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And everyone else who we might have forgotten.

Contents

Cumulus conference
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4 **INTRODUCTION** **Ann Laennen**
6 **FOREWORD** **Organizers**
6 Borderline – pushing design over the limit
8 **OPENING SPEECH** **Christian Guellerin**
8 Cumulus in Genk...to go over the borders

SELECTED ABSTRACTS AND PAPERS

9 **Andreas Hopf – Damien Motte – Axel Nordin**
Out of focus – The limits of a borderline profession

10 **Ann-Marie Tully**
Becoming Art, Becoming Design, [Becoming Wolf]: The Rhizomic Dimensions of Contemporary Conceptual Design

18 **Barbara N.E. Kok – Peter Vink – Karin Slegers**
Tools for more user friendly design: do they really improve the quality of the design?

19 **Kris de Tollenaere and Jeanine Eerdekins**
The hybrid book genre of word & image narratives – Results from an artistic research project, 2008–2010: Transitionality between word and image in fictional stories for adults.

20 **Liesbeth Huybrechts**
Participation is a risky thing – The role of hybrid and risky things in participatory design processes

25 **Lorenzo Imbesi**
Hybrid in Design: Design as a Cultural and Collective Process

30 **Mads Nygaard Folkmann**
The Inner Border Crossing: Imagination in Design

36 **Mahmoud Keshavarz**
Experience Design as an Activity

37 **Miaosen Gong – Linghao Zhang – Xian Zhang**
Design for Collaborative Services: Two service design workshops as intercultural experiences of design intervention in grassroots social innovation

42 **Miia Lammi**
Service Design challenges Designers' Competence

47 **Peter Stebbing**
Back to a Future

48 **Rosanne van Klaveren**
The Art of Lying

52 **Rudi Knoops**
DIORAMATIZED #01

56 **Sanne Jansen – Jessica Schoffelen**
'Not quite 100'. A description of design with people with schizophrenic symptoms.

61 **Virginia Tassinari**
Wunderkammer: archaeology of wonder

65 **Yanki Lee – Denny K L HO**
www.designingwithpeople.org: enabling designers to cross borders for social inclusion

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INTRODUCTION Ann Laenen



It was with great pleasure that we hosted the Cumulus conference in 2010. The themes linked with ***Borderline – pushing design over the limit*** proved to be thought-provoking, and led to rich discussions during the conference. Crossing the borderline, explore the limits of these borders, shaping ambiguity through this exploration, and looking into new design grounds challenged by the 21th century developments were some of the issues raised.

Our department was and still is explicitly confronted with a lot of these issues. We changed names and focus on media and design, with arts as a central pillar in between.

We physically moved to a place where past, present and future are connecting with one another, not in a typical, but in an a-typical way. The old mine site is becoming a creative hub for design and media. This raised questions towards the role of a University College within this hub. Apart from the physical move, we also made a substantive change. Through the collaboration with the Provincial University College – Arts, we merged into the *Media, Arts and Design faculty*. There is a strong focus on media, arts and design here, but in relation to creativity and innovation situated in a societal and user-

centred context. This urged us to think across borders and thus to start working in a more 'interdisciplinary' way both in education and in research in order to find some answers to the current intriguing issues raised.

Some of these issues are present in this publication. Since we had an abundance of very good papers presented at the conference, the editing team had a hard job to come to a selection. We hope that the present selection gives you, reader, a good overview of the issues evoked last May. Some texts are only present in abstract, but do ask the authors for the full paper if you want to learn more about them.

Before I invite you to start reading and to get challenged by the papers presented, I want to explicitly thank the whole team that took care of the conference and of this publication.

For now I wish you a good read and hope many new questions might pop up afterwards.

Ann Laenen

Head of Department
Media, Arts and Design Faculty – Campus C-mine



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Luk Van Der Hallen.

FOREWORD Virginia Tassinari

Borderline

– pushing design over the limit

Cumulus: a word with a kind of innate ambiguity. According to its Latin etymology it means a pile of something, yet it also refers to a specific kind of clouds, which are particularly well delineated. This is a metaphor that shows both the materiality and the conceptuality of the term; the value of dichotomies living together. Increasingly, design nowadays appears to mirror this ambivalence, this reference to openness and freedom but also to fear of the unknown, the illegitimate, the undiscovered.

It is this territory of ambiguity which inspired the conference days in Limburg, an exploration of the in-between spaces which have no name, the undefined, the unconfigured. Those spaces that cross borderlines.

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As a geographical region, Limburg is already per definition a place situated on borderlines: linguistic, cultural, state wise. Mixtures and hybrids are more than mere hollow terms. Here borderlines transcend their metaphor, shaping the societal tissue.

Borderlines are a world apart, literally seeming to fight for uniqueness, in order not to be framed, not to become encapsulated within borders. At the conference in Limburg we gave it a try and spoke about that about that which escapes categories, those who seek not to be defined. We welcome you to join us on our exploratory journey.

Boundless curiosity

First of all, we invite the reader to take a trip through the past. There used to be that special journey which young creatives (in each possible kind of field) made in order to challenge themselves and the conventions of their times. This special kind of experience was called the *Grand tour*. Many of these trips were so dangerous that the ones leaving never really knew whether they would come back, so they greeted their families and asked for their blessing before leaving. The journey could be a lonely experience but usually more or less by chance one would meet and join up with others. They would share ideas around the fire in the evening or in the barn where they would look for shelter during the night. We all carry images in our minds of these travellers, like the ones that Caspar Friederich painted in his romantic landscapes.

The whole idea of Romanticism rotates around this image of the *genie*, the creative mind discovering a mission in his work, maturing a kind of awareness of what it means to create something. This awareness is a process which led poets, artists and philosophers to discover their "mission" in faraway lands, there where the classic ideal of beauty found its origin: the South. The very south of oneself is the place where one discovers the purity of one's own inspiration, the very essence of being engaged in the creation of beauty. We all know the books (Goethe, Lawrence, Büchner, Mann...) that chronicled these trips, where art mixes literature and science, exuding adventure. They infused the adventure into other disciplines and mindsets as a means for oneself and others to learn, as well as to shape one's discipline. These journeys went beyond the borders of one's knowledge, language and culture, to the strange unknown. They also reveal every now and then an element of disturbance; something we dislike because it is unfamiliar to us and seems to block our path.

That which lies beyond today's territory of knowledge is what falls beyond the definition of disciplines. The question "what is design today?" hence has to dare and look at these hybrid territories of knowledge that are re-shaping our ways of seeing the world today. A complex world needs multidimensional answers to such questions.

Critical design

Design as such is being questioned, as it gets increasingly conceptual, to the point at which one starts to wonder where design is going. This is a question concerning its 'delimitation', its borderlines, its moving into the territory of the unknown. How can we get a clearer view of this unknown territory? What happens to design when the word "applied" no longer has a final and finite application in the real world? If we once addressed art as "*l'art pour l'art*", could we still say that conceptual design differentiates from art? Could "*design pour design*" ever make sense? And what about criticism within the context of design? Should it always be present in the designer's mind, or can we perhaps have critical design without a philosophical critical awareness? We do not wish to provide only one answer to these (and more) possible questions arising as we continue our journey onto new grounds. On the contrary, we will welcome ambiguity as our friend, convinced that its value lies in its openness. This openness is a pattern that design partially inherited from the openness/un-systematicness of the media culture of the global village in which we live, and partially probably also from the concept of criticism originating in the field of critical studies (in particular critical theory of the first part of the 20th century). Probably mostly unconsciously, design, and more specifically critical design, comes to align itself with an old tradition of criticism. While at the Frankfurt School, for instance, philosophy was the way to criticize society. In the artistic avant-garde art has been fulfilling the same function. Now design seems to have inherited this vocation.

Where philosophy seems to have lost its critical power by way of increasing self-referentiality and – at times – sterile academic discussion. And where art seems to lose its criticism by mixing itself increasingly with commercial activities and helitarism, design appears to society in an effective, democratic and propositional way. In the design context critique appears more and more to be an act of society, not a destruction, but a construction of values. Surprisingly enough, this was also what critical theory wanted to achieve: the critic as an instrument of renovation/innovation of society. So, the element of finality is still there in design: although seemingly totally abstract, critical design tends to become one of the most concrete expressions of design ever. While criticism in general tends to become ever more sterile, self-referential and nihilistic in attitude, critical design

can represent also for theory the possibility to find its coherence again. In critical design the words theory and practice, old and new remain suspended for a while, and re-define themselves within a new constellation.

Finding identity

Design today seems more about losing identity than finding it. In order to look with new eyes one must dare, dream, let and make things happen. Design moves ever closer to the concept of emergence, to let a latent need present in society find its way out, channelled through one's own configuration, to make a difference between a mere idea and an idea as an answer to a deeper call.

These dissonances from obstacles we probably need in order to bring our energy together and think in unity through diversity. A solution comes from a need, a situation which needs to be improved, where beauty meets functionality so that we meet the perfect (and, as such, impossible) design – the one that seems it was always there – that nobody ever designed – like a creation by the hand of a god – one of our major sources of inspiration – nature with its apparent contradictions yet functional complexity.

The utopian character of our work is the same as this journey: we are moved by the impatience and the awareness of this impossible task. It is this impatience that moves us to curiosity and curiosity killed the cat – but we actually enjoy taking this risk.

Enjoy the journey through this publication and feel intrigued, inspired, challenged and puzzled by its curiosity raised.

Virginia Tassinari

Board member of Cumulus
MAD-faculty Genk

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OPENING SPEECH Christian Guellerin

"Cumulus in Genk...to go over the borders..."

It is acceptable now to declare that design schools are schools of management, management of projects of innovation. A designer has ceased to be a technician of creation, s/he has become a manager of project, able to bring engineers, marketers, philosophers, sociologists, politicians, ministries, representatives of the regions and territories, together and make them work as a team on future issues. For the past few years, our curriculum has considerably shifted towards more professionalisation. Considering the strategic role of design, it is probable that the role of designer will be more and more recognised in companies and they may reach the very top strategic positions in all fields, including research and development, marketing or management, thus offering an alternative to the too much analytical brains of engineers or business models. I am looking forward seeing the first designer involved in politics. Sure his/her background would bring new air and more imagination.

But there will be a most important shift probably, a shift that justifies Cumulus to continue growing and studying, a shift that will shake the academical models. De-

gree holders are used to say they graduated in such or such city or school: Helsinki, London, Milan, Paris, Genk. But will this still make sense in the near future? Or will it make sense to say this for students who spent two semesters in London, one in Helsinki, one in Milan, and finally obtained a degree elsewhere.

Times are changing and models must be reinvented, because students who complete their Bachelor's and Master's curriculums in the same country, in the same institution thus limiting their mindscape to one single culture are becoming scarce and odd. We need to cross the borders, to push design over the limits. The ongoing globalisation spurs students to accumulate a wide variety of cultural and technical experiences, and to hone their ability to appreciate to make the most of differences.

But then, what type of degree is the most appropriate for the students of tomorrow? And above all, what identity should this degree have? One solution would be to implement a degree common to all schools; but this is risky because doing so could jeopardize schools and their identity, their specific know-how, their uniqueness.

We will probably be compelled to focus on values other than degrees, to define other criteria for selection that go beyond titles, training courses, places and ultimately create new kinds of identity.

Christian Guellerin
President

Andreas Hopf – Damien Motte – Axel Nordin

Out of focus

The limits of a borderline profession

Abstract

The elusive chimaera “design” has been, in turn, an idea, a plan, a purpose, a sketch, a process, the result of a process, the core of a profession and the core of emerging professions... As such, the concept of what design is, will remain contradictory and resist to being ever determined in the absolute: the limitations of design are those that are imposed by those who define them. On an abstract level, there is no fear and there are no boundaries; but then, stretching the term to verge on the all-encompassing for a political agenda, the design profession and its research community is already instrumental for disentitling it of relevance: positioning design as the panacea for all problems afflicting the world. If design and design research will ever mature, the reflections on it will have to be put into a context: if there can ever be a design science – as long as it remains a science of the artificial, linked to human activity – it will be irredeemably linked to a field of application. Otherwise, it will lead to cursory outcomes of shallow depth, promoting a process of mere scientification and aggrandisation.

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Ann-Marie Tully

Becoming Art, Becoming Design, [Becoming Wolf]

The Rhizomic Dimensions of
Contemporary Conceptual Design

In 1829 the landscape painter Adrian Ludwig Richter wrote to his friend Julius Schnorr von Carolsfeld: "Perhaps you know, that I have been employed as a drawing teacher at the Meissen Porcelain Manufactory, a true Siberia for every artist who still has a degree of warmth for Art in his heart" (Richards, 1998, p.109). This somewhat bombastic statement reflects the conceited Classical and later Romantic Salon sentiments where binaries of taste, morality and aesthetics rebuffed the commercial and practicable restraint of an industrializing society. One is tempted to consider the identity wrangling of the Dresden Academy of Art and the Meissen Manufactory, as specters of a less tolerant absolutist past. This is however not the case. Like Richter, who experienced what he described as an "unbridgeable gap" (Richards, 1998, p. 119) between the other staff at Meissen and his own 'delicate sensibilities', I have often in my own employment as a fine artist teaching visual culture theory at a design academy witnessed similar scenarios and tensions. Undoubtedly a binary tension exists today and is perhaps even more reinforced from the rearguard of design, who's instinct is to doubt those doubters from the other side and fete the primacy of design as for and in itself. One need only Google search any variation of the term art/design to confirm the abundance of myopic debates that persist in this arena; pressing on insatiably with the binaries of form/function, applied/conceptual, commercial/personal. Even the title for this conference *Borderline – pushing design over the limit* implies the binary formulation of design as a practice in relation to its outside. Having lived a life of constant migration between commercial and personal, art, film and design practices, I find myself in the unenviable [enviable] position of a prickly liminality and in-between uncertainty [certainty] a tendency to want to cross, match and patch, to puncture, stitch and

suture these implausible bed fellows. Thus my decision [indecision] to disassociate this paper with so much of this type of unilateral totalitarian thinking; to embrace my Siberia [Hawaii] in a fraught and disrupted [peaceful] manner; gesturing and pointing, suturing and pasting seeking a unity and at the same time desiring an "unbridgeable gap" (Richards, 1998, p. 119).

In the last few years all itches that can't be scratched lead to Design Academy Eindhoven amongst other Northern poles. Down South our eyes are always turned North; green grass etc. This hub of border crossings in its conceptual and academic orientation mirrors in many ways the freedom for personal and conceptual expression [or not] that formerly were the preserve of art academies. Louise Schouwenberg explains that this grew out of the dearth of industry in the Netherlands in the 1980's, resulting in a somewhat less industry driven design environment. This ironically propelled a more independent conceptual [artful] style of professional practice, where designers would exhibit products in exhibitions (2008, p. 127). This freedom to play and the impetus to view the design discipline as art (Schouwenberg, 2008, p. 144) has unquestionable created a brand-birthing academy with success stories including individual design stars and labels such as Moooi and Droog Design. It is the mutability and liminality of conceptual design that appeals to my 'delicate sensibilities'. But, this gilded term could also be a gilded cage and I am sensible of this [itch]. By subscribing to this conceptual pole, I am immediately polarized and binarised. In becoming-conceptual and in so doing adhering to the conceptual art pole, there is a unquestionable move [stepping backwards to go forwards] towards the academic flourishes of the 19th century notions of academic taste-away from the industrial and practicable banality of 'non-conceptual' design [an aporeal]. So it is with caution that I lurch into this terrain, snout prickling and tail down, aware of a wounding in advance.

I must concede some synchronicity [influence] in Paola Antonelli and Laura Hoptman's design exhibition at the Museum of Modern Art entitled *Matter* which formed part of the *Open Ends* exhibition: the rational, to juxtapose art and design, while eschewing common dialectical arguments and focusing instead on the elemental material crossings [movements together and apart] that prefigure works of art and design (Antonelli & Hoptman, 2000, p. 11). This elemental approach speaks of a molecular thinking that mirrors to a point the discussions of

molecular becoming in the work of Deleuze and Guattari, who state that "all becomings are molecular" (2004, p. 303), pointing to the biological and metaphysical multiplicity of being-seeing the many parts before getting lost in the quest for an imagined unity. But there is a rub. Phrases such as "on the other hand" (Antonelli & Hopfman, 2000, p. 11) interspersing comparative discussions of art and design examples point to a dialectical project [a Cane and Abel]-not a becoming one way or another. Deleuze and Guattari state that:

Becoming is not an evolution by descent and filiation. Becoming produces nothing by filiation; all filiation is imaginary. Becoming is always of a different order than filiation. It concerns alliance... Becoming is a Rhizome, not a classificatory or genealogical tree. Becoming is certainly not imitating, or identifying with something; neither is it regressing-progressing; neither is it corresponding, establishing corresponding relations (2004, p. 263).

The becoming I attempt to speak [huff puff] and enact here is an "on the other hand" free exercise. Relational correspondence [although hard to kick] is the enemy of this project which finds harmony in *multiplicity* and coalition in the conception of the *rhizome*: Deleuze and Guattari have proposed that a rhizome has no beginning or an end and that in its morphology as a multiplicity rather than a singular (2004, p. 8); its organic trajectories of development rather than the structured and directional passage of the tree, much loved in Western thinking (2004, pp.13-17); it present a model for rethinking our human condition. In terms of design and art the rhizomes ability to rupture and reform, and connect and grow together with any point of another rhizome (Deleuze & Guattari, 2004, pp. 7-10); to ostensibly become the other is of great importance to this paper which enacts a deterritorialising and decentering, a wished for deheirachialising of art and design binary hegemonies.

In terms of the notion of multiplicity a defining character of rhizomic singularities which are always also multiplicities Deleuze and Guattari state that "People say after all, schizophrenics have a mother and a father don't they? Sorry no, none as such. They only have a desert with tribes inhabiting it, a full body clinging with multiplicities" (2004, p. 34). In saying this, these seminal theorists point the way to thinking that decenters and deterritorialises the Cartesian self and its attendant disciplines. In this new uncertainty we can apprehend Freud's Wolf-Mans condition, not as a lacking singularity but as a divergent becoming (mind, organs, tail, animal cry and pack), not as delusion, representation or pretence but as a positive becoming: "to become wolf... is to deterritorialise oneself following distinct but entangled lines....Castration, lack, substitution: a tale told

by an over-conscious idiot who has no understanding of multiplicities as formations of the unconscious" (Deleuze and Guattari, 2004, p. 36). Freud's rush to reduce the child's dream of wolves to a singular wolf signifier a "castrated-castrating daddy wolf" (Deleuze and Guattari, 2004, p. 32) negates the powerful fascination of wolves as well as the circumstance of wolfish existence – *the pack*. Purged of their potency [now only one]; forgetting the existential grey area of the dream, the non representation of a closed-eyed-seeing, Freud forgets that the dreamer may not be the seer, but in the time honoured tradition of wolves-*they* may be observing him (Deleuze and Guattari, 2004, p. 32). "Freud obviously knows nothing about the fascination exerted by wolves and the meaning of their silent call, the call to become-wolf" (Deleuze and Guattari, 2004, p. 32) – [but I do]. The usefulness of this tale [tail] to a new consciousness in art and design circles that does not descend into arguments of binaries and hierarchies is nowhere more apparent than in the following statement:

Let us return to the story of multiplicity, for the creation of this substantive marks a very important moment. It was created precisely in order to escape the abstract position between the multiple and the one, to escape dialectics, to succeed in conceiving the multiple in the pure state, to cease treating it as a numerical fragment of a lost Unity or Totality, or as the organic element of a Unity or Totality yet to come (Deleuze and Guattari, 2004, p. 36).

