapter 'System Design for Inclusion and Sustainability' and the theme is deepened by the empirical article, 'System Design for Sustainability and Inclusion, Methods and Experiences from TANGO Milan Project' by Carlo Vezzoli and Elisa Bacchetti. Marisa Galbiati, Mariana Ciancia, Francesca Piredda and Carlo Vezzoli describe their experimentation around communication with audiovisual tools in the TANGO exhibition in Milan in the article 'Integrating Audiovisual Communication into System Design for Sustainability'. Kirsi Niinimäki, Henri Halla-aho and Inka Saini explain some principles for sustainable exhibition planning and further open up the exhibition concepts for the TANGO exhibitions in Nantes and Helsinki in their chapter, 'Lightness, Layers, Locality: A Sustainable Exhibition Concept for Nantes and Helsinki'. In the Article 'Environmentally Sustainable Exhibition for Design Schools', Carlo Vezzoli and Alberto Aprea explain their design ideas for a sustainable exhibition system. Geneviève Correia, Matthias Rischewski and Nathalie Templier tell the design story behind this book in their piece, 'Designing the Experience Report in a Sustainable Way'.

The empathy section concentrates on the Nantes experience, starting with an article, 'Designing with Emotions: Empiric or Empathic' where Janne Salovaara reflects on his learning outcomes from the course

'TANGO Scenarios – Prototyping Empathy for Ageing and Intergenerational Design' in Nantes, spring 2012. Thereafter, Ben Walker explains how the traditional functional design-driven approaches based on engineered solutions are not suitable when approaching intergenerational design challenges. He describes how to use a set of 'soft tools' to gain deep understandings and design insights into the subject area in his article, 'Soft Tools for Strong Design'. Nathalie Ciprian writes about empathy in her chapter ,'Considerations when Building up Empathic Design Tools: Long Term Changes of Mindset'.

The exhibitions section includes articles which open up perspectives into art pedagogy and art curating in the context of design. Nora Sternfeld's text, 'Exhibition as a Space for Agency' describes intersections where new design approaches, social and participatory design processes are presented in an exhibition context, and further, how educational and curatorial practices have changed against this background. Mira Kallio-Tavin and Carlo Vezzoli introduce the idea of exhibitions encountering pedagogy as a method for embedded and sustainable design systems, where people are heard and where listening is part of the design process. Jenni Nurmenniemi, Toni Ledentsa and Suvi Saloniemi discuss in their text the curatorial process behind the TANGO exhibitions. Minna Nyqvist, Iida Jääskeläinen, Tuuli Rouhiainen, Pinja Heininen and Elina Gyldén describe approaches involving accessibility and

audience work in their chapter. They also outline their experiences during the 'Intergenerational Accessibility in a Sustainable Exhibition' course. Finally, the TANGO exhibitions in Nantes, Milan and Helsinki are presented through interviews conducted by Minna Nyqvist.

This book is a story of a process in making, which was a richly joint endeavour where three different working cultures, different understandings and many fields of expertise were in constant dialogue in order to find a common and still complex ground, where everyone could learn more and understand what exactly we were striving towards together. This togetherness was not always easy, but it was eventually very rewarding for all involved. We hope that this uneasiness will show up in this book as a kind of graininess that will depict the multiplicity and polyphonicity that this kind of international project can generate at best.

We wish to thank all of the partnering universities, the tutors, students, collaborative partners and all of the stakeholders and members of the public involved in the process. It has been an inspiring journey! As one of our partners, Nathalie Ciprian from Nantes, says: 'Taking risks as programme builders, teachers and designers in a shared framework helped us to strongly structure experiments and give us more confidence after improving our own theoretical references. We will surely continue to push students to improve their processes. And let's TANGO again!'

UNIVERSITIES: AALTO UNIVERSITY SCHOOL OF ARTS, DESIGN AND ARCHITECTURE

Aalto University School of Arts, Design and Architecture
is an institution of higher education for design, media, architecture,
motion picture, art education and art. Our human-centred approach
forms the basis for all our teaching and research activities.
We emphasise practicality and good design that help create better
and more sustainable living environments.
We continue the internationally renowned expertise created by our predecessors
by being a strong and an active international player. Our operations
are based on international and interdisciplinary teaching and research,
and we are pioneers in our artistic endeavours. Our community consists
of 2,500 degree students, 355 doctoral students and 515 staff members.
The school's graduates are leading professionals and reformers in art, design
and architecture with demanding artistic, technical and professional skills.

THE DEPARTMENT OF ART

The tasks of the Department of Art are research into contemporary art and art education and the provision of research-based graduate and post-graduate training of art pedagogues and professionals and experts in contemporary art.

THE PROGRAMME OF ART EDUCATION

The main subject in the Degree Programme in Art Education is visual culture education. In the degree programme, visual culture is approached through the viewpoints of art, pedagogy and research.

THE PROGRAMME IN CURATING, MANAGING AND MEDIATING ART

CUMMA (Curating, Managing and Mediating Art) provides a structure for reflection and acting, learning and organizing in art institutions and the public sphere.

THE DEPARTMENT OF DESIGN

The Department's degree programmes prepare students for working as experts in design leadership, designers working for industry, commerce, cultural institutions or the media, entrepreneurs or researchers.

THE PROGRAMME OF CREATIVE SUSTAINABILITY

The international Master's Degree Programme in Creative Sustainability (CS) is a joint programme at School of Arts, Design and Architecture, School of Business and School of Engineering. The CS programme is a multidisciplinary learning platform in the fields of architecture, business, design, landscape planning, real estate and urban planning.

TEACHERS AND RESEARCHERS INVOLVED IN THE PROJECT

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EXHIBITION TEAM MEMBERS

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Spatial Design Student Inka Saini
Graphic Designer Marion Robinson

UNIVERSITIES: L'ÉCOLE DE DESIGN NANTES ATLANTIQUE

L'École de design Nantes Atlantique is a private institution
for higher education dedicated to design professions, supported by the
Chamber of Commerce and Industry of Nantes–Saint Nazaire (France).

Our activities revolve around 4 main values that lay the foundations
of our vision of design:
- the recognition of creative workers as true professionals
- the promotion of design as a strong economic asset
- design as an innovation-generating process
- fostering a type of design that tackles social, economic
  and environmental issues in a responsible way
Therefore, our teaching activities are based on numerous exchanges
between education, research and the business world, thanks to closely-knit
ties with the industry.

A VARIETY OF COURSES & TEACHING METHODS

Teaching design via standard courses, workstudy courses and continuing education:
- Master's Degree in design certified by the French Ministry of Higher Education; postgraduate courses are organized around topic oriented MDes programs focusing on contemporary social and economic issues, with possible double degrees
- Work-study learning run by the Vocational Training Center
- Continuing education

STRONGS LINKS WITH THE BUSINESS WORLD

Our institution also provides business services and puts much effort into promoting design. Four Centers for Design & Innovation gathers experimental Design Labs, MDes programs and seeding of innovative projects.

LOCALLY COMMITTED, GLOBALLY CONNECTED

L'École de design Nantes Atlantique was founded in 1988 and has been located on the Atlanpole La Chantrerie technological campus in Nantes (France) since 1998. The only institution of its kind in Western France, our school has been following an international, outward-looking policy:
- internationalization of the courses
- international development: 'Asia Campus' in Shanghai (China) and Bangalore (India)

L'École de design Nantes Atlantique is a member of a wide variety of professional organizations and academic networks such as Cumulus.

TEACHING STAFF

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UNIVERSITIES: POLITECNICO DI MILANO

Founded in 1863, Politecnico di Milano university is supported
by an outstanding tradition and by a strong commitment to innovation.
The university has around 1200 permanent professors and 40000 students.
Within the university, different structures work in design and innovation:
the Design Department focused on research, the Design School (member
of Cumulus, BEDA, Icograda and ICSID) focused on education.

In 1993 Milan, with its Politecnico, became the elective birthplace of the
Degree Course in Industrial Design, the first of its kind in Italy. The Politecnico
is a place of avant-garde training, a meeting point of different cultures. It links
architectural and artistic studies, with their creativity and focus on form,
to technical, scientific and engineering studies. In addition, this university
is noteworthy for its longstanding dialogue with the great entrepreneurial
management tradition of small and medium enterprises which enrich
the territory of Lombardy and of Italy in general.

The history of the Degree Course in Industrial Design – Design Faculty
since June 2000 and now the Design School – is characterized by its constant
desire to experiment innovative, experimental development lines that respond
to the real market needs of contemporary society.

The Design School in the Politecnico di Milano is today the largest international
university for the training of product, communication, interior and fashion
designers, both by number of students and of teaching staff.

Within the Design department is active the Design and system Innovation for Sustainability (DIS) research unit leaded by prof. Carlo Vezzoli, focusing its research and educational efforts since nearly 20 years on both product design for environmental sustainability, design for eco-efficient Product-Service System and system design for social equity and cohesion.

TEACHERS AND RESEARCHERS INVOLVED IN THE PROJECT

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NEW APPROACHES: DIALOGUE

KIRSI NIINIMÄKI

DIALOGUE AND PARTICIPATION IN A GOOD NEIGHBOURHOOD

This chapter discusses collaborative learning outcomes in the context of social wellbeing. The learning process focuses on intergenerational dialogue, good everyday living in a neighbourhood and the meaning of people's own participation in social wellbeing. Active dialogue means people's own participation in neighbourhood activities and leads to the feeling of a good neighbourhood and further to social wellbeing.

The empirical part of this text is based on materials and activities from the 'Repicturing the Suburban Neighbourhood' course, which was organised in May 2012 in Kannelmäki, Helsinki. While the course approached the rather abstract issue of social wellbeing in a neighbourhood, collaborative and explorative learning methods were used. The other empirical part was a WDC workshop called 'Helsinki Stories', which organised at the WDC Pavilion on 19 June 2012. The workshop collected stories and notes about good neighbourhoods and was open to all residents. In additional, participants were asked to draw their own neighbourhood area. The empirical element creates the foundation for a theoretical discussion about social wellbeing.

The chapter begins by explaining the notion of a good neighbourhood and further describing how residents' participation creates interaction and dialogue which leads to social wellbeing. Next is discussed collaborative and explorative learning process in a social wellbeing context and how design can create dialogue through experimentation in a neighbourhood area.

THE NEIGHBOURHOOD AREA

The definition of a neighbourhood and its extent varies. While interviewing inhabitants in Kannelmäki and the WDC Pavilion the definition for the concept 'neighbourhood' varied from one's own house (block of flats) to the block or even a larger area. Kannelmäki inhabitants talked about their own neighbourhood in the following ways:

Well mostly … I live in a block of flats so the people from your own stairwell. I think that neighbourhood is like (- -) those who live in the same building.

For me it means the area where I live, the closest quarters and the houses that are closest to my home. And also it can mean my old neighbourhood, where I used to live with my parents.

The area definition for neighbourhood varies depending on whom you are talking with. One student from the 'Repicturing the Suburban Neighbourhood' course explained that the neighbourhood can be anything from a limited to a somewhat wide areal depending on whom you are talking to.

For me, the idea of my own 'neighbourhood' changes depending on whom I'm talking with. If it is with someone familiar with the area, I might speak about a very small portion of a specific area as my neighbourhood. But if it is with someone from another city, I might speak about the larger general area as my neighbourhood. This variability is reflected in responses from some Kannelmäki residents. Sometimes people associate the staircase within their own block of flats with the word 'neighbourhood', while other times they refer to all of Kannelmäki as their 'neighbourhood'.

While going through neighbourhood drawings from the 'Helsinki Stories' workshop, it is quite obvious that we understand neighbourhood in a totally multi-layered way; for some it is just their own house (one small spot in Helsinki) while for others it might even incorporate complicated connections between different individually important places in Helsinki. These places can be, for example, green areas in Helsinki and they might be connected with some aspect of action, for example cycling.

NEIGHBOURHOOD AND ACTION

The neighbourhood is much more than a static stage, a house full of people or a block full of houses. It includes the level of action: knowing each other but also chatting and doing things together and at best sharing with and caring for each other. For a good neighbourhood, this action level is most relevant. A good neighbourhood is not a passive situation but an active stage, and it requires the inhabitants' own participation. According to Wenger (1998, 72-75) a community of practice includes the aspects of action

and commitment, and therefore it is important to understand that although the neighbourhood is often referred to as a community, without the action aspect it is not a community, and just stays as a place. Below are some quotations from interviews with Kannelmäki inhabitants.

I live in this building where there are mostly older people and we have all kinds of happenings of our own. For example we have this kind of card game club, it is on Saturdays, Sundays and Mondays. I am, for example, about to go and play again, and this describes precisely how we do all sorts of things together within this community and we care for one another. We care if someone has, for example, not been seen for a while: we go to knock on the door or then we contact someone who has the key to the apartment. So we do not, we do not forget.

During the summer, but not that much during the winter, I am not so much at home, but then when I am then we are always with the neighbours ... now and then we even get drunk together. With one woman we 'make the world a better place' in the garden. And then we have these community efforts (talkoot) and afterwards we have these evening get togethers, and have in that way quite a lot to do with each other. There is help from the neighbours, and sometimes you go to borrow something, A: sugar, B: tongs, so like that ...

Engagement and commitment are needed for belonging and social coherence. Community of practice

is a network where mutual engagement is working (WENGER 1998). Participation in actions in your own neighbourhood creates belonging and care towards the area and further participation changes your own understanding of yourself and your own identity. A person begins to be an active and responsible citizen and a member of the community. Artist Kaisa Salmi (GRONOW 2012) speaks of an example: while she was creating artwork in the centre of Helsinki young people tried to destroy the work. When she asked the young people to help her to construct the work, the attitude changed; young people begun to protect the work. Responsibility and care towards the area are created through people's own actions and own participation, and through these actions the neighbourhood begins to be a nicer and safer place in which to live.

SOCIAL WELLBEING IN A GOOD NEIGHBOURHOOD

Wellbeing can be divided into at least two different levels: an individual's own capacities and their own identity with regard to community. While the students were constructing their understanding of social wellbeing, they separated these two areas. They understood that your own individual identity issues and own wellbeing represent one part of social wellbeing, the other being your connection to the community.

Intergenerational meeting in Kannelmäki Cultural Center.

One student separated social wellbeing into three different areas. One was the community aspect, including sharing knowledge, experiences and skills and this needs solidarity and empathy towards others. The second area is identity, which includes a person's skills, capacities and memories. The third is local development, which includes aspects of social cohesion and mutual respect. This knowledge that interactions and social relationships are quite fundamental for social wellbeing was presented in the form of posters at the workshop in Kannelmäki.

One student described social wellbeing in the suburban area in the following way:

The suburbs are full of people from different cultures and at the same time lacks meeting places where it is possible to share personal experiences and knowledge. Social wellbeing means ensuring that the residents have a sense of security and of belonging to the place where they live. This goal may be pursued by promoting initiatives for interaction between people and sharing knowledge linked to different cultures.

The feeling of social integration grows from trust and the feeling that people are living in a safe neighbourhood (KEYS 1998). People who feel socially integrated volunteer to maintain their neighbourhood and therefore their own commitment, engagement and participation lead to feeling that they are living in a nice and safe neighbourhood. Inhabitants feel that their actions are meaningful to the neighbourhood, and furthermore these attitudes and actions lead to social wellbeing. The feeling of belonging to the community and neighbourhood is important for one's own mental health. 'Healthy individuals feel that they are a part of society' (KEYS 1998, 122). Therefore people's own participation, and own activities are the most important factors for inhabitants' attitude towards the area, the image of a good neighbourhood and further to their own mental health and social wellbeing.

LEARNING PROCESSES IN A SOCIAL WELLBEING CONTEXT

While the design students were approaching social wellbeing in a neighbourhood area during the course, one primary aspect was that the learning and experimentation have to happen in a real life context outside the university building. The intensive workshop was organised in the middle of the suburban area of Kannelmäki as a simultaneous open workshop and exhibition. In this way, the designers' learning process

was open towards the community and interactions with local inhabitants were possible. Moreover, the students were surrounded by the real context on which they were working. The teaching method involved collaborative and exploratory learning. Collaborative learning happens in a small group: in a framed cognitive community and through problem solving it aims for shared knowledge and understanding (HÄKKINEN & ARVAJA 1999). In the centre of collaborative learning is the idea that through common actions, new knowledge and shared deep understanding of the problem areas are created together (SOINI 2001). Exploratory learning processes aim to understand the problem more deeply and additionally use descriptive explanations of the phenomena under study. Exploratory learning processes happen through collaborative information gathering and shared expertise (HAKKARAINEN ET AL. 1999).

Hakkarainen et al. (1999) argue that this kind of learning process can be experimental, and further experimentation can start before all information from the problem under focus is gathered. The understanding process deepens gradually and dynamically from inaccurate questions through collaborative learning to deeper understanding and finally the creation of new knowledge (HAKKARAINEN ET AL. 1999). The end results can be unique processes and deep sharing of meanings (HÄKKINEN & ARVAJA 1999). Through open and experimental way of working, it is possible to involve the inhabitants

in this dynamic learning process. In this way it is possible to create open dialogue. Local inhabitants bring their insights from the area, their experiences and emotions connected to this suburban area. The cognitive diversity of participants and their different expertises enrich and deepen the collaborative learning process (BROWN & CAMPIONE 1994). It is most important to include inhabitants' insights in the design process, because inhabitants are the experts on this particular area. Without this insight and knowledge, the designers might define the problem inaccurately and work at a rather shallow level. A good example that can be drawn from this is that the students' understanding of the area totally changed after interviewing the inhabitants. On the surface, the area looks unpleasant and restless. Based on the inhabitants' insight and knowledge, the area's potential was identified and the inhabitants' satisfaction with the area was understood. It was also possible to define and frame the problematic levels and areas after discussion with the locals.

During the intensive workshop week, student groups created their own understanding of the area, its inhabitants and the problem areas through collaborative and deliberative interaction (HÄKKINEN & ARVAJA 1999). Based on this shared understanding, they created their own design task and goals for their design brief. The real life context and local inhabitants had a strong impact on how this design brief was formulated. Based on cognitive diversity and through open

and participatory working, collaborative and explorative learning resulted in new understandings of social wellbeing and the concept of a good neighbourhood. Design ideas were tested and feedback was gathered from the inhabitants. Step by step, understanding was deepened and design cases were refined.

DIALOGUE THROUGH DESIGN EXPERIMENTATION

The main challenge in this particular area was defined to be low intergenerational interaction and furthermore the inhabitants' low individual activity. This leads to a situation where the locals feel disconnected from the area and the area does not feel like a cosy and safe place in which to live. The feeling of weak regional cohesion is connected to the inhabitants' low activity in participating in neighbourhood activities. Weak regional cohesion connects to low social wellbeing.

The area was observed and the locals were interviewed to map out opportunities to change the situation. Dialogue with inhabitants was encouraged through different activities and interventions. The dialogue was not only verbal but also visual; information was also gathered through drawings, and dialogue also happened through making art and many-levelled actions like block parties. Design interventions were undertaken in order to explore how

to create dialogue and how to increase inhabitants' own activity. Experiments on how to create small scale and grass roots level dialogues were performed and through these activities, not only was new knowledge created but also new and local opportunities for participation and dialogue were opened up.

Design should be as broad as possible, a design that is not limited by the mere presence of physical products, but that creates relationships between individuals, entities. This can be helped by creating services that enrich the experience limited by the products, or requiring the presence of other people to play out its full operations.
QUOTE FROM STUDENT'S POSTER

Design that creates dialogue which connects people and which increases a neighbourhood's potential has to be experimental and much more than a traditional product. It needs a system approach, collaborative learning and deep understanding of human interactions, emotions and needs in a social context. It requires an open design brief which enables understanding to develop and deepen throughout the learning process. Open dialogue then happens between students, and furthermore between students and inhabitants. Dialogue also happens between design and the neighbourhood when the design process is opened up towards the community. Open dialogue needs trust, interaction and an experimental mindset in order to succeed.

DISCUSSION

Becoming an active citizen needs a person's own activity and participation. Inhabitants' own participation creates dialogue and trust in each other. Active people create active neighbourhoods, and this implies social wellbeing. A good neighbourhood is an active, lively place. Through inhabitants' own activities, the neighbourhood begins to be a place of trust, joy, sharing and experimentation: a good everyday life with others, which increases people's social wellbeing.

When the design brief is open and the problem area is very abstract, it has to be approached through collaborative and experimental means. A good neighbourhood and social wellbeing were typically this kind of abstract and hard to reach design problem. These needed an open dialogue process between students and between students and local inhabitants. The method, involving collaborative and exploratory learning, resulted in interesting design briefs and experimentations, shared knowledge and deep understanding.

While aiming for participation and dialogue, designers can create processes, systems and moreover design experiments to collect insight and information, to include locals in the design process, and to test ideas and collect feedback. An understanding of the nature of a good neighbourhood

and the meaning of participation in social wellbeing were gained through exploring Kannelmäki using activities and experiments. Designers can work in a real life context and gain insights into problem areas as well as create opportunities to activate local people to increase social wellbeing through their own participation and open dialogue.

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MALIN BÄCKMAN

EXPLORING KANNELMÄKI

At the beginning of May 2012, the TANGO workshop, 'Repicturing Suburban Neighbourhood' was held in Kannelmäki, Helsinki. The workshop was held in the exhibition space of the cultural centre in Kannelmäki, where residents could follow the project. This text describes a series of initiatives I was involved in prior to and in relation to the Kannelmäki workshop, and are part of my Master's thesis project. All of the initiatives described in this text can be seen as efforts where people are brought together, but the main objective throughout the process has been to try out different methods and explore ways in which a designer can enter an area, how to get to know an area through the residents' opinions and ways in which to involve residents of an area in an open design process focusing on the liveability of the area.

OBSERVATION PHASE – GETTING A FIRST IMPRESSION OF KANNELMÄKI AREA
OCTOBER–NOVEMBER 2011

Within the observation phase we wanted to get a first impression of Kannelmäki, its strengths and weaknesses, and create the first connections with the local residents. We started out by visiting the area: during these visits we strolled around, taking pictures and making notes about what we encountered. By walking around and observing the surroundings at different times of day, it was quite easy to get a feel of the atmosphere of the area in addition to identifying where different services are situated and where the places that residents visit can be found. When starting the process, Kannelmäki was a very unfamiliar area to us, even though in many ways it resembles many other suburban areas in the Helsinki region. There is a train station around which there are a few shops, an old mall and a new shopping centre, there are a few different local schools, day care centres, nursing homes and a healthcare centre.

From the very beginning of the process, one main motivation was to get to know the residents' opinions about the area. The residents are the experts on their own living environment, so listening to their opinions made it much easier for us to understand the kind of problems and advantages that exist within the area. We started to ask simple questions to people in the streets; this was an easy way to create a

first encounter with the residents. In order to attract people's attention, and to make it easier to approach people in the streets, we printed out notes with questions. When people saw us attaching these notes, it felt more natural to approach them and pose them the same questions. We asked questions such as 'What do you think about Kannelmäki?' and 'Do you like it in Kannelmäki?'. The notes also served as a message to the residents, telling them that something is currently going on, someone is finding out what kind of a place Kannelmäki is to live in. The people we talked with seemed mostly satisfied with their living area, having the services they need in their daily life close to where they live, being able to easily access the city centre by train and business, and most people emphasised the importance of the green areas found in Kannelmäki. The majority of those we spoke with mentioned the restlessness in certain parts of the area in some way during the discussion, describing this as an unpleasant characteristic of Kannelmäki.

During the observation phase, we started to map different resources within the area, both in order to know what already exists, but also in order to find channels through which it would be possible to reach the local residents. Some of the resources, such as local associations, seemed to us to be both possible collaborators for later on in the process and conduits through which we could find active individuals who could help us to get to know the area. We found out that Kannelmäki had been one of the

target areas in a community development project called Caddies, which was mainly carried out during 2010 (see: http://kaupunginosat.net/caddies/archived/). We met one of the coordinators of the project, who provided us with information about previous initiatives in the area, in addition to a contact list of services and organisations found in Kannelmäki. The coordinator also gave us tips about certain active people in the area who it could be beneficial for us to get in touch with. The information provided through the previous project proved to be very beneficial for the continuation of this process.

Active local individuals can be referred to as 'key people': these individuals can be seen as important nodes in a social network and usually know how things in the area work. We met a few local key people who gave us their personal opinions about the area, in addition to further information about different initiatives being taken within the area, where people meet each other and the most important information channels in the area. We found out that one of the people we were advised to contact by the Caddies coordinator had been involved in developing a local webpage for Kannelmäki during the Caddies project and was now the editor of the page. Throughout the process, the events that were organised were advertised on the local webpage. In addition, other 'key people' were involved and consulted throughout the different stages described in this text, in various ways.

During the observation phase, I worked together with Aslihan Oguz, a design student who was involved in the Kannelmäki project.

SYÖ & KERRO – FINDING RESIDENTS' ATTITUDES TOWARDS THE NEIGHBOURHOOD EVENT 19.11.2011

Having gained first impressions about the area, its strengths and weaknesses, choosing a direction for the project required a more profound understanding of the residents' attitudes and desires towards their neighbourhood. We wanted to engage with the local residents and get an insight into their view of an ideal neighbourhood, while simultaneously learning more about their perceptions of their current living environment. We decided to set up an open event which was called 'Syö & Kerro', ('Eat and Tell'), dealing with the topic 'neighbourhood', where we would interview residents while serving soup. The event was also a way to let more people know about the on-going project, and to show the local residents that they had an opportunity to get involved and affect the direction of the process.

'Syö & Kerro' was set up during Restaurant Day, which is a food carnival where anyone can set up a restaurant for one day (see: http://www.restaurantday. org/). Restaurant day is a public event that first occurred in May 2011 and rapidly became popular and has been organised

several times since May 2011. The food carnival is one example of emerging grass-roots initiatives in Helsinki: it is a way to involve people in affecting their own living environment in a fun and easy way.

When setting up the event, issues such as the location, the timing, distribution of information prior to the event and how attitudes and opinions would be gathered during the event needed to be planned carefully. We chose to set up the event in the café of Kanneltalo, the cultural centre of Kannelmäki. Information about the event was distributed through posters and flyers and through a local webpage, and invitations were sent to local associations. Despite our efforts in spreading information prior to the event, we realised during the event that most of the participants were visiting the cultural centre for other reasons; only a few came because they had received an invitation or seen our posters.

During the event both people visiting the café and those who visited other parts of the building were asked to participate in our interview regarding the topic 'neighbourhood'. The interviews were semi-structured: we used pictures to facilitate discussion with the participants. We asked the interviewees to describe what the word 'neighbourhood' means to them, and to choose one picture that they associate with their ideal neighbourhood and one picture that they associate with their current neighbourhood. The pictures used during the interviews aimed at

helping the interviewees to associate to memories, emotions and attitudes about the neighbourhood and to get answers that resembled storytelling. People described 'neighbourhood' as both the area where they live and the people living there, with most of them placing strong emphasis on the neighbours. The ideal neighbourhood was often described as a place with good social contacts, where neighbours do things together, where nature is close, where you can find peace, but where you can go towards other people when you want to. The current neighbourhood was often described rather positively, in similar ways as people had described Kannelmäki during the observation phase, pointing out the good connections, services and green areas. Towards the end of the interviews, and in some cases when we had turned off the recorder, people mentioned negative points, such as the restlessness and untidiness in certain parts of Kannelmäki.

In addition to the interviews, we had notes to fill in, people were asked to mention one good thing and one bad thing about Kannelmäki, and they were also asked to describe Kannelmäki with one sentence. The question notes served as a way to collect input from those who did not want to, or did not have time to, participate in the interview. Because they contained only three simple questions, participating by filling in the question notes did not require much time or effort. The question notes yielded quite similar answers about Kannelmäki as did the interviews and the earlier discussions with people in the streets. The most reoccurring

Collecting ideas for amelioration of Kannelmäki.

negative aspect was the area around Sitratori, a square right in front of the cultural centre, next to the railway station.

The café in the cultural centre worked well as a venue for the event, as people were visiting the building throughout the day. People's attention was drawn when they noticed that something out of the ordinary was happening. The overall outcome of the event was successful, as we obtained valuable data that helped us further in the process.

The Syö & Kerro event was planned and carried through by Aslihan Oguz and me. We collaborated with Café Voilá in the Kannelmäki cultural centre. During the event, we were supported by Doctoral students, Tatu Marttila and Tjihen Liao, design student, Anja-Lisa Hirscher and architecture student, Niamh Ní Mhóráin.

GOOD EVERYDAY LIFE IN KANNELMÄKI – COLLECTING IDEAS ABOUT HOW TO IMPROVE A PROBLEMATIC AREA
WORKSHOP 4.2.2012

The area of Sitratori, which is situated by the railway station in Kannelmäki, in front of Kanneltalo, was frequently mentioned as being a restless and unpleasant area during discussions with local people. We chose to focus on Sitratori and to involve the local residents in thinking of how the area could be improved. The workshop, 'TANGO – Hyvän arjen Kannelmäki', was set up in Kanneltalo.

The participants were asked to share their ideas for amelioration by drawing and using collage techniques on top of black and white pictures representing

the area. People proposed ideas such as more cafés instead of bars, more flowers, street vendors and events. For those who were not eager to express themselves visually, we prepared question notes with three simple questions about the living environment and Sitratori. We asked the following questions: 'What kind of things in your living environment make you feel good?', 'What kind of things in your living environment bother you?' and 'Describe Sitratori with one sentence'. Here people often referred to other people and nature when answering the first question; people were mostly bothered about negative attitudes among other people and restlessness; while Sitratori was described both positively as a meeting place and negatively as an unpleasant area. The collage technique, which was used to describe ideas about how to ameliorate the area, was a quick and easy way for people to show their ideas visually. People could decide for themselves how much time and effort to put into the task, which lowered the barrier for people to participate. The possibility of leaving a written response served as a good alternative, as not all people were comfortable with expressing themselves visually.

Certain participants, especially the younger ones, enjoyed the task very much and stayed at the workshop point for quite a long time. Some of the participants discussed among themselves about the area, and exchanged opinions and ideas about the current situation and what could be done to improve it. The workshop served as a venue to bring people of different ages and with different backgrounds together to propose ideas for dealing with an issue of common concern. The workshop was planned and carried out by three art education students and me. The art education students, Saara Kähönen, Lotta Kauppi and Elisa Jablonowska, participated in setting up the workshop as a part of their Museum Pedagogy course.

POSTCARD PROJECT – CREATING CONNECTIONS THROUGH IMPORTANT PLACES IN THE NEIGHBOURHOOD
PROJECT MARCH–APRIL 2012

After the two events held in Kannelmäki, I decided that I wanted to do something outside the cultural centre and I wanted to connect with a group of people for a longer period of time. I contacted the art educator from Kannelmäen peruskoulu, the compulsory school, and we agreed that I would come every week for a five-week period of time during the art classes of a group of 13 year old pupils, to create a project where the students would be encouraged to reflect upon their living environment. I was interested in knowing what kind of places in the area are important for the residents of Kannelmäki and what kind of attachment they have to different places. I also wanted to create a connection between adolescents and older people living in Kannelmäki.

When I visited the class for the first time I told the students a little about myself, my approach to design and about my thesis project linked to the upcoming workshop. During the following lessons, the students created postcards of places in Kannelmäki that they found important. Each student chose a place in the area and then decided for themselves how to present the place in the postcard. Many of the pupils photographed the places they chose; others made drawings. The postcards were sent to elderly people living in the area. The students wrote on the back of the postcard about why they chose the particular places and how the place is important to them. Each card had a question, either regarding the chosen place or asking what place in Kannelmäki is important to the elderly person. Some of the students made two postcards, the second one for the elderly person to send back to the student.