This flailing and failing, tearing apart and self-ingesting metamorphoses provides mindful method and a deconstructed position from which to apprehend the too easily missed opportunities for alliance in art and design cross overs [a schizophrenic inversion of Freud's blindness]. This method acting [no more than that-becoming] is not in itself enough to penetrate through the mantle of contempt so readily displayed by artists and designers alike. This task requires a further mode, a shift away from the anchorage of text and the imposition of narrative onto and into the visual. Roland Barthes stated in relation to photographs, "I was interested in photography only for 'sentimental' reasons; I wanted to explore it not as a question (a theme) but as a wound. I see, I feel, hence I notice, I observe, and I think" (1993, p. 21). This voice who's assertion of the visual referent led inextricably to the envelopment of the image in the deconstruction of Derrida, Kristeva and Foucault and persists as the primacy of the image in the visual semiotics of the present, guides the seeker to the way of looking of the *wolf-becomer*; a wounded seeing tainted by multiplicities, inside and outside, man and beast, seeing everything and nothing, the real and the imagined. This injured look is anything but myopic and being both

intensely personal, wild and public it resists the impossible conundrum of distanced classical observation, so exemplified by Freud's psychoanalysis.

Deleuze and Guattari's point out that "Freud tried to approach crowd phenomena from the point of view of the unconscious, but he did not see clearly, he did not see that the unconscious itself was fundamentally a crowd. He was myopic and hard of hearing, he mistook crowds for a single person. Schizo's on the other hand, have sharp eyes and ears. They don't mistake the buzz and shove of the crowd for daddy's voice" (2004, p. 33). It is in this heightened state of hybrid discomfort [exhilaration] eyes peeled bare, wounded and alert, confused and consolidated, scared and alone, surrounded by the pack that I [we] shall proceed with a sensorial experience; etiologically a state of learning derived from a fearful encounter (Hart, 2004, p. 51) towards this open wound, this festering self disclaiming rhizome of art and design so as not to myopically land again at the zero of the binary man versus wolf [design versus art]; Freud heard only "help me not become wolf" (Deleuze & Guattari, 2004, p. 35), we hear only "help me not become art, help me not become design" [all asses and tails].

But now to some visual analysis, some [huff puff] *becomings*. Excuse the psychotic structure – it is by design [or art perhaps]. Onward with disciplinary co-mingling, but forgive this limited [self] exercise – I tend to get drawn to lines of flights [or fight] to those media and practices that subsume and exude my own *scents* – a singular/multiple exercise – a leaving the center to reinforce it from the outside – or perhaps a being centered in the outside [pack] – exploring the wound inside and the spine-tingling insecurity of the outside, the molecular, the organs, the park bench touching my tail-feasting on the self and the little pigs – [huff puff] time to blow down the house.

Being and becoming wolf/woman/artist/designer/human inevitably pointed my heightened sense of smell in the area of representations of non human beings concerning metaphor, transparency and occasionally even reality. But this is another story. In researching animal studies and its impact on people calling themselves artists and designers-expecting of course to find very little in the latter due to my tainted discursive brain, that whispers "commerce eats animals – they must be invisible here" I surprised myself and came across a fascinating slippage a transdisciplinarity, a deterritorialisation [snort]; not a cribbing between designers and artists, rather a synchronicity or zeitgeist – *an alliance*.

A particular guiding scent [a morbid curiosity] is the appropriation of taxidermied bodies in art production, such as the work of Angela Singer (Figure 1), who's artwork questions the human appropriation of the animal body (Alois, 2009, p. 11) through juxtaposing [cutting, wounding and suturing] absurdly decorative and con-

sumer elements on the abject and emptied animal body. I also came across another series of taxidermied and simulated animal bodies (see Figure 2); literally covered, stitched and poked [getting very itchy now] with discarded embroidery depicting woodland scenes [hunting and wounding]. It was with surprise that I recognized a lost pack member in an online design journal – *Inhabitat* [non-habitat]. The article refers to the designers "love of embroidery" (Beitiks 2010), but I sense that this coddling and embalming of their family [pack] pet has more to do with loving Maggie [melancholic traces of Maggie].

These unorthodox stitchings [rupture like little earthquakes]; threaten to sew us all up, to stitch up our separateness, to heal [poke] at our injuries [sameness that desires difference]. Hella Jongerius' *Embroidered Tablecloth* (Figure 3) reflects her concern for the interstices of the mass produced and the hand crafted (Schouwenberg & Staal, 2008, p. 91), the plausible and the possible and the red thread in-between [bleeding together]. Sebastian Brajkovic's, *Lathe* chairs (Figure 4) also organic and dissolving through the mantle of art/design contempt-a chair becoming extruded pixels through the exercise of Photoshop as sketching (Brajkovic 2009) with embroidered milk – *lathe* from the Latin for stirred milk (Brajkovic 2009) [Lapping it up]. Speaking of stirring, artists like Ghada Amer (Figure 5) entwined in thread, also [allies with tails] sewing canvases, puncturing classicism. My own sharp doodling results in the same – *loving Maggie* or in this case Mavis [matriarchs mean so much] (Figure 6). Thread is blood and love and thought always, everywhere. *Pointre* at Hella's dinner table is also in my altered book page (Figure 7), sewing the back page to the front, the past publication to the present regret.

Vessels of concealment carried over many seas and bearing many troubles-clean and cool. Wieki Somers'

Figure 1 Angela Singer, Deofrith (2008). Recycled taxidermy and mixed media. (Alois, 2009, p. 11)

Figure 2 Designers at Fredrique Morrel are upcycling discarded embroidery onto simulated animal forms and even taxidermied animals. This work is literally the embroidered taxidermied corpse of their family pet Maggie. (Beitiks, 2010).

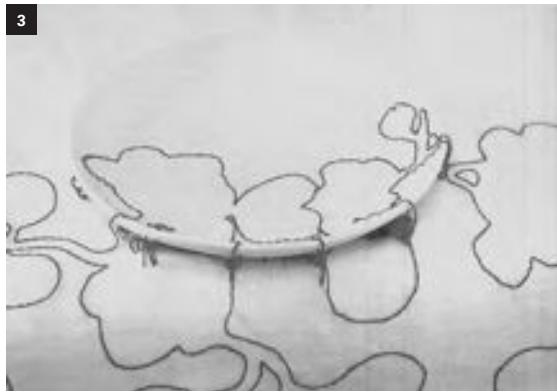
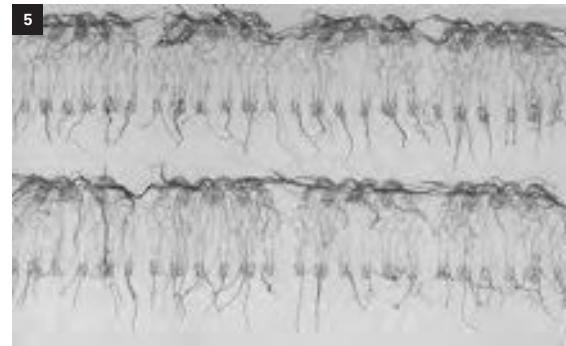
Figure 3 Hella Jongerius, Embroidered Tablecloth (2000). (Schouwenberg & Staal, 2008, p. 94).

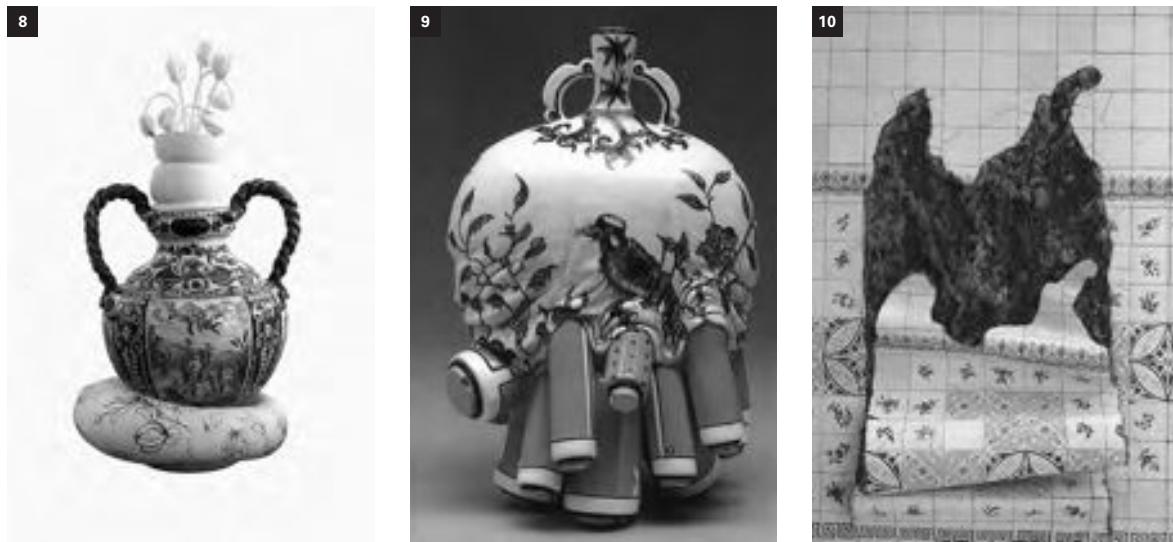
Figure 4 Sebastian Brajkovic, Lathe Chair (2006). (Schouwenberg & Staal, 2008, p. 280).

Figure 5 Ghada Amer, Untitled (No. 8316) (1996). Embroidery and gel medium on canvas. (Williams, 2000, p. 73).

Figure 6 Ann-Marie Tully, Thimble Narratives (2004). Photographic print on cotton, thread, embroidery ring. (Reproduced courtesy of the artist, Ann-Marie Tully).

Figure 7 Ann-Marie Tully, The German Doctor's Wife (Birds of a feather) (2010). Colour photocopy of a page containing images of an earlier work from Liza Gillespie's 2006 book Innovative Threads: A Decade of South African Fibre Art, reworked with cotton thread, measuring tapes, collage and frottage. (Reproduced courtesy of the artist, Ann-Marie Tully).





Departed Glory (Figure 8) a bulging spilling out; a becoming amorphous molecular redundancy. A fitting partner to Tang's many-tentacled pot (Figure 9). Somers the *designer*, Tang the *artist*, both concerned with a certain monstrous hysterics, exposing unsightly narratives bound and gagged [niceties] – sealed in the polarity of the scorched white earth. So like the storage hell of flesh, cool blue and white [not wolf] colonies and a million polite gestures in the artwork of Adriana Varejão (Figure 10). Paul Scott's pastoral willows meshed with smokestacks (Figure 11) tame but scathing dystopic *erusalem*s, romantic sentiments with hopeless accuracy. More commodity critique than social stabbing, some Marx for your money with Royal Tichelaar Makkum's *Minute-Crockery* (Figure 12), where the ontology of minutes spent painting determines the ornament's price (Schouwenberg & Staal, 2008, p. 57). A shrewd bargain trading reverence and mythology for a laugh at the expense of values [not mine].

Sober and imagined Delfts: rotten morsels and a love of all things blue These themes and *Babette's* renewal and opulence in a climate of punishing Calvinism and restraint [transgressions] redolent with moralizing narratives of transience – lead inextricably to a grappling with form and function, art and design-aesthetic and conceptual mingling and mutation that was *Deconstructing Delft*. At the end of 2009 I was invited to be a curator [wolf] on an exhibition that invited the thinker to the table setting as a conceptual site, a supper of transgression, a humble oversight [sight]. Artists and designers gathered hungrily. The resulting feast of adulterous fusions, a veritable carnival and lent of uncomfortable aesthetic objects: Jacqueline Middleton and Melanie Cameron *Adapt-a-Delft* (Figure 13), modular light shades

and dye cut lace; Suzanne Du Preez's *Foam Tablecloth* (Figure 14) a plate resisting once off venture, glue and perishable bumps to support the excess [and thirst] of Mike Hyam's *Wine Glasses* (Figure 15). Jennifer Kopping's lead serviettes (Figure 16) signal a heavy repast and the marked language of ulceration. Now these pious princesses (Figure 17), singing and ingesting salt [an ocean of tears], melancholy and silence-too precious to shake, dissolve into bleeding lace plates (Figure 18).

Figure 8 Wieki Somers, *Departed Glory* (2007). (Schouwenberg & Staal, 2008, p. 199).

Figure 9 Brendan Lee Satish Tang, *Untitled* (2009). Glazed porcelain. ("Brendan Lee," 2009).

Figure 10 Adriana Varejão, *Tilework in Live Flesh* (1999). Wood, aluminium, polyurethane, oil paint. (Williams, 2000, p. 626).

Figure 11 Paul Scott's ironic series of ceramics resembling antique blue-wares. ("Danmarks Keramikmuseum," 2004)

Figure 12 Royal Tichelaar Makkum, *Minute-Crockery* (2003). (Schouwenberg & Staal, 2008, p. 57).

Figure 13 Jacqueline Middleton and Melanie Cameron (Adaptations), *Adapt-a-Delft* (2009). Dye cut paper. (Reproduced courtesy of the artists and the Deconstructing Delft curator, Ann-Marie Tully).

Figure 14 Suzanne Du Preez, *Foam Tablecloth* (2009). Foam, ink and glue. (Reproduced courtesy of the artist and the Deconstructing Delft curator, Ann-Marie Tully).

Figure 15 Mike Hyam, *Wine Glasses* (set of 6) (2009). Blown glass. (Reproduced courtesy of the artist and the Deconstructing Delft curator, Ann-Marie Tully).

Figure 16 Jennifer Kopping, *Serviettes* (set of 6) (2009). Pewter, plastic and oil paint. (Reproduced courtesy of the artist and the Deconstructing Delft curator, Ann-Marie Tully).

Figure 17 Ann-Marie Tully, *Little Pea Salt and Pepper* (set) (2009). Glazed porcelain. (Reproduced courtesy of the artist and the Deconstructing Delft curator, Ann-Marie Tully).

Figure 18 Ann-Marie Tully, *Deconstructing Delft Plates* (set of 6) (2009). Glazed stoneware. (Reproduced courtesy of the artist and the Deconstructing Delft curator, Ann-Marie Tully).





Figure 19 Yinka Shonibare, MBE, *The Crowning* (after Fragonard) (2007). Two Mannequins, Dutch wax printed cotton textiles, shoes, coir matting, and artificial silk flowers. (Spring, 2008, p. 295).

Figure 20 Ming-lun Wu, *The World as Identity* (2007). (Schouwenberg & Staal, 2008, p. 306).

Figure 21 Steven Cohen, *Gogotha-Portrait # 1* (2007). C-print. (Art South Africa, vol. 08, issue 03, p. 90).

Figure 22 Garth Walker's 'Sangoma' Performance (2006). (Reproduced courtesy of Greenside Design Center).

Figure 23 Marije Vogelzang, Christmas dinner at Droog Design (2006). (Schouwenberg & Staal, 2008, p. 219).

Lost wax Chanal slaves, inversions of frivolity and courtly life, headless but heartened (Figure 19), these clothes 'maketh the man' [wolves in sheep's clothing]. Giuliana Bruno states that "design, architecture and cinema all combine social history with personal story as they dig foundations in the emotive terrain" (2007, p. 323). We must understand then that clothes [design and art] come alive through our emotive apparel and performance of them; an empty dress "becomes an empty address" (Bruno, 2007, 323), a specter of loss, "a coffin" (Bruno, 2007, 323). Hélén Cixous muses,

I go to Sonya Rykiel as one goes to a women, as one goes home...which is to say...with my hands, with my eyes groping like hands.... I enter the dress as I enter the water which envelops me, and without effacing me hides me transparently. And here I am, dressed at the closest point to myself. Almost in myself.... The dress does not separate the inside from the outside, it translates" (cited in Bruno, 2007, 323).

Art's eternal claim to the emotive, here disclaimed by the everyday [extraordinary], unique and imagined fetishistic *wearings* of the homogenous popular mass [flesh and blood mingling with cloth]. Ming-lun Wu's *textile-becoming* from the feminine *la chaise* (Figure 20), a garment identity in prepared submission [gesturing passively to the pack]-transforming the sitter/designer in and as the seat of emotional author. Design, theater and art always lovers [apart]. Steven Cohen's relentless insect adornment (Figure 21) uncomfortably gay and Jewish parading and staging the art of the act; while the healer, mystic, thief, Garth Walker, son of the colony and a daughter of desire [design] dresses up and down (Figure 22). Eating can also be acting. Marije Vogelzang (Figure 23) makes performers of us all [distended and engorged].

Now at the end of many murderous words, with hemorrhaging eyes, sensing the outside of this paper [many markings both rancid and rosy], the mangy metamorphosis remains an "unbridgeable gap" (Richards, 1998, p. 119) but also a binding alliance.

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Barbara N.E. Kok, Peter Vink and Karin Slegers

Tools for more user friendly design

Do they really improve the quality of the design?

Abstract

There are many tools to improve the quality of design, yet designers often seem to fail to meet the users' needs, by designing things people do not completely understand, or do not know how to use. The aim of the research outlined in this paper was conducted to understand the relationship between the design process and design tools that were used on the one hand, and the quality of the product on the other hand. The research studied the design processes of students of the Master Product Design at the Media And Design-faculty (KHLim, Belgium). This study is limited to the design of tangible products. Seventy-five design cases of student designers are part of the study. First all techniques applied in the students' design processes were listed. Then for each case the techniques used were mapped. And finally the relationship between the use of those techniques and the quality of the designed product has been assessed. The grades given for the product (not the process) were used as an indicator for the quality of the design. Twenty-two cases were graded by a jury (who had no knowledge of the design process) or by users, and the supervisors graded fifty-three cases (the later were well aware of the process). Having cases graded by a jury or by users on the one hand and others graded by supervisors, might be seen as a weakness, since the background knowledge is different, but there was no significant difference in grades between the cases graded, thus this bias is ignorable.

The following categories had a positive effect on the evaluation of the product: doing a state of the art research of non-relating products; problem solving

through literature study or by consulting specialists; conducting an ergonomic and functional study (study of ergonomic guidelines, performance study etc.); designing by drawing and by making tangible models; user analysis and user involvement; gathering peer group feedback; having critical attitude towards the found information and feedback.

The effect of the use of design tools could not be analysed, since it was only reported in two cases. Why design tools are hardly used needs further research as well as the effect of design tools on the quality of products. Other areas of research that need to be looked at are the correlation of each individual method, as well as the correlation between the methods themselves.

Using student cases instead of cases of professionals might be considered a weakness of this research project, because the cases do not include professional designs. However, since professional evaluations of the quality of the designs were already available and because it is difficult to obtain the design processes of professionals, these student cases provided a unique opportunity to study the relationship between the methods in design process and the quality of the final product. In addition, such student cases are representative for the way young professionals work because; young designers apply the design techniques and methods they learned during their education.

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Kris de Tollenaere and Jeanine Eerdekkens

The hybrid book genre of word & image narratives

Results from an artistic research
project, 2008–2010: Transitionality
between word and image in
fictional stories for adults.

Abstract

In 2008 the Graphic Design department of MDA Genk (Belgium) conducted an artistic research project in collaboration with the K.U. Leuven departments of Literary Theory and Communication Studies. The research program was subsidised by IvOK (a research institute for arts) and explored the border between graphic design and literature. On the crossroads between graphic design and literature, adaptations of existing material were left aside and the researchers chose for original creations, both literal and plastic. The project was about writing and imagining, but also about writing with images and imagining with words. In this experimental research project master students graphic design were linked with professional novelists from Flanders and the Netherlands. From the intensive collaboration between word authors and visual authors prototypes of experimental books emerged that did not match very well with existing publication models. The research project created *word&image* narratives, a hybrid book genre, that is related to illustrated or graphic novels, comics, children's picture books, artists' books, etc. But it is also strikingly different to these genres, mainly because of the use of marked typography, varying graphics, and the organization of the text on the pages.

The concept of transitionality was at the centre of this research project; namely the multiple forms of interaction between word and image that deliver an ad-

ditional meaning to the narrative, a meaning at a higher level arising due to the intertwining of word and image.

Furthermore the project experimented with the traditional format of a book, because a book as such is also a carrier of the process of transitionality: pages are quite inventively folded, cut and bound.

Focus group sessions revealed a general consensus about the artistic quality of the realisations. As far as the reading experience is concerned, readers report at the same time fascination and rejection for these new kinds of narratives. They have a high degree of complexity, demanding a lot of attention and even skilful juggling. Disruption of the reading rhythm was a common complaint, although the reception study showed also some learning effects in the course of time.

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Participation is a risky thing

The role of hybrid and risky things
in participatory design processes

Many designers create things, like games, graffiti toolkits or mobile augmented reality applications, that want to contribute to a participatory relation between people, other people and space. This form of 'participatory design' can be framed in the broader concept of participatory culture. This culture is characterised by a relation, wherein people interpret, reconfigure, and construct media in a collaborative way. Raessens states that "Negotiated, oppositional, and deconstructive readings (more so than dominant ones), configuration and selection (more so than exploration), and construction (more so than reconfiguration) are all, in their own specific way, part of what I call participatory media culture¹". Creating things for a participatory culture is a significant challenge for designers. It is a quite complex creative assignment that is generally not taught in art and design educational contexts. Our research question is therefore: How can things be designed to contribute to a participatory relation between people, other people and their surrounding space?

0. Introduction

Let us make this abstract concept of 'things that trigger participation' more concrete. Things specifically fulfilling a participatory relation between people and space, are often referred to as locative media. Bleecker states that they are "(...) made by those who create experiences" that elevate the "geographic locale beyond its instrumentalized status as a 'latitude longitude coordinated point on earth' to the level of existential, inhabited, experienced and lived place²". Let us have a look at an example. *Pachube* is an online platform that enables people to store, share and discover realtime sensor, energy and environment data from things, devices and buildings. This enables people to collaboratively visualise environmental pollution in their neighbourhood, for example, to make a point to their government. It is designed to build a multi sensorial 'Internet of Things' (*a digital network between things*) in an easy and personal way. *Pachube* is a platform that manages...

(...) millions of datapoints per day from thousands of individuals, organisations & companies around the world (...) *Pachube* is a little like YouTube, except that, rather than sharing videos, *Pachube* enables people to monitor and share real time environmental data from sensors that are connected to the internet. *Pachube* acts between environments, able both to capture input data (from remote sensors) and serve output data (to remote actuators). Connections can be made between any two environments, facilitating even spontaneous or previously unplanned connections. Apart from being used in physical environments, it also enables people to embed this data in web-pages, in effect to "blog" sensor data. Through the extensive use of metadata, *Pachube* adds value to physical interconnectivity: it's not just about datastreams, but about the environments that make up the datastreams³.

We can conclude from literature in participatory design that if locative media (or other media and things) want to constitute a participatory relation between people, other people and space, they have to be hybrid. There exists already a lot of literature in the field of participatory design that defines **hybrid things** as good mediators of participatory processes. Hybrid things are proven to be good mediators of formal participatory design processes. However, the *Pachube* application wants to go a step further. It wants to keep on generating participation by people in informal contexts. These things need to be more than hybrid: they need to be risky things. Let us start with investigating the meaning of hybrid things.

1. Hybrid things

Muller⁴ lends concepts from cultural studies to define the **concept of hybridity** in *Participatory Design (PD)*, a field which has a long and rich tradition in participatory design processes. The PD field, born in Scandinavia, has always combined hybrid perspectives in their design of mainly soft- and hardware computer products and computer-based activities, because of the complexity of the treated problems. In the Scandinavian workplace democracy tradition all of the interested parties are supposed to be full participants in creating design solutions. Muller explores the role of hybrid things – like cards, prototypes, game pieces or collages – to trigger participation throughout a PD process. He plac-

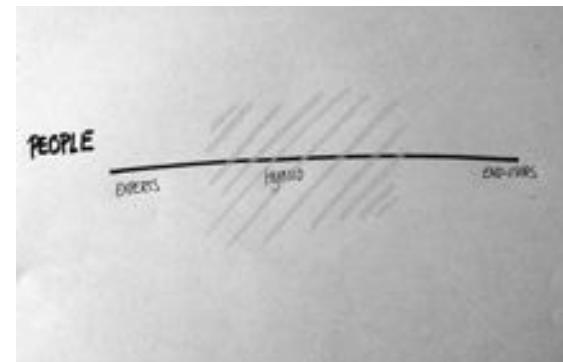
es them on a continuum: an *abstract* end that forces users to enter the world of the experts and a *concrete* end that demands experts to enter the world of the users. He discovers that things with *hybrid* qualities have the largest potential for participation, since they move in the uncertain third zone, with a hybrid language that does not belong to the experts or the end-users.

How can hybridity be imagined? They can be seen, as Norman calls it, as “(...) trans-action, trans-sensory (...), combining “reading and writing, speaking and seeing, listening and touching, feeling and tasting. (...) actions and behavior, thought and emotion. (...)”⁵” They are an interplay between different levels, form, material and function, that gather in direct and multi sensorial representations. These representations, according to Laurel⁶, can engage people on an intellectual and emotional level (the experience), enhance the contextual aspects of information, and encourage integrate, holistic responses and thus encourage participation. This transmedial character, is however not the most important trait of hybrid things. Despite of the hybrid appearance of many new media platforms, they are often not a third place, but hide an asymmetry between producers and users. Norman sees “(...) the new emergence of multiple media in common pursuit of a story or experience. (...) how companies tie together movie releases with videos, games, books, and websites. Blogs and tweets, social networking and telephone calls. (...) this is a clever use of multiple media, but it is still based upon a distorted view of commerce: We make it, you consume it”.

The central quality of hybrid things is that they are created in a **participatory way**: between disciplines, experts and users. Designers and people from various backgrounds – in the words of Lynch – should “*form a circular, or hopefully a spiral, process*⁸”. Norman adds that “*Co-development, co-creation, co-ownership. (...) we all produce, we all share, we all enjoy. Teacher and student learn together achieving new understanding. Reader and writer create together. Game player and game developer work together. This is the age of creativity, where everyone can participate. Everyone can be a designer* (...)”⁹”. Participatory creation processes help to overcome every division between the material and the social, Latour states, being an artificial construct that is set up because of disputes between the disciplines¹⁰. We thus already know that the first quality of hybrid things is that they are the result of a participatory process. A secondary – but not necessary – trait is that it carries transmedial qualities.

Hybrid things – according to Muller’s literature research – also carry some more specific characteristics. First, hybrid things are a potential site of conflict that construct an in-between, overlapping and even marginal place between reference fields. They partake in se-

lected attributes of these fields that are, however, not owned by any of them. Second, these things are a place of knowledge exchange where questioning and challenging of assumptions, mutual learning and synthesis of new ideas take place, which can reflect enhanced understandings of one another’s perspectives and needs. Third, they are a place of negotiation and (co-)creation of identities, language, assumptions, understandings, relationships and collective actions, which can lead to improved communication within and outside a team. Fourth, these places stimulate dialogues across and within differences, polyvocality, critical examinations of assumptions/expressions of perspective. Finally, these places put reduced emphasis on authority and individualism, but stress interpretation, collectivism, heterogeneity and may lead to shared ownership of the language and its physical manifestations¹¹.



Picture 1: People. All schemes in this text are deliberately sketchy, to underline that they do not represent truths, but thought experiments.

To conclude: things become hybrid when people participate in them. Plus, people are attracted to participate in hybrid things. This due to the fact that they are an uncertain third zone, with a third language that does not belong to professional experts or end-users and thus can lead to a feeling of shared ownership. Things are most hybrid during the professional participatory process, since they are still unfinished and, by consequence, have very different meanings for different groups of people. This is very obvious in different forms of prototypes, sketches and so on. However, when people start to agree upon the thing, they feel the professional creation process is over and the “output” can be communicated to the world – the hybridity and participation in them decreases¹². Via the concept of risky things we explore how authors and makers keep the hybridity in things alive after the formal participatory process is over, in daily use situations.

2. Risky things

Pachube is a very clear example of a risky thing, since the designers expect people to continue working on it in an informal way, after they have launched it on “the

market". Risky things are identical to hybrid things, but carry an additional trait: they talk for themselves. This trait of 'talking for themselves' is what we call **risk**. Risky things initiate alternative conversations and alternative practices in relation to current situations. Although Beck and Giddens have written a lot about the concept of risk, we will not explore their work in depth and focus on the possibilities of risk for triggering participation. Latour states that the Space Shuttle *Columbia* was a risky thing on the moment of the disaster on February 1, 2003. It talked for itself, about the technical and organisational problems that led to the disaster, when it transformed from something complicated, automatic and autonomous into a more transparent rain of debris. The shuttle seemed silent and autonomous in a 'normal' situation, but became critical and a full-blown mediator in this context, putting a social situation under pressure, while stimulating alternative conversations about it¹³.

Shillmeier states that risky things are mediated (risk) practices, mediating beginnings and ends of societal dynamics. They refer to "1) *a huge potential for creative action (principle of agency by anticipation of risks)*, 2) (...) *good and bad effects (principle of undecidability)* and 3) (...) *a highly demanding situation where communication, and with it the production and consumption of knowledge, is entrenched by non-knowledge, ignorance and unawareness (principle of uncertainty)*. Communication may also fail due to the 'tyranny of contingency' of things, which as self-made, risky things may always refer to something else (principle of contingency)¹⁴". Risky things only appear in re-collections, re-assemblies of things, which opens them for alternative conversations, inviting participation by very diverse and unexpected groups of people.

Risky things are characterised by a highly transparent character¹⁵. Many designers confuse transparency with neutrality, for example: they believe that mediating things, like mobile interfaces, should be a window to the world¹⁶. This definition of **transparency** wants to make the interaction with the world more functional, efficient and neutralises people's interpretation of products. The framing of transparency as neutrality, makes little sense, since things always mediate. Nevertheless, transparency can be an interesting trait. First, by disclosing the workings of the thing, the designer can relinquish part of the control over the thing and open it for "outside" participation. Second, by being transparent about its workings, space turns into a rich place in which people can act in an informed way¹⁷. Since transparency also reveals less appealing and complex elements about things and spaces, designers play the continuum between different degrees of transparency thoughtfully in relation to different groups in society.

The *Layar Reality Browser*, an Augmented Reality application, can be used on a mobile phone to display a literal 'layer' of real time digital information on top of the physical world. *Layar* can stimulate people's self assurance about – e.g. – way finding through making space transparent. The application also gives access to its code. It opens up the way it functions, which allows people to adapt it and make their personal applications with it (www.layar.com). *Layar* can also scare people, because this transparency involves some technological insight that not everybody wants to be confronted with. Therefore the makers of *Layar* offer different degrees of transparency and thus technological difficult ways to participate in *Layar*. This can take the form adding ideas for modifications of *Layar* or really constructing new layers.



Picture 2: adapted Layar for Belgian bike route network by "Litrik De Roy van Norio" <http://www.norio.be/>

Transparency is not the only way to make things talk. Only looking through the interface prevents people to appreciate the way in which things shape our experience¹⁸. Therefore risky things should be turned in a **suggesting mirror** of the context people live in as well. Designers can thus explore the aesthetic and conceptual possibilities of suggestion. By relating more directly to their personal experience, suggestion can stimulate people to participate in their spatial environment. Lynch stated about cities that they '(...) should speak of the individuals and their complex society, of their aspirations and their historical tradition, of the natural setting, and of the complicated functions and movements of the city world¹⁹'. Not only cities, but also mobile phones can suggest, speak to and invite "viewers to explore the world", which is - next to transparency – necessary for "richness and power of the scene²⁰". The next example shows that clearly.

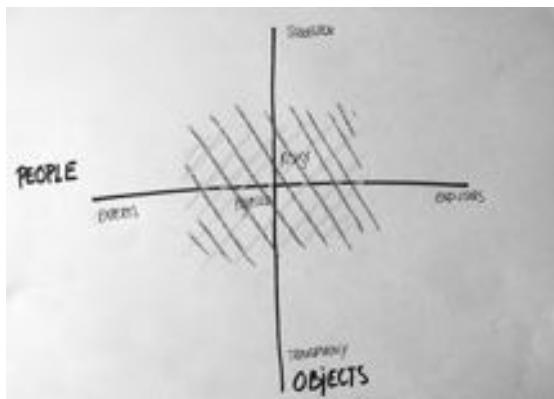
The **Social Mobiles** by Crispin Jones for *Ideo* are highly suggestive. They modify phone behavior to discuss its social and cultural implications. The electric shock mobile (*SoMo1*) delivers a level of electric shocks depending on how loudly persons speak and can be given to repeat offenders, disturbing others. The musical mobile (*SoMo3*) forces people to play a specific tune to dial a phone number, which requires some practice and balance in when it is appropriate to call/give a public performance. The knocking mobile (*SoMo4*) requires a specific way of knocking

to communicate the urgency of the call, the identity and message of the recipient. The catapult mobile (*SoMo5*) enables to discretely launch sounds – that can maybe be supplied by businesses – into other people's phone conversations to invade their space (e.g. when they feel disturbed) (<http://www.ideo.com/work/item/social-mobiles>)



Picture 3: Screenshot.

Risky things thus make transparent and at the same time suggest. This means that designers can make technology's code and workings transparent for participation by diverse people. At the same time, they can transform the technology in suggesting applications that push people's experiences of space in surprising directions²¹.



Picture 4: people and things

Let us have a look at an example that combines both traits of transparency and suggestion.

Graffiti Research Lab is "Dedicated to outfitting graffiti artists and activists with open source tools for urban communication." They design tools with which people can literally add value to their daily spaces (<http://graffitiresearchlab.com/>). Their tools are suggestive, because they deliberately facilitate activist drawing in public space, like graffiti. "G.R.L., Open Frameworks and graffiti legend Tempt1 have teamed-up to bring you the latest weapon of ocular as-

sault: the Eye Writer (...) It is a low-cost eye-tracking apparatus & custom software that allows graffiti writers and artists with paralysis resulting from Amyotrophic lateral sclerosis to draw using only their eyes (<http://www.eyewriter.org/>)." They provide insight in the workings of their applications (transparency) to allow people to adapt tools for different groups in society. The *Eyewriter* was a modification of a tool that was originally designed to allow graffiti artists to write in public space. The adapted *Eyewriter* is now available for graffiti artists or hobbyists who can not move around. Also the code of the *Eyewriter* is made public, in the hope that others will make additional adaptations

Picture 5:

by urban_data, Flickr,
http://www.flickr.com/photos/urban_data/
 4092372700/sizes/s/
 #cc_license Attribution-
 ShareAlike 2.0 Generic.



Conclusions

We asked the question how designers can create things that allow people to engage in a participatory way with other people and their surrounding space. Throughout literature and looking at different cases we discovered that hybridity turns things into good mediators. Hybridity occurs when things are designed in participatory constellations and can be characterised by transmedial qualities. Risk appears to be a trait that can keep the hybridity in things alive, after the design process is over. Risky things talk for themselves, stimulate appropriations and keep re-appearing in new re-collections and assemblies. This because they are transparent about their workings and the space they mediate (like Layar) and at the same time suggest, speak to people's experience (like the Social Mobiles). Tools like the *Eyewriter* or *Pachube* are good examples of risky things, since they are transparent about their workings and at the same time suggest people to participate. Since the concept has only been superficially explored, it might be interesting to study the concept of risky things in depth to create a deeper insight in their design process and their workings.

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Lorenzo Imbesi

Hybrid in Design

Design as a Cultural
and Collective Process

1. Introduction: Culture en Route

In describing the contemporary condition of continuous negotiation and hybridization of the identities of human groups, James Clifford, in a famous essay, places side by side the words 'Routes' and 'Roots' – terms that are strongly antithetical – to create from them a sort of oxymoron. Clifford, the famous anthropologist from the University of Santa Cruz, reconsiders the journey then as a structural and structuring component in the formation of cultures and identities, considered in the most dynamic and changeable component; a perspective that invites us to reconsider man's historical path in terms of his moving just as much as in terms of his settling down. The continuous displacements, the movements, the journeys, the emigrations even the more violent uprootings have all contributed in a creative manner as well to the construction of identities and cultures in a relational sense, that is, through the continuous exchange of images, narratives, forms and languages.

The mobility of men and women is therefore the shared destiny that allows civilizations not to crystallize, not to settle into a definite and stable geometry. Always mobile, precarious and partial, cultures reinvent themselves continuously in relation to the stimuli of other men and women they meet. Routes are the equivalent of roots; rather they can assume the form of root intended as a state of continual inventive evolution that does not acknowledge any pure areas.

2. A Hybrid Discipline

The process of building material culture is therefore the fruit of continual transformations that frequently take the form of manufactured goods and symbols that are exchanged and transferred among places and territories. In this sense, ideas and images are the cultural heritage manipulated by designers to work out material as immaterial artifacts. Computers become the universal tool and at the same time the new paradigm for living, working, organizing, producing and of course generating ideas and elaborating creativity. At the same

time, the computer is the universal vehicle to spread those cultural images, cultural images that are the common field for every creative mind at work to produce even more widespread cultural images which affect our contemporary material culture.

Design happens to be the result of the use of networks of IT communication and the increased mobility available, as well as the effect of the shrinking of space and time within our globalized society; more than just the interpretation of the manufacturing materials and techniques available in specific time and contexts, to produce artifacts in continuity with the material culture of communities and social groups.

Using the notion of hybrid to understand the prevailing characteristics of contemporary artifacts implies a conceptual extension that sometimes contributes to the phenomena of hybridization specific and new meanings, even if they are related to everyday products. This is even more present in the current condition of development where the physical context is crossed by an ever-changing flux of artificial products that change daily and whose changeability is increased by the very immaterial condition of many of these products crossing it. This fluidity renders products permeable with respect to each other, breaking down the barriers of their functional and typological references, contaminating them with technological transfers and stylistic superimpositions, while destabilizing them with regard to their frame of reference.

At this standpoint, it is basic for the designer to understand the processes of cultural exchange, and that design is, in some way, a discipline of interconnection between various fields or disciplines. This has great value when relating to different fields like handcrafting, communication, sociology or anthropology of the everyday, and rituals, etc. In this respect, design should be considered a hybrid discipline. Working with hybridization seems essential to the field of design and necessary so that designers understand their own activity. In this respect, design has a long tradition of not being troubled by purity and being flexible in the appropriation of the heterogeneous materials and at the same time being involved in many cultures. Thus, we need to learn the rules or methods of hybridization as they occur in the contemporary world. These methods appear as the ways of knowledge and self-knowledge that are needed for a design. At this time it is important to conceptualize it more in terms of cultural exchange, as it appears to be a more extensive notion.

3. The loss of the mythical Aura

The fluxes to which men and objects are constantly exposed have the capacity to alter every presupposed notion of "authenticity", through the continuous dismantling and rebuilding of the signs and the constant violation of the 'sacredness' of the original project. Intervening in a world that is increasingly interconnected "we are always, to some extent or another, 'inauthentic': taken among some cultures, implied in others." In James Clifford's metaphor, "the pure fruits go mad," contamination and hybridization between cultural materials is lived as an exception and loss of a mythical past, rather than being elaborated as transformation and changed in respect to the collective future.

Walter Benjamin warned us some time ago that with the advent of technical reproducibility, originality would lose its '*aura*'. In this context, the problem of serial production and reproduction can be traced back to the legacy of romantic aesthetics that defends what is *unique* against any attempt at serial duplication, because this would violate the 'sacredness' of original design. In other words, the philosophical and aesthetic ideology of originality is based on the finished work of a 'brilliant' creator who guarantees against any attempt at cloning. More precisely, every object that seems to be 'made' or 'created' from nothing is the end of a close-knit network of cross-references that make it a cultural product inspired by a collective legacy that intervenes by involving and/or evolving earlier works. In order to do this, it employs interpretation and negotiation as its tools.