Most of the cards were sent to people who are part of an association for retired people in Kannelmäki. During a visit to their weekly meeting, I collected addresses from those who were interested in participating. Some of the postcards still needed respondents, so I visited an old people's home in Kannelmäki. I talked a little about my project and the upcoming TANGO workshop in the cultural centre, and then we looked at the postcards the students had made. The seniors from the residential home responded to the postcards, while we also discussed how long they had been living in Kannelmäki, what they think
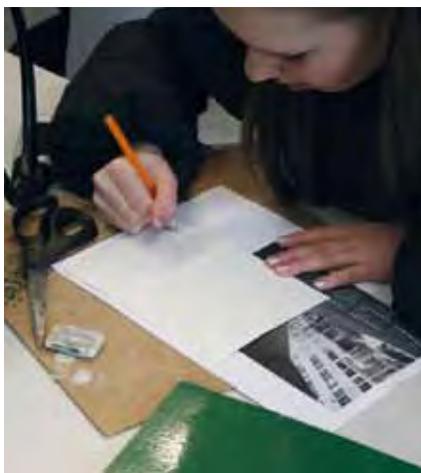
Postcard project.

about the area, which places are important and their memories related to the area.

Undertaking a project where I met the same group of people for several weeks gave me the opportunity to develop a more complex process than during the previous one-day workshops. Involving certain groups also meant that I could count on the people being there at the agreed time, in contrast to the one-day events, when there was no way of knowing beforehand how many people would arrive and who these people would be. At times it was challenging to work with the adolescents, getting them inspired about the project and creating a connection with them. Creating a connection with the school anyhow made it possible for me to reach teenagers who would most likely not have had any idea about the 'Repicturing the Suburban Neighbourhood' workshop.

Workshop & Exhibition in Kannelmäki cultural center.

REPICTURING THE SUBURBAN NEIGHBOURHOOD WORKSHOP & EXHIBITION
2.5.–8.5.2012

The 'Repicturing the Suburban Neighbourhood' workshop was held in Kanneltalo during one week at the beginning of May 2012. The data gathered before the workshop was exhibited during the workshop and served as background material for the students participating in the course. The workshop was run in an exhibition space, where the residents of Kannelmäki could follow the work. Exhibiting the data collected during the process was a way to show the residents what had been found out during the process: in this way, the findings could portray how the area is seen among those who had participated in the process. Displaying the findings was also a way to create discussion among the residents, to raise new questions and make them think about their living environment in new ways.

The postcard project was exhibited during the workshop week, and all of the students and elderly people who had been involved in the project were invited. Here the young and the elderly met for the first time and the students participating in the workshop had their first encounter with residents from Kannelmäki. The places chosen by the students were marked on a map attached to the wall, and the comments about these places were displayed. Those who visited the exhibition space during the workshop could add their own important places to the map and write comments about these places. In this way, a form of communication about the area among different people living in the area was created.

The exhibition was planned and constructed by Sandra Viña and Kirsi Niinimäki, who were teaching and coordinating the 'Repicturing the Suburban Neighbourhood' workshop, and me.

BLOCK PARTY – A PROPOSITION FOR HOW TO AMELIORATE THE EXISTING SITUATION
EVENT 5.5.2012

During the workshop week in May 2012, we organized a block party, at Sitratori, the square in front of the cultural centre. The event was a response to the data gathered within the previous steps. People talked about the neighbourhood, mostly referring to other people and about the importance of having the opportunity to interact with others when desired. They also talked about doing things together with their neighbours, and the ideal neighbourhood was described as a place where neighbours organise community efforts and parties together. People suggested that there should be events, markets and cafés at Sitratori instead of bars and drunken people. While acting as a proposition of how the area could be improved, the event also served as an occasion for the students participating in the workshop to get in contact with the residents.

During one of the art classes with the students from Kannelmäen peruskoulu involved in the postcard project, we created a short workshop to collect ideas for what could be done during the block party. The students proposed activities such as music, dance, games, bingo and a café for the event. Local actors and associations were invited to perform or organise activities during the day. A local band consisting of teenagers performed, an art therapist was in charge of a painting workshop which lasted throughout the day, a local association for retired people organised bingo, the library sold old books and the lady from the café in Kanneltalo had a coffee stand at Sitratori during the event.

We set up the event together with local people and associations as an example of how Sitratori could be made less hostile. It was a way to show that small initiatives can have an impact on how the living environment is experienced and that it is quite easy to make such an effort. The event demonstrated the possibility of using the space and making it more vivid and enjoyable. It also served as a way to get local people together around a common concern in a fun and positive way, while resources located within the area were highlighted. The event was visited by a wide variety of people: those who happened to pass by and stopped to watch the happenings for a while and others who took part in the activities, and some people knew about the event beforehand. Compared to the previously organised events, this event reached a broader audience. Since it did not take place inside the cultural centre, it was easier for those who would otherwise not participate in something organised in or by Kanneltalo to take part, since the threshold was lowered.

Block Party.

Those who were involved in organising the event had spread the word about it: in this way the information spreading was also more diverse than before the previous events. As the students from the local school had been involved in planning the event, they were invited and could see that some of their ideas had been realised. The immediate feedback from those involved in setting up the event, and those who visited Sitratori during the day, was very positive. People enjoyed the ambience, which was much more lively and friendly than is usually the case in this area.

The event was set up in collaboration with residents and organisations from Kannelmäki. The coordination and planning was undertaken by Kirsi Niinimäki, Sandra Viña, Henna Harri and me.

BENCHES – CREATING TOGETHER AND HIGHLIGHTING PLACES
MAY 2012

One day before the block party, students from Kannelmäen peruskoulu painted chairs at Sitratori. The chairs were then built into benches, and during the block party people were able to suggest where the benches should be placed. By painting the chairs on Sitratori, by-passers' attention was drawn and they could be

Painting the benches.

The benches in a forest.

told about the project and invited to the block party. People who would not normally go into Kanneltalo to see what is going on were reached while painting and building the benches. When the chairs were dry and I was building them into benches, I got useful advice about how to proceed by a few local people enjoying a Friday beer at Sitratori. This was the first time I had chatted with those who often hang out around Sitratori. This was a valuable connection and the next day some of the same people joined or followed the event at the square.

The benches were placed at a few different locations suggested by the locals as a way to highlight these places and to create possible meeting places and subjects for conversation. When creating the benches I started to think how benches created together with

local residents could more effectively become places where people could be brought together and where it would be possible for people to modify or leave messages in the physical meeting place. Reflecting further on these ideas, and after discussion with architecture student, Tuula Mäkiniemi, we created a mobile café called the Cube (Kuutio) which created temporary meeting places, collected messages from residents and left traces in the environment.

REFLECTION

Throughout the process, the main objective has been to find ways in which to involve the local residents in the process, to create something with them rather than for them. The process started out with an open approach, where we

wanted to get familiar with the area and understand its characteristics, involving the residents in an early phase of the process. Gradually the initiatives were focused in a certain direction: at times it was challenging to find the balance between how open or focused the approach should be. When involving local people in the process, it was important to explain clearly what the process was about. This was to some extent difficult, since we wanted to remain open and let the input from the residents guide the process. Another challenge was how to convince the local residents that we want to work with them and listen to their opinions, as they are the experts on the area.

The description of the process serves as a way to share these experiences with other designers interested in carrying out a participatory design process in a local context. The process described can also widen the understanding outside the design profession of the potential of using design to more actively involve people in improving their own living environment.

REFERENCES

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CLAUDIO SARCÌ, ALBERTO APREA & SOLÈNE CONSTANT

360°+5
SYSTEM DESIGN

360°+5 System Design is intended to activate people to create events in their own neighbourhood. The idea is based on crowd-sourcing and on the co-design method: collecting ideas from inhabitants, manipulating and using them as a starting point for structuring feasible activities to involve people, giving them a common goal and also offering them tools with which to realise those proposed ideas. The main goal of this service system is to build a sense of belonging to a community through people's own activity and participation, so that the environment is much more than just a neighbourhood. The neighbourhood begins to be an active place, a community of practice, including aspects of both action and commitment.

CO-DESIGNING
FOR KANNELMÄKI

The criterion chosen to start up the design process for the Kannelmäki suburb was one which facilitated a multi-level input path. The goal has been to include all of the actors in the system to take part and make their own personal contribution. The residents, the final users of the service, represent the core for information exchange. All information will be absorbed by this core, elaborated and fed back in order to make the project empathic with every intricate detail of the location and to design something for the place, in the place itself: this process is called 'co-design'.

GAINING A CONSCIOUSNESS
OF THE DISTRICT'S SPACES

The first phase has involved attempting to gain an idea of the distribution of spaces in the district: A pretty important step, especially for designers who are roaming around the suburb for the first time. This is intended to draft out the 'hot spots' of the place, from natural biodiversity and green areas, through the public transport network to the location of public facilities. This phase can be described in four steps:

1) walking around Kannelmäki
   district and taking a look at the
   streets and their junctions
2) taking pictures as snapshots of the
   district's architectural background
3) seeking out aggregation and meeting spots
4) analysing the behaviours of the
   people in and around these points

These steps are useful for gaining a consciousness of the district's spaces from a designer's point of view.

GAINING A CONSCIOUSNESS
OF THE DISTRICT'S INTERACTIONS

By this point, a quite definite idea of Kannelmäki's space distribution had been gathered, but the project was missing the local people's perspective on the place, in other words the way in which the residents see and live the places and also the way in which they experience the interactions among people and facilities, people and people (even of different ages) and people and events. Some of the following ways were used to collect the information needed, from direct interviews and drawings to simple observation. This phase can be listed in another four steps:
- written interviews answered
  by the inhabitants
- direct contact with the worlds
  of the elderly and youth
- interaction through events
- direct feedback to proposals

Some people were approached directly to answer questions and we visited some elderly people's residential facilities, youth gathering places and locations of intergenerational exchange to collect information. For the last two points we organised an event at which all of the attendees could play, draw and share experiences, and also could give some initial feedbacks

when indirectly asked about some activity proposals for the system.

RESULTS

By the end of this first part of the co-design process, we had achieved a global physical mapping of the Kannelmäki environment. In this way, the whole district was mapped, with its road network, river, railway line, green areas, public facilities, commercial services, Kanneltalo, cultivated areas, etc. Each feature included annotations of its positive features on one hand and improvable features on the other. This has been useful, as we'll see later on, to find a fertile field on which to base the design and to help to define what the area lacked.

PROBLEM SETTING

The research brought us to the point where we could define the most interesting problem of the context in question. This involved the spaces and interaction, which we then placed under a design perspective. We were able to define the 'micro problems' that are really related to the place and then elaborate and abstract these in order to define the 'macro problems', which helped us to find the guidelines that were used as the bases of our concept. The three main guidelines defined for the concept through this abstracting process are:

- Create moving/static activities which involve local people. To exploit the suburb environment, avoiding the hidden/dark spots in which the people feel unsafe and to provide alternative paths which will create better connections within the area and help people to enjoy them more.
- Improve promotion of local hot spots through communication. In order to create or enhance the sense of belonging to the place, as we have observed that spontaneous meetings among people are rare, there's a lack of meeting places and common goals, and the main square isn't well used.
- Consider year-round activities. This is due to the seasonal block, when the mood and behaviour of the people change in relation to the weather.

Starting from this analysis, the following concept has been developed.

THE CONCEPT

360°+5 aims to create a common platform where people are free to share their own interests, getting in touch with one another. The strategy carried out expects to compensate for the lack of a sense of belonging experienced by the people living in the Kannelmäki. The organisation of events that seek to engage people, including those people in the creative process, aims to return sites which now appear isolated and detached to the local population and to

interest residents in their environment. Furthermore, we intend to create cohesion, idea- and asset-sharing and participation in common goals through a continuous process of interaction among the inhabitants of Kannelmäki.

THE LOOP

First a 'circle' path inside Kannelmäki has been dreamt up in order to connect the hot places and green areas, from the riverside, through the parks, and crossing the children's garden to join up with the Kanneltalo cultural centre.

This new alternative path comes to life all through the year with new activities being designed. Some of these are proposed to take place several times during the year, others are feasible only during a certain period, depending on various seasonal features, and for this reason these have been designed more as events. Besides this, the activities and events may be static or move between several places, and they can involve young and elderly people from Kannelmäki in order to enhance the vitality of the neighbourhood and improve the residents' sense of belonging. At this point we started to imagine some feasible activities to undertake in the district and to understand which of these would be most attractive for the residents. Throughout a continuous co-designing process, the design team attempted to propose some activities, asking the locals to give some hints and advice on these, in order to best meet their needs and requests.

Some of these draft activities are listed below:

- Graffiti session: it has been noticed that Kannelmäki has a lot of graffiti, in different places. People don't complain about it, but they'd prefer to make this activity legal, as the artists could do it as they wish in front of everyone during the day, and maybe teach other people how to do it. The idea was thought up to create signage for the path using graffiti. This signage could be reviewed every six months, and a graffiti event could be organised in front of the Kanneltalo to share the outcomes.
- Gardening & cleaning up: people often walk along the river, but in some places, especially to the north, the river bank is dirty, and the people would prefer to have flowers, fruit trees, etc. There is also a garden in Kannelmäki, with a big waiting list for owning small sections of the garden to grow vegetables. So the idea arose to expand the garden along the river, which would encourage this activity all year round by offering people the opportunity of sharing their knowledge of growing plants, and make the river banks more pleasant. After sharing knowledge and growing plants together, it might be possible to share them and organise barbeques to cook and eat them.
- Ice skating: Finland is popular for its special climate. A couple of elderly people spoke about what they did when they were younger during winter: ice skating. In Kannelmäki there is a river: could it be possible to do it there when it is frozen?

- Moving cafeteria: there are many famous and/or beautiful places all over Kannelmäki which are big enough to place some chairs and tables and invite people to stop for a coffee, a tea, a fruit juice or even eat cupcakes or cookies. This activity could be proposed between March and October, when the weather is good and the days are long enough. This cafeteria with wheels would move from place to place at different times.
- Exhibitions: it has been noticed that many people draw, paint, sculpt and create other artworks: some of them already show their work, but others don't because they don't know how to. Once a month, an exhibition is proposed in front of or inside the Kanneltalo in the winter, to give people the chance to show and enjoy their works.
- Some other interactive activities have been considered: a bike repair workshop; people creating or personalising a logo for their neighbourhood; making a movie about the district from the residents' perspective; a mushroom picking session, teaching the young how to recognise good and bad mushrooms; or organising a play at a theatre.

360°+5

THE GOALS OF THE PRODUCT SERVICE SYSTEM

The aim of the design team is to put in place a basis for a self-operated service system. The process includes the involvement of many actors which can contribute to generate a connection network, necessary to set up a 'winning' system which can act as a loop, feeding itself with the support of potential external stakeholders.

STAKEHOLDERS AND FACILITIES

In the next paragraph we will explain in detail how the service system will work, and how the main actors, which are considered to form the connection network, will interact among themselves. To facilitate a clear understanding of the whole process, the actors will now be introduced, listing the different professionals and introducing their roles in the PSS process. Furthermore we describe the platforms designed to host the processes which will involve the actors as well as the whole population of Kannelmäki.

Four main stakeholders are assumed to form the connection network:

People
A group of Kannelmäki residents and representatives of the young and elderly who can help the planning team to understand more about the neighbourhood and can share their proposals for activities.

H.D.T. (Head Design Team)
A team composed of designers and professionals which researches the latent and explicit needs of the

design context and proposes cohesive activities. It also manages, organises and coordinates the whole PSS process.

The professionals involved are:
- a PSS designer
- an interaction designer
- a graphic designer
- a city planner (urban studies)
- an expert on place (with a sociological or anthropological background)

City of Helsinki
The City of Helsinki municipality and institutions which can give their professional economic and organisational support.

P.E.S. (Potential External Stakeholders)
Companies, external institutions or other kind of business which may be interested in sponsoring the activities.

Below we introduce the two platforms that have been designed:

Info point/facilities
A physical platform where the residents of Kannelmäki can share their proposals and request information about the performances of the activities.

The professionals involved are:
- a receptionist
- an event planner
- a human resources manager
- an activity coordinator

Website
An online platform where all the actors can interact directly among themselves, and where Kannelmäki residents can share their proposals, give feedback on activities proposed by others and comment on activities that have already been carried out. The professionals involved are:
- a computer engineer
- an I.T. specialist
- a web designer
- an activity coordinator

EXPLANATION
OF THE SYSTEM MAP

Step 0
Gaining a consciousness of the context
During this first stage the Head Design Team (HDT) aims to create a consciousness and sense of belonging in the territory and the context of Kannelmäki, mapping the neighbourhood from a physical point of view to a more human side, allowing the flows of people and the meeting points to emerge. This is expected to define the neighbourhood needs as well as shape a starting point for the developing of feasible and useful activities/services.

Step 1
Activity drafting and sharing
The HDT, elaborating the territorial feeling, drafts up some potential events and/or activities to enhance social cohesion and then chooses the most promising idea as a concrete new proposal for Kannelmäki to launch.
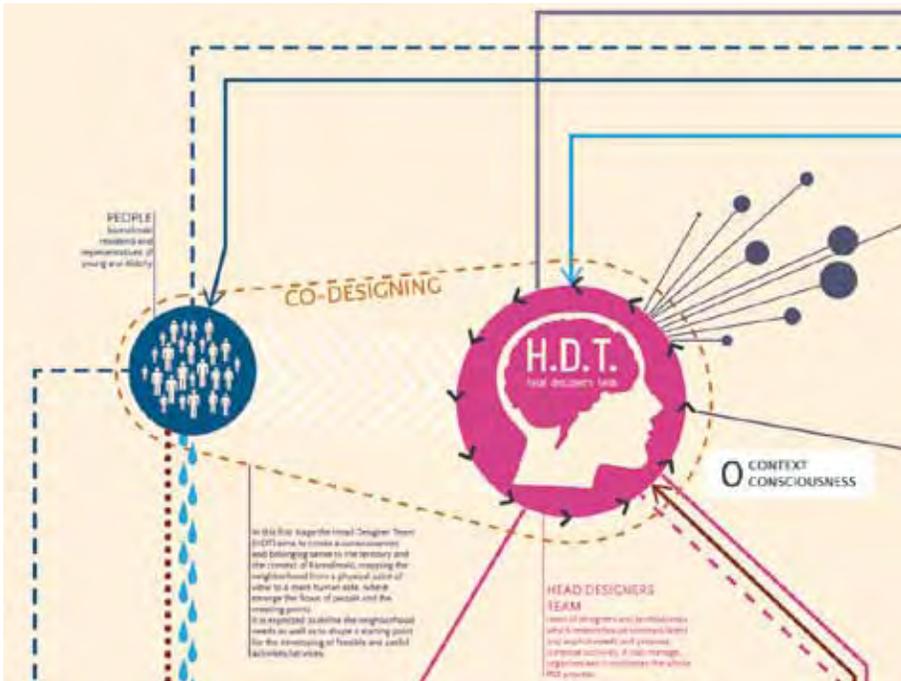
Part of the system map for Kannelmäki.

Step 2
Setup and implementation
After the HDT's initial draft idea generation of a useful activity, the Kannelmäki residents are asked to give their feedback on it, using the sharing platforms of the website and info point/facility to facilitate their subsequent collection and reprocessing, going through a deeper development process for activity, making it more concrete and usable.

The HDT starts to structure the activity, defining the costs and equipment needed to achieve it. Possible funding from such stakeholders as the City of Helsinki and other institutions/agencies is researched first of all. If the funds provided by the City of Helsinki and the P.E.S. are not enough to start up the activity, the people are asked, through the facilities/ website platform, to complete provision of the list of equipment needed for that activity, thus giving a direct value, and enhancing their participation, involvement and sense of community.

Step 3
Planning and start-up
When the activity has been fully funded and supported, the HDT

implements the logistical planning of the activity, defining the agenda and meeting points. When everything is ready, it starts to advertise the activity (using the website and facilities platform), so that people who want to take part are able to find out all the details, such as exactly when, where and how the event/activity will be performed.

Step 4
Activity and return
The activity is performed in the chosen venue: this phase involves the HDT and eventually the stakeholders in the event coordination and those inhabitants who decide to join the activity. Through the achievement of the event and the advertising, which continues onwards, the funding stakeholders will gain their return and image value. At the end of the activity, the residents are asked to give feedback on the quality of the organisation and in general what they liked or did not like about the performance, in order to implement a continuous improvement process.

From the reprocessing of this feedback and the continuous context analysis, the whole process starts again and develops as a loop.

CONCLUSIONS

A design process of this kind needs a continuous deepening of the themes related to the local morphological and social issues, in order to gain a real understanding of the local people's needs; to understand the features of the context; to find new actors interested in improving the service offer; and in order to be concretely structured to always provide feasible solutions.

We think, indeed, that it may be challenging to test out the real feasibility of the co-design method and participatory design, especially related to a cultural social system. We hope that this interest in testing innovations for social services, especially starting from a small real-life example, with the will to place into the Kannelmäki residents' hands the opportunity to choose the best for their district, will find a practical pathway to concrete solutions and future developments, in order to spread this design method to other bigger contexts and form global, active and participatory communities.

TUULA MÄKINIEMI

THE CUBE: CREATING DIALOGUE THROUGH DESIGN

During one week in May, the 'Repicturing Kannelmäki' course tried to
find the essence of a good neighbourhood and define social wellbeing. After
interviewing the locals and walking around the Kannelmäki area, we drew
an analysis map of routes and places of interest for different age groups. We
found that the favourite places of different age groups are situated quite close
to each other, but do not overlap: in other words, there are no spontaneous
interactions between, for example, the elderly and children. To find out whether
we could create dialogue and intergenerational encounters by introducing
a small social impulse, we launched an experimental project 'The Cube' a
moving cafeteria, which visited a few selected 'hot spots' in Kannelmäki during
one week in August 2012. The project showed us that spontaneous dialogue
could be created with very small-scale interventions at grass-roots level.

CREATING DIALOGUE THROUGH DESIGN

Each generation of architects has justified their design decisions using the words social interaction and a sense of community. Even two opposite concepts like Unité d'habitation versus Garden City share the same pursuance of human interactions and social wellbeing. However, it seems evident that just the massing of volumes, the poetry of materials, or closed or open blocks of housing do not automatically lead to communality. Often, the best examples of communality are found in spontaneously grown communities and in vernacular architecture. It might be that the architects and urban designers of the present have forgotten the infallible recipe for a good social environment. In the 'Repicturing Kannelmäki' course, we tackled this question: what is the essence of a good neighbourhood?

Every architecture student starts a new project with a site analysis. From early on, we are taught the method of analysing different agents affecting the living conditions of a place. Information about wind, sun and shading, vegetation and fauna, water, soil, open and closed spaces, landmarks, views, existing buildings and wildlife (especially if there are any flying squirrels), is collected, and the favourable spots for building and decisions on where not to build are derived based on the different analyses. These analyses do not include people. Humans are not included in our maps!

During one week in May 2012, our team of four students started to walk around Kannelmäki and interview local residents. Based on these observations and interviews, we drew the occurrences and favourite routes of differently aged people on the base map of Kannelmäki. This information, combined with the other layers of site analyses, existing buildings and their functions, services, microclimate, visual attractiveness, and accessibility, gave us a good overview of the area and its possibilities. From the people map, we noticed a few spots where the elderly and children were quite close to each other, but still they never met spontaneously. Just a small social impulse at those spots might generate interaction.

Meeting the elderly was perhaps the most influential factor for me during the week. Having a task to interview people gave me an excuse to start a conversation with a stranger. The words we exchanged are irrelevant, but the interaction gave me a sense of worth. All of the elderly people I spoke with were satisfied with their lives. They liked to tell and share their simple everyday experiences with someone. Sharing, talking and listening are the key elements of wellbeing.

We[1] wanted to go further with the project, and introduce a social impulse in those few places that looked promising on the map. We hoped to create spontaneous dialogue, and since all Finnish adults enjoy coffee, and all children love buns, an obvious choice

was to design a mobile cafeteria, the Cube, a box on wheels. Each side of the cube folds open and together form a coffee table. The design is kept simple, homespun, in order to make it more approachable. The idea was to keep the project at the grass-roots level, and engage the people of Kannelmäki from early on to participate in the project, so that it would become theirs instead of ours. Our design started to create interaction immediately. Before the Cube could materialise, we needed to communicate the idea and make connections. We needed partners in cooperation for materials, advertising, storage places and coffee making. The Cube also needed to visit the old people's home and kindergarten to gather

artworks. We hoped that the Cube would act as an example of civil activism and encourage people to do things themselves, instead of waiting for the City to provide amusement or services. The Recycling Centre provided us with two wooden bookshelves and ten table legs. Completed with screws, hinges and paints, we were able to build the Cube.

The first place the Cube visited was Sitratori. The square has a lot of potential. It has a beautiful shape and the layout of a medieval piazza. The surrounding buildings create a pleasant warm microclimate. However, it has a reputation of being a notorious neighbourhood, with heavy drinkers and restless youngsters. In order to do

anything on the square, we needed to apply for permission to function on the square.

It was a decisive test of our idea. We were excited to see if anybody would participate in the painting. People reacted immediately. Children wanted to paint, and meanwhile, we had lovely conversations with their parents. By-passers were delighted to see an unexpected sight and activity on the square. Spontaneity and surprise are signs of a vivid urban neighbourhood. The feeling that anything can happen and different activities can emerge on the square is thrilling. The heavy drinkers did not cause any trouble. Instead, when we asked if they wanted coffee they

responded with a smile, thank you, but we prefer beer. By the end of the day, we had met many Kannelmäki characters, advertised our moving café, and co-designed the appearance of the Kannelmäki Cube.

The next place we visited was an idyllic park, situated close to Supermarket Prisma, a favourite place for Kannelmäki residents to visit. It was a rainy day, and we placed our coffee table under the foliage of the trees. The atmosphere was unique. The few visitors we had were delighted to have a spontaneous conversation. Quite a few potential customers did not dare to stop for a coffee; we were not yet approachable enough. Perhaps

an explanatory sign, placed twenty metres away, would have given the necessary time to consider and adjust. A park is different social environment compared to a public square. People are not as receptive to new encounters.

On our way to the next stop, we met two young boys setting a fire in a subway. They acted scared and defensive and told us that they were doing physical experiments for school. They wondered whether we were going to call the police. Under normal conditions, I probably would have passed the boys quickly not saying a word, but now as I was pushing a weird-looking large box in front of me, I had a permission to behave in unaccustomed manner as well. I stopped

for a chat. We talked briefly about school, physics, and how to extinguish a fire. It was obvious that these boys needed an adult presence and meaningful things to do. Our small project could not reach them. It seems that we reached only those residents who were well off in terms of social connections already.

The natural area, Mätäjoki, is the lungs of Kannelmäki. Residents come here for fresh air, beautiful river views, walking, cycling and jogging. Many of them were so intoxicated with their speed that they did not care to stop. Some had seen our advertisement, and came especially to visit the Cube. The best environment to create spontaneous dialogue seems to be

urban places or events, where there are many people whose minds are already adjusted in advance for socialising.

The Cube visited the Kannelmäki sheltered housing. The intention was to decorate the table surface with the artwork, stories and memories of the elderly. We had invited a group of young children from the neighbouring kindergarten to join the session. In this way we hoped to create intergenerational dialogue. As the eyesight and hearing deteriorate, hands shake too much to draw or write, and the dialogue becomes different. Anything irrelevant is left behind. Eye contact, few words and a touch are the elements of communication. Still, the message is

clear and affecting. I went there to give coffee, blueberry pie and afternoon activities accompanied with conversation, but received back a million times more emotions and experiences. The elderly have presence, warmth, and wisdom, which is achieved only after a long life experience. Our society is ignoring this wisdom. Many of us are completely missing contact with this generation. It is such a waste. The Cube cannot do much for these old people, but again it gave me an opportunity to spend time with them.

The children cheered up the atmosphere for a while. Smiles were exchanged, but soon the noise started to bother the elderly. Perhaps this is not the ideal age

group combination for intergenerational dialogue. Anyway, the table surface was covered with memories and drawings. The Cube was now complete.

The last place we visited was the park beside the church. We opened our cafeteria on a children's playground. The place was ideal for our purposes. Children were playing, while their parents sat inactive. Older people were Nordic walking. Younger adults were on their way to the train station. Many of them had time to stop and chat. One customer told us that there used to be a cafeteria, but the City closed it down. We were slightly afraid of being thrown out, but at the same time satisfied by being anarchists.

DISCUSSION

The conclusions of the project are difficult to draw. We do not know if we had any short or long-term impact on the many people we encountered. However, for us, the caféterians, the amount of social contacts and interactions has been substantial. We would like to propose that Kanneltalo hires a cafeterian or a social worker, who would circle around Kannelmäki, collect messages and artwork, and organise an exhibition in Kanneltalo. The person, their age and nationality could change after every round.

An ideal urban neighbourhood is lively, unexpected, open-minded and tolerant.

It encourages spontaneous meetings, activities and events. At the moment, spontaneity is not possible in Helsinki. We needed to apply for permission or a licence if we wanted to do anything on Sitratori. We would have needed an event permission if over twenty people could come and fold candle lanterns with us by the Mätäjoki. We needed a licence to sell coffee. It almost feels like whatever idea we came up with, it was not allowed without a licence. The licence and permit procedure is the first thing that need to be changed in order to enhance civil activism and create a pleasant and exciting urban environment.

After the time and experiences in Kannelmäki, my thoughts on architecture have changed as well. If the ingredients of a good neighbourhood are placed on a pyramid similar to Maslow's Hierarchy of Needs, what lies at the bottom? The foundation of good architectural design is social wellbeing. The most beautiful house I can think of is one where I see my loved ones. If I don't have them close by, I still enjoy human connections, sharing some parts of my life with others, discussing the weather, if nothing else: just to be seen gives you comfort. The design should start from social encounters, not the spatial concept, massing of volumes, functionality of the building, materials or light and shadow. They are all important, but still secondary to good social design. A good example is Sitratori. As discussed earlier, the massing of volumes and accessibility are well designed. The materials have

not aged gracefully, but a simple facelift for the facades would not make the square pleasant for the residents. What is needed is rethinking how people live and socialise. What kind of services and functions by the square would ensure a constant presence of approachable adults, of which the youngsters are in desperate need at the moment. Permission to improvise happenings and performances, perhaps a flea market every Sunday, would activate the square. The suburban concrete neighbourhood might start to feel warm and homely.

In every place the Cube visited we wanted to leave a reminder. We planted flower bulbs, which will grow and bloom next spring. Then we will head back to Kannelmäki, and see if we can meet some old acquaintances.