Therefore, the products coming from any activity or project cannot be considered anymore as the result of an individual, distinctive and exclusive process. These products are the end of the chain of large networks which come from the complexity of the organization and furthermore they are intricate and stratified connections of images, ideas, shapes which come through the mind of any designer collecting them through new media.

Taking as reference the studies and work of Michail Bachtin, a Russian linguist, on 'polyphonic' novels, language comes to be a collective field, an integrated product of earlier enunciations and future conversations. Far from being a merely individual issue, by emphasizing its relational importance it is, instead, the changeable result of social interaction and contamination (Todorov, J. 1981).

3. Cloning Creativity

The origins of the concept of hybrid can be traced back to the biological model which distinguishes between two different species and the pseudo species that result from their combination: the 'chimera', the first hybrid molecule, is the result of the composition of molecule fragments from diverse organisms. The evolution of bi-

otechnologies shows how heterogeneous components can be polymorphically interfaced through shared codes of elaboration, a recombinant DNA as a praxis of sampling and mixing.

Similar processes may be released through new technologies and media for design: while they give the chance of recording, sampling, reproducing, and elaborating parts or entire images, shapes, languages, texts, sounds, which already exist, they open to new actions of creative manipulation. At the same time, the action of collecting, sampling and montage release free interpretation and reorganization, creating copies which can alter the first original and thus give new meanings to the notions of production and reproduction, master and copy, same and different, originality and replica.

The simple action of "copy and paste" of any softwares can enable anyone to capture and take possession of entire or part of images, shapes or texts, while allowing the reproduction of them without any difference from the original, into new locations. The practice of cloning contains an active action of appropriation that may release new forms of participation and positive energies and, at the same time while displacing the copies into new contexts or positions, it may develop new meanings and foster innovation. The exercise of replica can be itself a form of writing worth developing interferences, contamination, creativity and new senses, while breaking any supposed form of authenticity nor pureness of the primary act of creation.

As in biology, the genetic code is not written definitively, but constantly recombines with the extraneous bodies that cross it and this contamination assumes the value of being a motor for change; a hybrid future that does not recognize pure zones, but only otherness built on the increasingly common experiences of uprooting and separation, as well as connection and meeting. Diversity becomes the norm.

4. Objects shaped by Objects

In the notion of *détournement*, elaborated by the artistic avant-gardes, we can recognize the same technique as that practiced in biotechnological sciences: an image, a word or a code is furtively appropriated, and, by means of an operation of dislocation, it inserts itself in a new environmental framework, thus taking on a new meaning. Innovation and change nourish themselves through creative processes of dislocation and re-elaboration that do not recognize copyrights of untouchable authenticity or pre-established texts. *Détournement* is an illicit appropriation that, operating through effects of alienation and grafting on heterogeneous or extraneous components, promotes innovation, improving ideas and conferring new meanings. "The accidental meeting of a sewing machine and an umbrella on an operating table", in Isidore Ducasse's well-known aphorism, clear-

ly explains the loss of the “natural” relationship with the normal functional context and the hybrid recombination with other extraneous components (Ducasse, I. 1874).

We have objects shaped by other objects, which lead to change the notions of “originality” (in the sense to be the origin of) or even “creation” (to create something from nothing). Those notions are gradually disappearing while the twin figures of the vj/DJ and programmers are emerging, both of which are tasked with selecting cultural objects and putting them into new contexts, thereby creating the aesthetics of repetition (Borràs, N. 2001). Using similar methods like sampling, cut-up and reproducibility, the new systems of aesthetic reproduction remove the historical opposition/contrast between difference and repetition (considered as absolute values), original and copy; they curb industry and creativity and at the same time use new styles that edge out the old ones. Duplication technologies allow us to record snippets of sound and images or formal, linguistic and textual fragments, subjectively manipulating them and then reproducing them: this allows us to rearrange and freely interpret these bits and fragments and create copies radically different to the original. From the most elementary – a photocopier lets you read the chapters of a text in haphazard order, a video recorder allows you to mix different genres and programmes, an Mp3 player lets you create your own personal playlist – to the most sophisticated (samplers to record sounds and then replay them at different speeds or on different frequencies as well as the entire range of recording/reproduction/processing software) the boundary between production and reproduction becomes blurred and the concept of post-production embodies and surpasses them all.

5. Innovative Aliens

In the same way that viral infection violates the “identifying” confines and integrity of the body, making its connection there by building symbiotic relations that can give life to new organic forms, each culture over time has incorporated extraneous elements from exogenous sources that have been gradually “naturalised” or re-elaborated or even pushed towards the interior, opening up to a future of alterations and contaminations, and at the same time broadening out to an infinite field of socio-cultural entries.

In this sense, cultures demonstrate a great capacity to actively and adaptively appropriate any phenomenon; above all if it refers to products of mass consumption coming from the outside that, dislocated from their initial references, can be naturalized and re-elaborated creatively through an illicit action of theft. Real proper *détournement*: “no imported object, including Coca-Cola, is completely immune to the phenomena of hybrid-

ization. In reality, we discover that Coke, within certain cultures, is often endowed with different meanings and uses from those imagined by the producers. For example, it works against wrinkles (Russia), it can resuscitate someone (Haiti), and it can transform bronze into silver (Barbados) (...). Coke can also “go native” which is what happens when it is mixed with other drinks: in the Caribbean with rum, to obtain Cuba Libre; in Bolivia with aguardiente, to produce Ponche Negro. Finally, it seems Coke is perceived as a “local product” in many different places: that is, often, you meet people who are convinced the drink was invented in their country and not in the United States” (Howes, D. 1996).

Appropriation and hybridization may develop and ensure innovation, as any of its products cannot just be considered as the result of an addition, leaving the single identities of its addends as they were before processing them. On the contrary, any cultural elaboration results in a new identity, which creatively may allow the development of new lines of innovation.

Returning to the biological metaphor, illness can be considered the result of a process of disownment by the alien entity that has crossed the border, and in the same way the pathology as a form of evolution on the path to immunity. Yet again, “the pure fruits go mad” (Clifford, J. 1988).

6. Hack-It!

In linguistic studies, the distinction between *langue* and *parole*, studied by Ferdinand De Saussure and elaborated to understand the structure of language, set apart on one side the group of grammatical rules and the system of signs that are shared by society and are expressed by different languages, while on the other side the linguistic act of speaking; the individual, creative form of expression that can produce idioms (Saussure, F. de 1922).

While over the course of the last century the younger generations wrote the history of design through the overlapping and confrontation of ‘isms’. Research into language as a form of ‘stylization’ it was contrasted against the trend which came immediately before it; a glance at the contemporary design scenario reveals the greater pluralism of languages. These forms of expression favor eclecticism, mixing, shared presences, contradiction, diversity, crossovers and hybrids. The younger generations take a very similar ethical and methodological approach to hackers and DJs, preferring to span various styles and genres through repetition and sampling – as often happens in film or literary cut-ups – thus going beyond the traditional categories. What emerges is a sort of supermarket of styles or even of indifference; the result of rearranging and remixing. Similarly, fashion studies theorist Ted Polhemus states “as in pop music, the predominant tendency in appearance style today relies upon sampling and mixing diverse, eclectic, often contradic-

tory elements into a unique, personal statement. Celebrating the confusion and diversity of our age, we surf through both history and geography to find our own reality – in the mix." (Polhemus, T. 1996)

To go back to the definitions of De Saussure, the younger generation of designers would favor, rather than the establishment of a new language with its proper grammar and symbols, the development of numerous different idioms, obtained through dynamically processing materials that already exist; freed from their initial context in order to be transformed through contact with new environments or unprecedented combinations. This can be taken to the point of hybridization and corruption of genres and languages, similar to the new dialects that develop among emigrant populations in big cities (the Spanglish, as the variant of English used by Hispanics, or the Englog, which is spoken in the Philippines).

Rather than creating new forms, they are reworking those that already exist. It is therefore a dynamic movement closely related to the times and those who modify the contents. It asserts itself by changing and transforming everyday reality.

7. No more Heroes

At this point, it seems that a designer can no longer act the role of the positive 'hero' for creating unique artworks just by manipulating raw materials. Moreover he is spreading in society as a 'mass profession' lowering its authorship role in society, while remixing and reprogramming pre-existing shapes and languages that are already circulating into new contexts.

His figure is related with the historical emergence of new forms of art linked to innovation in the world of electronic media – such as graphic design, videos, communication, new technologies, modeling software, new materials for product design, fashion and the body, new environmental and functional contexts, and electronic music – which creates new forms of expression that are difficult to trace back to the traditional boundaries of design. The resulting products are hybrid shapes, installations, fittings and transient images that are more closely related to mass media and consumer society, either approving or disapproving of them, than to the economy of work and production. This atmosphere creates a form of widespread creativity that often comes into being outside the traditional breeding grounds and is fuelled by experimentation with languages, forms, images, interaction and media crossovers.

With the democratization of design tools and production technologies, design is no longer an elitist profession; rather it has become a 'mass profession' that is expressed through process management rather than just material products. The mass entrance of a significant number of young people into the creative profes-

sions is changing the authorial aura of the professional role and the act of creation itself, taking away its elite status. While in the past there were a limited number of greats, universally renowned names who created masterpieces that would take a permanent place in the annals of design and able to instill continuity in their output – so much so that they were seen as the founders of schools of followers – with its widespread creativity, the young design generations seems to be characterized by a large number of minor figures connecting and disconnecting each other in groups. These lesser names do not appear to be able to offer much more than a short, though often intense, period of productivity. The brief duration of individual careers brings to mind today's fleeting video clips. These brightly burning but short-lived stars are accompanied by high-speed electronic communication and geographical distribution on an international scale.

8. Nomadic Dialogues

Networking through new technologies seems to inform any level of material culture and every stage of knowledge development, affecting at the same time creativity in design, from idea to concept, to production, communication and consumption. Along with the fluxes of people and objects to which any culture is exposed, the resulting denaturalization of the subject (object, image or shape) goes along with the game of multiple identification. This denaturalization provides the possibility of the subject charting its own identity through an unstable multicultural itinerary, negotiated in the traces of the different places we pass through and the faces we meet: "being nomadic means a diversity in movement. (...) If I had to write an autobiography, it would be the self-portrait of a collective" (Braidotti, R. 2002). Elaborating on this concept of hybrid culture, Nestor Garcia Canclini, an Argentine anthropologist who moved to Mexico after the military coup in 1976, describes the multiple identifications of the Latin American reality: "When I'm asked my nationality or ethnic identity, I cannot answer in a single word, because my identity already possesses multiple repertoires: I'm Mexican but I'm also Chicano and Latin American. At the border, I'm called "Chilango" or "Mexiquillo"; in the capital "Poncho" or "Norteño", and in Europe "Sudaca". The Anglo-Saxons call me "Hispanic" or "Latino" and the Germans have taken me more than once for a Turk or an Italian."

The product of a dialogue of linking together, the subject, split in his belonging and dismantled in the multiple copies that duplicate his image, presents as a fractal subject that reproduces fragments transposed from other places; hybrid languages, mobile graphic traces, a drama that transversally connects heterogeneous subjectivities that are often physically distant, making the sensitive experience single.

The dissolution of the fixed identity in favour of a recognition of a form of mobile otherness increases the game of the reflections and affirms a plurality of voices contained in each discourse. Culture is a creative dialogue and language appears as a common ground, an integrated product of discourses that have already been delivered or have still to be delivered; the ever-changing result of social interactions and contaminations. "There's always another breath in mine, another thought in mine, another possession in what I hold, thousand entities and existences are implicated in my complications: every real thought is an aggression. (...) That everything is so "complicated", that I am another, that something else is thinking in us in an aggression that is that of thought, in a multiplication that is that of the body, in a violence that is that of language, this is the joyful message." (G. Deleuze, 1968)

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Mads Nygaard Folkmann

The Inner Border Crossing

Imagination in Design

Introduction

Since Romanticism, imagination has been celebrated as a locus for human creativity, i.e. as the seat of a limitless and boundary-crossing mental activity that can lead to radically new creations in staging, setting, transforming, coalescing and blending meaning (cf. e.g. Casey, 1976; Kearney, 1998; Coleridge, 1984; Fauconnier & Turner, 2002; Wunenburger, 2003).

Romantic authors such as, e.g., Percy Bysshe Shelley, S.T. Coleridge and Novalis have contributed to the establishment of a discourse of creativity as something rooted in a mental setting in relation to the appearances of the world. Thus, a basic principle in Romanticism is *internalization*, the “inward sight”, to use a phrase from Shelley’s 1821 treaty *A Defence of Poetry* (Shelley, 2002, p. 533), where the Romantics, in a process of reverting the structural relation of inside and outside, sought to discover the wonders and freedom of the inexhaustible and borderless inside of consciousness (Engell, 1980) and let the inside perform as the central core for conceiving meaning and apprehending the world. At the same time, however, a central insight of Romanticism is that imagination must be *externalized* in a medium if it is to have any effect. Novalis, who said that “the secret way is going inward”, noted that it had to be complemented with an outward gaze: “the second step must be an active, outward gaze – a self-active, unexpended perception of the outside world” (Novalis, 1965, p. 422). The gaze must be turned outward, toward the world, but still it has to begin with a detour to the inside of consciousness. The gaze must be tinted by the operations of consciousness as it “dissolves, diffuses, dissipates, in order to re-create” (Coleridge, 1984, p. 304) and thus serve as a locus for the creation of new meaning, but it must also be *mediated*, for example in works of art, the preferred medium in Romanticism, in order to have any effect.

As a model for creativity, the structure of internalization and externalization is informative in several ways.

First, we can see that the creation of new meaning may occur in the formative powers of imagination in consciousness but that it only comes to itself in the meeting or *refraction* of inside and outside, and, second, that this must take place in a medium. Further, through the dialectics of internalization and externalization, we can get a more precise concept of imagination in design, i.e. how creativity through imagination not only takes place in the analytically inaccessible (cf. Liddament, 2000) minds of designers but actually find its way to and thus is traceable in their design. In the following, the paper will discuss the dynamics of designers’ imagination with the internalization-externalization structure as an overall framework for linking theoretical models of the imagination with the work of designers, in this paper specifically the work and working methods of the furniture designers FUCHS+FUNKE (D) and Ditte Hammerstrøm (DK). The question that structures the argument of the paper is how we may conceptualize imagination in a way that makes it relevant for design discourse, not in a celebration of designer’s creativity but as a contribution to design epistemology.

Imagination at the intersection of known and unknown

Reflecting upon imagination’s position in the internalization-externalization framework, a series of questions pertaining to the issue of *knowledge* take on urgency: When we apply the inward gaze, what can we then know at all? What is the contribution of new meaning from the imaginative operations of consciousness? In phenomenological discussions it has been pointed out on the one hand that an image in consciousness will always be less than worldly perception as we can only project as an imaginary image what we already know (Sartre, 1940), and even Romanticism’s main apologist of the imagination, Coleridge, pointed out the impossibility of *creatio ex nihilo*, as all faculties of consciousness rely on experience; on the other hand, imagination holds the potential to transform the material that it might receive from experience and through the “negation of the condition of being in the world” it can posit “an anti-world” (ibid., p. 261) where meaning not only turns into “another meaning” but into “the otherness of all meaning” (Blanchot, 1955, p. 354). The main point is that something happens with meaning when it is internalized; likewise, the boundaries of what is knowable and what is not are blurred. Imagination, then, can be seen as a struc-

ture in consciousness that negotiates and exchanges known and unknown.

The question of the relationship between known and unknown is particularly relevant for design development and design epistemology, as the anticipation and prediction involved in grasping at something not-yet-existing and presumably preferable is a specific characteristic of design (cf. Simon, 1996; Zamenopoulos & Alexiou, 2007; Galle, 2008) where the method of development is not given in advance but evolves during the process. Thus, design processes can be conceptualized as a grasping at something that is not-yet-known, i.e. design processes often function as an exploration of the unknown. With regard to design methods, there has been debate about the necessary amount of knowledge: how much knowledge is needed in a phase of analysis in order for a phase of synthesis to extrapolate, generate and stipulate new design solutions (cf. Lawson, 2005). From the perspective of imagination, however, the question is not so much about how to gain information from the outer world (data about users, tests, market research, etc.) but rather what kind of knowledge lies within the designer's consciousness and how it is employed and transformed here. This pushes the relation of knowledge and non-knowledge in another direction. Instead of being a feature of constitutively not knowing enough, i.e. always having inadequate knowledge, as we cannot in principle know in advance what knowledge will be relevant for developing a design solution whose existence is emergent, design problems are "wicked" and constitutively ill-defined as it is the nature of the problem only to evolve during the design process (see e.g. Rittel & Webber, 1973). Further, seen in relation to consciousness, the structure of knowing/not-knowing can be regarded as a mental setting in relation to the design problem and thus as a method of filtering experience and meaning. Awareness of this structure of knowledge can be an asset in design processes; If one is aware of its tacit workings in consciousness, it may shed light on the inner dynamics of the design process and its material envisioning of something new that not only was not there before but also not-previously-known. In management theory, C. Otto Scharmer similarly speaks about seeking 'self-transcending knowledge' that is organized around 'emerging opportunities' (Scharmer, 2001) and about developing a culture of management out of the perspective of an open and emergent future, where a connection to the roots of human existence in a phase of "presencing" enables a "letting come" of the future and its not-yet-to-be-known paradigm of knowledge (Scharmer, 2007). However, Scharmer also demonstrates the fluffiness of these reflections, and the next question is how to get a better grasp of the workings of the structure of imagination and its conceptualization in relation to design.

Schematizing

As we approach samples of design from Ditte Hammerstrøm and FUCHS+FUNKE, we may, of course, ask why the designs look the way they do, and further, what kind of mental setting in relation to the design problem and what refraction of inside and outside, known and unknown they reflect. FUCHS+FUNKE's over-size origami chair *Papton*, for example, is like many of the works from this firm, not so much a finished and physically circumscribed product as the result of an ongoing negotiation of a mental image of the material possibilities and constraints of a standard sheet of paperboard. Thus, the question is how imagination meets materiality and how, then, both imagination and materials are ultimately and mutually transformed. Through its work with materiality (in turning the tactility of upholstery inside out), Hammerstrøm's chair *Bistro Light* (2005) actively seeks to challenge and question the cultural frames of reference that design is understood through; her design is not primarily aimed at solving a problem but rather constitutes a physical projection of a mental questioning of design ontology.

Thus, I propose the theoretical concept of *schematizing* as way of addressing the intersection of internalization and externalization, of mental settings and of physical manifestations in design. It is a model of the cogni-



Image 1: Bistro Light, 2005. Design: Ditte Hammerstrøm. Made by: Källemo AB for Thorsen Møbler. Photo: Ole Akhøj.

tive, imaginative framing of reality. The concept is not, however, unknown in design discourse; for example, in a context of actual design practice the term *schemata* has been used to describe dominant ways of addressing problem solving in the “development of a growing pool of precedent” (Lawson, 2004, p. 456). Further, the notion of image schemata from contemporary cognitive science (cf. Hampe & Grady, 2005) and its focus on conceptual frameworks has found its way into design research and design discourse as an attention directed at users’ responses to technological artefacts which require a reorganization of given knowledge structures to generate a new construction of meaning in a process of embodied interaction (Markussen, 2010).

My approach will be to focus on the process of *linking concepts and materiality* as they can be detected in design objects and traced back to a question of the designer’s mental setting in relation to the design process. In two steps I will point to Immanuel Kant as an important philosophical source, in part because he connects imagination to epistemology and aesthetics and thus offers a foundation for the process of linking concepts and materiality, and in part because he points to the dynamic nature of this process.

1. In his seminal epistemology in *Kritik der reinen Vernunft* (1781/87), Kant describes the basis for a release of the productive powers of imagination that had hitherto, in English Empiricism, been too tightly connected to the sensual. The basic – and revolutionary – premise in Kant’s epistemology is his shift away from a belief in gaining access to things ‘as they are’ to focusing on human cognition as the entrance to knowledge, “our way of perceiving and recognizing objects” (cf. Kant, 1990, B25). Kant operates with *flexibility* in cognition and relates this to imagination. For him, experience takes place at the intersection of sensual appearances and, on the one hand, inescapable structures such as time and space and, on the other hand, the conceptual constructions of cognition. The crux of the matter is that he proposes the *schema* as a matrix for the apperceptive and synthesizing linking of concepts and sensual, sensory and perceptually given appearances and thus for the human production of meaning (ibid., B177). Thus, the schema conditions our ability to construct meaning through synthesis. The key point is that the schema is itself a product of imagination (ibid., B179); i.e., it is not given once and for all but is a structure of the human mind that is open to alteration and new configurations. This kind of reflection reveals the conditions of knowing and construing meaning and leaves it open to analysis: We see that meaning is not actually given but created in a complex interaction of constructive factors.

2. In his work on aesthetic experience, *Kritik der Urtheilskraft* (1790), Kant uses the flexibility of schematism in relation to ‘judgements of taste’. This operates without concepts but through the imagination it may *schematize openly without given concepts*. It operates in a search for concepts that fit the appearances that seek to be comprehended through the judgement of taste (Kant, 1995, p. 164). The point is that aesthetically, imagination can perform the operation of linking sensual matter with conceptual meaning in an open, non-teleological construction of the concepts involved.

My hypothesis then, is that with their design designers can create a specific connection of abstract conception and concrete views, and that in this respect the design process can be considered as a process of schematization. This process produces new meaning through the designers’ views concerning how the design is intended to interact with its surroundings and its cultural and societal contexts, and how it organizes meaning in a way that lets it ultimately affect perception and understanding (on a small scale). Herein lies the way in which schematizing can be activated as a dynamic and flexible operation that simultaneously transgresses the individual and subject-bound perspective otherwise implied in traditional thinking of imagination and creativity; just as art has the capacity, in phenomenological reflections of experience, to cause a “coherent deformation imposed on the visible” that provides us with “emblems whose meaning we will never stop to disentangle”. Thus, art is less a source of concrete, specific ideas than a source of overall “*matrices of ideas*” (Merleau-Ponty, 1960, pp. 96–7), and the insight in the structuring of experience through actual artefacts can be turned towards the creative process where it can be made an asset of aesthetic production. Thus, in focusing on the general structures and patterns of ideas (and not on idiosyncratic-personal ideas of creation) and using the concept of schematizing, it might be possible to achieve valuable insights about the connection of designers’ mental settings in relation to the outcome of the design process: the design objects.

Papton and Sofa set: Dialectics of mental setting and design objects

The theoretical approach of schematizing is broadly conceived in relation to basic structures of meaning creation in and through design and might thus have implications for the understanding of design method and design processes – this is, however, yet to be tested through analyses of design objects and in collaboration with designers. This paper presents a theoretical proposition that needs to be elaborated and worked through.



Image 2: Sofa set, 2004. Design: Ditte Hammerstrøm. Made by: Erik Jørgensen. Photo: Jeppe Gudmundsen-Holmgreen.

I will, however, indicate how this may be approached through a brief discussion of the examples *Papton* and *Sofa set*.

Hammerstrøm's *Sofa set* (2004) can be seen as an example of how the overall framework of schematizing links concepts and sensual matter. Thus, questions can be raised from the position of the design and back to the designer's mental setting.

Sofa set is simultaneously heterogeneous and homogeneous. Its elements are made to be as archetypical as possible, "to look like an experiment in the laboratory of furniture", and to play with the culturally shaped expectation of having furniture belong together in groups. Hammerstrøm has taken the ongoing fusion of furniture in contemporary culture literally and created a set where all the different pieces are built into each other. Thus, instead of grouping and arranging discrete and separate pieces of furniture, she has created a brutal clash of disparate elements of different kinds of furniture, sofa, coffee table, shelf, and lamp. As most conceptual design, *Sofa set* reflects a meeting of an abstract field of discourse (what do we expect of furniture?) and a concrete physical manifestation in a product design that is still in many respects capable of fulfilling its basic functions as furniture design. On a conceptual level, it is important for Hammerstrøm to maintain that all design employs frames of reference specific to time, place and culture, and that these are un-

avoidable as no design can exist outside culture. In her example, she challenges the tradition of Danish Modern and what she claims is its ideologically biased design dogmas of simplicity, rationality, and timelessness. The frames of reference, then, can be employed to enhance the clash in the design of opposite structures. Thus, in challenging the ideology of Danish Modern, Hammerstrøm wants to produce clashes in order to question the frames of references that work tacitly but effectively and omnipotently in and through design. In the clash of abstract references/principles/concepts and concrete detailing/matter/material in the design, Hammerstrøm not only lets abstract concepts and concrete matter be mediated, exchanged and connected. She also seeks to create new meaning that might be based on a clash (the negative-destructive aspect of her design) while still, openly, exploring new ways of relating abstract and concrete (the positive-constructive aspect) where both polarities of abstract and concrete undergo changes during the process of meaning creation.

In many ways, *Papton* is a *design-in-progress*; based on the material constraint of the standard sheet of paperboard, the design can be understood as an ongoing search for the ultimate and minimalist form by using origami for a chair. According to Wilm Fuchs, one of the two associates of **FUCHS+FUNKE**, the design based on a basic idea that operates as the principle for development in giving the direction for taking the idea to

new levels. One way of conceiving this search might be to see it in relation to an implicit assumption of the possibility of creating a perfect expression of form, where the inside of the paperboard so to speak contains an 'ideal' chair that simply needs to be discovered and carried out in the design. This conception has neo-Platonic, Plotinian traits in positing an ideal substance that emanates through the design and ultimately leads to the perfect, one-and-only expression of form; traits of this are present in contemporary design discourse (Brix 2008). Another approach would be to see it as an example of Kantian aesthetic schematization where the concepts for the design (the principle of folding in the right way) are continually explored in a process of infinite approximation; in this perspective the actual manners of folding of the paperboard all contribute to the open process of the non-teleological construction of the concepts involved. Thus, in an interview about imagination, Wilm Fuchs talks about the process of seeking to enable imagination in order to transform and implement ("umsetzen") it as design ("Entwurf"). In this creative zone, he points to an "ability of *sensitizing oneself*" by focussing on the mental images in the founding stages of the design process. Further, he speaks of both negative and positive aspects of imagination as a borderline of possibilities and non-possibilities of design;

the positive side of imagination can activate "passive knowledge" and evoke cross connections ("Querverbindungen") in a borderland of known and unknown, thus enabling something hitherto not possible, i.e. the creation of an origami chair. On the level of discourse, Fuchs deliberately employs and works with imagination, and his testimony can be seen as an interesting expression of the ideology of imagination as a creative power in setting and transforming meaning. More important, in this context, is his employment of a mental setting in the process of immersion where he and Kai Funke, the other associate of FUCHS+FUNKE, seek the condition of sensitizing, i.e. a specific way of relating oneself to the character, structure and challenges of the design process. In the case of *Papton*, the mental setting is one of openness towards the relationship between known and unknown: By taking into account that the solution of the problem (how to make the ultimate origami chair out of a standard sheet of paperboard) is developed in a process of infinite approximation (the folding can always be a little bit different), the design process takes on the character of a negotiation of the known and given in the material matter of the chair and the unknown in the conceptual construction of its form.

In summary, in my view the productive approach to making imagination a subject of discussion in relation to design is not primarily to attach it to the ideological statements of what imagination can do as a creative force within consciousness, as that renders the theoretical discourse too general. Rather, it can be productive to see imaginings not as "something intangible which takes place in a mysterious 'medium'", i.e. the mind, but rather as "*a doing*" that "alludes to the thinkable, and this means: to the do-able" (Liddament, 2000, p. 604). My contribution to this discourse is to propose a framework – imagination as schematizing and as structured by a refraction of internalization in an actively defined mental setting and an externalization in the material manifestation of design – that is able to operationalize the insights in the structures of imagination for the benefit of design work. Of course, the examples in the paper belong to the realm of experimental design in terms of structure and form, but as they are on the verge of the possible and impossible in design, they may be instructive as to what is going on when boundaries are crossed through the operations of imagination and deployed as design.

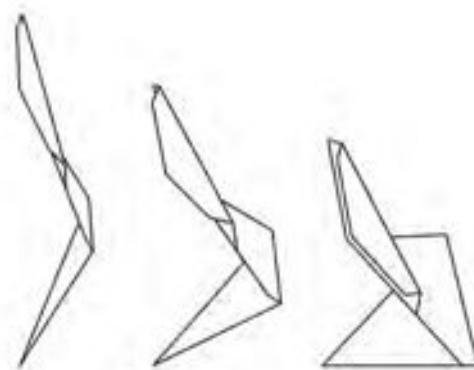


Image 3: Folding of Papton. Design: FUCHS+FUNKE



Image 4: Papton. Design: FUCHS+FUNKE

Imagination as a method?

To conclude, I will briefly discuss the methodological implications by theorizing design and design epistemology within a framework that incorporates the borderland of the known and unknown in imagination as an aspect of design thinking. The present proposal may, as I see it, enrich the design discourse in two ways.

First, it may contribute to the *mis-en-discours* of an area that belongs to the tacit areas of design knowledge, or, to use Nigel Cross's phrase, 'designerly ways of knowing' (2007). As all designers who look at the world through the "design they are working on" in fact look through a "set of lenses, and cannot help but do so" (Harfield, 2007, p. 171), there may be an advantage in becoming aware of the workings of these lenses with regard to perceiving and understanding the world and thus configuring experience. When we discover how we see and become aware that we always see through one set of lenses or another, we acquire reflexive knowledge and get past being entangled in experience. The same can be said about imagination: Being more aware of the mechanisms of imagination, we understand how it contributes to our ways of constructing meaning and we can create and use design as a medium for this process.

Second, I will point to the relevance of not only conceptualizing in a process of enlightenment what must be known but also of acknowledging that the known always is, in every process of human cognition, countered and circumscribed by something unknown. Especially Romanticism has claimed this reversal of enlightenment. Instead of seeing the knowable as the base of a sort of 'remainder' of the non-knowable, Novalis reverses this polarity by stating the primacy of unknown: "The unknown, the secrecy is the result and the beginning of everything. [...] The recognition [Erkenntniß] is a means of obtaining non-recognition again" (Novalis, 1968, p. 302). By also enlightening imagination and its structures of operation, hopefully we can arrive at a better understanding of the complexity of the factors at work in design in the intersection of what we know, and what we do not know.

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Mahmoud Keshavarz

Experience Design as an Activity

The debate around the notion of "Experience Design" is diverse. Although there are many definitions describing the notion, many of which are unclear or ambiguous, it stands beyond doubt that experience design can add value not only in economic terms but also in social aspects of design. Experience design increases the power of design to influence people who engage with its manifestations in society at more profound levels, through psychological, cultural and sociological ways. Because of this, one can ask oneself whether experience design can enable a new kind of design activism which informs society and creates links between people, values and morality of status quo over time, in a more durable way? Can we give people more possibilities to be active players in society beyond being mere consumers by means of experience design as 'experience of activity'? I will analyze experience design and design activism as such, as well as ways in which experience design can be applied to design activism and aid it in playing its critical role in society more effectively. Through this analysis I will give some examples to assess whether experience design can play a recuperative role in the field of design activism. I will introduce the notion of "experience design as an activity" which depicts how experience design can do this and which future opportunities and limitations there are in this respect.

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Miaosen Gong – Linghao Zhang – Xian Zhang

Design for Collaborative Services

Two service design workshops as inter-cultural experiences of design intervention in grassroots social innovation¹

Talking about issues of sustainability, we are facing an inconvenient truth (Gore, 2006). Those new and complex challenges call for a new way of governance and policy as top-down approaches on one hand and also demands new ways of thinking on another: the issues have to shift from focus on environmental concern, intended as a specific problem to solve, to the perspective of sustainability intended as a new way of living and producing, that has to be found (Manzini & Jegou, 2003). Many challenges of sustainability we face today are not only technical issues, as scientific solutions for many problems already exist, instead, they are due to social, cultural, political, market and lifestyle problems. In other words, social, not only technical, innovations are necessary to meet the multi-faceted and interconnected environmental and social challenges.

Grassroots social innovation and collaborative services

Social Innovation is defined as "innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organizations whose primary purposes are social." (Mulgan 2006) Social innovation appears in everyday life. On one hand, it is termed creative communities (EMUDE, 2006, CCSL, 2007, Meroni, 2007) or diffused social enterprises and on the other, social innovation exists in cyber space, called Open Source Method (Mulgan, Steinberg & Salem, 2005) or mass creation. These two sides are very different emerging phenomena with some common characters that, in the design point of views, imply a new mode of service: collabora-

orative services (Jegou & Manzini, 2008). Obviously, the network society evolves a possible convergence between the two kinds of social innovations.

Collaborative services are social services where final users are actively involved and assume the role of service co-designer and co-producers (Jegou & Manzini, 2008). They have a different structure of interaction and system from classical services. In the mainstream model a service in general, we consider two actors: an agent and a client. The common idea is related with a service model where "agent" and "client" are performing predefined roles. Collaborative services are based on peer-to-peer and a collaborative relationship between actors. They break the traditional service concept on which the client is a "passive" receiver of benefits performed by providers. As results these services require more or less level of interpersonal relational qualities (Cipolla, 2005).

Early signals in emerging countries

The observation of interesting phenomena in social innovation has been done by projects in Europe through the programme of *Emerging Users Demands for Sustainable Solutions*² (EMUDE, 2006) and in Brazil, China and India through the programme of *Creative Communities for Sustainable Lifestyles*³ (CCSL, 2007), both projects developed and coordinated by the research unit *Design and Innovation for Sustainability* (dis) by INDACO Department of Politecnico di Milano. They shows that the emergence in Europe and world wide of groups of

² The EMUDE research had been funded by the European Commission 6th Framework Programme. It has been developed by a consortium of European centres of research, it has been coordinated by Indaco, Politecnico di Milano and it has been based on a collection of cases generated by a network of eight European Schools of design.

³ A project that has been promoted by the Task Force on Sustainable Lifestyles, within the United Nations 10 Year Framework of Programmes on Sustainable Consumption and Production, usually referred to as the Marrakech Process. It is a programme led by the United Nations Environmental Programme (UNEP) and by the United Nations Department of Economic and Social Affairs (UNDESA). Its aim is to catalyze and guide the transition to a more sustainable global economy. Within the Marrakech Process, the Task Force on Sustainable Lifestyles is an initiative supported by the Swedish Ministry for Sustainable Development. Its specific goal is to develop and implement sustainable policies to change consumer behaviour and to promote more sustainable lifestyles.

¹ This paper is supported by the Jiangsu department of education philosophy and social science foundation in research project 'Inter-cultural study of concept design between west and China (No. 05SJD760019)'

active, enterprising people inventing and putting into practice original ways of dealing with everyday problems. The initial hypotheses of this research was that these cases could be considered as promising examples of initiatives where, in different ways and for different motivations, some people have re-oriented their behaviour and their expectations in a direction that appears as a positive step towards sustainability.

As one of the biggest emerging countries, China is becoming an experimental base of social innovation because of its quickly changing context and needs caused by social problems. The results of CCSL indicate collaborative services and their sustainable initiatives can be found in China as in Europe. However all the stories with the same ideas of services adapt to the local context (Gong 2008). These grassroots social innovations could be seen as the anticipation of the Chinese sustainable lifestyle.

Two service design workshops

The spontaneous participation and relational quality between participants make collaborative services very different from general services. For this reason, in principle, they cannot be "designed" in a classical way. However, design can intervene in another way: general services can be enabled by design where solutions become enabling solutions. To investigate how service design can enable collaborative services, two design workshops are organized in Italy and China as action research.

The first one, LSF07: Digital service and collaborative network, is a Laboratorio di Sintesi Finale in the master programme of service design, took place from October of 2007 to January of 2008 at Politecnico di Milano in collaboration with Telecom Italia Lab, Provincia di Milano and Nova IlSole 24 Ore. Twenty-two students participated and they were divided into seven groups of three to five people. The course process had four phases: 1) Case study and field research, 2) Idea generation and concept definition, 3) Project development and service simulation, 4) Project communication.

Following the completion of the LSF07, the workshop CHITAO8: collaborative service and mobile communication in JU was organized as a parallel course in a Chinese context. It was a collaborative project between the School of Design, Jiangnan University and the INDACO department at the Politecnico di Milano. The workshop had four different phases and lasted for five months from July 2008. It had a co-lecturer group with teachers and researchers from JU and POLIMI and 26 student participants. The POLIMI lecturer team, which included 6 PhD researchers, visited JU in order to launch and co-organize the workshop in the concept design phase along with 3 lectures from JU.

As didactical activities, the two workshops were organized as service design exercises and aimed at devel-

oping new proposals that implicate social innovation towards sustainability and employ mobile communication technologies. The workshops were strongly based in local contexts: LSF07 based on Sud di Milano and CHITAO8 based on Wuxi, where the workshops started from field research on local problem definition and developed into proposals for local targets. As a whole, they provided intercultural perspectives between European countries and emerging countries.

Scenarios of collaborative services

Finally, There were 13 proposals generated by two workshops: seven from LSF07 based on the local context of Sud di Milano and six from CHITAO8 based on the local context of Wuxi. See the following table 1.

Project	Local context	Proposals
LSF07	SUD DI MILANO, ITALY	BIBLIOTECKET RITAGLI DI QUOTIDIANO LA MAGLIA AGORA' CANTASTORIE BOOKCASE PRO.POST.E
CHITAO8	WUXI, CHINA	TAXI POOLING FOOTPRINTS PRIDEHOUSE
		MOMS TALK FINDING THE FRESH YESTERDAY ONCE MORE

Table 1. Design proposals by two projects

Agora is a service for communication between foreigners who live, work or attend San Donato Milanese. Through the phone, subscribers can write and read the messages in Italian or in their own language as a great common dashboard. The objective of the service is to allow anyone who needs information but has problems of language and cultural integration to access with the people with same cultural background. They can receive advices in their own language in a short time.

Cantastorie is a service that aims to collect and spread the reality and history in the community in an interactive way with personal and dynamic contributions. With a mobile phone, the project transforms the city into a sort of hypertext where you can upload and download stories, information and views. It becomes a place that is able to communicate and tell its own history through the experience of people who tell it.

Bookcase aims to create a library where users of libraries are librarians themselves, facilitated by using mobile technology and focusing on the active cooperation of users. The service allows people to

share their own books with other users, so that the private resources become shared resources and thematic links can be made available in common public libraries.

Taxi Pooling: between some particular places in the city, Taxi pooling can be organised by mobile phone to decrease overall taxi transportation and increase the economic benefit to users. The taxi pooling concept is a particular case example of a car-pooling system in the local context, where people-flows between some areas in the city are particularly heavy and where bus transportation is not enough nor feasible to meet the needs. This service can facilitate people who would like to take a taxi together by easily organising taxi pooling.

Pride House: through a mobile digital platform, migrant workers share and exchange experiences and skills and face problems together. Pride House is a service concept for migrant workers who, in specific social contexts, form a large group. As a new phenomenon, there are still many problems regarding their physical conditions, social and cultural environment including problems related to social exclusion. This concept aims to use mobile phones to enable social communities to form and the use of social resources in a P2P mode.

Finding the Fresh is a Community Supporting Agriculture service. It is a network matching the needs of urban residents for organic food and small-scale and/or family food producers in the suburbs. Urban people today increasingly recognise that food quality is important to their health and food produced in a traditional way has better quality. On the other hand, there are still a number of people in the countryside who cultivate local vegetables and fruits as traditional family producers, and in general, the harvest is more than they need. This network intends to connect these distributed and unstable resources and diffused needs with local organic food and countryside experiences.