NOTES

1 Tuula Mäkiniemi and Malin Bäckman
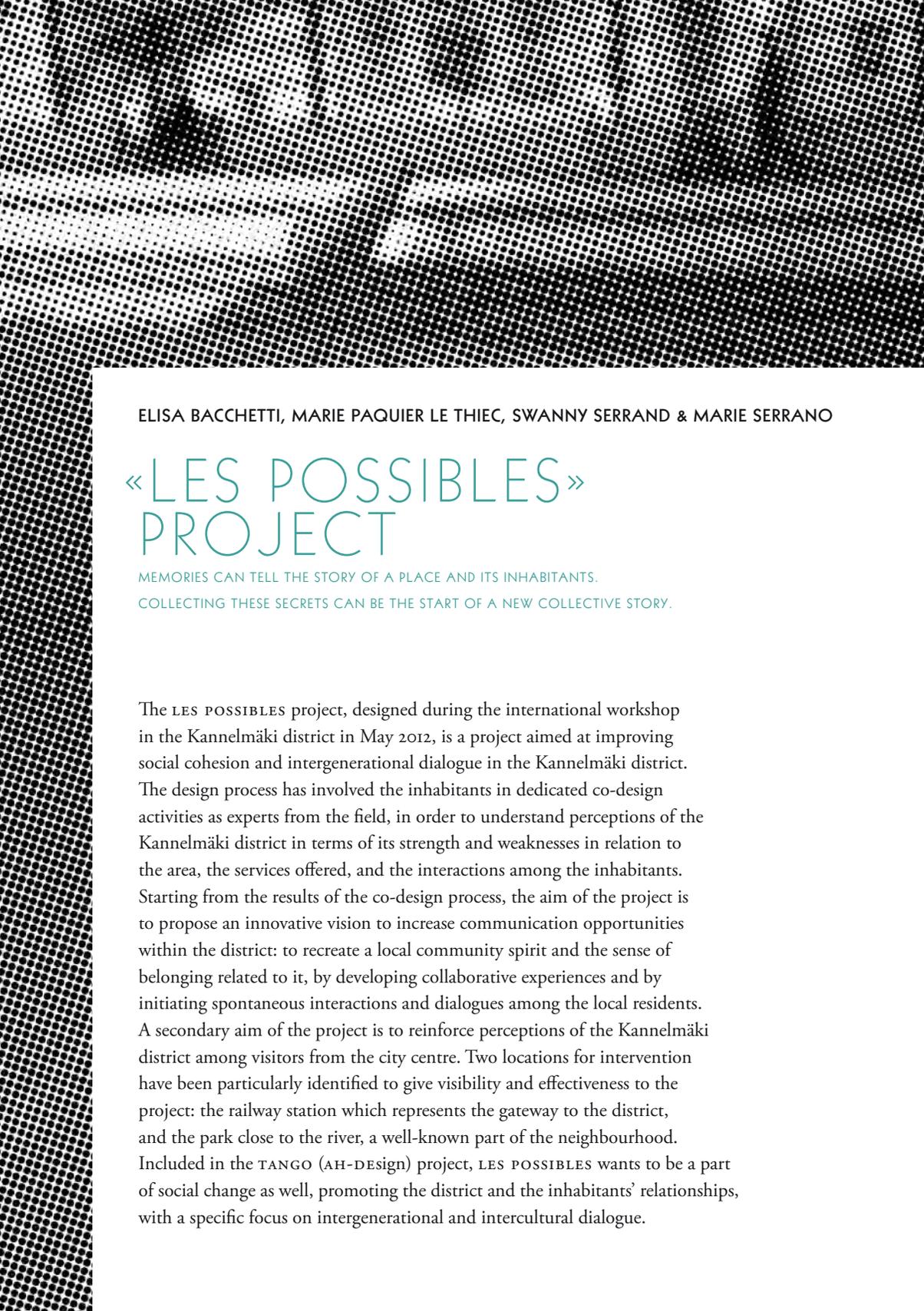
ELISA BACCHETTI, MARIE PAQUIER LE THIEC, SWANNY SERRAND & MARIE SERRANO

«LES POSSIBLES» PROJECT

MEMORIES CAN TELL THE STORY OF A PLACE AND ITS INHABITANTS.
COLLECTING THESE SECRETS CAN BE THE START OF A NEW COLLECTIVE STORY.

The LES POSSIBLES project, designed during the international workshop in the Kannelmäki district in May 2012, is a project aimed at improving social cohesion and intergenerational dialogue in the Kannelmäki district. The design process has involved the inhabitants in dedicated co-design activities as experts from the field, in order to understand perceptions of the Kannelmäki district in terms of its strength and weaknesses in relation to the area, the services offered, and the interactions among the inhabitants. Starting from the results of the co-design process, the aim of the project is to propose an innovative vision to increase communication opportunities within the district: to recreate a local community spirit and the sense of belonging related to it, by developing collaborative experiences and by initiating spontaneous interactions and dialogues among the local residents. A secondary aim of the project is to reinforce perceptions of the Kannelmäki district among visitors from the city centre. Two locations for intervention have been particularly identified to give visibility and effectiveness to the project: the railway station which represents the gateway to the district, and the park close to the river, a well-known part of the neighbourhood. Included in the TANGO (AH-DESIGN) project, LES POSSIBLES wants to be a part of social change as well, promoting the district and the inhabitants' relationships, with a specific focus on intergenerational and intercultural dialogue.

THE EXPERIMENTAL CO-DESIGN PROCESS

The text starts by presenting experiments undertaken through the co-design approach and with local people during the workshop week in Kannelmäki. The LES POSSIBLES project has used a co-design process to involve local actors as the final users of the offer and a 'voice from the district'. Their participation, particularly in the case of elderly people, has been very effective at different stages of the process: from the observation, to the experimentation with possible solutions, to the design of the final project.

The co-design process with elderly people has been particularly evident and effective during the experiments. The first co-design meeting gave an opportunity to invite the elderly to express their feelings about their life in Kannelmäki. In particular, each participant was asked to select his/her own living place and then to indicate comfortable and non-comfortable places in the district. This is useful in identifying interacting places to work on with the project. A second co-design meeting, with a much wider target of participants, was undertaken using different proposals presented in the following section.

CO-DESIGN EXPERIMENTATIONS
All the experiments were designed for a wide target, from children to elderly, to gather a complete

overview of their perceptions about each other and in relation to the Kannelmäki district where they live.

Mapping: using a map of the district and coloured pens, the people involved were asked to identify and to colour in a place where they feel able to spontaneously interact, and another in which they feel the opposite. The goal of this experiment was to understand the perception of the inhabitants in relation to the interactive potential of places in the district, and to select specific locations to be used as action areas for the project. The result of the Mapping experiment was the identification of the park and the Kanneltalo library as comfortable places, and the district train station as a non-comfortable and unsafe place.

Interpretation of a story: using ten-frame stories where only the first frame was completed, with a topic around communication and interaction, the inhabitants were asked to complete the story with their personal point of view without any suggestions about right or wrong answers. The goal of this activity was to understand without any constraints how the Kannelmäki inhabitants feel about indirect and direct communication/interaction, to deepen their interaction habits. The results around the Interpretation of a story were not very effective, as only a few people participated. The configuration of the activity was too specific, and difficult to access in a short space of time.

Children's workshop: the activity was dedicated to children, using a whiteboard with the sentence: 'how we will communicate in 10 years?' The idea was to let them draw, write, and imagine the future communication. The goal of this experiment was to invite children, who are spontaneous and without prejudices, to find possible solution for indirect communication, and to use these first inputs to create an interaction path for the inhabitants of Kannelmäki. The results were different scenarios of communication: mainly centred around signals, mental messages, and virtual transportation and exchanges.

Panel in action: using a panel with two questions: 'what makes you interact with others?' and 'what would you like to share with others?' people were invited to leave their feedback and ideas. The goal of this activity was to gather feedback from the field about what was needed to start an interaction, in order to plan an interaction path for the inhabitants of Kannelmäki. The feedback results were interesting and most of the people recognise a 'smile' as the first point of interaction. Furthermore, this was interesting, and useful for the project design, and an unexpected activity, to observe how people interact with the panel itself 'observing from far, looking around, coming closer, looking at the two faces, thinking and finally writing or going away'.

Observing these reactions has been useful for imagining and designing the approach of people to the project. In particular we have understood that creating curiosity is fundamental to invite people to come close, as well as to make them feel comfortable maintaining their personal space during the interaction.

Interviews: during the other activities, it has been possible to talk with the attendees, without a specific plan but freely asking about the district, about their habits, ideas and wishes. There was no specific goal for this activity, but it was useful to get in touch with inhabitants in a spontaneous way without any embarrassment, receiving confirmation about what had emerged from the previous activities.

The main results from the district analysis and activities, undertaken as a co-design process, have been an understanding of the inhabitants' perception of the district, and as consequence the appropriate places – the park and the station – as potential locations to work on as part of the project. Furthermore, it has been important to understand, through the activities, how interaction and communication are perceived by the inhabitants, to inform the design of the project's interaction path as encompassing two kinds of interaction: direct and fast, and indirect and slow, according to the nature of the places involved, in order to best exploit

their potentialities and to increase communication between the generations in specific areas of the district. The choice of a participatory approach has been important for exploiting the potentialities of every actor, according to their specific background, age and lifestyle. In the design field, this is something that is starting to grow as a collaborative phenomenon, and is developing into a structured method to design innovative solutions dedicated to a specific field, area or topic.

THE PROJECT: LES POSSIBLES

The following section explains the project, representing the final result of the co-design process. Starting from the feedback gathered through co-design activities, the LES POSSIBLES project has been set up as an innovative solution for relations between people in the district: to encourage interactions and a sense of community in the park and the station as major as well as contrasting places in the district, by sharing privacy and creating new accessible contexts through fostering spontaneous interactions.

The project creates a memory diary of the district, where through an installation on two sites, the inhabitants are invited to share their personal memories, stories, or aims and wishes, as well as to listen to other stories, discovering day by day the real soul of the district, to open up new scenarios for interaction.

Designed as a two-site installation, in the park and the station, the memory diary is intended to represent an active part of people's everyday life, and a perfect excuse to start spontaneous interactions: indirect and slow in the park, direct and fast in the station.

TELLING YOUR STORY IN THE PARK: INDIRECT AND SLOW INTERACTION
The park close to the river is a well-known place in the district, where every year festivals and activities take place. The inhabitants like to walk there and the feelings they described are 'freedom, relax, calm…' These mental conditions have been taken as a good starting point for creating a slow interaction installation, in which people can participate freely according to their personal feelings, modalities and attitudes.

In a wide but cosy area of the park we find an installation of vocal flowers/recorders. Each flower corresponds to a story and is composed of a main recorder intended for the initial testimony, and other recorders intended for answering or commenting on the first testimony. In this context, people can decide to tell their story or to participate, listening and leaving comments, in one that has already been started. When a person starts a new story, the flower will give him/here a sort of gift: a small clip as a sign of participation in the storyteller community. This sign enables members of Kannelmäki

Local flowers/recorders in the park.

district to recognise each other within and outside the neighbourhood and thus encourages them to interact.

The park installation will be a memory diary, for creating indirect interactions with participants. These first contacts can become new friendships, thanks to the voice recording, which allows people to record their emotions and stories using their voices: a means for sharing emotions in a trustable way, even without knowing the language, to perceive a person from their voice and learn something about their story. Every participant will be free to record their personality without limitations on the content, to give everyone the opportunity to express their real identity and to compose a real panorama from the multicultural and intergenerational community of the district.

LISTENING TO A COLLECTIVE STORY: DIRECT AND FAST INTERACTION

The station is a 'non' place where every day many people pass by, but no one has a reason to stay. The project will rehabilitate the platform area as the welcoming gateway of the district. The train station, symbolically representing Kannelmäki's gates, is designed in the project as an extension and reflection of the LES POSSIBLES project activities in the park. The activities represented by the content of the memories take the shape of a space delimited by a protective canopy where testimonies from the past months/years can be listened to at a medium sound level. In such a place where people are just passing through, this delimited 'hearing space' takes on its full meaning, as it encourages people to come closer

A protective canopy in the train station.

to one another to be able to hear the testimony, and through this induces such spontaneous interactions as a smile or even a short conversation.

Besides this sound module, a luminous installation reflects in an abstract way the actual Kannelmäki activity in the park. The participation of the park project will be visible as a simple light line pulsing and becoming more and more intense as people use the vocal recorders in the park. As a consequence, the train station will become more brightly lit and welcoming as the activities grow.

The park and the station are the spaces of the project's dialogue, where interactive experiences between inhabitants can take place. In fact, both spaces have a strong potential for creating new interactions between people, given their location in the district and their functions, even if they require different modalities.

COLLECTING MEMORIES FOLLOWING THE FLOW OF THE SEASONS

Every four months, following the rhythm of the seasons, the flowers/recorders in the park will be emptied to create new space for other testimonies. The Kannelmäki library in Kanneltalo will become a collective space for the memories of the district and may help people to continue and create new dialogues. The collected memories could have a name or a recognisable symbol to identify the author (if they agree) in order to transform the indirect interaction between people, owing to their common experiences, stories and emotions, into a real occasion for friendship. This could reinforce the

sense of belonging in the neighbourhood, and help the inhabitants to become a real community.

The memory collection can even be an inspirational starting point for schools' research about life in the district, and could give a new impression of the district to the visitors. One possibility could be to create an audio book every year to celebrate the voices of the district, to be used as a sort of catalogue of the needs and wishes of the inhabitants, to be satisfied and enhanced through new projects and activities. An alternative possibility could be to reproduce the same experiment in different districts, and then to collect all of the results in a common exhibition in the centre of Helsinki. This could give a complete overview of the feelings of the city's districts, enhancing the differences and potentialities of each single area to be solved/emphasised with new dedicated projects or initiatives.

STARTING THE CHANGE: LES POSSIBLES STARTUP

To launch the LES POSSIBLES project, and to invite the inhabitants to share their stories, a startup activity between the elderly and young people has been planned. This activity will be undertaken in schools and old people's homes as protected environments. The elderly and youths (in small groups) will be invited to share memories and stories and do

some artistic and practical activities together. These collective experiences will be audio recorded using the same method that will be used in the park. These first memories will be the starting stories from the district, and will be presented at the opening event of the LES POSSIBLES project to show the perception of a possible new vision of the district, and as stimulus to invite other inhabitants to participate.

LESSONS LEARNED SO FAR ALONG THE CO-DESIGN PROCESS

The LES POSSIBLES experience inside the TANGO (AH-DEsign) project has demonstrated the fundamental role of a co-design approach while designing Product Service System innovations dedicated to a specific context and target, to more deeply understand and exploit needs and potentialities in the field. Furthermore the activities undertaken with the inhabitants highlighted the need for the designers to build approaches and skills as well as methods and tools in order to give the end users an active role in the co-design process. Some activities were efficient: for example, the 'panel in action' collected interesting feedback and suggestions; others experimentations were more difficult to access without specific design knowledge, for example 'Interpretation of a story', which received little feedback because it was not self-explanatory and not so easy to interact with in a short space of time.

The first approach of the LES POSSIBLES project involving listening to and recording voices still remain a part of the project to be further explored and designed. In this respect, it could have been useful to explore the Kanneltalo Library environment further, as well as other similar contexts where intimacy and common spaces are shared, in order to observe people's approaches (i.e. looking, selecting and picking up what is catching their attention), and to understand what is helping as well as disturbing them in their choices. Moreover, direct experimentation with the system could have been interesting to verify the hypothesis and to reframe it according to practical necessities.

NEW APPROACHES: SUSTAINABILITY

CARLO VEZZOLI

SYSTEM DESIGN FOR INCLUSION AND SUSTAINABILITY

When the socio-ethical dimension of sustainability (i.e. social equity, cohesion and inclusion), is a concern, most attention has been given to product design that meets the basic needs of marginalised persons and communities in emerging and low-income contexts with appropriate technologies. This paper presents Product-Service System Design for Sustainability as a promising and complementary approach to the former one.

Firstly, reasons for applying eco-efficient Product-Service Systems (PSS) innovations to enhance social equity, cohesion and inclusion in low-income and emerging contexts are highlighted.

Secondly, the model of distributed economy which is known to be socio-ethically sustainable is introduced as a promising characteristic of such eco-efficient Product-Service Systems.

Finally, a new potential role will be framed for design for sustainability as encapsulating design for inclusive stakeholder interactions.

PRODUCT-SERVICE SYSTEM: ECO-EFFICIENCY OPPORTUNITIES FOR INDUSTRIALIZED CONTEXTS

Over the last few years some design research centres, starting with a stringent interpretation of environmental sustainability (that requires a systemic discontinuity, i.e., radical innovation in patterns of production and consumption), have reset part of the debate on design for sustainability starting from system innovation. According to most researchers, the widening possibilities for innovation beyond the product seem to represent a significant ambit in which to act to promote radical changes for sustainable consumption. More specifically, this entails innovation of the system, i.e. an integrated mix of products and services that together are able to satisfy a particular customer demand (GOEDKOOP ET AL. 1999; MANZINI & VEZZOLI 2001; BREZET ET AL. 2001; UNEP 2002). Commonly referred to in this context as a Product-Service System (PSS), Mont (2002) defines this as 'a system of products, services, network of actors and supporting infrastructure that continuously strives to be competitive, satisfy customer needs and have a lower impact than traditional business models'.

More recently, in the United Nations Environment Program publication (TISCHNER ET AL. 2009, p 95), a PSS is defined as 'a system of products and services (and related infrastructure) which are jointly capable of fulfilling client needs or demands more efficiently and with higher value for both companies and customers than purely product based solutions'. In fact, it is

a shared opinion that 'PSS could decouple the creation of value from consumption of materials and energy and thus significantly reduce the life-cycle environmental load of current product systems'.

To clarify this assumption let us take an example: The 'solar heat service', AMG, Palermo, Italy The 'solar heat service' is a full service providing a final result, consisting of 'selling' hot water as a finished product. Hot water is produced by new equipment that combines solar energy and methane, with economic and energy savings. Hot water is measured by means of a specific heat meter and the whole system is monitored, in order to both control in real time how the system works and also to apply the Guarantee of Solar Results. AMG has tested this service in a Tennis Club in Palermo city (Italy), providing hot water for the dressing rooms. The innovative feature of this Product-Service system is that AMG will not invoice the client for the methane consumed to obtain hot water, but rather, hot water is sold as an entire service. With AMG, the consumer pays to receive a comprehensive service covering installation, thermal-energy meters and the transportation of methane to the boilers. With equipment maintenance provided as well, the customer is buying a 'final result'. Billing is by unit of service and not per unit of consumed resources: the company becomes motivated to innovate in order to minimise the energy consumed in use: the less methane consumed (the higher the use of solar energy and the greater the efficiency of the system) ,the higher the income for AMG.

As is clear from this example, it is a shared opinion that these innovations could lead

'to a system minimization of resources, as a consequence of innovative stakeholder interactions and related converging economic interests' (UNEP 2002). Thus, eco-efficient system innovation derives from a new convergence of interest between the different stakeholders: innovation not only at a product (or semi-finished) level, but above all as new forms of interaction/partnership between different stakeholders belonging to a particular value production system. A value production system includes the value chains of a firm's supplier (and their suppliers all the way back), the firm itself, the firm's distribution channels, and the firm's buyers (and is presumably extended to the buyers of their products, and so on). The characteristics of Product-Service System innovations are as follows (VEZZOLI 2010):

- They are rooted in a satisfaction-based economic model, i.e. each offer is developed/designed and delivered in relation to a particular customer 'satisfaction' (unit of satisfaction)
- They are stakeholder interaction-based innovations, i.e. they are radical innovations, not so much in technological terms as in terms of promoting new interactions/ partnerships between the stakeholders of a particular value/satisfaction production system
- They have an intrinsic eco-efficiency potential, i.e. they are innovations in which it is the company/companies' economic and competitive interest that may lead to a reduction in environmental impact (system eco-efficiency: decoupling the creation of value from resource consumption)

Most of the research efforts investigating PSS have been focused mainly on the environmental and economic dimensions of sustainability and have mainly considered industrialised contexts. Nevertheless, an emerging hypothesis has proposed that such innovations are also favourable for emerging or low-income contexts, and help to tackle the socio-ethical dimension of sustainability together with the environmental (and economical) dimension, i.e. coupling eco-efficiency with social equity, cohesion and inclusion. These issues are discussed in the following paragraph.

PSS AS A PROMISING APPROACH FOR SUSTAINABLE INNOVATION IN EMERGING AND LOW-INCOME CONTEXTS

In 2000, the United Nations Environment Program (UNEP 2002) set up a group of international researchers[1] to both disseminate the concept of Product-Service Systems innovation worldwide, and start exploring new potentialities for PSS, which can be summed up in the following queries.

IS PSS ALSO APPLICABLE IN EMERGING AND LOW-INCOME CONTEXTS?

This question arises simply because the development of Sustainable Product-Service Systems, studied, discussed and achieved thus far did not refer to the socio-ethical dimension of sustainability nor to emerging and low-income contexts (which are by

statute within the concern of the United Nation Environment Program).
This question forerunner of another; (If the answer to the first is affirmative) can a PSS approach favour social equity, cohesion and inclusion within these contexts together with eco-efficiency? And if so, using what particular characteristics?

The response to these two questions, given by the international group of experts engaged by UNEP, has been the following working hypothesis for their research: 'PSS may act as business opportunities to facilitate the process of social-economic development in emerging and low-income contexts – by jumping over or by-passing the stage of individual consumption/ownership of mass produced goods – towards a 'satisfaction-based' and low resources intensive advanced service-economy' (UNEP 2002; VEZZOLI & CESCHIN 2008). To clarify this working hypothesis, we will look at an example of Product-Service System innovation in low-income and emerging contexts[2].

Distributed Solar Energy and electrical devices as an all-inclusive package, Brazil
Fabio Rosa founded both a for-profit corporation, the Agroelectric System of Appropriate Technology (STA) and a not-for profit organisation, the Institute for the Development of Natural Energy and Sustainability (IDEAAS). TSSFA developed a basic photovoltaic solar home system and, in 2001, Rosa began exploring a new business model to provide Brazil's rural people with what they needed: energy services, not just solar energy. To that end, TSSFA developed a

leasing structure whereby customers pay a monthly fee for the use of cost-effective solar energy packages. TSSFA customers sign a three-year service contract but can end the contract at any time by paying for the cost of un-installation. Solar home kits, as TSSFA calls them, include the hardware needed to generate energy, while also providing the installation service and products that use the electricity generated by the solar home system, such as lighting and electrical outlets. All of the tangible inputs are owned by STA and only the service provided by these materials is leased to customers. This is environmentally sustainable because it uses solar energy; it is socioethically sustainable because it gives poor people access to useful services; it is economically sustainable because it provides business for the company, TSSFA.

The case presented above demonstrates that Product-Service System innovation is an applicable approach even in emerging and low-income contexts. Others could be presented, nevertheless the following arguments can be highlighted in support of this hypothesis (UNEP 2002)[3].

First of all, if PSS are eco-efficient at system level, it means that they may represent opportunities, in a context with fewer economic possibilities, to respond to unsatisfied social demands with lower overall costs (more easily). Secondly, PSS offers are more focused on the context of use, because not only do they sell products, but they open relationships with the end user. For this reason, an increased offer in these contexts should trigger a greater involvement of (more competent) local, rather than global, stakeholders, thus fostering and facilitating the reinforcement and prosperity of the local economy.

Furthermore, since PSS are more labour/relationship intensive, they can also lead to an increase in local employment and a consequent dissemination of skills.

Finally, since the development of PSS is based on building system relationships and partnerships, they are coherent with the development of network enterprises on a local basis for a bottom-up re-globalisation process. This last issue is clarified in the next section, which introduces the model of distributed economies.

DISTRIBUTED ECONOMIES: A PROMISING ECONOMIC MODEL FOR SYSTEM INNOVATION, COUPLING ECO-EFFICIENCY WITH SOCIAL EQUITY AND COHESION

Assuming, as argued and exemplified above, that system innovations (PSS) are applicable to emerging and low-income contexts, a second research question was proposed: Using what characteristics could a PSS foster eco-efficiency together with social equity and cohesion within emerging and low-income contexts? In this section, we argue that an answer to this question could be formulated by coupling the two models of system innovation (PSS) and distributed economies; the latter will now be introduced.

Several authors argue that the so-called distributed economies model is a favourable economic model for coupling the socio-ethical and environmental dimensions of sustainability (MANCE 2003; SACHS ET AL. 2002; JOHANSSON ET AL. 2005; CRUL & DIEHL 2006; RIKFIN 2010; VEZZOLI 2010). A well-known institution centred on economics and sustainability, the International Institute for Industrial Environmental Economics (IIIEE) in Lund, defines distributed economies as a 'selective share of production distributed to regions where activities are organized in the form of small scale, flexible units that are synergically connected with each other' (JOHANSSON ET AL. 2005, p 971).

The mainstream economic model of industrialised contexts, characterised by centralised and large-scale production units, determines dynamics that undermine sustainability, on both the environmental and socio-ethical levels. Examples of such dynamics include (JOHANSSON ET AL. 2005):

1. Increasing the movement of raw materials and products over larger distances, mainly relying on decreasing transportation costs
2. Distancing production from consumers and thereby hiding the environmental and social costs
3. Weakening local actors' opportunities to have ownership and control over their immediate economic environment
4. Distorting or destroying cultural identities
5. Limiting diversity in regional economic activities

Besides these disadvantages, being large-scale and centralised limits the ability of such production units to respond to rapidly changing demand. In recent decades, the

adjective distributed[4] has been increasingly used in relation to several different socio-economic systems: information technologies, and distributed computing; energy systems and distributed energy generation; production and the possibilities of distributed manufacturing; the processes of change and distributed innovation, distributed creativity and distributed knowledge. And finally, in relation to overall socio-technical systems, to describe a new economic model: distributed economies. Distributed economies can be summarised by two main characteristics:

- They are locally based, i.e. enterprises or initiatives based on sustainable local resources and needs, but could become open to non-local or global systems.
- They are network-structured enterprises or initiatives, i.e. they can gain critical mass and potentialities through their connections in networks.

Finally, to answer the question posed at the beginning of this paragraph, the following research hypothesis could be formulated, characterising the former assumption of PSS being applicable to emerging and low-income contexts (VEZZOLI 2010, p 138):

'A PSS approach may act as a business opportunity to facilitate the process of social-economic development in an emerging and low-income context – by jumping over or by-passing the stage of individual consumption/ownership of mass produced goods – towards a more "satisfaction-based" and low resource intensity advanced service-economy, [from here onwards we add to the former assumption] characterized

by locally-based and network-structured enterprises and initiatives, for a sustainable re-globalization process aiming to democratize access to resources, goods and services.'

A NEW POTENTIAL ROLE FOR DESIGN FOR SUSTAINABILITY: DESIGN FOR 'APPROPRIATE STAKEHOLDER INTERACTIONS'

In the previous paragraphs we discussed the idea that in emerging and low-income contexts it is worth considering a locally-based and network-structured (DE) system (PSS) innovation approach.
Here we will take the reasoning to the potential implication for design. In other words, we will frame a potential role in system design for sustainability in emerging and low-income contexts to face even socio-ethical sustainability by proposing a definition, its approaches, and the required design skills[5].

Adapting the definition of system design for eco-efficiency, the following could be proposed (VEZZOLI 2010). System Design for Sustainability (SDS) could be defined as:

The design of the system of products and services that are together able to fulfil a particular customer demand (deliver a 'unit of satisfaction') based on the design of innovative interactions, of the stakeholders (directly and indirectly linked to that 'satisfaction' system) where the economic and competitive interest of the providers continuously seeks both environmentally and socio-ethically beneficial new solutions.

In relation to the described characteristics of a system innovation, the approaches and skills for system design for sustainability could be articulated as follows (again adapting the approaches and skills of system design for eco-efficiency (VEZZOLI 2010):

- **'satisfaction-system'** approach: design a particular satisfaction demand (satisfaction unit) and the mix of products and services fulfilling it
- **'stakeholder configuration'** approach: design the interactions of the stakeholders of a particular satisfaction system
- **'PSS sustainability'** approach: design the interactions of the stakeholders (offer model) leading them for economic and/or competitive reasons towards those innovations that will improve social equity, cohesion and inclusion as well as reduce the environmental impact

In conclusion, a new potential role for design for sustainability can be highlighted, characterised by a strategic approach aimed at designing 'appropriate (sustainable) stakeholder interactions'.

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NOTES

1 The work involved a group of researchers (including the author) from industrialised, emerging and low-income countries; it was set up in 2000 and ended in 2002, presenting the main achievements in the publication UNEP (2002). Product-Service System. Opportunities for Sustainable Solutions.

2 The cases presented in this chapter come from the already mentioned UNEP booklet of 2002 and from a WBCSD case databank, both freely available at their respective websites (http://www.unep.fr/scp/publications/details.asp?id=WEB/0081/PA and http://www.wbcsd.ch/plugins/DocSearch).

3 This hypothesis has also been examined in a series of case studies, collected by the group engaged by the UNEP.

4 To distribute: to divide something into portions and dispense it (from: Wiktionary – the wiki-based Open Content dictionary).

5 Methods and tools are described in the next chapter.

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SYSTEM DESIGN FOR SUSTAINABILITY AND INCLUSION: METHODS AND EXPERIENCES FROM TANGO MILAN PROJECT

The research and design path of the TANGO Milan project, has adopted and adapted the MSDS method (Methodology for System Design for Sustainability) for the co-design process, which has involved different existing and potential actors being incorporated in the proposals. The first part of this paper introduces the MSDS method and presents and defines its phases as well as the adaptations made to improve it and better fit it to the project in question.

The second part presents the TANGO project as carried out in and for the district of Milan. In particular it discusses the adoption of the above-mentioned MSDS method and tools. Finally the participatory design process and its tools are critically analysed.

THE MSDS METHOD

Few methods and tools have recently been developed to support System Design for Sustainable Processes. Among those that have been presented, the MSDS, Method for System Design for Sustainability, which was elaborated within the MEPSS project (EU 5th FP Growth), integrated with the HICS project (EU 5th FP Growth) and refined within the LENS project (EU Asia-Link funded), in particular by the Design and Innovation for Sustainability (DIS) research unit of the INDACO department, of the Politecnico di Milano. The MSDS method aims to support system innovation design and orientate it towards sustainability. It has been conceived both for designers working for or within a company and for public institutions and NGOs. It can be used by an individual designer or by a wider design team. In all cases, special attention has been paid to facilitating participatory procedures within the company itself (between people from different disciplinary backgrounds) and outside, bringing different stakeholders and end users into play.

The MSDS method, although it is modular and flexible in order to be adaptable to the specific needs of designers/companies and to conditions in different contexts is organised in the following phases:

- strategic analysis
- exploring opportunities
- designing system concepts
- designing (and engineering) the system details
- communications

MSDS PHASES, AIMS AND PROCESSES

Phases	Aim	Processes
Strategic Analysis	To obtain the information necessary to facilitate the generation of sustainable ideas	- Analyse project proposers and outline the context of the intervention - Analyse the context of reference - Analyse the carrying structure of the system - Analyse best practices - Determine priorities for the design intervention in view of sustainability
Exploring opportunities	To make a 'catalogue' of available promising strategic possibilities, and/or a sustainability design-orientating scenario	- Generate ideas orientated towards sustainability - Outline a sustainability orientated design scenario (visions, clusters and individual ideas orientated towards sustainability)
Designing system concepts	To determine one or more system concepts orientated towards sustainability	- Select clusters and single ideas - Develop system concepts (consisting of one or more product and service mixes that characterise the offer; the relative interaction system between the actors involved; potential environmental, socio-ethical and economic improvements) - Environmental, socio-ethical and economic appraisal
Designing (and engineering) a system	To develop the most promising system concept(s) into the detailed version necessary to its/their implementation	- Detailed system design - Environmental, socio-ethical and economic assessment
Communications	Draw up documentation to communicate the general, and above all sustainable, characteristics of the system that has been designed	- Draw up documentation in various formats
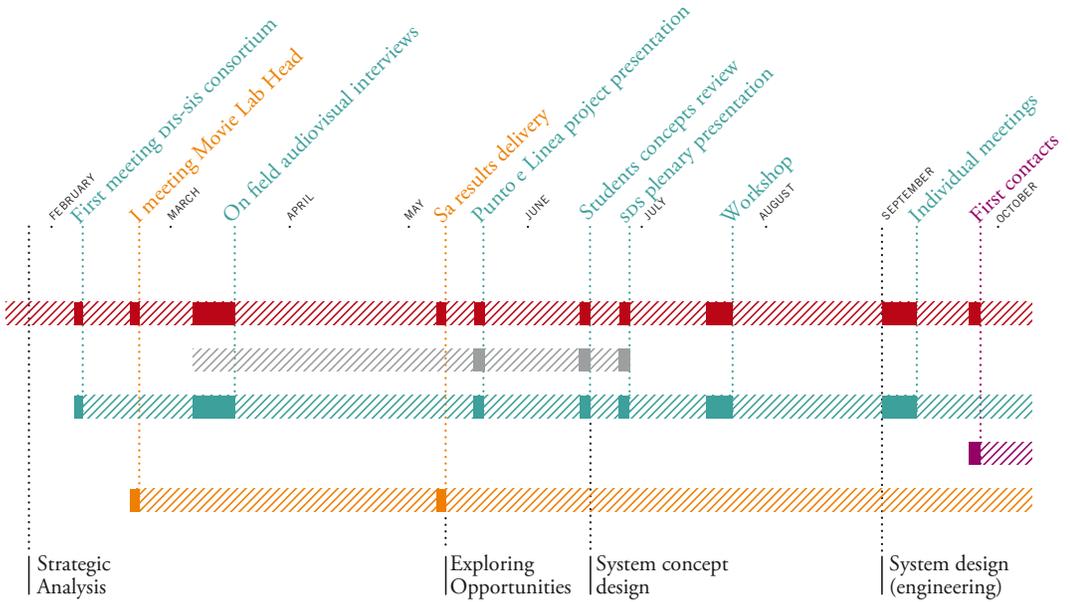
TANGO Milan co-design schedule, showing main stakeholders, processes and results.