Yesterday Once More: People who have experiences from a certain place can keep the memory of that place and share its stories with a mobile-specific local service. This concept has evolved from the local context where large-scale city rebuilding and expanding and population influx results in the collapse of social infrastructure and fabric. The idea of "yesterday once more" aims to protect social capital and common resources in a bottom-up way to ultimately enrich people's everyday life and reinforce social cohesion.

Inter-cultural perspectives

As parallel courses, we organized the similar design process in different local contexts and by different designers under the same subject. They both lasted around one semester to complete a process of service design projects with most of instructors in CHITAO8 involved in LSF07. However, there were distinct difference between the backgrounds of student participants and the working language. The students of LSF07 were postgraduates in the service design programme who were familiar with service design methods and tools, so the input of lectures was primarily focused on the subject and local context. On the contrary, the participants of CHITAO8 were senior students and postgraduates in the industrial design programme and they had not previously studied the related methods and tools within their previous education, therefore input lectures included both methods and subjects. Furthermore, LSF07 was carried out in the participant's mother language, Italian, whilst CHITAO8 used English as a foreign language to all participants. These things establish a comparative perspective between the two workshops. (Table 2.)

	Italy: LSF07	China: CHITAO8
Theme	Digital services and collaborative network	Collaborative services and mobile communication
Design approach	Service design (focussing on solutions)	Service design (focusing on scenarios)
Instructor team	From Politecnico di Milano	From both Politecnico di Milano and Jiangnan University
Student teams	Postgraduates in Service Design	Senior and postgraduates in Industrial Design
Local context	Sud di Milano	Wuxi
Duration	5 months	5 months
Working language	Italian (Mother language)	English (Foreign language)

Table 2. Comparison between two courses

Two workshops generated rich intercultural experiences under the same framework: the concepts of design proposals indicates cultural perspectives. For instance, between La Maglia and Moms' talk, Agora' and Pride House, different ideas were developed for similar targets; between Cantastorie and Yesterday Once More, the similar concept framework had different purposes. Those differences were influenced by the local context of the respective workshop. Secondly they were different in design process and format of result. LSF07 ran as a relative complete design project, "research- idea-concept- solution- communication", and resulted in so-

lutions and business plan; while CHITAO8 focused on scenarios, storyboards and video simulations as result of front-stage services. Those intercultural experiences enriched the knowledge of design for social innovation and provided cultural perspective for further exploration into practise and research.

Design experiences on collaborative services LSF07 and CHITAO8 workshops were pilot explorations on design intervention and social innovation, focusing on the collaborative services and mobile communication. The results show that service design is a favoured design approach to intervene collaborative services. As action research, these approaches generated rich, first-hand experiences of service design:

Design on local contexts. The results of workshops show the connection between the service design action and a clearly identified problem context. Grass-roots social innovation evolves through bottom-up initiatives and experiments and starts with top-down interventions. In other words, it is generated in concrete places- creative places (Franqueira, 2009) by groups of collaborative people- creative community (Meroni, 2007). This is why field research and other thick-knowledge tools are fundamental steps within the service design process, and most of all during creative and problem setting phase. In most of these proposals, the service ideas are strongly adapted to the local context. "Yesterday once more", for example, is based on the large-scale urbanisation pattern in contemporary China, which destroys the social infrastructure of urban communities. Given the complexity of the context and issues, defining and clarifying the problem sets up a challenge to designers.

Design for specific groups. In the workshop design process, who the users of the service are was heavily discussed, and the results show that the target group of the scenarios is often very specific. The sense of "specific" here is something other than demographic groups or marketing segments, as these solutions cannot be put into the realm of general people. For example, it is difficult to involve in "Mom's talk" those pregnant women who would like to protect themselves from strangers. If some urban residents do not wish to connect to farmers, they will not find it interesting to participate in "Finding the Fresh", and neither then would the farmers. Most likely the service is not intended for a large public, but instead a given group who have the personalities of being collaborative and active as subjective conditions. Therefore the designer has to properly identify the interested given group; a selection to be discovered rather than a choice to make. That is why those promising

ideas and proposals mainly happen in specific context and groups at the beginning, since the large contexts are seemingly inappropriate. In this manner, designers have to search and define the pioneering aspects of social innovation. For different reasons, they have enough motivations and knowledge to involve the new way of living and doing. Once the collaborative services start to work and root in those specific groups, they will become ready to be promoted and diffused further in large scale.

Design in co-creative processes. For the complex interactions and spontaneousness of collaborative services, the design process is a co-creation process between designers, final users and stakeholders for the co-creating services (Cottam & Leadbeater, 2004a). In the workshops, the assumed final users are not only involved in the beginning of design process, field research for defining the problem, but also in the idea generation and solution developing. For the example, in the proposal of Finding the Fresh, beside the field research when the designers visited and interviewed a number of farms and farmers; farmers engaged in organic farming were in particular, invited to participate in the whole design process a lot. The dialog and interaction between designers and the farmer catalyzed the design process and innovative results. They put themselves into a co-creative process. In this process, "traditional" designers are not only in a position to do design, they have to learn to collaborate with different actors in the system and have patience to communicate with them and understand their voices. On the other hand, the other actors are also "amateur" designers, and it is necessary to encourage and empower them to be involved in the design process. As a result, this co-creative process largely changes the experiences, knowledge and method of the design profession, because it makes the design process much more complicated and sophisticated than a traditional one. In design tradition, the inter-disciplinary collaboration often meant working with other marketing or engineering professionals. However users are still users; co-creative process asks for not only for the inter-disciplinary but also for inter-actors co-creation.

Design of new business mode. Business models are an important part of service design projects to give a business viewpoint of the service idea and concepts. However, in design for collaborative services, we need to have a new vision in business modes. It can be found that these service ideas are oriented by social benefit since the problems or initiations of projects are usually ignored by traditional business sectors. Therefore, the systems of these services are

mainly non-business-oriented, such as social enterprises. They involve governments, public service sectors and NGOs/CSOs besides industrial partners. From an economic viewpoint, they often cannot make a profit in the short term but aim to meet the pressing social needs. For example, the "Pride House" can increase the social cohesion among migrant workers and local communities and build their confidence in urban life. Its stakeholders include local government, the association of migrant workers, the local community, the technology developer and the mobile telecom whose motivations have to be defined in a non-business-oriented way as opposed to a normal business plan.

In conclusion, service design for collaborative services has to be rooted in the local context by deep field research and observation; it has to define the right problems and right specific users for the specific ideas and proposals. The projects need to be done in co-creation between designers, actors and stakeholders. Video scenario building is an effective tool to elaborate the interaction and communicate these proposals. Finally, new business models have to be developed for the proposals of collaborative services. Since design for social innovation is still relatively new, records of these experiences can be beneficial to the practices and research into this topic.

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Mia Lammi

Service Design challenges Designers' Competence

Background

Today's business life is balancing in the middle of strong forces. A competition of customers' attention and satisfaction gets stronger and at the same time customers' expectations get higher. A demand for environmental and social welfare is competing with financial pressure that has made it challenging to plan the future. There are also positive consequences of these strong forces. Innovativeness lives under pressure. Through this pressure there is a great possibility to turn into more ecological and human-centred world. Services can be a solution to sustainable development. In order to utilize these possibilities, there is a need for effective and creative service development. So it's no wonder that service design has spread its wings so effectively.

Service design was the main theme in the *Desire* and *Quicksteps* -projects financed by Tekes, the Finnish Funding Agency for Technology and Innovation. The two-year *Desire research* -project was conducted in co-operation with Western Finland Design Centre muova and Hanken School of Economics and the *Quicksteps* -project happened in cooperation with Muova and University of Oulu. The *Desire* -project was company-oriented and practical in nature. It focussed on testing customer-oriented and user-oriented service design methods. The *Quicksteps* -project looked at service design and social media as tools for service value management. Participating companies had a strong role in the projects: Itella Corporation, soi Services, Anvia, and Ålandsbanken in the *Desire* -project and Anvia, Transpoint, Stomossen and Vaasan Sähkö in the *Quicksteps* -project. (See Hämäläinen, Nyman, Björk & Lammi: 2009.)

This paper also addresses another Tekes project: MUSA – modelling strategic impact of design carried out between 2003 and 2005. MUSA was a project between Muova and Designium (the New Centre for Innovation in Design), and the IDBM program (the joint teaching and research program of Aalto University). The project looked at how Finnish companies use design and what

kind of impact design has in business. For the project an evaluation model was developed, based on a theoretical and empirical study. Indicators for measuring impacts of design were developed and included in the model. Nine enterprises participated in the project: ABB, Ekeri, iittala, Kone, Nokia, Oras, SK Tuote, Suunto, and T-Drill. (Hietamäki, Hytönen & Lammi: 2005.)

Through these projects we aim to define the core of design competence and of service design in particular. We analyse how design competence has changed, and what the new roles of designers and design competence are, if design is going deeper into service development.

Defining design competence

Press and Cooper (2003) defined design as "the process that creates meaningful experiences for people". The definition describes design as a target-oriented series of actions, in which human and value production is at the centre. The definition seems justified as an aim of the work of designers, but does it cover design competence in such depth and scope that it can differentiate design from other competences? Design has also been defined based on objects of activity. Barros (2003) lists different forms of design: designing company identity and brand, designing information and communication, designing services, designing exteriors and interiors, and product development (Barros: 2003). This list shows similarities with the one produced by the Design Council (in Press and Cooper 2003). The definition focuses on the object-based process. Anders (2000) expands design to the activity that creates the future, or at least some aspects of it (Anders: 2000).

Another way of understanding the nature of design is to analyse the benefits of design. Heskett (1988) lists strategic functions to which design can contribute to, mainly from a product design viewpoint. Design generates new product concepts and opens new markets with new innovations. Design is customer-centred and speeds time to market. Design has an important role in product development where easing manufacture, reducing product and process costs are concerned. Design differentiates products, adds value to products and extends product life cycles. (Heskett 1988.) The definition offers us differentiating elements of design competence: customer-orientation, value production and a specific process knowhow.

The dictionary defines design as a verb: "to plan and carry out, especially by artistic arrangement or in a skil-

ful way" (Webster's New World College Dictionary, 3rd ed., New York: Macmillan, 1996). An important aspect of design as aesthetic knowhow is present in this definition. Jacques Rancière (2006) crystallises aesthetics as "*a historically determined concept, which designates a specific regime of visibility and intelligibility of art, which is inscribed in a reconfiguration of the categories of sensible experience and its interpretation*". Aesthetic design knowhow is used for different kinds of purposes: styling products, drawing sketches, creating 3D models and prototypes, visualizing processes and ideas, and embedding meanings into concrete form. (Hietamäki et al.: 2005.)

The understanding of meaning of design among Finnish companies was studied in the MUSA project. An inquiry was sent to 500 CEOs in manufacturing companies and 98 respondents answered to the inquiry. The study showed that Finnish companies relate design mainly to product design. Usability, product image and product appearance were the most important meanings of design (74%–78%). Also, the development of corporate image was recognised as an important part of design (72%). Service design was seen as a design form by 35% of the companies. This is a good percentage back in 2005. Interesting but also alerting was the result that 2% of the companies did not see design as a way to look at the future. (Hietamäki et al.: 2005.)

In the MUSA project design know-how was analysed and specified more in detail based on a theoretical and empirical study. Design was defined as work carried out by professional designers. Design know-how was classified into five categories: 1) creativity/innovativeness/future vision, 2) user focus: aesthetics/usability/functionality, 3) corporate/brand profile, 4) visualizing and concretizing ideas and viewpoints of different disciplines/creating tools for the decision making and 5) problem-solving, e.g. for cost-efficiency. (Hietamäki et al.: 2005.) This categorisation is not complete, but summarizes some key elements, which together create a differentiated competence base of design. In this paper design is defined as follows:

Design is creative planning with emphasis on problem-solving, aesthetics, meaning production, future-orientation, and user-centeredness. Design contributes to functional, ecological and economical aspects of planning. A designer is a professional in design with a special know-how based on his education, experience, talent and personality.

Valtonen (2007) found in her doctoral thesis seven changes that occurred in the professional practice of industrial design in Finland. Design has become a tool for the industry to gain success and innovation. Industrial design education and research have grown rapidly

and improved the status of designers. IT is widely used among designers. The most important changes are related to industrial designers' new roles and to an expansion of the work tasks outside product development towards strategic and consumer issues. Because the industrial design profession covers a large scale of tasks, specialism has become more and more important. This has created a diversified scale of competences. (Valtonen 2007.)

The above shows that it is difficult to define design. This difficulty might be linked to the fact that design research is a young discipline. Or it can be the creative nature and multidisciplinary know-how of design that makes it difficult to set boundaries. It can also be due to rapid changes in design disciplines and the new areas of design that have made it difficult to understand design as a whole. Press and Cooper (2003) summarize their analysis of design as a profession as follows. It is not possible to talk about one design discipline. Therefore they suggest understanding design as "*a set of disciplines, identifying the context in which they operate and the skills required to practice in those contexts*" (Press and Cooper: 2003).

Therefore, to understand the nature of service design, we find it important to define the design skills/competences. This approach is relevant especially because of the multidisciplinary aspect of service design. Three main directions in the development of design competence can be detected; design is getting more strategic, more abstract, and more diversified.

Service design as a design competence

Service design has reached its teenage years, which can be noticed from its aggressive penetration to practice, education and research. There are some profound differences in products and services, and therefore new tools and new competences have been needed and developed in the service design field. Service design has reached its own status and a fairly clear definition. The Finnish service design network has defined service design "*as design of experiences taken place in time and place, which reach people through touch points*" (<http://www.servicedesign.fi>). This experience intends the combination of the experiential state and the meaning of it (Latomaa: 2007). According to Mager (2004) service design "*focuses on experiences of users supported by service provider, and it aims at affecting a purpose of usage, functionality, usability, desirability, ergonomics and ecological and aesthetic factors of services*" (Mager: 2004). Designing the customer service experience is at the core of service design.

Mager (2009) has pointed out service design as a multidisciplinary approach. Several professionals have relevant know-how related to service design. Marketing is self-evident know-how in service design because

of the 40-year tradition in service marketing (see Grönroos: 1996). Human Resource Management has also its place in service design because of its educational and managerial responsibility of service staff. Information technology is crucial know-how in today's service world. Anthropological or psychological expertise supports service design, because services are tightly linked to human side. Service design covers many areas of design, if not all: graphic design, interaction design, interior design, product design etc. (See Mager: 2009.)

Service design was on the spotlight in the Desire project. A user-centred service design process was carried out by an international design student team, which was coordinated by a professional designer and service design researcher. The students had different types of design education as their background. They had studied industrial design, interaction design, graphic design, product design and industrial furniture design. Each designer developed services for their own company case, but also worked as a team. The team was multidisciplinary from the design point of view, but there were no students from different disciplines in the team.

The user-centred service design lasted for three to four months and followed the process of three phases. First, user information was collected and analysed and ideas were generated. Second, alternative concepts were produced and third, concepts were evaluated by companies and tested by customers. The process was similar to the concept development process widely used in product design (Keinonen et al.: 2004, Moritz: 2005). A meeting with case companies was organised in each phase in order to ensure the usefulness of the results for the companies. As a result of the process four company cases and two social cases were conducted. The themes of the service design cases varied from further development of the bank's premium customer program, developing ecological, efficiency and homeliness laundry services, conceptualizing the new receiving and delivery service, designing smart home services and recycling services. (Hämäläinen et al.: 2009.) The aim of the process was crystallized in the design briefs produced in the cooperation with the case companies, the research partners, and the service design company.

Several methods were used in the Desire project. Ethnographic methods and user research were used to collect user information. Ethnography is a research method or tradition in which information is acquired by observing people's behavior in everyday life (Mäenpää, 2005). Design students tested services and collected own experiences of the services. They interviewed and observed users in order to understand the bigger picture of users and services. The user personas and the lifestyle boards were used as tools to analyse and share user information. Service journeys were analysed, abstracted and modelled into a visual form. Service con-

cepts were described as user scenarios, and as visualisations of user interfaces, products and environments related to services.

The service design process proceeded in a creative, problem-solving way, not as a linear process. The process was a blend of small sub-processes for example gathering information – analysing information – generating new ideas – sharing ideas – visualizing ideas – generating new ideas – gathering information – identifying problems – solving problems – visualizing ideas. The aim was twofold: follow the brief of the case companies and produce meaningful service experience for the users (which is the aim of service design in general). The students' service design process can be seen as an activity at the both sides of the interface between designer and environment (see figure 1). The designer collects information and experiences from outside, processes information and ideas inside and produces ideas and information outside into a visual form. The figure describes designer as an intermediate, transforming information and experiences into new services. (See Buxton 2007.)

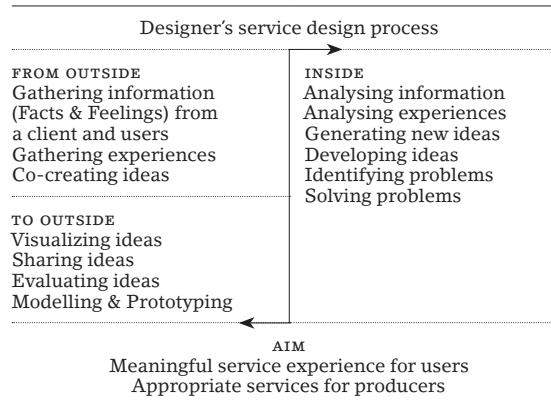


Figure 1. Designer's service design process

The students experienced ethnographic methods as a meaningful way of collecting user information and experiences, and it supported idea creation of new service concepts. This underpins the understanding of service design as a user-centred competence. Designers with industrial or interaction design as a background experienced the methods of service design as familiar and easy to approach. This supports the understanding of service design as a special process and method competence. User scenarios functioned as the valuable tool for developing service moments. The companies experienced the visualized user-centred service journeys as an effective tool to identify service potentials. The methods to develop temporal aspects of services functioned well in the project. Visualisation, problem-solving skills and future-orientation were noticed to be at the centre of service design competence.

Students were noticed to have difficulties to elaborate service experience in developing service concepts pursuing the specific experience. It was easier to focus on physical and spatial elements of service, i.e. touch points such as environments, user interfaces, products, and people. The student with background in interaction design had basic know-how of designing user experience, but here case service experience could also have been developed in a deeper meaning. The students wished for closer teamwork and the cooperation especially with people who had backgrounds in business economics. When students were dealing with economical aspects of services they experienced, they were taking decisions, which designers are not supposed to take. This opens up questions of designers' ability to have a goal-oriented impact on economical issues of service development based on their educational background.

Conclusion

Service design is a fairly new design field and opens up some questions; is service design a way of working, a blend of methods, designing a service as an object, service development with design flavour, or is service design a specific competence area? In the *Desire* project service design was considered as designing services as an object with service design and ethnographic methods. Service design was a way of working, a structured, but also a creative process. The process was not distinct to service design, because the process had its background in concept design, but the methods were specially developed for service design. The flavour of design was definitely part of service design in the *Desire* project; the results of the user-centred service design process surprised the cooperating companies by visualisation, creativity, user-centeredness, problem-solving, new ways of thinking and working. Service design brought specific competences to the company cases according to the companies.

Service design as a multidisciplinary field raises more questions. Does service design as a multidisciplinary approach bring together professionals from different disciplines including designers, or does it gather people with multidisciplinary design background? What is the competence and input of service designer in the service development? Based on analysis of design competencies, we can conclude that a service designer is a professional with design education, experience, skills and talent. This limits the concept of the service designer in design disciplines. But can any designer be a service designer when designing services? Does a service designer need a specific design competence? The *Desire* project showed that service designer needs special methods to develop service journeys, moments and touch points although the process on a general level is widely used in design.