The main tools of the MSDS method are available for free on the LeNS web site: www.lens.polimi.it in the Tools section. MSDS has been adopted by the TANGO Milan design roject partially and with some adaptations and updates.

THE TANGO PROJECT IN MILAN: SYSTEM DESIGN FOR SOCIAL INCLUSION AND SUSTAINABILITY IN FOUR SUBURBAN DISTRICTS OF MILAN

Project briefs and existing Punto e Linea initiatives

The briefs of the projects for the context of Milan came out of a collaboration that the DIS (Design for system Innovation for Sustainability) research unit of Design department of the Politecnico di Milano has initiated with the System of Social Enterprises (sis) Consortium, a union of social enterprises which works with people in suburban contexts.

The starting point has been four initiatives of the 'Punto e Linea' project, designed and managed by the sis Consortium and funded by the Cariplo Foundation, aimed at fostering social cohesion through participatory initiatives in four suburban areas of Milan.
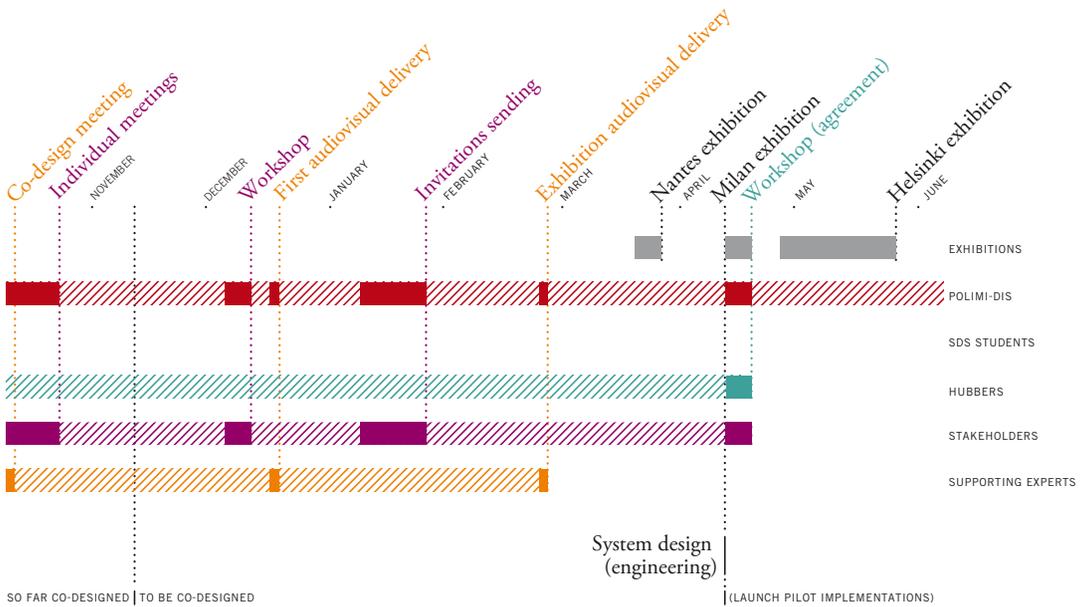
The design intervention of the TANGO project has been developed in four HUBS[1] distributed among four districts in the south-west area of Milan with the aim of re-designing the existing 'Punto e Linea' initiatives in order for them to be more sustainable in environmental and economic terms and focused on intergenerational dialogue.

The system participatory design for sustainability process and phases

The start-up meeting of the TANGO Milan design process took place in February 2012 to set up the partnership between the Politecnico di Milano DIS research unit and the SIS Consortium, to agree on the partnership and assign the operative roles and to plan the activities of the design process. The design process has followed the MSDS method. A few adaptations have been made to the MSDS method and a few new tools have been identified and used during the TANGO Milan design process. This process has been envisaged since the beginning as a participatory design process. Figure above shows the main activities and stakeholders involved throughout the design process.

The first step of the design process has been the Strategic Analysis[2] (SA) of the selected initiatives of the 'Punto e Linea' introduced in a previous chapter.

It has been developed in collaboration with the 'Punto e Linea' Hubbers[3] and with some key actors of each initiative organising periodic meetings.

STRATEGIC ANALYSIS

Activities	Sub-Activities	Results	Tools
A. Analysis of the promoters of the project and definition of the intervention	Define the scope of project intervention	Specific document about the project brief (.ppt)	PowerPoint brief text
	Analyse the characteristics of the promoters of the project	Summary document with analysis of the promoters of the project (.pdf) - mission - role - weaknesses & strengths	(Word text) Video interviews with Punto & Linea proposers
B. Analysis of the reference context	Analyse the characteristics of the reference context	Summary document with an introduction to the four districts and to the hubs (.pdf)	District map Introductory video about districts District demographical data
	Analyse the production offer system (back office) / existing enterprise	Summary visual (.mov) document with a description of the initiative / existing enterprise: - description of how the system currently works - incubation process and development - weaknesses, problems and possible improvements	Video interviews with proposers (Hubbers) / promoters (backoffice)
	Analyse final demand (users – front office) / existing enterprise	Summary analysis document of end user needs: - mapping of the types of users and their expressed and hidden needs (.pdf)	Video interviews with end users (front desk)
	Analyse relevant stakeholders	Summary document with analysis of the major stakeholders in the initiative (.ppt)	System map
C. Sustainability analysis and prioritisation of project intervention	Analyse existing initiative in terms of environmental, economic and socio-ethical sustainability	Summary document with analysis of the economic, social and environmental impact of the existing offer: - economic, environmental and socio-ethical problems and critical issues (.pdf)	SDO toolkit (criteria and checklist for the qualitative sustainability report) Qualitative sustainability report
	Define priorities for action planning	Definition for each sustainability dimension, priorities for action planning	SDO toolkit – criteria and priorities
D. Best practice analysis	Identify best practices composition of the offer and interaction with the user, stakeholders that produce and deliver the sustainability topic (.pdf)	Summary document of best practice analysis : - composition of the offer and interaction with the user - stakeholders that produce and deliver the sustainability topic (.pdf)	SDO toolkit – best practice analysis report

As in the table above, the following have been used as participatory design tools to set up the analysis:
- Offering diagram to define in detail the functions that the system delivers to the user
- System map to visualise the system structure of the offers indicating the actors involved and their interactions
- Sustainability Design-Orientating toolkit (SDO)[4] / set priorities / existing system to perform the analysis of the initiative in terms of environmental and economic sustainability and to define priorities for action planning, resulting in a qualitative sustainability report to evaluate the current offer in terms of its economic and environmental sustainability
- District map and district demographic map[5] to investigate and represent the characteristics of the reference context

The tools listed above supported the completion of the Strategic Analysis for each of the initiatives. The results of each strategic analysis were presented in the following formats:
- MiniDOC: audiovisual files describing the context, the proposer and the existing initiative of each HUB, from the point of view of the proposers (back office) and of the final user (front desk)
- pdf files: qualitative sustainability report, district demographic data, district map
- ppt files: system map, offering diagram

Collaboration with the Movie Design Lab of the Politecnico di Milano[6] was initiated in order to define the format

and achieve high quality audiovisual files, i.e. designing together the best way to display the information, periodically checking the filming and providing the recording equipment. Furthermore, the Movie Lab contributed to the editing of the films through a short course about editing software (Adobe Premiere and Adobe After Effects) and with specific adjustments and suggestions related to the representation of each HUB.

All of the SA outcomes have been published online on web-based sharing platforms (youtube.com, slideshare. net and mydrive.ch) to enable streaming and free downloading in an open source and copy left logic.

The **Exploring Opportunity** phase was organised by involving students on the 'System Design for Sustainability' (SDS) course (March-June 2012). The four Strategic Analyses (with 9 produced outcomes for each of the HUB's selected initiatives) were used by the design students to give a complete overview of the 'Punto e Linea' project contexts, proposers and initiatives and to start the design phase of the course.

The interactions set up between the DIS research unit, the design students on the SDS course and the Hubbers of the 'Punto e Linea' project continued during the design phase of the course, where the students were asked to design PSS explorative concepts for the four selected initiatives of the 'Punto e Linea' project to help them to be more economically, environmentally and socially

sustainable. The main tasks for the Hubbers have been: to design, together with the DIS research unit and the degree students, the design brief for the students, starting from the existing 'Punto e Linea' initiatives and from the SA outcomes; to review and co-design the concepts with the students during the course, giving them input and information, in their role as experts in the social field and the Milanese context.

EXPLORING OPPORTUNITIES

Activities	Sub-Activities	Results	Tools
Generating sustainability-orientated ideas / tentative concepts in PSS	Workshop for generating sustainable system ideas	Sets of promising system sustainability ideas	SDO toolkit – sustainability idea tables
	Designing tentative sustainable system concepts	Sets promising explorative system of sustainability concepts	System map - Satisfaction offer diagram - Interaction table - Interaction story board (with simplified ppt-based animatic) - SDO toolkit – check concepts

As in the table above, some participatory design tools were used to design explorative PSS concepts and orientate them towards sustainability. These are the following:
- Orientate concept section – SDO toolkit used to generate new ideas using sustainable criteria and guidelines (social and environmental dimension) defined in the SA and to access potential improvements for the ideas generated
- Offering diagram and System map to define in detail the functions that the system delivers to the user and to visualise the system structure of the offers, indicating the actors involved and their interactions
- Interaction table (storyboard) to visualise the sequence of interactions occurring at front desk level and back office level;

- Check concept section / Radar section of SDO toolkit to visualise the potential level of improvement (radical, incremental or zero) regarding the environmental and socio-ethical dimensions of sustainability, comparing the new tentative concept with the existing system
- Animatic: each student group's presentation was made as a simplified slideshow-based animatic, i.e. the slideshows were self-running with an embedded audio narration, with the following content: offering diagram, tentative textual concept description, interaction storyboard, map of stakeholder system, sketches of evidence, environmental radar and socio-ethical radar.

Snapshots of the animatic of the Beyond Currency project tentative sustainable PSS concept, developed for HUB Baggio, TANGO Milan Exploring Opportunities phase, SDS course final presentation.

As final result of the design phase of the 'System Design for Sustainability' course, the students developed 12 (3 for each initiative) sustainable explorative PSS concepts.

These were presented in a plenary as animatics at the end of the course in June 2012, as a further step of the participatory design process. In fact the Hubbers were invited to give their feedback about the developed projects and to select the most promising, highlighting their motivations for their choices.

The **Designing system concepts** phase started on the basis of the most promising explorative sustainable PSS concepts, being carried out by four Master's Degree students:

Sara Hatef designed for HUB Barona, Elisa Bacchetti designined for HUB Baggio, Alberto Fossati designined for HUB Giambellino, Claudio Sarcì designinged for HUB Gratosoglio. These phases started in July 2012 and each student merged the most promising tentative concepts around one initiative, adding their personal ideas, to design a first draft of a new sustainable PSS concept.

To co-design by receiving feedback and detailing the new concepts, the Master's students organised a participatory workshop dedicated to the 'Punto e Linea' Hubbers and DIS research unit members. The workshop activity was planned as a half-day meeting focused on the following stages with the use of design tools:

TANGO Milano, design system concept phase,
co-design workshop with the Punto e Linea project Hubbers
and members of the DIS research unit.

- Visual presentation of each concept's initial implementations using storyboard tool to show the sequence of interactions occurring at front-desk level and back office level: the storyboard was printed and hung on the wall so as to be visible to all participants, with questions related to specific frames of the story; offering diagram tool to define in detail the functions that the system delivers to the user
- Questions designed to solve/ re-design specific interactions occurring in the concept delivery
- Open discussion to sum up the results and considerations of the workshop
- Questionnaire to evaluate the workshop design and content answered by the Hubbers and members of the DIS research unit

The outcomes of the workshop experience were positive about both the concept implementations and in increasing the personal knowledge of the degree students, fostered by the good quality of the feedback and active participation of the Hubbers.

Continuing in the design process, each sustainable PSS concept has been further defined in relation to: the system structure, the interactions occurring at front-desk level and back office level and the stakeholder identification, using the offering diagram, system map and interaction table as visualisation tools.

Furthermore, going deeper into the details of each sustainable PSS concept each student identified among the respective Hubbers a 'champion' to help to achieve the

enlargement of the network of stakeholders to be involved in the participatory design process. In fact, in collaboration with the Hubbers, a series of meetings were organised involving potential stakeholders i.e. actors, communities companies, associations and administrations for the growing sustainable PSS, and end-users. Each meeting was scheduled as follows[7] (with a few modifications depending on the stakeholder), supported by some of the already presented participatory design tools (though in a higher level of detail):

- Visual presentation of the sustainable PSS concept using the offering diagram tool to define in detail the functions that the system delivers to the user, the storyboard tool to show the sequence of interactions occurring at front-desk level and back office level and the stakeholder matrix to show possible roles and benefits
- Open discussion to solve/re-design specific interactions occurred in the concept delivery, and to understand possible collaborations

DESIGNING SYSTEM CONCEPTS

Activities	Sub-Activities	Results	Tools
A. Developing system concepts	Selecting the most promising ideas (from the point of view of economics, technological feasibility and user acceptability) Defining the interactions between actors and the new system	Map of actors in the new system and their interactions (material, information and money flows) (.ppt_animatic)	System map
	Defining the products and service concepts that make up the offer	Images and texts summarising the main functions delivered to the user (.ppt_animatic)	Offering diagram
	Narration of user interactions with the system and the interactions of the other actors delivering the offer	Sequence (image and texts) of the interactions that occur during the production and delivery of the offer (.ppt_animatic)	Interaction storyboard
	Narration focusing on interactions with sustainability characteristics	Images and texts of the key interaction sequence occurring during the production and delivery of the offer (.ppt_animatic)	Sustainability interaction storyboard
B. Environmental socio-ethical and economic appraisal	Environmental, socio-ethical and economic improvement potential assessment for the system concept	Description of the improvement potential for each criterion of each dimension (.ppt_animatic)	SDO toolkit (checklist concept)
	Visualising the environmental, socio-ethical and economic improvements	Radar diagram showing improvements Visualisation of the interactions bringing improvement (.ppt_animatic)	SDO toolkit (radar)

A further specific action of the design process related to the involvement of the actors was the TANGO interactive exhibition in Milan on 9-14 April 2013 during the Furniture Fair (Salone del Mobile).

LESSONS LEARNED DURING THE CO-DESIGN PROCESS

The MSDS method has been integrated into the TANGO Milan participatory design process as a support to orientate the design of the PSS innovations towards sustainability, and to facilitate the co-design process, having the 'Punto e Linea' Hubbers as a main starting point, and with the final users and possible stakeholders. In particular, the MSDS method has been exploited in the Strategic Analysis, Exploring Opportunities and Designing System Concept phases, using the co-design tools of the MSDS method already discussed. Nevertheless, new tools from the field of communications have been adopted and adapted, in particular the MINIdoc and SHORT audiovisual tools. These last tools have been tested as very effective visualisation aids for sharing information during the co-design process. Finally the TANGO exhibition was envisioned as the final participatory process within the TANGO project. The TANGO exhibition was proposed as a lab and shop window for co-design experiments and as an agent of change proposing concrete and radically innovative sustainable PSS solutions.

Alongside the co-design process the relevance has become very clear of presenting the designed proposals (from idea to concept to a more detailed level) in a trustable and clear way without losing specific terminologies, for example, improving the readability of the system map to describe the new system structures; introducing the economic and social specifications of the PSS proposed, i.e. the business model to understand the feasibility, benefits and roles in the PSS and an index of social enterprise models to be more effective in the PSS roles and interaction design.

Finally, the MSDS has been evaluated positively, but the introduction and adaptation of both audiovisual and economic tools has been understood to be fundamental to achieving a real possibility for implementation, when the innovations are so far from the business-as-usual solutions. These approaches and new directions for methodological development seem to be promising for facilitating the design of the transition path leading towards the real implementation and diffusion of sustainable solutions which necessarily involve several and varied stakeholders in a co-design process.

NOTES

1 The HUB represents the core management of each district. There are five Punto e Linea HUBS: HUB Barona, HUB Baggio, HUB Giambellino,

HUB Gratosoglio, distributed over three different zones of Milan, and HUB Sovralocale, which has the task of supervising and coordinating the other HUBs activities.

2 The Strategic Analysis presented as part of the TANGO project process is now available in two internal reports of the DIS unit: *Strategic analysis: sustainable initiatives in four Milanese districts: Baggio, Barona, Gratosoglio, Giambellino,* and *Strategic analysis: Best practices of sustainable intergenerational dialogue,* created by Elisa Bacchetti, Alberto Fossati and Claudio Sarcì tutored by Carlo Vezzoli. The data collected are available online in audiovisual format.

3 The Hubbers are the people responsible for the 'Punto e Linea' initiatives for the four HUBs.

4 The Sustainability Design-Orientating toolkit (SDO) was first developed by Carlo Vezzoli and Ursula Tischner within the MEPSS project (EU 5th FP Growth) and refined within the LENS project (EU Asia-Link).

5 Demographic data from Demographic Data 2010, Comune di Milano, Statistic Sector & S.I.T. Statistic Service.

6 Movie Design Lab of the Politecnico di Milano: prof. Marisa Galbiati, prof. Francesca Piredda, dr. Davide Grampa and dr. Gabriele Carbone.

7 For example, the Master's student for the HUB Baggio proposal organised a meeting with the person responsible for the Baggio Time Bank, Fiorenza Bonasio, as an expert in the field and possible stakeholder for the sustainable PSS project.

MARISA GALBIATI, MARIANA CIANCIA, FRANCESCA PIREDDA & CARLO VEZZOLI

INTEGRATING AUDIOVISUAL COMMUNICATION INTO SYSTEM DESIGN FOR SUSTAINABILITY

The Method for System Design for Sustainability (MSDS) has been adopted in the development of the four Sustainable Product Service System proposals for the four districts of Milan, forming the Strategic Analysis, Exploring Opportunities, Designing System Concept and Designing (Engineering) System phases using the MSDS Method's co-design tools such as the offering diagram, system map, interaction table-storyboard, stakeholders' motivation matrix, Sustainability Design-Orientating toolkit, etc. Nevertheless new tools from the field of communications have been adopted and adapted, in particular the miniDOC, Audiovisual System Concept and Animatic audiovisual tools. These audiovisual tools have been tested and result in very effective visualisation for information-sharing during the participatory design process.

In particular, miniDOC has been used to co-analyse with the stakeholders of the existing system/offer and then to show the design students on the System Design for Sustainability course the results of the Strategic Analysis of the 'Punto e Linea' contexts, offers and proposers (for each of the four districts). After the Strategic Analysis the audiovisual tools were used, giving a further level of detail to form the Exploring Opportunities, Designing System Concept and Designing (Engineering) System phases.
Last but not least, the Audiovisual System Concept will be a fundamental communication and participatory design tool in the TANGO exhibition in Milan. This is understood to be fundamental because it aims to foster interactions among both the general public and the selected targets: testing the TANGO exhibition as a lab and window for participatory design activities and as an agent of change proposing concrete sustainable PSS innovations. In this chapter, we briefly introduce the three above-mentioned tools: miniDOC, Audiovisual System Concept and Animatic.

*Concept table describing
key aspects of the context.*

*Frame extracted from
a miniDoc visualisation.*

MINIDOC[1]

MiniDOC is a video tool able to support
internal dialogue among decision-makers
involved in a system co-design process. In a
short length of time (about five minutes) the
tool visualises the key aspects that emerge
from the analysis work through: identifying
case studies and best practices; video
interviews with stakeholders; and research on
historically and contemporary iconographic
repertoires useful for reconstruct memories
and stimulating the imagination. The
specific purpose of the tool is to explore and
map the context, build and promote new
imaginative ideas about the research field,
and facilitate dialogue among stakeholders.

Integrating the tool into the
MSDS design process
MiniDOC can be used as an audiovisual
output of the analysis phase. In **Strategic
analysis,** miniDOC may be used to
describe and visualise the key aspects
(strengths and weaknesses) that emerge

in the research phase. It may be useful
to identify contexts, actors and clusters in
a format that can become a good starting
point for dialogue among decision-makers.

The tool requires the use of editing
and compositing software. It is thus
based on narrative structures.
Not only does miniDOC allow all
stakeholders to be involved in the material
collection (iconographic repertoires and
video interviews), but it also forces designers
to gather and organise the key elements
into narrative and aesthetic clusters.
Hence the context under investigation
becomes a source of inspiration for
the development of the project.

Materials can be collected using different
devices (video cameras, mobile phones,
or cameras) and, when edited, can easily
convey complex information. Designers
can present different interactions by
combining recorded materials, infographics
and audio. It is also possible to transmit

these outputs onto the net to manage online discussions (e.g. conference calls).

The **result** is an audiovisual format based on a narrative structure that is able to show the current state of the art of the field being explored. Exploiting the potential of audiovisual storytelling, miniDOC allows stakeholders to produce reflections that become the source of inspiration for the subsequent design project.

The tool **requires** the use of editing and compositing software (e.g. Adobe Premiere, Final Cut or others for editing and After Effects or the equivalent for compositing). Good communication and technical skills are required to create the storyline and the editing. It is therefore recommended that a communication designer is employed who is able to translate the information gathered during the analysis with expertise that goes beyond visualisation.

AUDIOVISUAL SYSTEM CONCEPT[2]

The Audiovisual System Concept is a visualisation tool that was conceived for idea and concept generation; it is able to bring tangibility to ideas in order to shape the design project. This tool, as well as miniDOC, enables the production of project outputs that visualise concepts, which become the starting point for discussion among the actors. In particular, the tool uses a short video format (usually around three minutes) based on a three-act narrative structure: the first

part shows the context; the second part asks the typical design question for an envisioned future: 'What if…?'; the last part visualises a possible solution. The aim is to show possible concepts and to stimulate imagination and conversation among different actors. Audiovisual System Concept has been developed to be a useful tool for the design process, enabling the sharing of concepts among the various project participants.

Integrating the tool into the MSDS design process
The Audiovisual System Concept becomes increasingly detailed throughout the design process.

When **Exploring opportunities,** a basic form of the Audiovisual System Concept can be used to visualise the different phases of a new idea to make it understandable and facilitate the learning process. It allows participants to relate the different mental images that are involved in the construction of a shared concept. This yields a semi-finished product capable of promoting a collective conversation.

When **Designing the system concept,** the Audiovisual System Concept may be used to visualise possible design concepts to encourage comparison among different points of view. This allows stakeholders to identify needs and develop a shared path with the design team.

To support the most effective and creative dialogue, it is recommended that

Examples of Audiovisual System Concept's ability to communicate results.

a communication designer works with the design team on these activities: listening – organising the key functions (strengths and weaknesses) into narrative and aesthetic clusters; script and storyboard – definition of the storyline and storyboard; and production of the audiovisual visualisation.

When using the Audiovisual System Concept the stakeholders take the main role and cooperate with the design team on the definition of the ideas themselves: they are able to enrich the meaning of the images with their own ideas, knowledge and experience.

The **result** is an audiovisual output able to visualise the ideas (using aesthetic language appropriate to the objective) that are generated during the design process: hence communication design can provide an epistemological and aesthetic contribution to envisioning a possible future.

The tool **requires** good communication, storytelling and technical skills. We suggest involving all of the participants in the listening activity, for organising the key functions and the idea generation. Good writing and graphical skills are required to create the storyline and the images for the storyboard, which could be directly drawn on paper or created using photo editing software. Good skills in editing and compositing are necessary for Pre-production, Production and Post-production activities.

Example of a work-in-progress Animatic, a simple video collage with dialogues and sounds.

ANIMATIC

Animatic is a visualisation tool able to support the co-design process. It's an animated storyboard which edits images with dialogues and sounds.
This audiovisual tool allows the design team to visualise a detailed sequence, giving an idea of the timeline of the action. Basically, the tool is an audiovisual representation able to visualise a detailed sequence, add information about the duration of actions and promote a collective conversation among the actors who are involved.

Integrating the tool into the MSDS design process
When **Exploring opportunities,** Animatic can be used to: visualise the different phases of a new idea in order to make it understandable and facilitate the learning process. This

produces a semi-finished product capable of representing processes and relationships in a schematic way and able to promote collective conversation.

When **Designing the system concept,** Animatic can be used to visualise a sequence of actions with an indication of time and space. This simulation allows the design team to gather different points of view on the project.

Animatic can be used as an internal communication and participatory design tool. It produces a simple video collage obtained from the linear editing of drawings and images originating from the storyboard, with added dialogues and sounds. It is advisable to use graphical image processing software to add graphical elements. As an alternative, we suggest the use of slideshow software (e.g. Microsoft PowerPoint) or basic editing software to draw up a storyline able to render the materials that have been gathered.

The result is an audiovisual output made up of heterogeneous materials collected with different devices: a step beyond an animated storyboard capable of visualising ideas to promote dialogue among stakeholders. Animatic can evolve in greater and greater detail during the design process, up to the complexity of the Audiovisual System Concept. Use of the tool requires basic graphic, storytelling and technical skills.

LESSON LEARNED FROM
THE TANGO PROJECT

The MSDS has been evaluated positively, but the introduction and adaptation of audiovisual tools has been understood as key for success in achieving a real possibility for implementation, when the innovations involved are so far removed from business-as-usual solutions. These approach and new directions for methodological development seem to be promising in terms of facilitating the design of the transition path leading towards the real implementation and diffusion of sustainable solutions, which necessarily involves several and variegated stakeholders in a participatory design process. Audiovisual communication tools must therefore be conceived and designed as a system, a platform to support interaction between stakeholders involved in the process including their appropriate competences and points of view. Communication design should contribute to configuring forecasts, creating controversial and implementable ideas, prefiguring brand new realities, and making them visible and imaginative at the same time. If it does this, it can play an important role in shaping design proposals. As far as the design discourse is articulated in several steps and actions, multiple expressive means are required in order to facilitate strategic conversation and decision-making processes. To conclude, introducing audiovisual storytelling and envisioning it in system design for

sustainability processes and practices seems very promising in supporting image (imaging) production, and stimulating the imagination (imagining) and collaborative processes in order to translate and 'engineer' images and visions into real concrete phenomena of everyday life (imagineering)[3].

NOTES

1 It is possible to see examples of miniDOC developed during the Imagine Milan project on the MovieDesignPolimi channel http://www.youtube.com/user/MovieDesignPolimi/featured

2 The Audiovisual System Concept is usually known as the Audiovisual Scenario: for further theoretical information see Piredda, F. (2008) 'Design e comunicazione delle pratiche sociali tra cinema, televisione e Web'. Convergências, 2. Retrieved from http://convergencias.esart.ipcb.pt/artigo/23.

3 See Walt Disney Imagineering (WDI, better known as Imagineering) is the Walt Disney Company's department dedicated to development and responsible for the creation and building of thematic parks all over the world. The creative process consists of 'blue sky speculation': 'Imagineering is, first and foremost, a form of storytelling, and visiting a Disney theme park should feel like entering a show'. http://www.imagineeringdisney.com
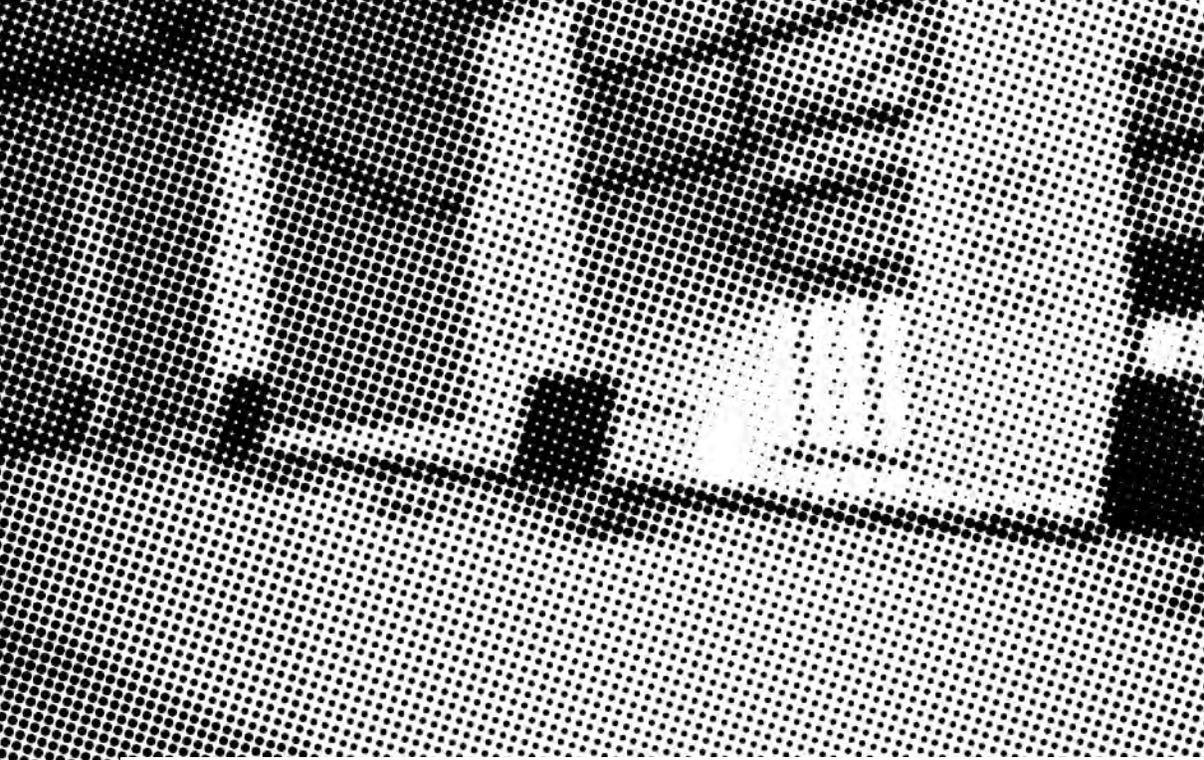
KIRSI NIINIMÄKI, HENRI HALLA-AHO & INKA SAINI

LIGHTNESS, LAYERS, LOCALITY: A SUSTAINABLE EXHIBITION CONCEPT FOR NANTES AND HELSINKI

This chapter describes the main approaches taken with the TANGO exhibition architecture concept for Nantes and Helsinki designed by Henri Halla-aho and Inka Saini. The approach in this text is practice based and it opens out the main design approaches for these exhibitions. Furthermore the article briefly discusses some principles for sustainable exhibitions. While doing so, the article provides an understanding of exhibition concepts in the context of sustainability.

INTRODUCTION

A sustainable exhibition is a challenging task. Here we first present some general principles used while aiming for sustainability in exhibition planning and second we discuss the concepts used in building the TANGO exhibition in detail. All exhibition structures should be long lasting, reusable as such, or suitable for redesigning. Furthermore, eco-efficiency principles should be kept under consideration. The eco-efficient way to produce products is to use as little materials as possible to produce as much of an item as possible without losing durability. Dematerialisation through lightness is one way to improve eco-efficiency in elements of exhibition construction. Simplification can be achieved through careful consideration when creating the palette of materials to be used (ABEYASEKERA & MATTHEWS 2006).

All of the materials needed for an exhibition building should be chosen to have as little environmental impact as possible. Exhibition materials should preferable be recycled instead of non-renewable or new materials. Wood materials should be traceable and also burnable whenever possible (ECODESIGN 2009). High quality and long use time are essential when choosing materials for sustainable exhibitions. Emissions from the chosen materials can be calculated and the results shared with exhibition visitors.

If the exhibition building is going to be built from scratch, the design should use daylight to its maximum capacity. Daylight is a separate entity from sunlight. Daylight is natural light which is indirect and diffused. A sustainable exhibition building is designed to minimise direct sunlight and maximise quality daylight (WINCHIP 2011). Of course this cannot be achieved in all geographical areas: for example, in Finland the daylight available in wintertime is not sufficient for exhibition purposes and some additional exhibition lighting is needed. However, combining daylight with supplementary electric lighting offers the possibility of conserving energy use. When artificial lighting is needed, the use of low-energy and durable lamps reduces electricity usage (ABEYASEKERA & MATTHEWS 2006).