The key to service design competence lies in its goal. The aim of service design is to produce meaningful service experience for users by appropriate services from service providers. If the experience is a starting point, one cannot know at the beginning if the process what kinds of design competences will be needed along the process. Therefore the service designer needs to have a clear understanding of design as whole. If the service designer is responsible for designing services, he also needs to have competences in management, communication and business economics. Therefore design management could be seen as the essential competence of a service designer.

The aim of service design raises another challenge. Service designers need deep understanding of service experience of users/customers and methods for collecting, analysing, visualising, sharing and developing service experience. If experience is linked with knowing, feeling, wanting, intuitive understanding, believing and unusual mental states (Rauhala: 1995), service experience goes beyond usability, functionality and aesthetics of services. Understanding users' interaction with service and their reflections to it requires competence in semiotics, psychology and sociology. Developing and producing service experiences require varied methods, especially visual ones. Service design can be seen as a management process, in which a service designer decodes and encodes meaning. Service experience and meanings of services to customers are closely associated with branding i.e. developing a company image as a strategic development of companies, which emphasise the importance of service design for meaningful service experience.

It seems that service design is situated at the centre of development of design in general: Design is becoming more strategic, abstract and diversified, which can be seen clearly in service design. Service design needs to manage the strategic, abstract, and diversified role of design in order to create meaningful and innovative services for users. Service design requires specific competences to plan physical and abstract, functional and emotional, as well as spatial and temporal elements of services, which create meaningful service experience.

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Peter Stebbing

Back to a Future

Abstract

Now that we are living unsustainably we need to re-cross the sustainable limit that we have exceeded. Living as we do it is no longer possible. We will be confronted with serious problems for our future existence but we do not know when. As an example of the seriousness of the situation the UK armed forces now monitor problems such as water security in order to be prepared for armed conflicts.

How can we contribute to ensure our sustainable existence through design education where there is still too much business as usual? Two basic kinds of action have been recognized as essential in addressing global warming:

1. Mitigation
2. Adaptation

However, these actions are equally necessary in responding for example to: resource limitation, water security, disaster preparation, etc. Despite the fact that we know that serious problems will reoccur, too much expensive action takes place after the event when proactive preparations could have saved lives and resources.

It is time for design education to recognize that a whole new generation of problems exists.

This paper will propose some strategies under these two kinds of actions which should now be added to the design curriculum and which could contribute to a sustainable existence.

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Rosanne van Klaveren

The Art of Lying

As a teacher on a narrative course in the Master of Communication and Multimedia Design, I teach my students to lie. While lying, these students gain more insight in narratives and sometimes even life itself. Besides being a teacher and a liar, I am a media artist. In 2009 I started a practiced-based PhD in narrative media art at the Catholic University in Leuven. Although I'm not really trying to lie for this PhD, I'm often working within the border area between truth and falsehood, between fact and fiction. For those who perhaps doubt my honesty, I'm absolutely not interested in lies that enhance the status, ego, self-esteem or perhaps even bank account of the liar.

My PhD project is called **FOOD RELATED**. It enhances a virtual platform and three storytelling projects, all concerning food within the Arctic Circle. Experiences, news items, recipes and opinions are brought together and exchanged on the virtual platform, to join the indigenous Arctic peoples. Food is always the central theme: it underlines the physical aspect within the media context. Food issues are artistically translated or transformed into new narratives. Blending all the collected facts and experiences into a story, something that didn't happen, but could have happened, is in my opinion a bit similar to lying.

For **FOOD RELATED** I only intend to lie the truth. *Lying the truth* is an expression sometimes used for documentary filming. In documentaries, there is no straight borderline between aesthetical interference such as artificial lighting, composition and such, and interference concerning the content, such as selection and montage, or even replayed scenes. Each interference can be seen as a form of lying, and they are usually accepted (or even preferred) as long as they support the documented truth. There is of course only one difficulty: what is the truth? Which truth will be lied?

To find the truth about food and food related issues for the indigenous people of the Arctic, narrative inquiry is the leading research method. Narrative inquiry is a qualitative research method. It is multi-method in focus and involves an interpretive naturalistic approach

to its subject matter.¹ Narrative inquiry embraces narrative as both the method and phenomena of study.² In contrast with quantitative research methods, narrative inquiry values the visibility and personal reflection of the researcher. It is therefore not only the stories or experiences of the people who live in the Arctic that I study, but my own experiences too. Even my personal relationship with food is on the menu.

I believe food is closely connected to identity, to who we are and how we live. Within the Circumpolar North, changes through time, modernism and accelerated climate change are reflected in changing food habits. For the arctic peoples, choosing what they eat, is choosing how they want to live and who they want to be. In **FOOD RELATED**, a focus on food is a focus on life itself. I hope this will help me to find the truth about these people's situations, so that I can lie about it story-wise.

Through narrative inquiry, I studied the experiences of Lea Sorgdrager, a Dutch woman who worked as a nurse in the Inuit villages Aklavik and Kugluktuk in the North of Canada fifty years ago, from 1958 till 1961. I interviewed her and studied her old diaries, letters, pictures and moving images that she donated to the National Museum of Ethnology in Leiden, Netherlands. The museum gave me permission to use this material to research changes through time (to search for the truth), and also to use them artistically (to search for interesting ways to lie this truth).

After this preliminary inquiry I travelled to Kugluktuk myself. I organized a meeting at the local recreation center to show the photos and old movies to the contemporary people, combined with Lea's story. I gave guest-lessons about it at the two schools of Kugluktuk: the elementary school and the secondary school. Each time, people wanted to speak with me afterwards; touched or even emotional about the memories it brought up. A lot of things had changed in 50 years time.

I got in touch with several elderly people, who enjoyed watching the footage with me in their homes. People enjoyed recognizing themselves and each other. They enjoyed talking about previous times and I enjoyed listening to their stories. Teddy Novoligak, for example, used to help Lea with all the heavy work. He

¹ Denzin & Lincoln (1994) *Handbook of Qualitative Research*.

² Candinin & Connelly (2000) *Narrative Inquiry: Experience and Story in Qualitative Research*.

was very happy to find out that Lea is still alive and enjoyed watching a video message from her. I recorded this man while he spoke a message back to Lea in return, which I showed to her later in time.

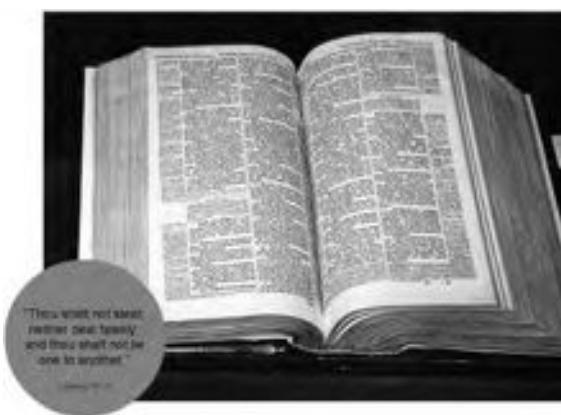
Bringing Lea's story, almost as a gift, made it easier for me to get close to the people. I was invited for dinner many times and was able to speak to many people and try several traditional dishes. I also had the opportunity to go camping on the frozen Coronation Gulf, where we prepared traditional food. Being in Kugluktuk was very interesting and brought me a lot of stories, information, knowledge and experiences to work with.

As an artist, I will intertwine all of this material in an interactive story called *The Story of Kugluktuk*. It is going to be a story about the changes the Inuit of Kugluktuk endured through time, of course with food as the main theme. It will be a more or less fictional translation of the facts I found and the impressions I had, converted into a universal truth: a story that concerns the universal situation of all Inuit in Arctic Canada. It will contain elements of travel logs, ethnographic field logs from anthropologists and explorers who traveled there before, such as Samuel Hearn and Diamond Jenness, drawings, personal thoughts, writings and much more.

This *Story of Kugluktuk* was too premature to present it at the Cumulus conference. Instead of presenting it, I explained, in the tradition of narrative inquiry, why lies and lying are important to me and for storytelling. I told the audience a story about my youth, about my struggles with the truth and about the meaning of lies in my artistic profession. Quotes and statements were blended in, together with a huge amount of photographs. For me, telling this story while showing the practice of working with narrative inquiry, felt as a performance. For you, reading this story while you perhaps missed this performance might be something completely different.

I was born and grew up in the Netherlands in a small town named Boskoop. In Boskoop, most people farm trees, like my father did. Besides the arboriculture, religion plays a central role in the identity of this village. Growing up with the bible, undoubtedly stimulated my love for stories, but the endless preachings in church were boring. My attention moved to the ears of the elderly people in front of me. Why do they have such big ears?! Are ears the only body parts that continue growing? In church, I learned to make up stories.

Making up stories also helped at school, when certain topics did not interest me. Stories made all boring moments bearable. I dramatized and romanticized everyday life. On my way back home, I always experienced something exciting: I helped to catch an escaped rabbit, saw a tragic accident or was beaten up by boys from school. When my mother asked me about my day,



it would have been a waste if I didn't share my stories with her. That sometimes caused rather nasty situations. Those boys from school, for example, made me pay for my daft delusion. Imagination is a shortcut through the process of trial and error.³

When my mother found out that my extra layer upon reality was totally made-up, she could not see the value of it. With all her sternness she showed me the bible in which it clearly stated that lying is prohibited. In a certain way, I already knew that, but I never understood why! In Leviticus lying is mentioned in one sentence with stealing⁴; that shocked me. In my experience, my extra layer upon reality added something instead of taking something away. My mother had a different opinion. She said my delusions would take away my dignity; if I continued, nobody would ever believe me again.

I found it hard to deal with truth alone. During birthday parties and other family reunions undoubtedly everybody enjoyed the fisherman's yarns of my Uncle Herman. These stories were clearly just as close to lying as mine, and Uncle Herman was such a religious man!

Also Sinterklaas, a fictional character like Santa Claus, made up for children's joy and quality time with the family, did not fit in the non-lying policy. Although

³ Laurel (1993) Computers as Theatre.

⁴ "Thou shalt not steal; neither deal falsely; and thou shalt not lie one to another." Leviticus 19:11.

I knew this bearded man was dead for many years already. I loved to ask my mother how Sinterklaas could visit all those children at the same time. I loved the creativity in which she searched for answers. Sometimes I even started to believe in his existence again, just for the fun of it. Sometimes I even helped my mother to make up explanations, to make the story more believable. As long as lies made life more enjoyable, they were allowed, I understood.

My mother taught me another important lesson about lying, or telling stories: expound the tempting and hide the unattractive. But it was my sister, who taught me to improvise. When you break something, a good story can save your life. We both told different stories and my mother had to decide which one was for real. I supposed she choose the most reliable: not necessarily the one that was closest to the truth, but the one that was most probable. It became a sport to make up the most plausible possibilities. It was only lying if my sister turned out to be the winner. In dramatic action, an impossible probability is preferable to an improbable possibility.⁵

In order not to lose my dignity, I had to be careful not to tell too many lies. Telling the same lie over and over again, seemed to be a good solution. The rehearsal of lies, made them more believable. And if my stories contained preferable information, people believed it even more. Instead of fantasizing about having a pony, as almost all girls at school did, I fantasized I wanted to have one. Every time I told my family that, instead of my actual wish to play football and to join the army. I know for sure they all believed me, 'because I got riding lessons for my ninth birthday. Luckily I turned out to be allergic, which made an excellent excuse to stop this girly obsession.

Unrestricted and without risks, I could merge with my fantasies when going to sleep. In my children's room I had a built-in closet. Before I fell asleep, I could fantasize intensely that behind all those pants and trousers, was another door. At night, right before I started to dream, I entered an alternative reality through this hidden door. In this second life, I was still myself, but my sister was different. The children at school were nicer to me and my parents allowed everything. Not that I had such a horrible youth, but it can always be better, nicer, and more exciting. Which child does not want to be a Kung-Fu champion, or the assistant of a lion tamer?

Later, when I started to read about narratives and new media, I found out that my escapist delusions weren't strange at all. No people on earth can live without stories⁶, Roland Barthes wrote. This conjuring with the facts of daily life turned out to be an es-

sential part of human identity.

When I became a media artist, I explored another doorway to an alternative dimension: the internet! I no longer needed to wait till bedtime and could live my second life 24 hours a day if I wanted. My laptop replaced my hidden closet door, with the biggest advantage that I could carry it with me all the time. Just like a car can extent the body, Internet extents the mind.

Sadie Plant described it like this: "Cyberspace is imagined as a zone of unlimited freedom, a grid reference for free experimentation, an atmosphere in which there are no barriers, no restrictions on how far it is possible to go; it is a place that allows women's desire to flow in the dense tapestries and complex depth of the computer image."⁷

*David Bell added in his *Cybercultures Reader*: "When we are in cyberspace we can be who we want to be; we (re)present ourselves as we wish to. We can be multiple, a different person (or even not a person!) each time we enter cyberspace, playing with our identities, taking ourselves apart and rebuilding ourselves endless new configurations."⁸*

In several internet projects I experienced the exciting and sometimes dangerous things I could not allow myself in real life: I lived in het Grand Avatar Hotel, I made a journey to Greenland but got shipwrecked by the strong current. I lived for several months in Tassilaq, Angmassalik. And I moved in with the drunken Danish scientist Stig Nielsen in Illulissat. After graduation from my second art school, I re-experienced this journey in real life: I stayed with an Inuit family again and found a Danish scientist who resembled Stig Nielsen. These two projects merge fact and fiction: it is not always clear where reality ends, or where fiction takes over. A good thing about the internet is that you can share your fantasies. Unlike my childish dream world behind the closet door, online I could experience storytelling and a fictional world together with others. That is exactly what I did with the Braintec project.

*Braintec is an American research company researching the possibilities to copy and store human memories. In *Memoires of a Testee*, as part of the Braintec project, I wrote a diary online about my experiences as a test subject for Braintec, together with 14 other test subjects. Every Friday, for 30 weeks, we all added new pages about our stay at Braintec. These pages were hyperlinked together and formed a quite bizarre and unpredictable interactive science fiction story. This was made in 2004, but you can still read the story online.⁹*

It is not difficult to present a lie online, a story that

⁵ Aristotle.

⁶ Barthes (1957) *Mythologies*.

⁷ Plant (1997) *Zeros and Ones: Digital Women and the New Technoculture*.

⁸ Bell & Kennedy (2001) *The Cybercultures Reader*.

⁹ www.braintec.info + www.braintec.info/memoires

is easily believed as the truth. Braintec promised test subjects a free flight to Portland, Oregon, and quite a high fee for taking part in the program. People still email Braintec today, to become a test subject. It amazes me how many people would undergo brain surgery twice, for a bit of money and perhaps some adventure. But they do, and some of them are disappointed when they understand that the Braintec company does not really exists. People do not understand immediately that it is art. There is no label mentioning it. And even if it was labeled as art, some people would probably disagree and would say THAT'S a lie, simply because they have a different opinion about art!

Can you lie, for the sake of art? Is lying allowed?

It is quite common for art to question what's for granted in everyday life and to wonder what might happen in future. Artists often question certain developments, directions or wishes for the future, sometimes critical, sometimes supportive. And art often presents a reflection upon reality, or contains a reality in itself. Braintec doesn't differ. The only difference is the location where it is shown: the internet. A perfect place for lying.

There is another project, Register van de dag van Gister, that taught me more about lies and lying. I worked on this project together with Waag Society and Stichting Kunstgebouw. A piece of furniture, Het Verhaalkabinet, was made to collect memories from elderly people in libraries. Through this project I learned that memories are often false. Our brain fools us more than we know and makes stories out of facts. Perhaps we don't exaggerate as much as my Uncle Herman did at birthday parties and family reunions, but unconsciously we're all lying about ourselves, and about others, when we recall our memories. When it concerns memories, the question whether we are allowed to lie or not, is irrelevant. We simply can't help it, it is part of our nature. Lying is part of living such a life, itself is part of narrative inquiry.

After this performed story, I tried to make a conclusion.

- We all love stories. They bring people together and add a valuable extra layer upon reality. It is not always clear where fact and fiction get merged, and that doesn't matter. As long as your intentions are pure and humble, telling a lie is a good and appropriate way of telling the truth.
- The Internet is a nice place to bring people together and to share the power of storytelling. Ethical questions, such as performed by the fictional research of Braintec, can be imagined and played out and become a safe shortcut through the process of trial and error.
- Narrative inquiry values the visibility and personal reflection of the researcher. As you have noticed, I integrated many anecdotes from my own life, as

lived experiences, within this story about lying. So lying doesn't have to be a problem for art, neither for conversations about our lives, but what about science? Isn't the taboo for lying in science just as strong as it is in most religions? Who wants to be called a fraud in an academic context? Although there is no absolute truth in science either, a scientist usually wants to reach this utopian truth as close as possible. With my experience of being a liar in a religious world, I believe I have the perfect background to enter storytelling in academic research; what I do with my PhD project FOOD RELATED. I believe a story can get closer to the truth, making it more tangible and recognizable, than a true collection of facts.

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Rudi Knoops

DIORAMATIZED #01

Context & Theoretical Framework

DIORAMATIZED #01 is the first experimental design exploration in the framework of **MULTIPLE** voice/vision, an arts research project that investigates possible forms of interaction between audiovisual form and musical polyphony. The concept of 'remediation' (Bolter & Gruzin, 1999) supplies the theoretical framework for this research.

'Remediation' can be summarized as the repurposing of parameters or properties of an old(er) medium in a new(er) medium. Within 'remediation' two opposite forces are at work: 'immediacy', the transparent use of the medium to unobtrusively convey a message, against 'hypermediacy', the explicitation of and fascination for the medium.

To research 'remediation' at different levels, we explore the interaction between music and audiovisual form stepwise. In the first phase of the project, music is input for interaction, "Ein musikalisches Opfer" from Johann Sebastian Bach is the trigger for experimental design explorations in search of an audiovisual form that matches Bach's contrapuntal music. The output of this first phase will be presented in a concert/installation at AMUZ, in October 2011.

In the second phase of the project this audiovisual form will serve as input for the creation of a new musical (?) composition by Joachim Brackx. Final output of the project will be presented in a hybrid concert/installation at AMUZ, in the spring of 2012.

We hope to gain an understanding of how processes of 'remediation' work, which influence they exert both on the creation of the experimental audiovisual form and on the creation of the new composition. In the final phase of the project we'll investigate the 'remediating' role of the new composition in the re-experience (re-experiencing?) of the music of Bach – the start of the project.

Mapping Parameters – Polyphony/Perspective

As mentioned above, 'Remediation' is the repurposing of parameters from an older medium in a newer one.

Instead of analysing or trying to discover in retrospect which parameters have been appropriated by a newer media form, we will, in this arts research project,

postulate from the start that some parameters carry a lot of potential for re-use. In a research through design cycle we start exploring the 'remediating' possibilities of these choices when forcing them upon or into a new media form.

First, music is input for interaction. As the title of the research project already suggest, we will start from the multiplicity in the musical texture: we will take apart the rich polyphonic texture, and deconstruct it into its constituent elements. For the first design exploration we focus (hanteren?) on a first possible level of deconstruction: each voice ends up as an isolated layer, offering a single perspective on (part of) the music. A second level of deconstruction could delve deeper into the inner structure of the musical language itself, and this might be the subject for further research within the project.

The central concept for the first design exploration is a deconstruction of the polyphonic musical texture, both aurally and visually into its constituent elements, and rendering them in a new audiovisual form.

The central audiovisual parameter is 'perspective', and analogous to the deconstruction of the musical texture, the audiovisual form will (become) perform a deconstruction of perspective.

We explicitly do not want **MULTIPLE** voice/vision to become a combination of multiple different perspectives next to each other (in e.g. split screens, or layers on top of each other) nor a combination of multiple perspectives one after the other – like in the traditional narrative video or film. Instead, we want it to be, in this first experimental design exploration, a juxtaposition of identical perspectives on musical subcontents (the musicians), each perspective rendered in its own visualisation space.