If electrical equipment is being used in the exhibition space, as is the case in most contemporary exhibitions, its energy (heat) should be utilised. In particular, computers and flat screens produce a lot of heat which raises the temperature in the exhibition area.

The use of local materials and local work whenever possible is a good way to improve sustainability. Furthermore, emphasising locality increases the cultural value of the exhibition. Unnecessary use of transport should be avoided whenever possible (ABEYASEKERA & MATTHEWS 2006). Using local solutions minimises the need for transportation and therefore locality decreases the carbon footprint of the exhibition.

An exhibition also needs information materials. Very many publishing companies follow green procedures in their work. This means using recycled paper, using environmental certificated paper, or printing using environmentally friendly vegetable oil based inks (ABEYASEKERA & MATTHEWS 2006). It might even be wise to consider avoiding printed material totally and thinking up some new ways to produce invitations and information, for example through the use of social media instead of printed materials.

EXHIBITION CONCEPT FOR NANTES AND HELSINKI

The following section describes the exhibition concept for Nantes and Helsinki, which was designed by Henri Halla-aho and Inka Saini. The main approaches in these exhibitions were lightness, layers and locality. The main goals for these exhibitions were light installation and the possibility of using the elements of the construction for both exhibitions. The display systems were inspired by everyday surroundings and situations, especially home. Therefore the display structures symbolise window frames and hanging fabric elements like clothes lines. The aim was to create an interesting and layered yet familiar setting where it would be easy for visitors to enter and spend time.

LIGHTNESS AND LAYERS

Because of the nature of the TANGO project, as a collaboration between three different universities and countries, and to showcase the work and process done by the students, the exhibition was formed as a travelling exhibition which would visit the countries involved in the project.

As the exhibits themselves mostly comprised details of rather abstract design processes, it was challenging to plan how to present them in the exhibitions. Only a few physical objects were presented in the exhibitions. The processes were presented as slideshows and short films, either on big screens or small iPads placed inside hanging frames.

It was necessary to design structures to present the content of the exhibition that would divide up the space and offer a background for the works and a surface on which to present the related information. A modern setup was designed using rough natural materials: linen and raw wood instead of pure white and polished wood. Ready-made hardware fittings were also used in the structures. By selecting tangible materials familiar in the everyday life of all of the three countries it became possible to link the overall TANGO theme with the exhibition design itself, both concepts supporting each other.

For the travelling TANGO exhibition there was a desire to design and make
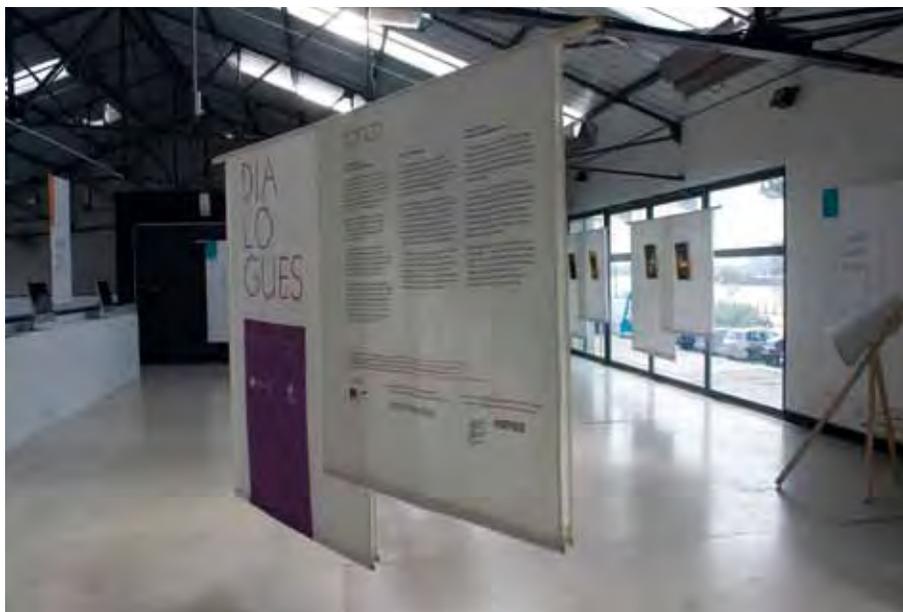
Hanging info fabrics in Nantes.

the structures as light as possible in terms of physical, visual and sustainable elements. Instead of a typical exhibition layout with heavy and solid walls, the use of hanging fabric elements created a light and partly transparent composition. The colours chosen for the textiles supported the visual identity of the TANGO project and moreover added warmth to the general overview. The same colours can be found in the exhibition catalogue, invitation and final publication. The selected colours also represented each partner country (Finland, France and Italy) and university, and therefore the use of colours informed the visitor as to where they would find each university's exhibits.

The exhibition structures were based on associations from everyday life that are familiar to everyone (window frames, clothes lines and garments). However, they were shown in a somehow abstract way in order to create a layered atmosphere that would fit and reflect the diverse themes of the exhibition.

The use of layers in the display systems in both exhibitions, especially in Helsinki, with their added projections and openings in the dividing elements, supported the idea of lightness and transparency in the space as well as the diversity of situations and events in everyday life. People, both young and old, view their surroundings from different perspectives with different

Cube in Nantes.

feelings and attitudes. This creates interesting and surprising reactions and everyday situations between generations.

LIGHTING

In Nantes we were very lucky with the exhibition space, Hangar 32 in which it was possible to use the plentiful supply of indirect and diffused daylight. Therefore it was possible to use maximum quality daylight as the main light source in the exhibition. The situation was totally the opposite in the Helsinki Design museum, where the exhibition space was on the basement floor without any daylight. Therefore

the starting points for lighting the exhibitions in Nantes and Helsinki were the opposites of one another. The open exhibition space in Hangar 32 in Nantes benefitted from natural sunlight whereas the exhibition space in Helsinki, in the basement of the Design Museum, had no windows and was also constrained by columns and interruptions to sightlines.

LOCALITY

Locality is important principle while aiming for sustainability in exhibitions. Some of the necessary materials and pieces of equipment were arranged locally, which reduced the need for

transportation. Additionally, one of the exhibited works, Cube café, was built locally from existing drawings, which fitted the concept of the Cube as a socially produced movable local pop-up space well.

CONCLUSIONS

This text opened up the design concept for the TANGO exhibition planning and building in Nantes and Helsinki. The main approaches in these exhibitions were lightness, layers and locality. When an exhibition includes mainly exhibits which present certain processes, it is a challenging design task to create an interesting, sufficiently simple, yet coherent exhibition concept. Light frames and hanging fabrics created a muted appearance for these exhibitions. Yet these elements work as a clear background for the works to be presented. The exhibitions succeeded in creating a layered and interesting composition without losing clarity. In this way and with the materials selected, and furthermore a resolutely local approach, they also contributed to sustainability.

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CARLO VEZZOLI, ALBERTO APREA, LU JEIFENG & ZHANG LINGHAO

ENVIRONMENTALLY SUSTAINABLE EXHIBITION FOR DESIGN SCHOOLS

An additional goal of the TANGO project is to design an exhibition system for design students' projects, which have to be, among other requirements, environmentally sustainable: its design is in an open source and copyleft logic. In this paper we summarise the research that has been carried out and the results that have been achieved, i.e. the design of a sustainable exhibition system which has been used for the first time to display content related to the TANGO project during an event took place in Milan in April 2013 during the Salone del mobile. This contribution forms part of the Alberto Aprea's Master's thesis project, supervised by prof. Carlo Vezzoli and has further development and prototyping has been carried out at DIS (Design and Innovation for Sustainability) Research Unit of Politecnico di Milano together with visiting prof. Zhang Linghao and prof. Lu Jeifeng.

In fact, the design process, coordinated by the DIS (Design and Innovation for Sustainability) Research Unit of the Design Department, Politecnico di Milano has initiated a collaboration with the Politecnico di Milano Exhibition Lab. The process was developed following the MPDS method (Method for Product Design and Sustainability) evaluating, as a first stage of strategic analysis, the environmental impact of the exhibition system currently being used by the Politecnico di Milano (with an LCA). The next stage of exploring opportunities involved students from the 'Design per la sostenibilità ambientale' course run by prof. Carlo Vezzoli as part of the undergraduate degree at the Politecnico di Milano School of Design. The results that came out of this consisted of some explorative concepts, each evaluated in environmental terms.

The results of this first stage were the starting point for the full-blown concept design phase. Starting from only the most promising explorative concepts, it initiated the design of the new exhibition system, thus featured: X-RAIL is extremely durable in all its components as well as adaptable to different kinds of student project presentations, from posters to films and mock ups. Its structure is basic ('wire shaped') and results flexible in order to be able to respond to venues with different features. It is made with locally sourced elements, simplifying its production and assembly.

THE DESIGN OBJECTIVES AND BRIEF

One goal of the TANGO project is to design a travelling exhibition, which must be environmentally sustainable and accessible, in an open source and copyleft logic. The brief of the project (evolved during the research design) was defined as follows: Design a highly adaptable and long-lasting exhibition system to be used initially by the TANGO exhibitions, and then to replace less environmentally sustainable exhibition systems used within the three universities.

The requirements are as follows. The exhibition needs to be usable for video-based, paper-based and/or model-based student project presentations, and in order to be eco-efficient, it needs to be designed in accordance with the following strategies:
- Durable/adaptable for different types of student project presentations, from video-based, to paper-based and/or mock up-based presentations, aiming towards an 'eternal university-owned exhibition kit'
- Low energy consumption/impact for video installation and/or lighting systems, aiming towards a 'zero energy impact exhibition'
- Minimal and locally based exhibition elements, aiming towards a 'wired-shaped' exhibition
- A digitally travelling exhibition, transporting only concepts and transporting materials as digital files, aiming towards a 'zero road/rail use'
- Although this is lower priority, easily recyclable exhibition components, aiming towards a 'zero waste exhibition'

THE DESIGN PROCESS

The design process, coordinated by prof. Carlo Vezzoli, has initiated a collaboration with the Exhibition Lab of Politecnico di Milano, involving as lead designer Alberto Aprea, a postgraduate design student and the undergraduate students of the Politecnico di Milano School of Design. The design process was developed following the MPDS method (Method for Product Design and Sustainability), characterised by the following phases: Strategic Analysis, Exploring opportunities, Concept design, Product design and Communication. We will go on to describe those phases as applied to the low environmental impact exhibition system project.

Strategic Analysis[1]: The strategic analysis moved in several directions in order to have as complete a view as possible of what it means to design a sustainable exhibition system. In particular, the research has been divided primarily into two parts:
- Analysis of existing exhibition systems which were considered as representing best practices towards environmental sustainability
- Life Cycle Assessment (LCA) of the various elements of the exhibition system used by the Politecnico di Milano (and in particular the Exhibition Lab), and identification of Life Cycle Design priorities (to orientate the project towards the most promising idea generation and concept development).

The Exhibition Lab of the Politecnico di Milano was initially involved in this practical stage in order to analyse the exhibition system used during events organised by the university, mainly to display content related to student projects, for events organised by the university and in some cases external events, hosted in the venues at the Politecnico di Milano.

LCA has been undertaken on three different kinds of exhibition option: 1) Paper based (i.e. content is shown only with images and texts on actual paper posters); 2) Projection based (i.e. content is shown only in the form of the projection of images and videos); 3) Half paper / half projection based. From this first step, and comparing the three exhibition options, some considerations about the environmental impact of the different kinds of display were identified.

Exploring opportunities: operationally carried out by students on the 'Design for Environmental Sustainability' course.

Concept design
In the first stage, aimed at exploring sustainable opportunities, students on the 'Design for Environmental Sustainability' course were then asked to generate sustainability-focused ideas. The ICS (Ideation of Sustainable Concept) toolkit was used for this, and then they were asked to design and assess some

explorative concepts in environmental terms (based on and inspired by the results of the strategic analysis). The most promising explorative concepts created by the students, which were useful to give suggestions that would move towards the design of the TANGO exhibition, are presented below.

In the second stage, starting from the results of both the 'Design for Environmental Sustainability' course and the strategic analysis, the design brief for the sustainable exhibition was refined and at this point the true concept design phase began.

Product design
After the definition of the product concept, and its main aspects, the process started to deepen to specify the technical aspects of all of its parts and compositions, in order to ensure that the design responded to the main needs and issues of the exhibition. The project has been prototyped, and a Life Cycle Assessment was carried out to assess the environmental advantages as compared with the existing system. The results are summarised in the following section.

X-RAIL: A SUSTAINABLE EXHIBITION SYSTEM FOR UNIVERSITIES

X-RAIL is an extremely durable, adaptable and low material-intensive exhibition system aimed at any kind of student project presentation, from

X-Rail griper

X-Rail magnet holder

posters to films and mock ups, etc. Its structure is based on a horizontal rail with a U-shaped section made from recycled aluminium used as support for display panels, printed boards and projecting sheets. A magnet clip system has been designed, enabling the simple clipping, relocating and removal of the above-mentioned panels, etc.

The rail can be used with a self-standing supporting structure (made of aluminium extruded profiles connected using standard elements, such as key rings and carabineers) so to be suitable for every kind of exhibition, and as a cable system where ceiling hanging is available/applicable. The extruded aluminium rail is available in three different lengths in order to respond to different exhibition requirements by being adaptable to the venues' features.

All components have been designed to be easily recyclable (aiming towards a zero waste exhibition). Further developments will comprise a final engineering process following production. It was tested for the first time during the TANGO event in Milan. The product aims to respond to several exhibition needs for universities. The attention in the final process is focused on the display of mock-ups, posters and projected content, in order to fulfil the basic exhibition needs of universities and so be suitable for the purposes of TANGO.

The intent was design an 'open' exhibition system which can be used by several universities which have the same needs regarding content display. For this reason, the design refers especially to architecture and design schools but can be suitable for other kinds of scope as well. As exhibition needs and

X-Rail self-standing system

configurations options may change over time, the system intends to consist of a base range of components, which when assembled are able to support different exhibitions and, at the same time, can be enhanced and developed over time, through continuous use, practical issues and considerations. The exhibition system is adaptable and configurable in many ways in relation to the features of the space in each venue.

CONCLUSIONS:
THE ENVIRONMENTAL ASSESSMENT

The results of the LCA analysis show that X-RAIL reduces the environmental impact of any exhibition configuration, compared to the existing system used by the Politecnico di Milano (Exhibition Lab).

Whether the exhibition is a video-based or poster-based, the high flexibility and adaptability of the new system, together with its high materials recycling and environmental rating, reduces the global environmental impact. To demonstrate the environmental assessment of the new exhibition system compared to the existing one, the LCA results considering an exhibition in Milan are shown below. For this LCA were considered a seven-day exhibition in Milan; for both of the exhibition configurations (video based and poster based) we considered the transportation of the display modules from the Politecnico di Milano to the exhibition venue.

LCA results for the poster-based exhibition in Milan
The two configurations impact as follows:
- X-RAIL exhibition system poster-based in Milan – 1.72 ecoindicator 99 pt
- Existing exhibition system poster-based in Milan – 6.91 ecoindicator 99 pt

It can be noted that the single life cycle phases contribute to the overall impact of each configuration:
- Regarding the existing exhibition system, the main impact is provided by the pre-production and production phase, which determines about 70% of the overall impact
- Regarding the X-RAIL exhibition system, the main impact is provided by the use phase, which determines about 60% of the overall impact

Existing exhibition
system poster

X-Rail
poster

Existing exhibition
system video

X-Rail
video

99

0

■ PRE PRODUCTION & PRODUCTION   ▢ USE

▢ DISTRIBUTION   ■ DISPOSAL
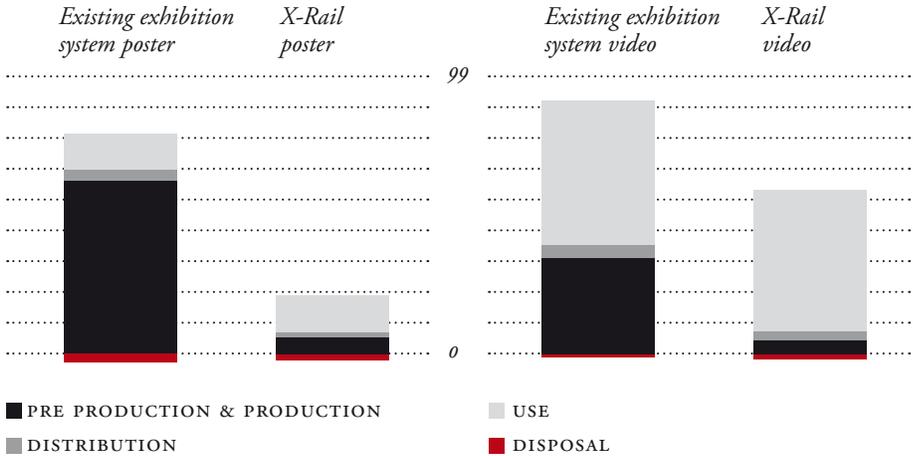
Eco-indicator 99 (pt)

Eco-indicator 99 (pt)

From this comparison it emerges that the designed exhibition system has less impact in the pre-production and production phases. Comparing the PP+P data for each of the two considered setups, the X-RAIL impacts about 85% less than the existing exhibition system.

LCA results for the video-based exhibition in Milan
Considering and comparing the two video-based configurations for the Milan exhibition, the higher impact results from using the existing system.

The two configurations impact as follows:
- X-RAIL exhibition system video-based in Milan – 5.2 pt
- Existing exhibition system video-based in Milan – 7.8 pt

Considering this configuration, the X-RAIL again results in less impact than the existing system.

The USE phases impact the same and for both the configuration results in the highest contribution to the overall impact. However, the difference between the impact of the two options are less different, as the USE phase provides the highest influence on both of the configurations and does not change its values in relation to the system being used. Using the X-RAIL system instead of the existing one, for the video exhibition, contributes to reducing around 30% of the overall impact.

NOTES

1 This phase was operationally carried out by Sara Cortesi and Alberto Aprea, postgraduate students.
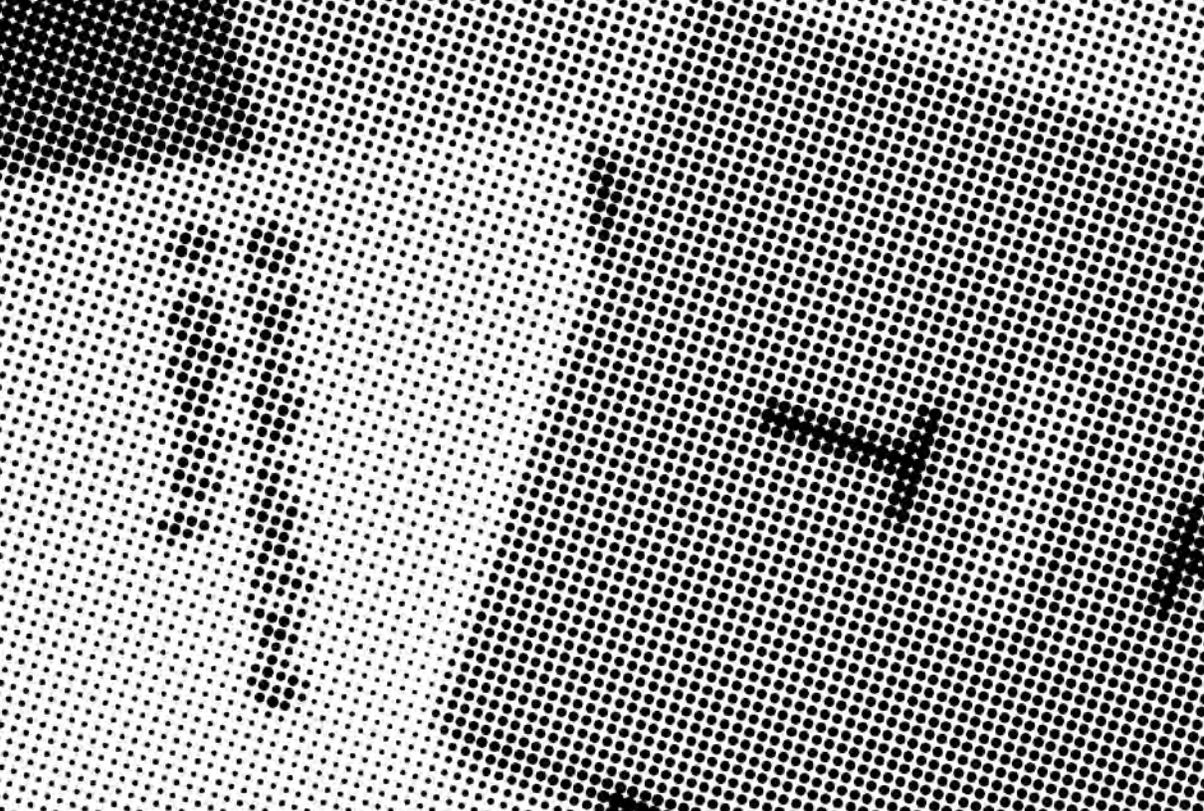
GENEVIÈVE CORREIA, MATTHIAS RISCHEWSKI & NATHALIE TEMPLIER

DESIGNING THE EXPERIENCE REPORT IN A SUSTAINABLE WAY

The objective of the following article is to gather the process, ambitions and findings produced by students and teachers during the TANGO series of courses on designing visual identity and sustainable publications.

The article focuses on the method of design education at L'École de design, and retraces the feelings/mood changes of the students during the 12-week workshop based mainly on dialogue, their stand taken towards sustainability and the final outcome.

The book you are reading is part of the results of the workshop.

NEEDS FOR COMMUNICATION

The TANGO exhibitions are the final outputs of a collaborative and sometimes confrontational process. They are the results of curation work and scenography design, led mainly by the Aalto teams. Communication towards a general public audience is part of the project, through electronic media and printed material. In addition to this general communication, the whole process of the collaborative AH-DEsign project has been reported and archived for the institutional partners (e.g. those responsible for the EU funding) and academic collaborators.

WHY PUBLISH A 'BOOK'?

Balancing the need to report existing materials and the focus on sustainable development, the – justified – question arose. Would it be responsible to produce printed matter or put it solely in electronic form?
With all the limitations in the measurement of the ecological impact of communication choices, there are still some points of reference which are often forgotten in discussions: digital communication consumes large amounts of energy, and the archiving of digital media is not a fixed issue in relation to the obsolescence of storage technologies and – again – energy use (CARLI 2010). Besides this, there are existing frameworks that can be used to reduce the environmental impact of printed

matter (e.g. clear definition of audiences, planning of effective distribution, choice of recycled paper, etc.) (REUMONT 2012). The academic character of most of the texts, the intention to keep track of the outcomes and the opportunity to publish the book through the Aalto publishing house directed our choice towards the form of a printed book.

WHY SET UP A VISUAL IDENTITY?

Although a 'TANGO logo' was designed two years ago for institutional requirements – communication between academic and institutional partners – it was obvious that the exhibitions and some of the publications would need a stronger visual identity as they would be used in public spaces (more visual competition) and would be aimed towards a greater audience (fewer possibilities to define expectations).

WHAT IS A 'SUSTAINABLE' PRINTED OBJECT?

A printed object is necessarily regarded as an 'object with a life cycle'. Each stage of usage of that object has to be considered: planning, printing, distributing, reading, storage/disposal. Although choice of media was not supposed to be questioned, students had to take into account and compare ways of addressing their audience, printing techniques, and different strategies for handling the life cycle of the product. All of these questions had to be considered in terms of their ecological, economical and social aspects.

FIRST SESSION
PROJECT LAUNCH

clear

EASY ·
TO UNDERSTAND ·

COMPLEX
MATTER   EXPERIMENTAL
SCEPTICAL ·
INTERESTING

ominous

BEYOND
MY CAPACITIES   DOUBTFUL·   WITHIN
MY CAPACITIES
WORRYING   COMPLICATED
UNCLEAR   CHAOS
CLOUDED   FUZZY ·
UNORGANIZED
CONFUSING·   FOGGY

KEY
● ONE STUDENT'S OPINION
most extrem student's opinion   VERY FUZZY

· DIFFICULT
TO UNDERSTAND
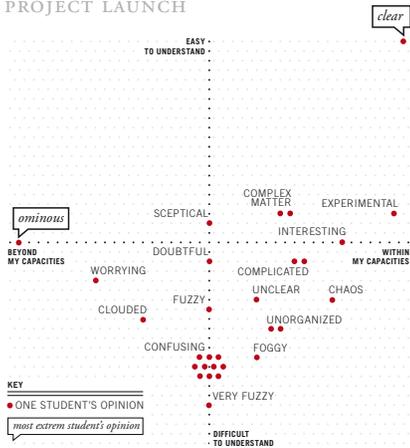
SECOND SESSION
TUTORED COURSE

clear

EASY ·
TO UNDERSTAND ·   ENLIGHTENING   COOL

CLEARER
insurmountable   CLARIFYING
A LITTLE
CLEARING   CLEARER
REFRAMING
OPENING   CONSTRUCTIVE
STARTING   CONCRETE
NOW
PRODUCTIVE   INTENSE

BEYOND   MIXED   WITHIN
MY CAPACITIES   TIRED   FEELINGS   MY CAPACITIES

ANXIOUS
WORRYING

· DIFFICULT
TO UNDERSTAND
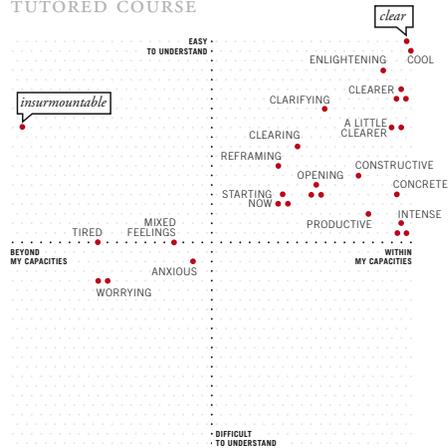
Mood tracing: students wrote down their overall impression after each session. A large majority is lost after the projects' initial session. But already the second session shows great confidence

Changing the format of a publication by a few centimetres can dramatically reduce its impact. Choosing a slightly smaller typeface will not affect readability but will significantly decrease the number of pages. Choice of paper is not just limited to paper made out of 'used paper' or 'new pulp'. Mixed source papers limit the impact on new paper pulp production whilst maintaining very good printing behaviour. The supply chain of products is questioned, which also implies examining where certain products are coming from.

TURNING A REAL WORLD PROJECT INTO A CASE STUDY

Beyond the practical needs of the TANGO project – the exhibitions and the books – we had to ask ourselves

in which means this objective can be compatible with a pedagogical project. Three main themes stand out in the TANGO project: dialogue, intergenerational issues and sustainability.
We focused mainly on a dialogue approach, and the fact that the publications should be sustainable. Although no 'intergenerational dialogue' experience has been integrated into the courses, the importance of elderly people was quite clear in the definition of the brief: as composing text and white space is part of the layout process, the role of the designer is to take into account different reading conditions and expectations.

By the time the structure of the courses has been decided, no text had been written, the target audiences had not been clearly defined, the number of copies was not yet

FOURTH SESSION
STEP I PRESENTATION

excellent

EASY ·
TO UNDERSTAND ·

EXHAUSTIVE   ● ● REWARDING

WAITING
TO GO FURTHER

USEFUL

DÉCISIF   CONCRET

SHOW-
TIME

fear

TOO SHORT   ·CHARGED   NEED   FINISHED
                        FOR SLEEP

BEYOND   WITHIN
MY CAPACITIES   TOO MUCH   MY CAPACITIES

· DIFFICULT
· TO UNDERSTAND

FIFTH SESSION
TUTORED COURSE

life is beautiful

EASY ·
TO UNDERSTAND ·

                    LET'S GO
            BIRTH

        BEGINNING

CAPABLE   GENESIS
TO DEAL WITH
            SEEDING
    FINALLY
    CLEAR

traumatic   'ROUGH SEA'
              STATE   ·PUZZLED

BEYOND   WITHIN
MY CAPACITIES   MY CAPACITIES

· DIFFICULT
· TO UNDERSTAND

among the majority of students. The percentage of students expressing negatif feelings stays stable: throughout the course around 15 percent felt anxious about their capacities...

known and no image materials had been identified. Even the title of the book was not yet known. This was clearly a counter-productive situation in a pedagogical way (how does one practise a user-centred design approach if the user is not identified?) and also against the basic principles for a sustainable approach (see below), so we had to make some assumptions about the needs of the actual project. As the actual project evolved in parallel to the duration of the courses, we also included some input from it, to make sure that the outcome would fit.

Once the technical framework had been defined, we expected the students to need more support during this project, as conditions were fuzzier compared to other projects, and we developed the idea of 'tracing their moods' during the whole process.

The teaching methodology is mainly based on observing, experimenting, decision-making and sharing results. It organises the designers' activity into three major steps:
- Analysis of the context (technical, social, financial, artistic and competitive environment) and identification of an issue which can be addressed by a designer
- Conceptual definition of different solutions for the identified problem
- Detailed execution of one of the solutions

Sharing results is integrated at every step taking place during each stage, including presentations in front of the class, and is also integrated into the research phase of stage one, as students work in groups combining several teams.

Students' project of the book you are reading.

At undergraduate level, the educational framework is built up to provide a reassuring set of creative and analytical tools with which to explore unknown territories. The 'learning topics' in our project were 'sustainability' and 'visual identity'. In terms of motivation, the innovative part of a designer's work – the 'new' – can be considered as a stimulation or as a threat. For obvious reasons, its stimulating component is the one we have to push forward in our role as design teachers: we have to provide a way to deal properly with the angst and stress generated by the situation. During our workshop we addressed this problem through increased exchanges with our students. Also we reassured the students that not all issues of the real world project had to be considered wityhin the 'case study'.

LEARNING OUTCOMES

The learning outcomes for the book project are in detail:

- Set-up of a book design presenting scientific texts with references and illustrating images, setting up its flatplan, identifying and designing its template pages, setting up its typographical system, identifying the needs of optimised and modularised layout techniques (grid-based layout), solving technical issues on binding techniques
- Verifying layout and typographical choices by testing their readability and comprehension by continuously presenting them to the teachers' team, optimising choices
- Verifying format, printing methods, binding, and material choices by checking their compatibility with sustainable design principles, optimising choices

- Verifying choices by checking their appropriateness by asking for quotes from printing shops, optimising choices
- Explaining choices by illustrating them (flow charts, comparative diagrams of resource usage, scenario-based sketches) within a presentation

The learning outcomes for the exhibition leaflet project are the same as mentioned before but include in addition an approach using a multi-language layout and reflection on 'end of life cycle' usage.

The learning outcomes for the visual identity project are in detail:
Identify possibilities to embody a common message in institutional and wide public communication through typographical and iconographical choices, without creating a 'sign' or a 'symbol'.

RESULTS

At the final presentation, all nine projects were presented to the teaching team and one representative of the three academic institutions. From these nine projects, the four best graded projects were selected to be presented to all of the academic partner institutions for a vote.

The academic partners did not know which of the four projects had scored the best, nor did they know the references used for notation. To our surprise it was not the project with the best grade that gathered the most votes: this project did not take the technical sustainability into account to the same extent as the other three projects: it used four-colour printing throughout the leaflet and generous 'white space', resulting in higher paper consumption. But it did a better job in creating an aesthetic and surprising object that you would like to keep, without becoming artificial: that simple fact partly solved the 'end of life cycle' issue, whereas other approaches (e.g. folding a paper plane out of the leaflet) were less appropriate.

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NEW APPROACHES: EMPATHY
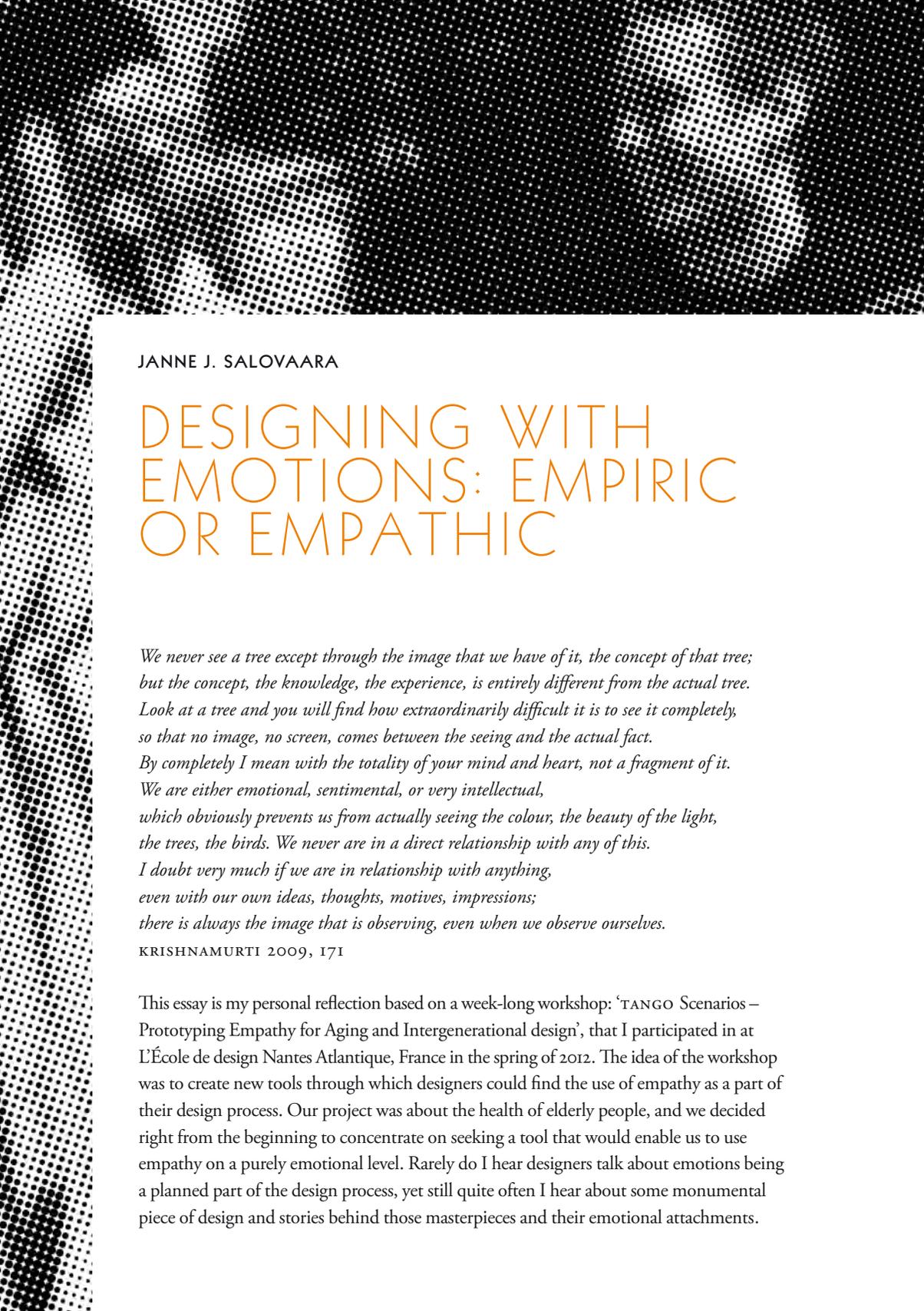
JANNE J. SALOVAARA

DESIGNING WITH EMOTIONS: EMPIRIC OR EMPATHIC

We never see a tree except through the image that we have of it, the concept of that tree;
but the concept, the knowledge, the experience, is entirely different from the actual tree.
Look at a tree and you will find how extraordinarily difficult it is to see it completely,
so that no image, no screen, comes between the seeing and the actual fact.
By completely I mean with the totality of your mind and heart, not a fragment of it.
We are either emotional, sentimental, or very intellectual,
which obviously prevents us from actually seeing the colour, the beauty of the light,
the trees, the birds. We never are in a direct relationship with any of this.
I doubt very much if we are in relationship with anything,
even with our own ideas, thoughts, motives, impressions;
there is always the image that is observing, even when we observe ourselves.
KRISHNAMURTI 2009, 171

This essay is my personal reflection based on a week-long workshop: 'TANGO Scenarios – Prototyping Empathy for Aging and Intergenerational design', that I participated in at L'École de design Nantes Atlantique, France in the spring of 2012. The idea of the workshop was to create new tools through which designers could find the use of empathy as a part of their design process. Our project was about the health of elderly people, and we decided right from the beginning to concentrate on seeking a tool that would enable us to use empathy on a purely emotional level. Rarely do I hear designers talk about emotions being a planned part of the design process, yet still quite often I hear about some monumental piece of design and stories behind those masterpieces and their emotional attachments.

THE DESIGNER'S VIEW

You often hear, when conducting user-centred design, the phrase try walking in their shoes. What I like to say is that one should rather try walking with their feet, to really know how the users feel. Here the difference in point of view gets more philosophical. As Krishnamurti (2009) puts it, truly seeing the subject is about getting over the analytical view, seeking for the understanding to open up the feelings, which gives one a wider spectrum from which to source. Gaining empirical knowledge about the end user of one's design process, using methods such as kneeling down to figure out a child's environment, or lying in a hospital bed for a day to understand the experience of a bed-bound patient, or designers mechanically blurring their vision, adding weight to their bodies and restricting their joints for a sense of what it is like to occupy an ageing body. In all of these cases, the perspective becomes too literal and plainly physical. Using the literal observing method, you will not feel what a kid or a patient feels or thinks, you will only see what they see, like looking at a picture that they have taken. Feelings are often social, and without actually being in the same social reality, the observation of feeling through your own social life, even if you have placed yourself in someone else's situation, is inadequate (BAUMEISTER & FINKEL 2010). The surface, whether that of a person or their environment, will only let you see what they see, but

you will still end up feeling how you feel having the same view. The issue here, I argue, is that in the empirical experiments of those designers who have physically put themselves into the situation, which I might add represents an over-simplified version of one's own reality, the experience is, as I have said, merely directly empirical.

Of course, through the use of that empiricism one should end up feeling empathy, but that would in most cases have its root in pity – which is not empathy. Empathy is not pity; it is also not saying I get it or ah, now I see. It's not compassion, either. To me, it involves recognising the feelings of others and really feeling those feelings as the other person. That's why I'd claim that a plain physical experiment walking in someone else's shoes is testing their shoes: not how the owner of those shoes feels in them, but how you feel in them. That involves empirical knowledge of the situation, not understanding the situation of others. Empathy towards the end user is evoked by aiming to walk with their feet. This isn't to say that empirical experiments aren't effective tools in some design processes; in fact, they are, and they have been proven to be a source of many innovations – to overcome physical challenges. Although understanding emotions won't bring specific knowledge about the unique needs of the end user, it will broaden the view of the end user's holistic needs, in a way that couldn't be explained by a solely

physical vocabulary. The emotional connection should also motivate the designer to go that extra mile when designing for a specific situation and a special need – a human need, thus an actual need. Designers who claim to design for others, instead of themselves or from their own perspective, should go that extra mile.

EMOTIONAL VERSUS EMPIRICAL

The difference between the two notions of emotional and cognitive connection are methodologically divided in the context of the design process. As I have claimed above, empirical knowledge gained by putting yourself as a designer in the physical location, in a version of the physical condition – thus the physical perspective – of the end user gives you a momentary glimpse of what it is like to be in someone else's perceived world. This method, for its purpose, remains a little shallow. What restricts it is the fact that the designer is not living the full reality of the end user, but is visiting it only momentarily, and still as themselves. One can just peek into the perspective but cannot fully understand what it is to be the other – one can only analyse what one sees in their situation, and that, in my view, isn't understanding the other – but is getting to know the situation of the other by your own definition. Of course, no perfect method exists to fully understand what it is to be someone else, but unexplored methods

might exist that can further deepen the understanding. The reason why I feel the undefined, unanalysed emotional experience to be more effective is that it is through empathy that we create a deeper connection to the actual most human need of the person we are trying to help through our design.

Empirical experience has an unfortunate characteristic: it involves us as professionals analysing it towards our own aims – towards fulfilling our own tasks. As Heidegger (1978, 12) puts it: 'Being is not something like being. As being is never close to the experience of existing, but it is exactly that.' This is precisely why, to me, it is an attempt to understand when your best effort is to try to be alike. Heidegger continues: 'To have to determine beings in their being beforehand and then on this foundation first ask the question of Being – what else is that but going around in circles? In working out the question do we not presuppose something that only the answer can provide?' By using this quote I want to express my view that the whole experiment – to put your self in another's shoes – is bound to fail and should nullify its own results by default, since the question was set to answer something else. As we try to understand someone's being, we try to approach it in an ontological way, as a sense of being, when we should understand the holistic being in a universal way. To be is rarely about the analysed form

of the experience of being as a whole. The process should be separated into phases: the empathic experience of being that will lead to analysis and doing. One must feel the feelings by letting them roll in as they are – on an emotional, not a cognitive, level. Being open makes one's receptors more attuned to these signals. It is then more about seeing that tree, and not just a concept of a tree. Analysis is part of design for sure, but it needn't be a part of experiencing others. There is a difference between being yourself in a situation and being someone else in any situation – the first may surprise you but the latter will impress you. 'The personal participation of the knower in the knowledge he believes himself to possess takes place within a flow of passion. We recognize intellectual beauty as a guide to discovery and as a mark of truth. …These emotions express a belief: to be tormented by a problem is to believe that it has a solution and to rejoice at discovery is to accept it as true' (POLANYI 1974, 300). That is to say, looking at the problem from an empirical perspective will give you the truth you look for and are able to see, the aim of your own process and the reason for you to visit the other person's reality. The difference between emotions as an open experience, as part of the process without a specific aim, and the analysed literal point of view or perspective, which is meant to deliver, is also the difference between accepting a truth and seeking a truth or any truth.

Even existentialism as the best version of universal being, the root of this pondering, is claimed to be too subjective (WARTENBERG 2008). Yet open emotions might help us to move from the subjective to the objective. Emotions have the power to change our thinking in a transformative way – the power to teach us how we think – but empiricism will only teach us what to think. 'Although we believe that there are others besides ourselves in the world, it is not easy to say what justifies this belief. Even if we allow that we have knowledge of the existence of bodies in the world that resemble our own, the question remains as to our justification for believing that there are minds attached to those bodies that are like our own minds in important ways. In the case of our own minds, we know they exist precisely because of the privileged access we have to them … But this direct knowledge is precisely what we lack in the case of other people's minds, to which we cannot have such direct and immediate access' (WARTENBERG, 2008, 48). The literal and analysed perspective is only one aspect of the truth, which we try to use as a guide in our design work. It might be an important one, but in most cases it is not the decisive one – it is one aspect of the aim of the design process in the same sense way as the road is one aspect of transportation, but emotion might be as important, as is the reason to travel on that road.

EMOTION AS A DRIVER

I claim emotion to be the best kind of driver for a special need design because emotion attaches better to the end user than any analytical method that might be used. This, in my view, is because analytics are aimed at fulfilling their own purposes, while emotions are shared. Analysis is an important part of the design case, but should in this case follow later on in the process, during the phase where one evaluates the suggested solution, looping it back through the feedback received from the analysis. The process undergone by any professional designer should itself have a natural life cycle that will carry through all of the particular phases – analysis being a part of this. Emotion will give the designer a personal attachment, not to the process itself, but to the end user, so as to fulfil their holistic view, rather than solely the suitable aspect of the end user that they can seemingly fulfil. Understanding the emotional landscape that the end user might possess gives the designer a more holistic view of their life and life-bound perspectives. To try to see someone's point of view is analytical, and thus detached from that purely emotional level that is something built in to us innately – empathy.

Emotions are probably among the strongest drivers built in to us to give us a reason to act. As a resource, an emotion towards a person in need should awake our personal need to fix a wrong, to try

to help someone and alleviate that special need. We aim not to hyphenate the situation, but to try to make sure that during the design process the designers won't let themselves off easily – in the sense of falling into self-resourceful assumptions or doubtable knowledge, as something applied to others through their own empirical knowledge. Personal attachment to the process in its most effective way is also a question of design ethics. One should feel empowered by the chance of affecting someone, but also feel obligated to have an emotional and thus very personal attachment to the project. Although ethics represent personal points of view – and, as such, are impossible to control by others and too subjective to debate honestly, there is a difference between taking things as they are, and taking things as you think they are. Ethical considerations can be requested, but are hard to measure as a part of the process driver – ethics are often bent by personal viewpoints. Emotion can be clear and honest and will guide one through the process in the most sincere way to do one's best, as analytical thinking leaves the designer vulnerable to a more purposeful possible mistake – while an emotional one is an honest mistake. Doing one's best: if there was ever a concept close enough to the commonly accepted manifestation of ethics this is as close to it as anything. 'Every craft and every inquiry, and similarly to every action and project, seems to aim at some good; hence the good has been well defined as that at

which everything aims' (MACINTYRE 1967, 50). Emotional motivation to do good, when associated with the design process itself, is a noisy notion. To do good as a designer is a multi-purpose aim that might distort the designers goals while playing no importance in the end result, which is the satisfaction of the end user. But working for the good of the end user is a much clearer funnel to use, and honest to both parties: honest in self-criticism, then, too.

UTILISING EMOTIONS

Emotions are true if one is not going through something like, but the actual same experience, and not through one's own eyes but through others'. This becomes tricky in practice: you have to go through the same as someone else – not as you, but as that other person. The emotional connection towards the end user of one's design process is a binding that works on a personal level almost in terms of co-creation or co-designing. Emotions, as such, are truer than the self-resourced analysis of empirical experience. Just as Sennett (2009) talks about the craftsman having a resourceful discussion going on all the time in their work, between their hand and their mind, a designer could use emotion as such a feedback tool in order to define and redefine the requirements of the project. By using the emotion about or around the end user, the internal, usually solitary, discussion becomes multi-

minded and you have to stay true to the end user – even if your professional self might get lost on the way. You can lie about your own decisions – selfishness is not an uncommon feature of a designer – but to lie on behalf of others without it driving the liar's own benefit has no purpose. To utilise emotions in the design process – to ensure that the end result is meaningful to the end user should be considered to be of paramount value. The validation of the emotional connection is, of course, a challenge in itself, but it shouldn't need consideration from an external observer, instead feeling true by intuition to the designer. It is a clear division between having emotions and not having them. Emotions can be mixed, but their existence is undebatable. 'Give the self fluidity, internal tension, and sensitivity to outside stimuli it should not be surprising that self is essentially permeable. Indeed so permeable is it that not only are you not separate from others but rather others are part of you' (FAY 1996, 139). Empirically reflected, the designers actually distance themselves from the end user by assuming their position in the situation. By using the emotion and letting that mind-set help to absorb feelings through the permeable self, one gains a closer, clearer view of the truth of the situation.

The people for whom we should be designing and who are experiencing an actual need, which we should be working to, are the most holistic setup for a design process: cultural context,

situational circumstance, historical practice and so on – people are all bound to their own existence, and so is the designer. 'If we admit that the human being is more than the mere aggregation of physiological, psychological and social functions, that is, if the person as a whole has attributes which are neither the sum of the parts nor deductible from the attributes of the parts, we must give up the hope that knowledge of the total person will ever emerge from segmental studies. …This means that, for the study of the total person, there is needed not a mere combination of the results of those sciences which study single aspects of the person, but an entirely new science. The need for such a basic science is keenly felt in psychiatry' (ANGYAL 1996, 4). To reflect emotion as a part of the design process does actually fall close to a method used in psychotherapy. This is used, for example, in treating an offender, where they have to channel their victim through an intensive interview towards empathy, compassion and finally remorse, and, most effectively, towards the fact that they have to be honest.

IN THE END

When I was starting to write this essay, I went through my bookshelf for sources. I seemed to pick a lot of books about social theory, philosophy of science, behaviourism and psyche as systems. Design is a tool to with

which to solve problems. And as long as we are designing for a human need, we shouldn't be looking that deeply into design: the problem we have at hand should be looked at in a humane way, not in a technical way. The problem isn't, at that moment, that someone is bed-bound, but how it makes them feel to be in that situation. Looking at the issue from the point of lying in bed to see their point of view for a suitable period time is a mockery of how it must feel when you have no choice in the situation. We're still aiming to fill a personal need with the tool of design, and rarely do I see designers dive that deep into another person's personal view: they rather stay in their self-resourceful sphere, taking the double, and also double standard, role of being both the source of and the answer to a problem. This is why I feel like that, instead of trying to focus on the tool of perceiving the reality of others, we should expand our own understanding of others' reality. In the end, by putting yourself through a series of tests of physical restrictions, you'll focus on the tool and not on the aim, which is to better the life of others – and others like us who are holistic by their very nature. Trying to understand exactly how the other person feels is nearly impossible, but will still yield an understanding of why it is so – why they feel so. Looking at the issue by casting feelings to one side might give rise to the wrong assumptions about how they are being felt by the other

person. Assumptions are based on empirical knowledge and analysis, then on selfishness, while receiving feelings openly is based on understanding unaimed emotions that are *truer* – to both.

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BENJAMIN WALKER

SOFT TOOLS
FOR STRONG DESIGN

Developed nations across the world are bracing themselves for an imminent
'Pappy boom' – a demographic shift in which the elderly will outnumber
the youth in society. The traditional functional design driven approach
based on marketing metrics and engineered solutions will, alone, not be
adequate to address these intergenerational design challengers. Young
designers need to equip themselves with a set of 'soft tools' that enable
them to gain deep understandings and design insights of their subjects.

These tools should help them not only think but feel as they
structure a design problematic and undertake creative research.
Can we make such empathic tools for designers?

DEMOGRAPHICS ARE CHANGING

As designers, we place great importance on being relevant, pertinent and innovating. User scenarios help us project our imagined products/spaces or services on a target audience – young professionals, adolescents, retirees, housewives, and all the protagonists of society neatly profiled according to age, gender, professional standing – we imagine the 'perfect user' being Mr. and Mrs. 50 percentile – that comfortable statistical peak on the Bell curve where marketers and human factor engineers have statistically determined that the greatest number of people 'comply'. This may well be true for shoe sizes or exam results, but such data driven profiling gives us no insight into who we are designing for and what their needs aspirations are and how they experience their world. Even more problematic is that this Bell curve changes over time – Mr. and Mrs. 50 percentile in 1970 find themselves of the lee side of the curve today. We are living longer, different lives from previous generations. This longevity and better general health have been attributed to advancing medical knowledge and healthier lifestyles – but are we living better lives?

As we move to a service based culture, great importance is placed on the user experience. Good engineering is still very important, but how people interact and feel about todays product/services determines to a far greater extent their success or failure. Even venture capitalists are now actively recruiting designers at the early stage of business creations, as they understand that designers seek meaning as they marry technological possibilities with human aspirations. Strong design has the capacity to create unique user experiences which shape perception and build affinity, changes behaviour and broadens understanding. What is hidden behind the term 'user experience'? Who are these 'users' and how is it that we can determine their experience?

TOWARDS UNIVERSAL DESIGN

In the early 1970s, Patricia Moore, a young designer working in the office of Raymond Loewy, revolutionised the way her team designed less abled users. Prosthetics to restrict her movement, hearing and suitably adjusted glasses to affect her eyesight, she took to the streets dressed as 'on old lady' and spent 3 years travelling North America undertaking first hand empathic user research. **Moore's work highlighted how difficult the world was to negotiate as an elder. Her design insights have lead to improvements in packaging, pharmaceutical and transport systems.**

Not many designers can afford to spend three years undertaking this kind of deep first hand research. There are an increasingly large pallet of 'tools' from which to use as a way of identifying, illuminating and recognizing the critical design triggers that serve as the insight for innovation.

IDEO, an international design studio, developed a set of methods in the form of a deck of 51 cards, each representing a different way that a design team can quickly gather understandings of the people and circumstances they are designing for. The unifying idea behind these method cards is inviting the designer to project themselves physically into the scenarios they wish to gain greater understanding of. Coupled with hard work and a little creative magic, these methods help designers think pluralistically to identified problems. IDEO conceived the deck as a design research tool for its staff and clients, to be used by researchers, designers, and engineers to identify and select empathic research methods that best inform specific design initiatives. The design process can be summarized in these steps:

1. Observation
2. Capturing data
3. Reflection and analysis
4. Brainstorming for solutions
5. Developing prototypes of
   possible solutions

This process is effective when designing gardening tools or kitchen appliances, but does it give us insights into intergenerational design? What messages are we sending when we make telephones with ridiculously oversized buttons, or single beds on linoleum flooring in a retirement institution? Such design intentions have a functional 'rationale' but how do they make their intended users feel?

The Actors Studio based in New York during the 1940s and 1950s developed acting techniques based on the teachings of Constantin Stanislavski who sought theatrical truth. The method encouraged actors to draw on their own emotional experience in order to better portray that of their character. As designer could we not draw inspiration from these approaches to help us develop an emotional connection with who we wish to design for? Could we not take the work of the IDEO and Stanislavski and seek to develop a set of methodologies that would help us prototype empathy in a intergenerational context?

This was the objective of the workshop held in Nantes in the spring of 2012. Using the multicultural group of Masters students we set out to explore seven themes for intergenerational empathy:

1. Impacts of physical ageing
2. Memory
3. Health
4. Sexuality
5. Autonomy – socialization, isolation
6. Youth in the world of Adults
7. Older generations empathizing
   with digital natives and broader
   challenges of generation Z

When teaching young designers about designing for the aged, it has become a useful and engaging exercise to prototype an empathic experience based on the physical impacts of ageing. The AGNES (Age Gain Now Empathy System)

Prototyping empathic experiences, Nantes.

research project at MIT developed a suit that allows the wearer to 'better understand the physical challenges associated with ageing'. The AGNES suit is a good first step to help users understand the physical challenges of ageing and the everyday problems that these provoke. However, while we may gain a sympathetic understanding of the physical frustrations of ageing, are we really in a state of empathy? Dressed in dark overalls, a bright yellow harness, restrictive elastic bands, a construction helmet and foggy glasses and a big 'AGE LAB' sign stuck to our back we are very conspicuous, quite the opposite of how many aged people feel with regard to society.

If we can prototype the physical experience of ageing (or attempt to simulate it) how can we tackle the subtle consequences of ageing – like memory loss?

Attempting to prototype this experience was a less obvious than replicating the physical ageing experience. You cannot plan for memory loss, so there needed to be an element of surprise. With no warning, we removed the digital devices of a group of students – telephones and computers for the duration of the week-long workshop. Instantly, their access to their collective digital memories (email, telephone repertoires) were removed, and the affect immediate – frustration. We then asked them to carry out simple everyday tasks that were significantly more difficult without their digital devices. It was a limited but interesting insight into how we could prototype an experience of loss of memory.

The group of students addressing Autonomy and Isolation developed an interesting strategy. When interviewing the elderly, these subjects are not necessarily to approach when meeting someone for the first time – trust and confidence needs to be first established… so how can this be done? After attempting to establish such a rapport using the afore mentioned Observe > Analyse > Prototype process and finding the results in-sufficient, a student arrived at an interview – on crutches. The elderly lady being interviewed also had a problem with her leg and an immediate rapport was established. It was clear that despite their age difference, a common physical problem placed them on an equal level and invited discussion on a 'common ground'. The establishment of trust and confidence came quickly which permitting a sharing of personal experience. There is a growing body of research to suggest a neurological basis for this reciprocal empathy in the human species – a term Jeremy Rifkin has coined as Homo Empathicus.

LET'S TALK ABOUT SEX

Discussing the basic driving force of species replication – sex – is, often a difficult subject to discuss with someone of your own generation. How about then for someone who is not from your generation? We try to avoid it at all costs. This may reflect how we feel as a society if we saw an elderly couple in passionate embrace in a public place.

Why is it acceptable (and even encouraged) for teenagers and young adults to openly express their desires when we feel uncomfortable about imagining our grandparents behaving in a similar manner? Do we not carry these prejudices to the way we design for the elderly? Certainly the level of sexual activity would suggest that retirement homes and the way they are organised deserves our critical attention. How can a designer broach such delicate subjects? How do the senses change with age, and on a broader scale, what message do we wish to give to our senior citizens? By far one of the most delicate subjects of intergenerational dialogue, sex and sexuality deserves the considered attention of empathic design.

As we move from an object based society to one of experiences, being able to connect in meaningful ways across generations will become more the reference of strong design over traditional quests of functional or aesthetic cleverness. Should we have the opportunity to grow old, let it be with sensitivity, style and dignity, and not the patronising reminder of our deficiencies with regard to who we once were. This call for inter-generational empathic design, should if nothing else, be spurred by self interest in this upcoming generation of designers.

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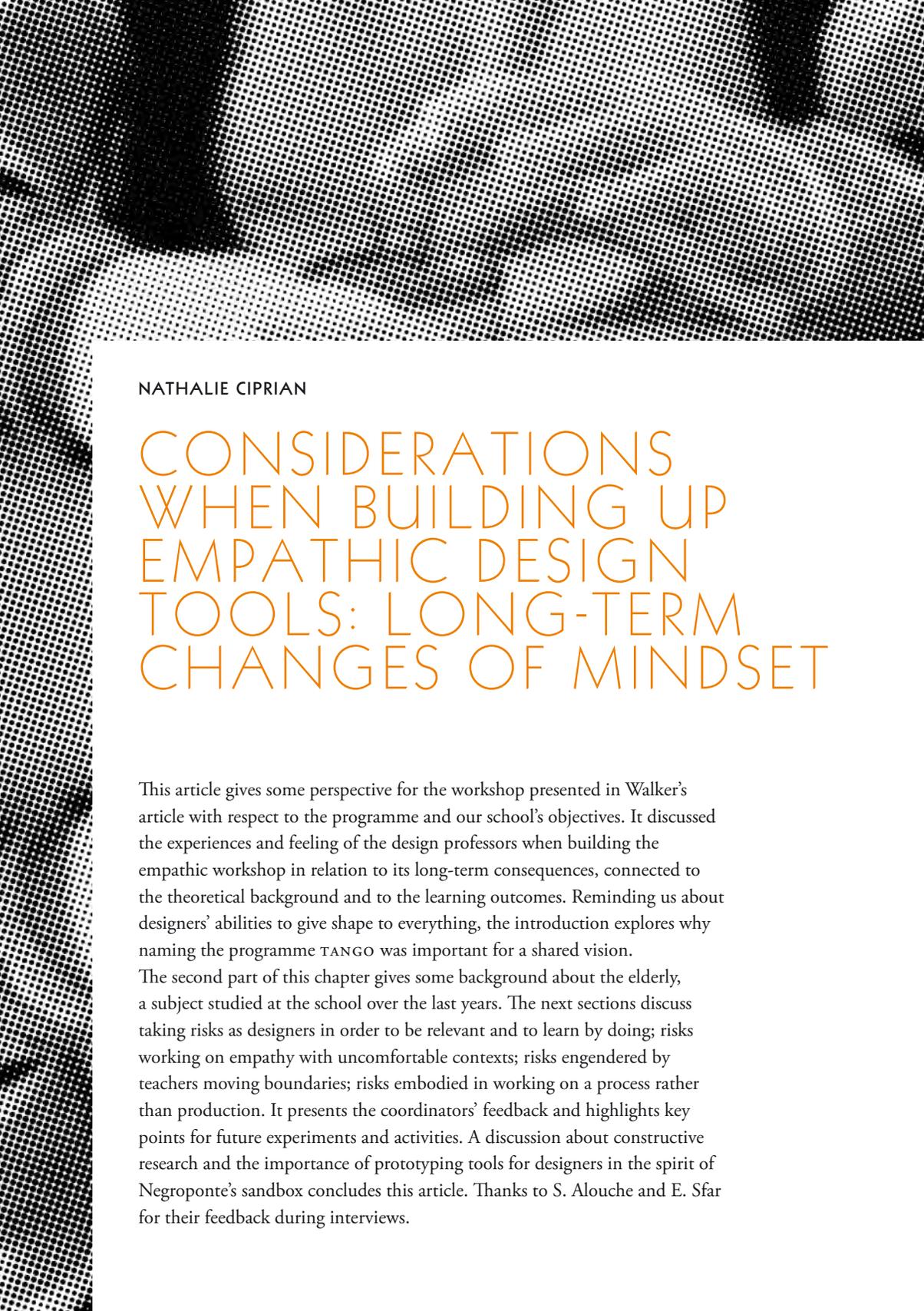
NATHALIE CIPRIAN

CONSIDERATIONS WHEN BUILDING UP EMPATHIC DESIGN TOOLS: LONG-TERM CHANGES OF MINDSET

This article gives some perspective for the workshop presented in Walker's article with respect to the programme and our school's objectives. It discussed the experiences and feeling of the design professors when building the empathic workshop in relation to its long-term consequences, connected to the theoretical background and to the learning outcomes. Reminding us about designers' abilities to give shape to everything, the introduction explores why naming the programme TANGO was important for a shared vision.
The second part of this chapter gives some background about the elderly, a subject studied at the school over the last years. The next sections discuss taking risks as designers in order to be relevant and to learn by doing; risks working on empathy with uncomfortable contexts; risks engendered by teachers moving boundaries; risks embodied in working on a process rather than production. It presents the coordinators' feedback and highlights key points for future experiments and activities. A discussion about constructive research and the importance of prototyping tools for designers in the spirit of Negroponte's sandbox concludes this article. Thanks to S. Alouche and E. Sfar for their feedback during interviews.

DESIGNERS' AGILITY FOR DEALING WITH COMPLEXITY: CREATE A COMMON VISION AND A PLAYGROUND FOR A SET OF SIMILAR EXPERIENCES

Designers are used to finding inspiration in different and sometimes apparently exotic contexts in order to innovate or to assume their ability to deal with complexity, risk-related projects in unknown contexts or partially defined ambitions (THACKARA 2005).

We already pinpointed writings from Craig Vogel (VOGEL 2006) explaining that 'design is now considered as an effective tool to address and solve strategic issues as well as innovation processes, especially as a way to give shape and content to concepts at an early stage of the project' (CIPRIAN & DEGOUZON 2007, 52). Giving a name to this European programme was the first form for this experiment and helped the organisers to project themselves together in a framework to build whilst doing, according to Schön's references: 'naming and framing' (CROSS 2011).

The acronym, TANGO, 'Towards A New interGenerational Openness', expresses the mindset of this project in three different ways. Beyond the acronym, this name relates to a dance. Dancing the tango is a very popular hobby for elderly people in our three countries. Firstly, this name helped us to never forget our main target: working on intergenerational relationships, focusing on elderly people

as a motor of these relationships and thinking about collaborations with a sustainable way of thinking. Secondly, tango, (developed in Argentina in various styles, danced in a famous Finnish version and by people with Italian roots and made widespread by a French movement a century ago), represents the common link we materialised in order to work and build together a common vision for this incredible adventure, our transcultural collaboration. Finally, Tango presents a codified way of dancing, with a huge part being improvisation, listening, dialogue, empathy and creating a funny and unpredictable relationship between people with different ways of moving and being. Comparisons and flow between design and other complicit disciplines such as jazz (BRATTETEIG & STOLTERMAN 1997) or dance (ROUILLAN & LAGARRIGUE 2007) were interesting to take as references for building smart processes at the frontier of some restrictive and sometimes too rationalistic practices, and empathical and participatory approaches.

'From an interactive point of view, design, (as its artistic "complicit disciplines") exploits our capacity to analyze subtle signals and sensitive experiences in particular situations in order to create innovative objects.' (ROUILLAN & LAGARRIGUE 2007, 106). Objects here are understood as artefacts and systems.

After defining a common vision, some ambitious objectives and some first drafts for experiments, each entity developed

a local workshop(s), sometimes with guests and sometimes just sharing results and outcomes on completion. Some students and teachers were involved in workshops in three countries, others just engaged in local participation, but our three university coordination teams could share their visions to imagine a series of workshops thinking about elderly people as the centre of their reflection about intergenerational relationships.

We thought about elderly people not as a sad minority, but as a future kind of majority in Europe, a growing group of Humbles, expression used by Sansot naming the elderly (SANSOT 2011). In the European Union in 2010, the number of citizens between the ages of 60 and 64 surpassed the number of citizens between 15 and 19. Young people will be the new 'minority' in an elderly world. Let us think about that and imagine how to find the best ways to negotiate this reversed world.

VISITING THE GARDEN OF THE HUMBLES

For the last four years, teachers at L'École de design de Nantes Atlantique involved in this programme, have frequently proposed design projects to Master's degrees students challenging them about the ageing population. The first results of workshops about elderly people's daily life were presented at the conclusive conference for an eighteen month French programme called 'Longer life – social innovation,

new technologies and pleasurable healthy ageing', (plus longue la vie, www.pluslonguelavie.net), a collaborative framework led by the FING organisation (Internet New Generation Foundation, www.fing.org).

After theoretical presentations on design opportunities for the senior market, the 'silver economy', a survey of design trends and experiments with different toolkits for 'feeling yourself in others' shoes' in this field, which is acknowledged to be neither comfortable nor a priori exciting, each student had to spend one month shadowing someone over 70 years of age.

The first results based on observations showed the designers discovering how huge was the question. They communicated with sensitivity how Humble people with different kinds of disability (physical or mental) must feel. An efficient video about their first observations of these elderly people's feelings is still available online (Design to improve life: the ageing population video). Loneliness, a lack of things to share, shame and a loss of confidence can affect ageing people in a vicious circle. Centres such as the Helen Hamlyn Design Centre at the Royal College of Art, London gave us references on psychological aspects such as dignity.

We confirmed during recent design school exercises co-organised with S. Alouche, teacher and consultant, that the European context is a specific one when studying

the elderly population because of family distance and fractured family relationships. Indeed, when we tried to work on elderly people and intergenerational questions with international students from all five continents, we realised that nursing homes are not a classic or well-known concept for all of them. They are also quite a new common situation in Europe. In France, the number of people in nursing homes has continuously grown by about 8% per year since 1975.

These changes affect the way in which we age, far away from family and relatives … affecting the dialogue between generations who are not living in the same home.

RETHINKING THE APPLIANCE OF KNOWN TOOLS, TESTING THE LIMITS OF REAL EMPATHIC QUESTIONS

The methods presented in the previous chapter by Walker were not blindly applied or imposed on the students, even if we informed them on certain Kansei emotion approaches, IDEO participatory design references, background on cultural probes, and Philips experience feedback (Postma et al. 2012) regarding the structure and instilling confidence in the students. One huge difference between anthropological or social sciences and design field work, mainly first translated into a design context and described by IDEO, is the use of mockups and prototypes (KOSKINEN ET AL. 2011).

The aim of the pedagogical staff was to invite students to go further than the 'empathic design' described as 'combining observations of what people do with interpretation of what people think, feel and dream' (POSTMA 2012; FULTON SURI 2003). The ambitious objective of the pedagogical staff was to make designers feel strong empathy strongly as a hyletic experience in reference to Husserl (VARTO ET AL. 2008, 194), focusing on the process during the workshop even if the production and results could have been dirty (in reference to the 'quick and dirty' prototyping method) or irrelevant.

In the Sanders topography of design research approaches, this objective can be situated in the third type of 'design and emotion' category named 'experience prototyping' (POSTMA ET AL. 2012). E. Sfar, one of the workshop leaders, presented a famous talk from Jill Bolte Taylor as an extreme context of non-volunteer understanding of hyletic feeling experience. This brain researcher experienced a stroke herself and, after her recovery, used this experience for her research (Jill Bolte Taylor's TED talk).

The teachers also recognised that deciding to work elderly people's sexuality particularly took students outside their comfort zones (MCDONAGHT 2008). It was an extremely good exercise even if it was easier to work on the physical effects when strategic issues were in their minds

and emotions. Relationships between young international students mixed with their teachers influenced the work. Staying politically correct could not be honest. It was a challenge for teachers to guide the students in pushing themselves out of these conventional zones. The three teachers (B. Walker, E. Sfar & S. Alouche) said: 'We must find limits and boundaries between expressions, empathy or personal therapy. How to push, frame and share at the same time?'

As it was important to notice that feeling older requires specific empathic tools, over and above those of participatory design and emotional understanding, it is interesting to remind ourselves that elderly people or people with disabilities were younger or more healthy before, for certain. They have a memory of their own considerations when they were younger or 'healthier' respect to the elderly. Then they feel that they know how others may react: even if this is not so obvious, they feel that they know. Dialogue is then not so easy with younger or healthy people, even when they have good intentions (cf. Walker's comment about 'crutches', a common physical disability issue used by students as an empathic tool).

The field of 'intergenerational dialogue and elderly people' was not easy to experiment in with a melting-pot of Finnish, French and Italian students because of 'cultural unknowing', lack of time and language barriers, but designers' visions, processes and individual feelings were shared well and enriched the perspectives of all of the participants.

DESIGNING TOOLS FOR DESIGNERS: INTERESTING RESULTS FOR A DESIGNER?

During the Empathy workshop in Nantes, the series of sub-themes were not obvious for the student participants. Another hard difficulty was feeling comfortable with the aim of building tools. Designers are inclined to produce 'creative results' after a workshop. Here the strategic issue was to take time to observe each personal own way of working to be in empathy. At the same time, as the already mentioned teacher E. Sfar noticed, classical efficient tools could not be seriously applied because of the limited timeline for this workshop.

A schizophrenic posture had to be assumed by all creators who are used to produce, to create final objects or systems for users. It was not easy to describe all that they were used to doing, always being 'in a rush', and this workshop dedicated to developing tools for designers to work with was very interesting. Even if some tools were not totally new, the students learned how to qualify and adapt them based on their experiences.

Teachers noticed and assumed the fact that some of the tools that were partially developed by the designers during the experiment already existed. But the experience of building them themselves, based on their own needs, changed their mindsets and created a constructive process of discovery. Thus, tools are considered as mediums of debate, more than just the unique right tools to use without dialogue. They can be applied but also adapted, because of the involvement of designers in the early stage of the building process. Even if they are not totally new in terms of pure knowledge for the 'scientific' community, these tools are more socially robust, following terms used to describe the constructive research mindset (KOSKINEN ET AL. 2011).

LONG-TERM COLLECTIVE AND INDIVIDUAL EFFECTS, FROM TOOLS TO MINDSET AND CULTURE CHANGES

Going past our official European project, with regular meetings for each participant, a long-term process is already clearly visible in Nantes. Some students who were involved in one workshop decided to choose the subject for their 'end of studies project' based on topics developed during the workshops or using approaches or toolkits improved during the European framework: cultural experiences for blind people, allergies at home, a mechatronic system for improving elderly autonomy, hospitalised patients' dignity or special empathic proposals for hospital experiences, and so on.

As revealed during their debrief interviews, the students changed their vision on users and on how to adapt design tools for each project. Some of them explained with emotion that they also changed their relationship with their elderly relatives. For example, a student who decided to talk in the name of his grandmother during the exercises explained that he rediscovered his grandmother and went back to meet her with another mindset. Tools and works were first shared among the relatively small group of participants, about one hundred per country, but afterwards, at each university, they were spread to other students and teachers outside the TANGO project: an invisible network at first sight but a deep slow change for 4000 students/designers.

It is not easy to truly share what happened during an experimental week when you get out of the context, but some participants changed small invisible features in their way of working that could make big changes in few years. Sanders' considerations about the need for empathic design approaches to move from tools and techniques to mindset and culture changes in order to become successful practices had to be borne in mind by the coordinators and observed over the coming years (SANDERS 2009).

Meeting in Milano.

Even if not all of the daily work is visible, all of the groups spread a great deal of intermediary information about processes, contexts and participants' reflections through online means, and it must be relevant for other designers to take our work as a possible point of departure for their investigations.

We will use our TANGO website as a source of reference for new students and we hope that we will be able to nourish it for a long time or at least use it as a baseline for going deeper in our own programmes.

LAST, BUT NOT LEAST …

When we celebrated the last part of this collaborative project in each county with public exhibitions, the first students who had been involved in the project were already professional designers, and new Master's students had just arrived at school and discovered what the participants expressed during their experiments.

With the TANGO experience and after four years of building experiments, we managed to structure stronger links with new partners for more pedagogical collaborations in 2013. Responsible Innovation department's students worked during the TANGO exhibition week in Nantes on a prospective project about elderly people and continued to feed our official platform and underground designers' network with challenging proposals using the exhibition itself as a mediation tool, a tool built with the content from our three universities (processes, tools and outcomes).

Testing empathic tools: memory game, Nantes.

It is certain that some works will present service scenarios and social initiatives. Designers are real strategic actors in reshaping local initiatives (JEGOU & RUBINI 2007, 29):

'In order to spread to a wider audience (… local initiatives…), they need a favorable environment and supports which facilitate access to a wider section of the population, whilst at the same time retaining the social, interpersonal qualities which lie at the heart of the way that they operate. And this is where design can get involved, by producing what we call enabling systems, in other words systems that are designed to consolidate the social innovation and to make it easier to promote it to a wider audience …'

This strategic role has been explained and materialised through quick and dirty prototypes by 'la 27ᵉ region' in a documentary dedicated to service design and ethnography applied to the public sector. La 27ᵉ Région is a public innovation lab founded by the 26 French regional governments, Caisse des Dépôts and the European Union (LA 27ᵉ RÉGION PROTOTYPE VIDEO).

This is reminiscent of more words and metaphors from the TANGO vocabulary: expressions, empathy and shared involvement. Exchanges, reactions and confrontation with a wide audience during each exhibition also presented a new playground of observations and creative ideas for us to use to continue to expand our empathic horizons (MCDONAGH 2008).

CONCLUSION

Taking risks as programme
builders, teachers and designers
in a shared framework helped
us to strongly structure experiments
and give us more confidence after
improving our own theoretical
references on empathy and sharing
processes during the workshops.
We will continue to push students
to prototype tools in order to
improve their design process with
the spirit of Negroponte's sandbox.
Let's TANGO again!

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EXHIBITIONS

NORA STERNFELD

EXHIBITION AS A SPACE OF AGENCY

Over the last 20 years, design discourse has fundamentally changed:
the Bauhaus idea that design is primarily concerned with improving social
relations has been updated and reformulated under post-Fordist conditions.
Now, 'social design' is concerned with social processes that intervene
in society, finding solutions to conflicts and problems, and with the pursuit
of bringing about a positive transformation. Within this new discourse
on design, a key shift in the paradigm has taken place away from the product
and towards the process or project. 'Participation' is the term now used
when speaking of making the users into the development of objects
and everyday situations. Against this backdrop, there are a number of interfaces
to educational and curatorial practices that have emerged. In addition,
numerous links are being forged to new forms of practice-based knowledge
production within the art field. The text discusses these intersections from
a critical curatorial and educational perspective.

INTRODUCTION

Before prematurely celebrating the processualization and its associated orientation toward social transformation as an end in itself, it appears crucial – particularly at the interfaces to artistic, curatorial and educational practices – to consider some of the uncertainties and differentiations that have repeatedly been addressed within critical and progressive areas within these fields. Let us begin by discussing a differentiation conceived within the context of critical pedagogy in the 1970s: As a teacher fighting against illiteracy in Brazil and as a Marxist and liberation theologian, Paulo Freire developed the idea of a 'pedagogy of the oppressed', in which a struggle for justice and equality within education is of central importance. He refers to a fundamental decision with regard to every educational project, of the need to take a stand, to introduce a set of beliefs and, rather than assuming their disinterested neutrality, consciously take them through the process of education. He locates this process as 'tactically inside and strategically outside' the system (FREIRE 1993).

So, according to Freire, there is no neutral education, it is always political, either in the sense of a consolidation of the existing circumstances or with respect to their change. Peter Mayo, writing about Gramsci and Freire, sums up this idea in form of a simple question: 'On which side are we on, when we educate and teach, when we act?' – a question that always needs to be asked, but not necessarily answered (MAYO 2007).

This apparently self-evident question of 'taking sides', declaring which side we are on, certainly raises a number of further questions: How do we know that we are on the side of the oppressed? Are we always? Do we always want to be? Who are we when we are in the process of taking sides? Who is nevertheless excluded in this process? And the most classic question: How can we radically change the circumstances from the inside? Thus, the very process of taking a stand and opting for one side grows more complicated. But in order to become complicated, the decision has to be taken in the first place. Only then do the contradictions that beset such a step (which to some extent already haunted Freire) become fully evident and thus active and productive. Because even when we have no foresight of what an education could be on a fundamental level and in the very middle of 'the system', it is this very contradiction that could effect an opening to agency, a possible space for action. If we don't see power relations as one-dimensional blocks, but as battlefields, then the place for learning and teaching can become an 'embattled terrain'. Education could then become a practice in which the sayable, thinkable, and doable could be negotiated, and, to quote Peter Mayo, 'the dominant forms of thinking and acting can be challenged in the wide and amorphous areas of civil society' (MAYO 2007).

If we take seriously this necessity of coming to a clear and open decision,

which was certainly already a motive force for the Bauhaus School[1] then we must also consider some of the logics and conditions of post-Fordist capitalism: two of its key characteristics are 'dematerialization' – here, we may be reminded of, for instance, the rampant economization of education and knowledge as well as the immaterialization of labor – and 'transformation'. In order to respond to the neoliberal call, we must all become flexible, to constantly be ready to transform ourselves, and to leave behind our achievements from previous struggles. What might 'agency' look like if we also consider its situatedness within the context of governmentality? The initial reaction may be to shy away from change. However, this is not what I am arguing for here. I do not see 'doing nothing' as a way of responding to the fact that something, which we are right in the middle of, has been set in motion. Instead, I would like to propose taking a closer look at the direction the change is headed. From a curatorial perspective, I feel it is important to comprehend the path of processualization within the exhibition context – in light of all the knowledge we have about the possible concurrent complicity with neoliberal immaterialization and capitalist transformism.

CRITIQUE OF THE REGIME OF REPRESENTATION

After briefly speaking about processualization in the design field,

I would now like to pose some questions about the developments within the exhibition field, relating to the theme of this article: Why are we now speaking of transformation within the museum context as well, and no longer only of history? What led to this discussion of processualization within the curatorial field, in the first place? The debates on the logics of representation have been a key impetus for shifting the discourse on artistic and curatorial approaches, from a concern with the 'object' towards a concern with the 'process'. Since the 1960s, representation has been challenged in art and new museology, as well as in cultural studies, in postcolonial and poststructural theory and in activism, both in terms of depiction (Darstellung) and in terms of proxy (Stellvertretung). Representation critique has become an important impetus for conceptual art practices, curatorial approaches and political claims. Let us, for instance, consider the numerous artistic strategies of processualization and dematerialization that have challenged classic ideas of representation. One example here is conceptual artist Graciela Carnevale, part of the Argentinean activist-artist collective tucuman arde, who, in October 1968, locked all the visitors of an art opening in the gallery without any explanation – until they broke out of the gallery of their own accord. At documenta 12, the by now longest and most canonical documentation of the action was shown with the purpose of politicizing the audience. However, not much of the original action's intent remained at the

d12 presentation, due to the overemphasis of the work's formal aspects.

It would be much too simple now – seeing as it has long since been integrated into representation practice – to claim that the action was co-opted by the institution. However, because the institutionalization of such actions has become so self-evident, over the past few years, the simplicity of the dichotomy of a seemingly evil representational 'inside' of the institution and the good, anti-representational 'outside' has been increasingly called into question. In addition, several authors have addressed the fact that representation critique is often unable resist being consumed by representation. For instance, artist and theorist Hito Steyerl has made it clear that even institutional critique approaches that are geared toward dismantling hegemonic exclusion within depiction (Darstellung) can contribute to perpetuating identifications and ethnicizations. She speaks of the 'urge to indiscriminately drag underprivileged or unusual constituencies into museums, even against their will – just for the sake of 'representation' (STEYERL 2006).

In a more recent text, Steyerl proposes a 'Withdrawal from Representation' as a way of resisting the regime of representation: 'This shatters many dogmas about the relation between political and pictorial representation. For a long time my generation has been trained to think that representation was the primary site of contestation for both politics and aesthetics. The site of culture became a popular field of investigation into the "soft" politics inherent in everyday environments. It was hoped that changes in the field of culture would hark back to the field of politics. A more nuanced realm of representation was seen to lead to more political and economical equality. But gradually it became clear that both were less linked than originally anticipated, and that the partition of goods and rights and the partition of the senses were not necessarily running parallel to each other. Ariella Azoulay's concept of photography as a form of civil contract provides a rich background to think through these ideas. If photography was a civil contract between the people who participated in it, then the current withdrawal from representation is the breaking of a social contract, having promised participation but delivered gossip, surveillance, evidence, serial narcissism, as well as "occasional uprisings".' (STEYERL 2012)

In this vein, curators have also increasingly been exploring what an exhibition is capable of, beyond representation. What needs to be done to cultivate reflexivity that is aimed at agency and not only at mere depiction? What does a post-representative curatorial praxis look like, one that is no longer concerned with valuable objects or objective values and just as little with identitarian claims. To be able to do this we must begin at the link between critique and agency: to simultaneously consider questions of 'Who is speaking?' and 'Why this way?' and 'What to do?'. This means speaking more and more about 'curatorial' (Beatrice von Bismarck) spaces of agency, in which unexpected

encounters (Irit Rogoff) and discursive interchanges can take place. And this must be done in such a way that not only visibility is created, but where agency also becomes possible, and shifts can take place – even in the visible, sayable and thinkable. In other words, the concern is no longer that something should be shown or depicted, but to make it possible for something to actually take place. Because this cannot be planned, the question arises, which curatorial strategies need to be developed in order to create such a space of possibility and agency. Returning to Freire's distinction between the tactical inside and strategic outside, what does it mean to assume there is a fundamental decision and simultaneously doubt the existence of an 'outside'? If we assume it is no longer possible to take a outside stance in regards to critique, 'instituent practices' come into view: with this term Gerald Raunig describes 'practices that conduct radical social criticism, yet which do not fancy themselves in an imagined distance to institutions; at the same time, practices that are self-critical and yet do not cling to their own involvement, their complicity, their imprisoned existence in the art field, their fixation on institutions and the institution, their own being-institution' (RAUNIG 2006).

THE AGENCY OF 'PERHAPS'

Some of the first principles of emancipatory educational thought, including its fundamental belief in the notion of 'autonomous subjects' and 'emancipation from immaturity', have been challenged by poststructuralist theory, according to which such concepts are as empty as the idea of being fully on the 'good side' in the context of a debate or a struggle. Against this background, current educational theorists are trying to integrate poststructuralist concepts such as 'event' and 'experience' into the processes of education. With this, the 'impossible' becomes as important and as active a category as the 'possible', providing their discourse with a reflective edge lifting it beyond the pragmatic and functionalist implementation of an idea or a program. And there is always something unforeseeable in education, which cannot be planned: perhaps this is the reason why Sigmund Freud called education (together with politics and psychoanalysis) 'an impossible task'. It becomes especially impossible where education is poised to engage with social change, to consciously effect transformation in the direction of social change. Such a perspective encourages acceptance of a massive loss of control and of the risk of failure. For Jacques Derrida, the impossible is the condition of possibility of the possible. In the context of education this could suggest that there is a dimension of agency in its very uncontrollability. Because when there is only space for the necessary, change is impossible. Thus Derrida integrates the 'perhaps' in his philosophical discourse: *I will not say that this thought of the impossible possible, this other thinking of*

the possible is a thinking of necessity but rather, as I have also tried to demonstrate elsewhere, a thinking of the 'perhaps' that Nietzsche speaks of and that philosophy has always tried to subjugate. There is no future and no relation to the coming of the event without experience of the 'perhaps' (DERRIDA 2005.)

The necessity of a taking a stance politically and the attendant impossibility of knowing whether we are intellectually on the right side has a way of producing a mode of impossibility that challenges education with a qualifying 'perhaps', a temporal suspension that we have to assume, not as something arbitrary but as a constitutive component of the very act of making a decision. What consequences might such a concept as the 'decided perhaps' hold for our question about curatorial agency? Derrida himself puts it this way: 'For if this impossible that I'm talking about were to arrive perhaps one day, I leave you to imagine the consequences. Take your time but be quick about it because you do not know what awaits you' (DERRIDA 2005).

So, what we are dealing with here is a task that is at once impossible and necessary. This may at first seem irritating and make action appear more difficult – but we have to consider that there is no such thing as an outside stance in terms of relations, nor any clear, certain direction we can head in… Nonetheless, for Derrida this seems to be exactly the condition that makes agency possible. Because something can only happen and be changed if we do not

already know or predefine what it will be about in the end. And it is exactly this idea of the exhibition as a space of possibility that appears to be receiving more and more attention in newer curatorial approaches. As Hans-Ulrich Obrist, for example, has put it: 'One could say that an exhibition can only take place when it is least expected: given that one ascribes to the idea that it takes place and that when one waits, things can happen that have never happened before' (OBRIST ET AL. 2011)[2].

In this sense, post-representative curatorial strategies[3] may also be described as an agency of the 'perhaps'. Drawing on Deleuze, Irit Rogoff writes: 'to participate is to lay a ground to a claim. And I would say that my entire 'Participation' project is in this spirit of laying a ground to a claim rather than to elaborate a set of strategies by which one intervenes' (ROGOFF 2010).

Against the backdrop of the critiques and reflections discussed here, the aims of the newer design discourses mentioned in the beginning – such as social relevance and transformation – are more complicated. Taking them seriously means we are obviously no longer interested in simply rolling up our sleeves and solving problems. For, on the one hand, the solution is often already part of the problem itself and, on the other, it may sometimes be more important to name the problems in the first place and find new ways to render them negotiable and contestable.

By focusing on post-representative
agency, I am arguing for a paradigm
shift, from representation to presence.
However, I am interested in taking a
stance while still leaving the aim open.
In this sense, the artist collective
Ultra-Red describes their strategy as
coming from the future. Under the
title 'We Come From Your Future',
at the Tate Triennale 2009, Ultra-Red
conducted a series of sound
investigations in London whose
starting point was 'What is the sound
of anti-racism?'

*We Come From Your Future is a sound
investigation into the future of anti-racism
in the UK.(…) We Come From Your
Future starts today. It takes us to sites of
current struggle that are not always aware
of their historical antecedents; it listens to
stories which we neither know nor seek
to know in the present; it claims that
those stories stem from a history that is
embedded in our contemporary situation,
and that belongs already to our experience*
(ultra-red, 2013)

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NOTES

1 In the 1919 Bauhaus Manifesto,
Walter Gropius wrote: 'Let us then create
a new guild of craftsmen without
the class distinctions that raise an arrogant
barrier between craftsman and artist!

Together let us desire, conceive, and create the new structure of the future, which will embrace architecture and sculpture and painting in one unity and which will one day rise toward heaven from the hands of a million workers like the crystal symbol of a new faith.' http://www.thelearninglab.nl/resources/Bauhaus-manifesto.pdf

2 « Robert Musil a dit que l'art a lieu où on l'attend le moins. On pourrait dire que l'exposition a lieu où on l'attend le moins : pour peu qu'on sorte de cette idée qu'elle a lieu ou et quand on l'attend, des choses sans précédent peuvent parfois apparaître. »
Elie During, Dominique Gonzalez-Foerster, Donatien Grau, Hans-Ulrich Obrist, Qu'est ce que le curating? Une conversation manifeste, Paris 2011, p. 43.

3 Together with curators Luisa Ziaja and Natasa Petresin and political theorist Oliver Machart, under the title 'What Comes After the Show', we are currently working on processes and strategies for addressing issues concerned with art and politics after representation.
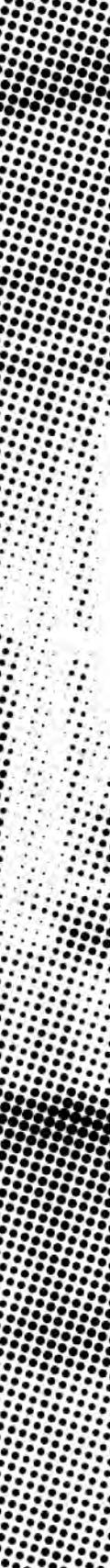
MIRA KALLIO-TAVIN & CARLO VEZZOLI

GOING PUBLIC: EXHIBITION AND ENCOUNTERING PEDAGOGY AS A DESIGN METHOD FOR EMBEDDED AND SUSTAINABLE DESIGN SYSTEMS

This chapter introduces exhibition and encountering pedagogy as a method for embedded and sustainable design systems, where people are heard and where listening is part of design. Exhibition and encountering pedagogy as a method and as a tool for participatory design engages with notions from pedagogy where encounters with people – communication with users and exhibition audiences – is embedded within pedagogical and art education approaches. While contemporary inclusive approaches to design processes offer interesting and important insights into the ways in which people interact with the built environment, in the TANGO project, this goal of inclusion was developed in more interactive directions, to offer insights for the designers and students, and to develop deeper and more critical interaction with the participants. The exhibitions and the events associated with them became a methodology for new and radical design. The pedagogical processes in the exhibition context aimed to enhance intergenerational dialogue in the surrounding communities, environments, schools, care homes and neighbourhoods; to serve as a lab and as a window for sustainable design innovation. In this chapter, exhibition and encountering pedagogy in design systems are approached first through participatory and embedded design, second through accessible exhibition pedagogy, and lastly as a 'tool' for a design process.

INTRODUCTION TO EMBEDDED AND SUSTAINABLE DESIGN

Participatory design, emotional design, empathic design, co-design, design for user experience, user-centred, human-centred, and embedded thinking are all contemporary approaches in design processes. Designers and producers agree that a key element of successful design is to understand the users' needs (LEE 2012; HOLOPAINEN & HELMINEN 2011; LEE & SAYED 2008; SLEESWIJK ET AL. 2007; JOHANSSON 2005; BRANDT & MESSETER 2004; SANDERS 2002). Understanding people's needs and choices involves aiming to comprehend human experiences and their significance when interacting with the design of products, services or systems and environments. Contemporary participatory design approaches involve adapting embedded design into product-service system design by including participants' needs early on into the design process. Thus, design manifests itself as a societal, critical and open process where public, private, communal, political and educational services and systems must be constantly explored (see for example the official website of the World Design Capital Helsinki 2012). This brings with it the requirement that human experiences are listened to and valued as a singular and important source of knowledge. Often, people are encouraged to active participation by claiming that everybody is a designer. This do-it-yourself attitude, as well as ideologies of participatory culture, and experimental design activism are built on an idea of comprehending design/

urban environments as collaborative and constantly changing spaces, where it is everybody's task to determine the direction of change and constant movement.

One fundamental requirement of the TANGO project was to meet with sustainable demands that need to be satisfied within environmentally, socially and economically sustainable systems of production and consumption (VEZZOLI 2010). From this perspective, a new role was recognised for design: the design of a system of products and services that are together able to fulfil a particular customer demand (deliver a 'unit of satisfaction') based on the design of innovative stakeholder interactions (directly and indirectly linked to that 'satisfaction' system) where the economic and competitive interest of the providers continuously seeks new solutions that are both environmentally and socio-ethically beneficial (VEZZOLI 2010).

THE METHODOLOGY OF EXHIBITION AND ENCOUNTERING PEDAGOGY IN TANGO

Access-based exhibitions have been at the core of notions of exhibition pedagogy for a long time. Similarly to inclusive and participatory design, inclusive exhibitions place people at the heart of the process. Inclusive exhibitions place the audiences and their different needs and perspectives in an essential role when planning the exhibition. For example, diversity, disabilities and human

differences are taken seriously (see the Access by Design Journal). The idea is to offer the opportunity to include diverse visitors of all age groups, gender orientations and different cultural, social and economical backgrounds, regardless of their possible physical impairments or other capacities (SALOVAARA 2006).

In the TANGO project, these principles of inclusive exhibitions were understood as being similar to the ideas of embedded and participatory design. Although these two processes (embedded design and accessible exhibition pedagogy) are very different, and take place on different levels and in different ways of interaction and inclusion, both ideas stem from the ideology of engaging participants, with their individual needs, experiences and maybe even future fantasies. This two-fold approach of the TANGO project involving embedded design and accessible exhibition pedagogy instigated a rethinking of the means of inclusive exhibition and the roles of the participating people. Thus, the TANGO pedagogy aimed to further develop the ideas of access-based exhibitions through considering how visitors could be encountered without predefining visitor groups on the basis of their background or capacities. As Carmen Mörsch (2009, 10) describes, the 'exhibition spaces and museums are then understood as modifiable organisations, whereby the imperative is less about including certain public segments to these than about introducing the institutions […] to the surrounding world, i.e. their local milieu'.

Pedagogical perspectives were taken into account in the TANGO project as approaches to encountering people's experiences, memories and perhaps future dreams differently. By listening to people's experiences, the students (from design, curating and art education courses) all faced more human-centred and appreciative approaches to participatory design and accessible exhibition pedagogy. At the core of encountering pedagogy lies the idea that the other person is not known and not defined beforehand. The idea is that when meeting with a person face-to-face with a listening attitude, one would not attempt to define, categorise, predetermine and therefore dominate that person (KALLIO-TAVIN 2013).

This idea differs from traditional design-for-all and exhibition pedagogy for different audiences that both predetermine visitors/users through different predefined identities. Preconceptions of this kind can easily become barriers to dialogue and prevent encounters based on equity. This means that there is a resistance to imagining the user/visitor beforehand, and instead we encounter the person and learn with them when listening and discussing with them. Perhaps one of the most striking examples of this within the TANGO is the 'Cube', where coffee was served and people were heard talking around the portable coffee table. Thinking of the exhibition as part of a design process enriched the design role with new approaches, skills and tools. In the exhibitions, the notions and ideas of systems, services and products were presented through active encounters with

the exhibition audiences. Assuming that the same exhibition could be a design tool (to be designed), it could be used to a different degree in defining the proposal: presenting feasible concepts, concepts in process, or concepts to be developed. In any case, the audience inclusively become active agents in the design process. Exhibition audiences have learned to be receivers, perhaps active and sometimes participatory, but mostly rather passive. Visitors have learned that exhibitions aim to be accessible and inclusive for all. However, exhibition visitors have not yet learned to be interactive participants in design solutions.

As regards the TANGO exhibition, planning the two-fold approach produced challenges that needed to be struggled through. The most relevant question was how to learn what the required methods were. While different stakeholders were involved as co-designers, such as the surrounding communities, environments, schools, care homes and neighbourhoods. There were also exhibition visitors who walked into the exhibitions without any pre-engagement with the project. It was crucial to consider how to include visitors who do not think about being or even want to be part of the design processes, as well as to design exhibition interactions appropriate for those visitors who may already be committed to the TANGO design processes. The pedagogical students considered, for example, how to get at the knowledge, experiences and expertise that each person carries and turn that

into knowledge that could be utilised for the design processes of an exhibition.

One central method in the TANGO process was to step outside of the exhibition spaces, the museums and other official exhibiting contexts. It was important for the pedagogical encounters and communication to reach people in their own environments. This was explored, for example, in the Kannelmäki area and in the Tehtaankatu primary school, both in Helsinki, and in four different districts in Milan. A local and deeper understanding in Milan was developed with a co-design approach by listening to local residents, associations, businesses and government representatives. In Helsinki, the encounters took place face-to-face in many different workshops. In Nantes, the idea of listening happened through empathy workshops.

Within the approaches described above, the designers' work starts to resemble the approaches of action research: there is a need to gain the knowledge and understanding of the individuals, communities and neighbourhoods, in collaboration, to improve everyday living in terms of inclusion and sustainability. The participates in the Kannelmäki project, for example, were asked to draw pictures as proposals for improving the neighbourhood (see more in the chapter Exploring Kannelmäki). The local participants were also asked questions such as, 'What kinds of thing in your living environment make you feel good?' and 'What kinds of thing in your living environment bother you?', as well as

being asked to describe their experiences. Describing was hence an important method to get to know and understand.

During the exhibitions, the events, workshops, memory performances and the process of collecting feedback and other materials became crucial. All of the events and workshops aimed to include the participants in the design processes. Collecting feedback with a listening attitude was an important part of getting to know and understand peoples' desires and needs within the improvements of their own lives and environments.

THE TANGO EXHIBITION AS A PARTICIPATORY DESIGN TOOL

In this section, we take a different kind of an approach to scrutinise the TANGO exhibition. We state that the TANGO exhibition offered the possibility to understand the exhibition as an agent of change, in other words, as a lab for and a window onto the students' design approaches. The TANGO project exhibition can therefore be seen as a 'tool' of a design process. Consequently, it aimed to be a launch event for a real implementation of sustainable and inclusive innovations. As a launch event, TANGO involved specific actors (for example, residents of neighbourhoods and school pupils) related to the sustainable and inclusive product-service system innovations. Those actors were already involved in the participatory design

processes, and their involvement in and visits to the exhibitions and pedagogical workshops was highly desirable. This can be understood and developed as a commitment to the implementation of further designing. Perhaps the TANGO exhibition can also be seen as a diffusion event for the development of sustainable and inclusive innovation models in different contexts, one for which it has been designed to gather feedback about the appeal of the models, and the necessary conditions and characteristics to replicate the models in other contexts.

The TANGO exhibition can be seen as a first prototype of an innovative interactive 'tool' of a participatory design process, having two main targets, with dedicated interactions. They are:
1) the stakeholders, involved as possible partners of the exhibited sustainable and inclusive design innovations; and
2) the end users, potentially even involved from different contexts.
This might happen, assuming that TANGO or other similar exhibitions could be envisioned and designed as a participatory design tool, aiming at the societal embedding of such radically innovative solutions. These approaches and new directions for methodological development seem to be promising to facilitate the design of the transition path leading towards the real implementation and diffusion of sustainable solutions, which necessarily involves a participatory and embedded design process, several and variegated stakeholders, and local participants.

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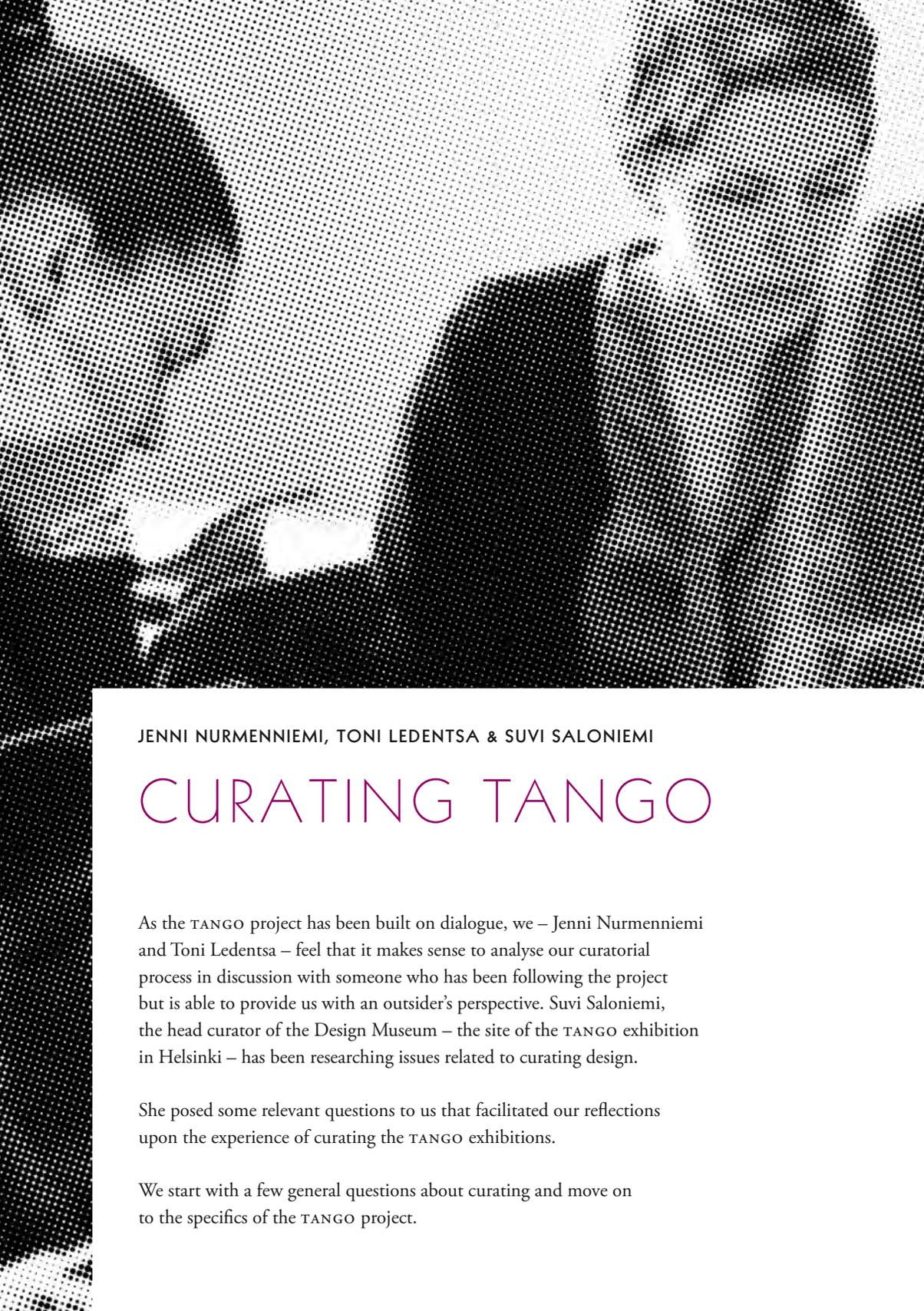
JENNI NURMENNIEMI, TONI LEDENTSA & SUVI SALONIEMI

CURATING TANGO

As the TANGO project has been built on dialogue, we – Jenni Nurmenniemi
and Toni Ledentsa – feel that it makes sense to analyse our curatorial
process in discussion with someone who has been following the project
but is able to provide us with an outsider's perspective. Suvi Saloniemi,
the head curator of the Design Museum – the site of the TANGO exhibition
in Helsinki – has been researching issues related to curating design.

She posed some relevant questions to us that facilitated our reflections
upon the experience of curating the TANGO exhibitions.

We start with a few general questions about curating and move on
to the specifics of the TANGO project.

ON THE PRACTICE OF CURATING

S: How do you see the role of the curator and what does it mean to curate?

J & T: There are various roles for curators. In addition to the traditional idea of taking care of an art collection and exhibiting it, there is now a multitude of different practices. For us, they are all characterised by 'being in between' art, design, or whichever cultural meanings are in question, and diverse audiences. Most commonly, this means engaging with and researching art or design, organising exhibitions, writing texts and initiating dialogue with different parties. Simply put, it is about communication and contextualisation. It is not about imposing, but about proposing new viewpoints.

S: Should a curator work within a certain field like the visual arts or design, or can a curator also work in the field of music, for example?

J & T: Of course curators can operate in all sorts of creative fields, as long as they understand what they are working with. Curating has become a buzzword, but proposing and mediating new perceptions is not dependent on the field of activity, although the practices and discourses of different areas may vary a lot. Even though multidisciplinarity is the word of the day, it is not always easy to move from one context to another. They all have their

own distinctive languages, networks, and rules of interaction. One has to learn how to navigate in each context, and how to make sense within it.

S: Are exhibitions the most essential platforms for communicating and contextualising, and roposing new viewpoints, as you state represents the core of curating? What do you see as being the advantages of an exhibition as a platform?

J & T: An exhibition has its advantages as a platform for communication. It can provide a very holistic sensory and cognitive experience, in which visual, auditive, and tactile dimensions are combined in a way that allows visitors, each of whom has a unique way of experiencing and learning, to approach it differently and get – or not get – something out of it according to their individual interests. An exhibition can also be made into a very social experience that brings people together and encourages interaction.

S: How do you feel that a museum serves as a platform compared with, say, a gallery or other exhibition space?

J & T: Without going deeply into the specifics of different exhibition institutions, museums, kunsthalles, art galleries, and not-for-profit exhibition spaces, they all have different positions and functions in the art system and

the cultural field. Museums are loaded with the heaviest associations as to their educative function, and therefore they might not be so easily approachable for contemporary audiences who are used to consuming culture with their laptops and mobiles. If museums manage to learn how to engage people with their accumulated expertise, experience and collections, they can turn into new kinds of cultural hubs, sort of living user interfaces between humans and their cultural heritage.

S: How demanding is it to display processes, tools and prototypes in the form of exhibition when there are no finalised objects to be shown?

J & T: It is always a challenge to present complex processes in a way that will be interesting for audiences formerly unfamiliar with them. However, a variety of instruments can be used to visualise or narrate different processes. For instance, chronological or rhizomatic, mind map-like, infographics as part of the exhibition could work. The best solution depends on the particularities of the process in question.

LOOKING AT TANGO

S: Now, as the TANGO exhibition happens in the context of design, how does curating design differ from curating contemporary art, with which you are both more familiar?

J & T: As this has been the first time we have worked with design, we can only speak in relation to the TANGO project. Our impression is that in curating design, clarity and comprehensibility are given more emphasis than in curating contemporary art, where ambiguity is prevalent. Design products and concepts need to be easily perceivable, especially at design fairs.

In contemporary art, the works are not usually considered to have similar 'functions' as they are in design. In choosing and placing art works, playing with implicit, sometimes contradictory meanings is central. So are rhythm, ambiance, and overall dramaturgy. Probably the latter three apply to design exhibitions as well, but in our view, art exhibitions are more about displacing existing mental categories, and seeing the world from a new point of view.

This being said, maybe curating the TANGO exhibition differs quite a lot from curating other design exhibitions – what is presented in TANGO is mainly initial ideas, processes, and possible design tools than, for instance, prototypes or finalised products. However, this might just mean that our idea of a 'typical' design exhibition is inadequate. The themes of the TANGO project actually come close to present discussions within contemporary art relating to concepts such as memory, history and identity of site, as well as participatory practices.

S: What was the role of the curators in the TANGO project and the exhibitions?

J & T: In the TANGO project, our task was primarily to interpret the diverse contents, contextualise them and assemble them into a meaningful exhibition. It was not so much about inventing an exhibition concept and finding works as developing an existing set of ideas and organising the materials that were produced during the courses and workshops. Thus, our role in the project, and in the exhibition, was mainly to analyse, find connections and thematise the contents. We set out to understand what the whole project was about, gather materials from the different courses and plan an exhibition around them that would be interesting and accessible to audiences of different ages in the countries involved in the project. We considered the local contexts and made selections accordingly. So each exhibition is different, but the core ideas remain.

What was also essential for us was the dramaturgical planning of the exhibition, which we were privileged to do in close collaboration with two exhibition architects, Henri Halla-aho and Inka Saini, as well as a pedagogy team formed by Minna Nyqvist, Tuuli Rouhiainen, Iida Jääskeläinen, and Pinja Sormunen, who represent the art educational expertise provided by the Department of Art at Aalto University.

S: What kind of challenges did you face in curating the TANGO exhibitions?

J & T: It was challenging to get a comprehensive overview of the contents, as the six courses were organised in three different countries at different times. We had to wait for some of the materials until the very last minute before the exhibitions. TANGO is a multiannual, international and multidisciplinary project, and translating such a process into an exhibition is a huge challenge.

First we started the concept development trying to find shared meanings: a 'common ground'. During the process we came to understand more clearly the differences between the design approaches within the three partner universities. We found the differences interesting, of course. Therefore, the final concept is about crystallising the core ideas behind each design approach.

Also the different discourses of contemporary art and design became clear to us. For instance, the concept of empathy has been thoroughly problematised in contemporary art and art philosophy over the past twenty years. In design, it seems to be approached in a more pragmatic manner.

One of the main themes of the TANGO project has been ageing and a good everyday life. This is more of a general thought, perhaps, but at times we felt a bit uncomfortable with the persistency of the problem-centred view towards

Tango exhibition in Design museum, Helsinki.

ageing. Of course, there are health and social issues related to advanced age that demand new design innovations. However, it would be great if we could also move the focus onto the positive aspects of ageing: accumulated wisdom, experience and skills.

S: What kind of new knowledge did the TANGO project produce for you and how did it affect your curatorial practice?

J & T: Significant new knowledge was produced in the collaboration with the exhibition architects and the pedagogy team. Both helped to reinforce the messages that the exhibitions were

hoped to communicate, not just adding extra layers onto them. The close communication with the exhibition architects strengthened the mediation of the contents with carefully designed exhibition structures, material choices and spatial design. The pedagogy team developed workshops and performances that bring more levels and depth to the themes presented in the exhibited materials. Also, we both learned more about the practice of co-curating. Being in constant dialogue strengthened and pushed our ideas further.

Something we now appreciate even more than before is clear and active communication between all of the

involved parties. In a large-scale international project, the common goals, resources, and schedules require clear definition. The most important thing, however, is to reserve enough time for discussing the actual contents.

Through the process, we also learned to consider the ecological dimensions of exhibition making. Touring exhibitions can be very energy intensive. In the end, though, solutions that seem to have the smallest carbon footprints may not be the most sustainable in the long run. For instance, if the exhibition structures function well and are aesthetically pleasing, they may have longer lifecycles and thus save energy and natural resources.

CONCLUSION

The TANGO project has been an exceptional opportunity to bring different cultures, generations, design and art education approaches into dialogue. The interaction has enriched our thinking and widened our perspectives, and we hope that the same is true for all of the participants and the audiences too.

The exhibitions are definitely not the end of the project. As they bring together the different approaches and proposals, they are rather the starting point for the conversation.

Our greatest wish is for the ideas and projects that are now being

presented to continue to evolve and generate new ideas and practices. New knowledge is formed in communication, in dialogue. This requires coming together, encountering, and trying to understand unfamiliar contexts, ways of thinking and languages. The participants in the dialogue might not share a vast amount of common ground but there will be positive collisions, and it is in these that true co-creation can take place.

MINNA NYQVIST, IIDA JÄÄSKELÄINEN, TUULI ROUHIAINEN, PINJA HEININEN & ELINA GYLDÉN

ACCESSIBILITY AND AUDIENCE WORK IN EXHIBITIONS: CHANCES AND MINEFIELDS

The article discusses the process that the pedagogical team of the TANGO project went through in their journey towards the final outcomes: three exhibitions, as part of which the team prepared an audience programme. The pedagogical team working with the audiences was made up of a group of students from art education, curating and design courses[1]. Museum or gallery pedagogy aims to build bridges between the curated exhibition and the museum visitors, and its goals are normally inclusive. The idea is to improve museum visitors' feeling of accessibility and sense of participation, and to strengthen their sensation of sharing the content during and after exhibition.

The journey to reach the final workshops was not straightforward: first the article discusses two crucial turning points that led to a change in the team's pedagogical perspective. Second, the article looks through and presents the chosen workshops. By reflecting the ideas behind the team's audience programme and the final workshops, two important statements can be put forward: the TANGO team's perspective towards design processes is involving. These processes should not be the designers' private businesses but must be tied into the common user's own experiences and everyday practices. This leads to the team's second statement: it is key to see the visitor's subjectivity. This refers to the idea that the visitor is treated as an active partner in all contexts. There are no prejudices concerning age – different age groups are encouraged into interaction. The project supports intergenerational dialogue.

Taking into account human diversity is one of the main challenges of the pedagogical team. In practice, the team tried to create pedagogical concepts where visitor's subjectivity is sufficiently reflected; where all kinds of interpretation are given enough space and flexibility. A common approach in museum pedagogy has been to categorise the visitors in advance. In the TANGO project, the team thought differently.

The pedagogical agenda of TANGO was sketched around the idea that the view of the regular visitor to its exhibitions was not formed on any pre-defined value basis. As the project itself is process-based, the perspective towards an exhibition visitor is open and undefined. Hypothetical visitor can be simultaneously, for example, an art collector, heterosexual, a local association activist, retired school teacher and grandmother. This means that this kind of non-pre-defined visitor will potentially examine the contents of the exhibition through the lenses of many different identities at the same time, or just focus on some of them.

THE PROCESS

The team's pedagogical thinking developed through two important turning points. The first was a meeting with all TANGO participants from all three countries where the team's initial ideas were presented and weighed. The second turning point was an intensive week-long course called Intergenerational Accessibility in a Sustainable Exhibition arranged at Aalto University. The following section describes the process.

We started by asking: Who visits the exhibition, for what reason, and what happens during the visit? These were the questions that the team asked themselves as they moved towards developing practical pedagogical concepts. According to Levanto (2004), these can be seen as the most basic focus points to be considered during exhibition planning. At the same time, it has been argued that it is only one's own experience that brings knowledge: talking about issues does not mean that the content will have been comprehended. This brings the conclusion that there can be no good pedagogical activity without an experimental procedure.[2]

The first tangible pedagogical concept and task was to collect memories and set them up as a giant wall of TV screens. The Collection of Memories would have consisted of video material filmed in a recording setting in exhibition space. The audience would have advised the visitor to sit in front of a recording camera and talk of memories awoken by items, specific questions or something else that would provoke all of the visitors to say something. Different voices would have been brought together to discuss matters with one another. This memory collection would have gone through exhibitions in Nantes and Milan; memories from all three countries could be included in the last exhibition in Helsinki. Thus we would include both the intercultural and intergenerational aspects.

Meeting with the TANGO partners in cooperation led the team to realise that the concept should be deepened. There were easier ways to produce answers to the questions on which the TV wall concept was based; the concern arose as to whether this method would produce answers to the given questions at all. The team had to change the perspective of looking at the audience not from the team's own needs but from the visitor's perspective. The whole team argued that more complex, richer and more participatory pedagogical content was needed.

THE INTENSIVE WEEK AND ITS RESULTS

The second important turning point came in October 2012 when an intensive course, Intergenerational Accessibility in a Sustainable Exhibition was arranged

at Aalto University. The course included three different workshops that were held at Tehtaankatu primary school, Helsinki. The content and form of the workshops were developed in joint discussions with the course participants and teachers. The guest art pedagogy lecturers inspired the development of workshop content that connects to a person at a deeper level than just 'having fun'. The attendees of all three workshops were made up of child-grandparent couples: the workshops were inspired by the differences between old and young people. They were based on the proposition that without intergenerational relationships, the quiet information provided by older generation remains unheard.

The first workshop was called Hand in Hand, in which 13 students and grandparents worked as partners and made together a joint set of mittens, with the idea of connecting two mittens together, handcraft-style. When the mitten was ready, a child-grandparent couple was encouraged to walk hand-in-hand, each holding one of the shared mittens. The main aim was to create a space where grandparents and children could interact with one another and thereby deepen their relationship through collective activity. It was an eye-opening experience when it came to intergenerational sharing of knowledge and skills. Shared moments with handicrafts also strengthened the perception of how significant shared moments and stories are for two people for rebuilding their relationship.

The second workshop was called Traffic sign. It begun with a task where pairs were sent to wonder around the neighbouring area equipped with a map and a camera. The task was to detect and document unsafe spots related to traffic. The shared mission persuaded the pairs to share memories about the history of their schools and living areas. The next task was to design a traffic sign, bearing in mind the risky places the pairs had encountered.

As with the Hand in Hand workshop, the focus was on collective working. Pedagogy offers the setting, which the participants can use to build their relationship by interacting with each other. Teaching can sometimes remain a one-sided monologue on behalf of the teacher. The Traffic Sign workshop emphasised sharing which requires, more than listening, the active exchange of knowledge and feedback between the participating pairs. The maps and pictures, together with the suggestions for traffic signs, were later sent to the Helsinki City Planning Department.

The Third of the intensive week's workshops was called At Home, From Home, Home! First, the group took part in a guided tour of the Design Museum's special exhibition, Home – A Place and a State of Mind. In the workshop, couples transformed single gloves into 're-pairs' by modifying them to make them visually similar. The material was recycled, such as single gloves. The selected material symbolised all that stuff

which comes from our homes, but is lost somehow on the way and does not return home. After handcrafting, the new glove pairs were united as one glove rug, which reflected group power. Joining the rug together took place after the workshop itself, at Tehtaanpuisto primary school, and this was integrated into the school craft education curriculum.

The aim of the workshops was to demonstrate how small things that are part of everyday routines have a significant matter. Design processes are not private business, and they should not just be under the control of a selected group. The workshops' other goals were around intergenerational interaction, design education and exploring the object environments from a new perspective. The best design solutions are founded on cooperative actions and the insight that common everyday life with its common wares is good material for innovation.

The immediate feedback received from the workshop participants was mainly positive. However, the team realised that the workshops were quite traditional and pedagogically typical of museum concepts. This idea of workshop 'prototypes' became pedagogical material for further processing by TANGO's pedagogical team.

DEEPENING THE IDEAS

All the knowledge gathered during the intensive week helped to progress the

themes further forward. The team was motivated to find more solutions for content that would arise out of the subjectivity of the participants. The first plan was a non-stop workshop called Memory Game for Shared Memories for the TANGO exhibition in Nantes. In this workshop, participating groups (2 persons or more) recalled shared memories and made a memory game based on them. Great meaning was placed on the tranquil collective working that was also given enough space by the instructors. The role of the pedagogue is mainly to provide the structure and tools for the work – the participants themselves create the actual content through processing their memories. This allows the workshop to deal with exactly those subjects and themes that are important to the participants, not the ones that the pedagogue assumes are interesting and essential from their own point of view.

When working at this personal level, the pedagogue must understand their actions and take responsibility for them. Appreciating the visitor's subjectivity means accepting working with unfamiliar territories: the lives and experiences of somebody other than yourself. This notion also relates to the workshop called The Bank. This was based on the consideration that memories were so precious that they should be restored and catalogued like a piece of jewellery or a money deposit. The Bank was a performance where an actor playing
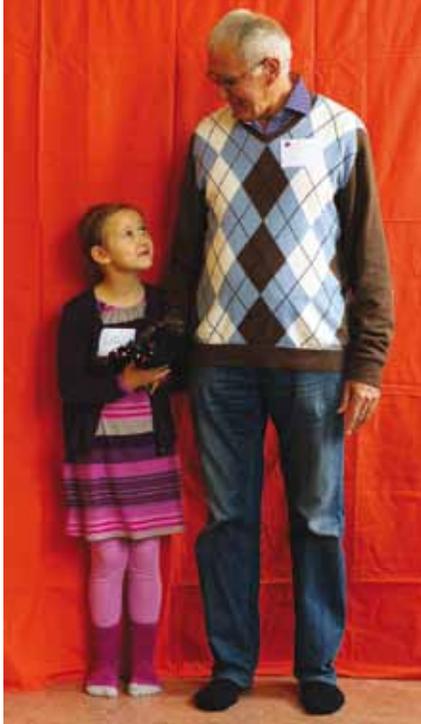
From Hand in Hand and Traffic Sign workshops.

a bank officer sat behind a desk in a neat costume and interviewed the visitor about their important memory. The story was written onto a deposit copy and saved into the archives.

Similar to The Bank was the idea of a Memory Tree that was set up in Helsinki. There, the memories were represented as leaves on the branches. Visitors were asked questions which they could answer by choosing a coupon of one of three different colours. All of the colours represented different areas of life.

Coupons were attached to a net that would create a net of memories. Thus the net also formed a visual Gallup poll: visitors could obtain information from previous visitors.

The key theme in all workshops was to appreciate one's own life experience and not to assume anything from the visitor beforehand. Diverse processes and a suitable time span gave room for new pedagogical experiments. TANGO also represented a very good exhibition context in terms of the potential for learning for the pedagogues themselves.

CONCLUSIONS

The team came to realise that when it came to the TANGO exhibitions, they could not rely on concepts that they already knew, because the whole project was about finding new approaches to creating exhibitions. Therefore, the team would have to search for new approaches to constructing pedagogical concepts as well. Finding knowledge from already-existing material on what has been done in exhibitions in general before did not take the team where they wanted to be. They could not even rely on their own pedagogical experiences within an exhibition context.

It is easy to come up with concepts that just glide along beneath the curatorial umbrella. But again, in regard to all of the concepts, the team struggled with the everlasting problematic question: In which way could these activities be considered to be pedagogic? And, with all concepts, backward steps must always be taken before they start to fit. Pedagogical development is a factual process. And if the process is received well, it will not end, even after the last date of the TANGO exhibitions. For example, there are plans to continue with the 'Bank' performance in old people's homes.

It is important to see how vital this discursive, expedition-like process has been for the pedagogical content.

It can be argued that the TANGO exhibition was a pedagogical exhibition already, before the exhibition was mounted and viewed. A huge effort was put into reflection on the hypothetical visitor. The picture of him or her that was formed was very open and flexible. The unequal position between the visitor, the exhibition content and the creators of the exhibition was decreased.

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NOTES

1 Gyldén, Elina; Heininen, Pinja; Jääskeläinen, Iida; Nyqvist, Minna; Rouhiainen, Tuuli.

2 Hooper-Greenhill (1999) writes about this.

TANGO IN...

…Helsinki.

TANGO IN NANTES
INTERVIEW WITH
FRÉDÉRIC DEGOUZON

*1. What is the context behind
the Nantes exhibition?*

The idea was to work on solutions
for sustainable life, and to work with
intergenerational dialogue as a driving
force for this sustainable life. We
had already worked on the notion of
empathy and tried to put students
into the situation of an elderly person
in order for them to experience what
the daily life of an elderly person
would be like. Our goals were to
design this empathy experience and
to create an empathy toolkit.

*2. Would you like to bring up one of the
works from the exhibition and talk about it?*

What I found very interesting is that
some of the students decided to grasp a very
specific angle on the notion of empathy –
what is the life of ageing people in society
really like? They tried hard to meet with
those people and get them to discuss their
life experiences with true honesty. One
group decided to work, for example, with
the sexual habits of elderly people, which
is usually a theme that you don't really
discuss, especially in France. It was quite
interesting to find a design angle for this very
specific topic. Additionally it was a way in
which to introduce a dialogue between
different generations.

*3. What is the message you are
expressing through the exhibition?*

It was important for us to express
the notion of collaboration through the
exhibition. Being part of a European
collaborative project was a quite an
important issue for us and for the people
involved with the project. On the other
hand, it was more difficult to deal
with, but also more interesting – we've
learned a lot from the collaboration.
The opportunity that was offered to
students and staff to go abroad and
be part of different workshops that
happened in Finland and Italy was
an important aspect of the project.

*4. What is the audience perspective
in this exhibition?*

The exhibition was a part of a
broader event, Les Ateliers du quartier
de la creation (Ed. – an event created
by The Creative Arts District, which
was opened in March 2013). This event
is part of the policy of the area in
which the exhibition is taking place –
promoting creative industries and
really 'putting creation in a broader
sense', incorporating design and art
in the development work of the area.
We are now introducing the idea that
creation is not only arts and crafts –
it is at the very core of social
issues that design can work. Creativity
is a fundamental part of solutions.
That was an important message for the

Tango exhibition in Nantes.

exhibition. Nantes is also a green capital
of Europe in the year 2013.

*5. What is your own statement
about TANGO in Nantes?*

It is always good to measure the
differences and also the common ground
we have with the partners that have
been involved in the project. It was
a learning experience for all.

TANGO IN MILAN
INTERVIEW WITH
CARLO VEZZOLI

*1. What is the context behind
the Milan exhibition?*

The Design and System Innovation for
Sustainability research unit of the Design
department of the Politecnico di Milano
has activated a collaboration with the
Social enterprise System (sis) consortium
related to the 'Punto e Linea' project
which has promoted initiatives for social
inclusion in four districts of Milan:
Gratosoglio, Giambellino, Barona and
Baggio. Based on these initiatives, several
students of the School of Design of the
Politecnico di Milano have designed four
innovative services aimed at economic,
environmental and social sustainability,
paying particular attention to the creation
of an intergenerational dialogue. Single
persons, communities, companies,
associations and administrations have been
involved in a participatory design process.

*2. Would you like to bring up one of the
works from the exhibition and tell about it?*

All of the concepts that emerged are
locally-based and network structured
in the Sustainable Product Service
Systems, presenting alternative and
feasible socio-economic opportunities.
Having said this, they are all different,
but as an example I could introduce the
Share Radio (ex)change your time in the

Baggio district of Milan, which merges
the local web radio station with the local
timebank, i.e. the web radio will host
a web platform to ease the exchange of
specific jobs among local inhabitants
based on time (of job) exchange.

*3. What is the message you are
expressing through the exhibition?*

Possible and alternative solutions to
existing unsustainable production and
consumption systems exist and they are
feasible: many visitors looking at the videos
we presented were asking how they could
have joined that service. They thought that
the services had already been implemented,
and they were very interested in them.

*4. What is the audience perspective
in this exhibition?*

The exhibition in Milan has been
targeted at both the general public
(short videos were developed with
an incisive narration about the proposals,
with the possibility to select Italian
or English), youngsters and the retired
(a set of short sub-videos were developed
that they can activate through interactions
created using the software, Arduino,
giving more detailed narration on how
the proposal works) and stakeholders
related to the proposed innovations
(four participatory design workshops were
organised during the same exhibition for
the incubation of possible proposals).

Tango exhibition in Milan.

*5. What is your own statement
about TANGO in Milan?*

The TANGO in Milan exhibition aims
at being an Agent of Change, to
diffuse sustainable social innovation
models in different contexts and
involve potentially committed actors
in a participatory process. An exhibition
as a 'participatory design tool' in itself,
it is an incubator of real implementations
of sustainable innovations.

TANGO IN HELSINKI
INTERVIEW WITH
HENNA HARRI

*1. What is the context behind
the Helsinki exhibition?*

The TANGO exhibition in Helsinki,
being the main event of the
AH-DESIGN Accessible and Sustainable
Design project, brings together all
of the content produced by the three
universities and their courses during
the two-year period of the project.
In this project, students from the degree
programmes in Art Education,
Curating and Design have come together
to work successfully towards a mutual
aim. It represents the sum of a huge
amount of working hours, lessons
learned and thoughts in process
of many stakeholders, students
and mentors who have been on this
journey together.

*2. Would you like to bring up
one of the works from the
exhibition and tell about it?*

I would like to bring up
the work done by the pedagogical
team of the project in general.
They have organised workshops
and interventions before and during
the exhibition, and their work
brings the issues of the exhibitions
down to earth, and makes them
comprehensible to all:

not necessarily in an academic
manner or knowledge-wise,
but in heart-felt ways by bringing
together young and old
or focusing on participants' own
knowledge about their lives.

*3. What is the message
you are expressing through
the exhibition?*

Community matters, the opinions
of the people living in the community
matter, and their ability to affect
their surroundings matters:
that is to say what does everyday living
feel like, and do I have a say in it?

*4. What is the audience
perspective in this exhibition?*

The exhibition took place
in the Design Museum in Helsinki,
therefore we expected to see
the museum visitors also visiting
this exhibition, and of course
we invited the people who
have been part of the process to
come and see the exhibition
with their families. We organised
some workshops and interventions
in specific places, like schools
and care homes during the exhibition.
Additionally, the Creative
Sustainability MA programme
organised an open seminar on
participatory and social design.

The Cube in Design Museum Helsinki.

*5. What is your own statement
about TANGO in Helsinki?*

Sustainability in a community
has a lot to do with its memory;
how is it documented and handled,
looked at and cherished.
Remembering is also about forming
identities: who we are, and what
we can learn from the other
generations. What do we want to
sustain, or maybe make different
than before in our surroundings?

The AH-DESign project brings together participatory design
and art education through different workshops
and interventions with local communities, such as ageing
and empathy, and system design and urban design.
The purpose of the collaborative project is to explore
intergenerational dialogue as a source for sustainable solutions
in our ageing European society.

As part of a design process, it introduces new ideas
of participatory design, radical art pedagogy, and accessible
TANGO exhibitions.

The 2-year experiment was led by Aalto University's
School of Arts, Design and Architecture (Helsinki, Finland),
and carried out between 2011 and 2013 with the partners
L'École de design Nantes Atlantique (France)
and the department of Design of Politecnico di Milano (Italy),
in collaboration with the European Commission Culture
programme. Collaboration included individual and local
stakeholders, such as school pupils and their grandparents,
and local cultural partners such as museums.

Education and Culture DG
Culture Programme

BUSINESS +
ECONOMY

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SCIENCE +
TECHNOLOGY

CROSSOVER

DOCTORAL
DISSERTATIONS