We are aware that in this first design exploration the link between the deconstructed polyphonic texture on the one hand and the deconstruction of perspective on the other hand is more a straightforward kind of mapping than an appropriation of parameters.

Bach, but also Boccherini

The first phase of '**MULTIPLE** voice/vision' will centre around 'Ein Musikalisches Opfer' from Johann Sebastian Bach, which is a masterly demonstration of counterpoint. 'Ein Musikalisches Opfer' was a musical gift – hence the title – to Frederic the Great, King of Prussia, a gift consisting of contrapuntal elaborations on a musical theme devised by the king himself:



Ein Musikalisches Opfer – the Royal Theme | 1747
Benjamin D. Esham for the Wikimedia Commons.

The first music sheet carries the inscription "Regis Ius-
su Cantio Et Reliqua Canonica Arte Resoluta" – "At the
King's Command, the Song and the Remainder Resolved
with Canonic Art" – the initials of which form the word
RICERCAR, the older word for the musical form 'fugue'.
And as 'ricercar' also means "to search for", the word
also refers to the intricate puzzles and textures that
Bach has woven into 'Ein Musikalisches Opfer' (Hof-
stadter, 1980) and as such, it already (indicates) ges-
tures towards (some) the possibilities for a 2nd design
exploration.

However, as we had the possibility to work with the
musicians of Ensemble Explorations in the midst of
their rehearsals for the Boccherini Quintet series in Ant-
werp the weekend of 19–21 February 2010, we agreed
on the compromise to record a movement from a Boc-
cherini Quintet as test recording. Because we had the
same number of musicians as Roel Dieltiens would like
to have in the future recording of 'Ein Musikalisches
Opfer', a quintet could suitably serve as input for the
first design exploration.

DIORAMATIZED – test recordings

The actual test recordings in the concert hall of **AMUZ** –
a deconsecrated church in Antwerp, with superb acous-
tics – consisted of two parts:

- one movement from a string quintet of Boccherini
- one duet violoncello – basso continuo

One of the goals was to assess the feasibility of record-
ing a multi-layered musical texture with as much sep-
aration as possible between the different layers of vi-
sion and sound.



AMUZ

Another important goal was to evaluate the impact
of a clavichord – both for sound and vision – on this re-
cording concept.

For each instrumentalist there was a camera (iso-re-
cording) with a fixed frame. And also the sound of each
instrument had to be recorded as isolatedly as possible.

This had an immediate impact on the chamber mu-
sic performance practice: we had to make the distance
between the musicians quite a bit bigger than they were
used to. Hence the set up in a wider semi-circle.

For the sound recording of the duet violoncello –
clavichord we experimented with a very narrow ste-
reo-recording for each instrument.

The preliminary conclusions of these test recordings
are as follows:

- the recorded sound layers 'showed' no complete iso-
lation. However, the musicians involved did not con-
sider it a problem to make the distance between them-
selves even greater, even though before the test re-
cordings they had objected to the idea of being clin-
ically separated, as that might touch the spirit of per-
forming chamber music together.
- a narrow stereo sound recording per voice adds to
the musical quality of the recorded end result, but
we still have to investigate if this is also better for
the deconstructive effect we aim for in the project.

DIORAMATIZED – the concept

The test recordings supplied the multiple auditory and
visual materials for the first design exploration **DIORAM-
ATIZED #01**, which has as central concept to 'render'
each individual layer with a limited perspective, both
aurally and visually.

I coined the word **DIORAMATIZED** because on the one
hand it carries (some of) the meaning of the word 'dram-
atized', and on the other hand it refers to the 19th cen-
tury phenomenon of dioramas. In this sense **DIORAMA-
TIZED #01** is a remediation of the 19th century diorama,
of which it transposes a few parameters – the modula-
tion of light and the application of perspective (Staf-
ford & Terpak, p. 326, 327) – into a contemporary inter-
active media formula.

Bolter & Grusin illustrate their discussion of the dou-
ble logic of remediation – the drive for a transparent use
of the medium alongside an intense preoccupation with
the medium itself – with some 19th century examples:

a new set of (now archaic) devices: the diorama, the
phenakistoscope, and the stereoscope. These devic-
es, characterized by multiple images, moving imag-
es, or sometimes moving observers, seem to have
operated under both these logics at the same time,
as they incorporated transparent immediacy *within*
hypermediacy. (Bolter, 1999, p. 37)

These 19th century devices tried to convey movement – of the image, of the observer – in an attempt at immediacy, and at the same time the workings of the medium and the contraption that produced this illusion of movement were utterly fascinating.

Anamorphosis as visual technique & visual concept

Anamorphosis is defined as follows:

A distorted or monstrous projection or representation of an image on a plane or curved surface, which, when viewed from a certain point, or as reflected from a curved mirror or through a polyhedron, appears regular and in proportion; a deformation of an image. *GNU Webster's 1913*

Anamorphosis is an optical curiosity (Baltrušaitis, 1977), and a very interesting one because of its interfering with the laws of perspective and at the same time explicating these laws of perspective. ... because it at once interferes with and draws attention to the laws of perspective.

As Dan Collins points out in his article '*Anamorphosis and the Eccentric Observer*':

The process known as anamorphosis or anamorphic projection in art is at once a confirmation and a challenge to the rules of linear perspective and the conventions of representation. (Dan Collins, 1992)

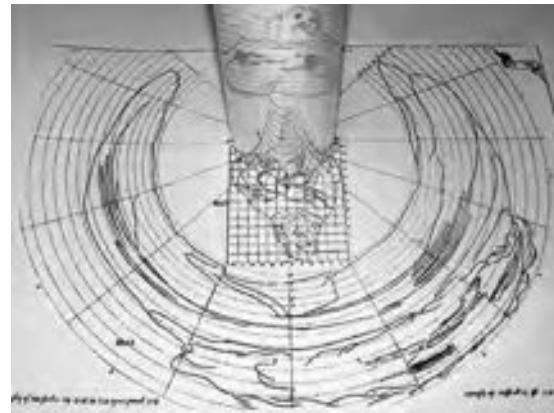
Anamorphosis enforces a certain perspective upon the observer, and it does so in a non-transparent way by at the same time showing the illusion of that perspective. This amounts to an anomaly that coincides completely with what Bolter & Grusin define as a core characteristic of 'Remediation': 'the double logic of immediacy and hypermediacy'. (Bolter & Grusin, 1999).

'The Ambassadors' of Hans Holbein 1533 (National Gallery, London) probably contains the best known example of anamorphosis. The viewing angle of the observer is the key to 'decoding' the distorted image in the foreground as being the representation of a skull.

This is an example of a perspectival or optical anamorphosis where no extra viewing device is necessary.

A second main type of anamorphoses are catoptrical anamorphoses where special mirrors – cylinders, cones, pyramids, prisms – are used to reconstruct the distorted image (Thomas Weynants, 2003). In cylindrical anamorphoses a mirror in the form of a cylinder has to be used in order to view a reconstruction of the distorted image.

The well-known anamorphic drawing of St Jerome from Jean François Nicéron (Nicéron, 1652), visually explains the principle of deformation in cylindrical anamorphosis. Here Nicéron's drawing is shown with a



Nicéron

cylindrical mirror revealing the 'corrected' image.

And it is exactly the possibilities of this type of cylindrical anamorphosis that we will focus on in the first design exploration.

Each musician is filmed individually from top to toe against a black background. The video footage is being warped and displayed on different screens. In the middle of each screen is a cylindrical mirror. Only by looking at the mirror you will see the original recording dewarped.

The idea is to do the same for (the) sound: we want each polyphonic layer to come out as (individually) distinctly as possible. We will limit the perspective per layer: for each screen – musician – (you) the audience will only (get) hear the corresponding sound, and the music will be more clearly audible from a certain 'viewing/listening' angle, coinciding with the angle of perception for the visual anamorphosis.

Thus, (you) the audience will experience a limitation in perspective for both sound and vision. When exploring the audiovisual installation, (you) the viewers/listeners construct, in interaction with the audiovisual form, their own perspective on the music that is performed.

Cylindrical anamorphosis & design

Technically speaking the circular, deformed image used in a cylindrical anamorphosis is the result of algorithms transforming the images from a Cartesian coordinate system to a polar coordinate system.

In DIORAMATIZED #01 this circular form is accentuated because I combine the 5 deformed images of the 5 musicians in a bigger circular form.

This circular form of DIORAMATIZED #01 also refers to e.g. the circular setting that the Huelgas Ensemble uses when performing the great polyphonic masterpieces from the Renaissance.

A cylindrical construction will house the circular video-projection and the mirrors.

Both because of this cylindrical form and because of the use of (cylindrical) mirrors DIORAMATIZED #01

refers in its design and inner workings to the pre-cinema tradition of e.g. the zoetrope and especially the praxinoscope.

Pre-Cinema & Remediation

The pre-cinema history encompasses a myriad of toys and optical devices that all strive to create an illusion of 'moving' images by exploiting the persistence of vision effect.

The praxinoscope creates the illusion of movement by turning an outer cylinder, containing a series of images, round an inner cylinder with a series of rectangular mirrors. The viewer perceives images reflected in the mirrors as if they were moving.

These optical contraptions from the pre-cinema tradition (focused on) harnessed the enchantment with the illusion of the moving image.

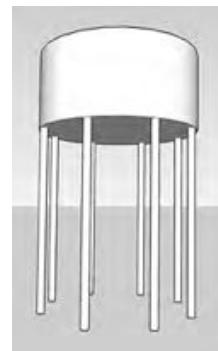
In DIORAMATIZED #01 however, the enchantment is, firstly, linked to the deconstruction of something which is normally perceived in a multilayered composited form (as in empirical reality), and secondly, to the use of mirrors. The goal of using mirrors is not to enhance the persistence of vision effect – as is the case in e.g. the praxinoscope – but to limit the perspective for each mirrored image: each cylindrical mirror offering one perspective on one of the anamorphically deformed visual layers.

The cylindrical construction – as mentioned before, also referring to the cylindrical form of the praxinoscope – will house the display(s) and the mirrors, and the viewer/listener can interact with the multiple layers of the audiovisual projection by exploring the inside of the cylindrical installation. This is almost a reversal of the workings of the praxinoscope, where one would normally look from the outside to the images being reflected on the smaller central cylinder.

The same counts? niet zeker of je "count" zo kan gebruiken; ik zou zeggen "the same goes for the observer of a single anamorphosis:

"To observe anamorphic images, one must be an "eccentric observer", that is, an observer who is not only a bit "eccentric" in the usual sense of the term (i.e. "strange") but an observer who is willing to sacrifice a "centric" vantage point for the possibility of catching a glimpse of the "uncanny" from a position off-axis. (...) *An eccentric observer is exactly the observer of the anamorphosis*, an observer who literally "stands apart" and is self-aware of the process of seeing."

(Dan Collins, 1992)



In contrast to this description of the 'eccentric observer' in DIORAMATIZED #01 the viewer/listener explores the workings from within the installation. The observer is aware that what he sees and hears (perceives) is the result of a specific media configuration, but at the same time the observer loses himself in the fascination for and the enchantment with the audiovisual world created in this Wunderkammer of sorts.

Instead of being an 'eccentric observer' the viewer/listener immerses himself in a multiperspective experience that (challenges) rouses his curiosity and invites him to explore these multiple perspectives.

"To design a digital artifact is to design an experience" (Bolter & Gromala, 2003)

DIORAMATIZED #01 will be presented at the end of June 2010, as the result of a working period in the FLACC workplace in Genk, and it is a first step towards a concert/installation at AMUZ in the autumn of 2011.

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Sanne Jansen and Jessica Schoffelen

'Not quite 100'

A description of design with people with schizophrenic symptoms

Design for the borders of society

While design is widely recognized as a human centred activity, this usually boils down to design for the so-called 'average' or 'normal' person: usually a young, fit, white, affluent male. Designers do not always find it easy to step outside their own experiential world, and this is perhaps why less obvious target groups are often approached in a stereotypical way. Existing stereotypes determine attitudes towards the stereotyped, thereby not being true but real (Cockburn, 1993), and resulting in less challenging designs. To be capable both of informing and inspiring, design research reflects an openness to bringing ideas and insights of the outside world into the design process. Contemporary design problems are multi-factored, having many stakeholders and relationships with other technologies. Papanek had already stressed this and the importance of designers' insights into the political, social, economic and ecological realm as early as 1971 with his pioneering defence 'Design for the Real World'. In order to design possibilities one must first know 'what is' (Chow & Jonas, 2008), and in order to build interesting designs we should explore the full ranges of what it means to be human (Gaver, 2001). Looking at the pathological products of Dunne & Raby (2001 & 2004) one can see the value in predicting how society can deal with technology. These approaches teach us that we must not only strive to design for the masses, but also closely examine problems and opportunities the wider public may not (yet) be aware of by researching and designing at the borders of our society.

In 'Not quite 100' we choose to work with people with schizophrenic symptoms. In spite of advances in the understanding of its causes, course and treatment, schizophrenia continues to confound both health professionals and the general public. Psychoses are difficult to understand for outsiders and it seems easier for most people to cope with the idea of cancer than it is to understand the experiences of schizophrenic symptoms. The lack of knowledge and one-sided media portrayals contribute to the stigma of mental disorders. Schiz-

ophrenia is widely considered the most serious mental disorder, characterised by positive, negative, cognitive and affective symptoms. Positive symptoms, in a clinical term, refer to symptoms that are added to reality: delusions, auditory hallucinations, megalomaniac thoughts or bizarre thought content, and are typically regarded as manifestations of psychoses. Negative symptoms reflect the loss or absence of abilities: motor impairment, flattened effect, lack of contact, passivity or apathetic withdrawal. Cognitive symptoms are difficulty in abstract thinking, disorientation, conceptual confusion, lack of attention or self-absorption. Affective symptoms are depression, hopelessness or dysphoria (De Hert et al., 1998). People with schizophrenic symptoms often have long-term care needs, 80% get institutionalized at least once and 65 to 80% are readmitted in psychiatry. Research into the conduct of a schizophrenic psychosis shows that 20 to 30% of people are relapse free after treatment, 30 to 40% have residual symptoms (delusions, hallucinations, behavioural problems and restrictions for independent functioning, work and social behaviour) and 10 to 15% are therapy resistant and have a prominent presence of delusions and hallucinations (Peuskens, 2003).

Our research questions how to translate the experiences of people with schizophrenic symptoms in media designs to better meet their desires; or contribute to a more nuanced image of their lives. The name 'Not Quite 100' is carefully chosen because schizophrenia is a problematic term. Words reflect bias, can elicit negative or patronizing attitudes, impressions and actions (Cavender et al., 2008) and affect the design process. On the one hand, hospitalization and psychiatric facilities have historically developed a profile with negative connotations (Catthoor et al., 2003), on the other hand, schizophrenia is often confused with multiple personality disorder, schizophrenia is referred to as a positive mentality or approach, stressing versatility in an art and design context. Because schizophrenia is a complicated and sensitive matter we felt an urge to make the fact-based material and its numbers more alive. Desk research and consulting health care experts can provide information but not the inspiration designers also need (Mattelmäki et al., 2002). Qualitative research methods provide fuller insights in people's experiences and dreams by grasping the so-called native point of view which is valuable in an exploratory phase where designers still have to define problems and opportu-

nities and determine what is to be designed (Sanders, 2009). Quantitative research – which we believe is less necessary for designers to lead – can have added value in more informational and later stages where the design process has to be narrowed down (Purpura, 2003). In order to design meaningful experiences we must explore past (memories), present and future (dreams and hopes) experiences. Doing so requires designers to take into account what people *say and do*, but also to exceed expectations. In consequence the design process better follows a bottom-up approach, where decisions arise from an open exploration, rather than a top-down approach. Therefore, the determination of the deliverable becomes part of design process (Sanders, 2005).

The concept of human agency – the idea that people are proactive and problem-solving determiners of their own situation – is central to our research vision. This responds to a (paradigm) shift from an earlier vision of the designer as the know-it-all to an interpreter of people's needs and dreams and not just creators of artefacts (Hamm & Walters, 2008; Sanders, 2005). A designer than no longer solves a (design) problem in isolation but works in cross-disciplinary teams. The key to true innovation is for the innovators to lead the process, therefore, it is important designers conduct this generative research phase. Designers trained in (qualitative) research methods can work with the creative insights they alone can glean from people. Since imagination can be constrained by lack of knowledge – people have difficulties to articulate what they need if they do not know what they can have – the designers' technological expertise comes in handy (Bowen, 2007). 'Not Quite 100' is conducted by 90 undergraduate students and teachers in twelve cross disciplinary teams. The photography, video, animation, product design, multimedia design and graphic design departments of the Media & Design Academy collaborated with nursing students from the School of Health Care majoring in psychiatry. Each research team refined their own point of view within the research question. Each team worked with caregivers and people with schizophrenia in twelve psychiatric wards. To get a broad view on experiences of people with schizophrenic symptoms, the included living environments were an observation and a rehabilitation ward, sheltered housing, a psychiatric care home, a day-care hospital and a sheltered workplace. The wellbeing of the respondents was our first and foremost concern in every step of the project. The research plan was approved by an Ethics Committee, and project managers and staff of the psychiatric wards monitored the process.

Exploring borders with Probes

In 'Not Quite 100' we approach people with schizophrenic symptoms as experts of their experiences. Because of the symptoms of cognitive impairment, people di-

agnosed with schizophrenia have traditionally been a disenfranchised group in research. Davidhizar and Wehlage (1984) however concluded they are competent research respondents. We used Cultural Probes to explore their experiences. Respondents were included on the basis of the presence of schizophrenic symptoms; the approval of the responsible psychiatrist assessing possible research impact; and their own volunteering through informed consent explained orally by students and staff. This means research procedures, the right to stop participating at any time and the guarantee of anonymity is adequately and understandably explained to the respondent. Cultural Probes have become an umbrella term in design research covering everything from photo diaries to longitudinal user studies to field trips (Boehner et al., 2007). Cultural Probes are a specially designed collection of engaging and challenging assignments, physical objects and tasks, using creative ways to elicit responses from people about their everyday life. The Probes are dropped in the respondent's living environment and returned to the designer after a while (Gaver et al., 1999). For the development of the Probes the teams visited several psychiatric wards to get a broader view of everyday life. Specific requirements of the condition of schizophrenia, the vulnerabilities, limitations and possibilities to consider in the research were discussed during a training day by the psychiatrist Dr. Marc De Hert. Finally a workshop with critical designers Revital Cohen and Tuur van Balen was organised to support the students in creating challenging and pleasurable Probes.

We choose Cultural Probes because of their advantages considering the condition of schizophrenia. Firstly, the respondents complete the Probes in their own living environment without the presence of the researchers, which is valuable in sensitive settings where research can be disruptive (Crabtree, 2003). Probes were applied in similar research settings concerning patient transport in hospitals (Jääskö & Mattelmäki, 2003) and sheltered housing (Dix, 2004). Besides a practical advantage this also benefits research participation. Secondly, Probes target the uniqueness of a person. As Probes are always designed especially for the respondents, they offer a possibility to consider the requirements of the condition of schizophrenia: the Probes assignments are short, explained in spoken language and can be handled at people's own pace and timing. The design should also try to challenge the respondents' mindset and everyday experience in a pleasurable and motivating way, but had to balance between challenging the respondents and the symptoms of schizophrenia, for example hallucinations. Research participation always requires effort, yet when dealing with people with schizophrenic symptoms this is an even greater concern. Usually the challenging nature of Probes rang-

es from open to more closed assignments. Through creative exploring Probes can stimulate people's imagination (Wensveen, 1999), help to communicate feelings (Djajadiningrat et al., 2000), and develop an ongoing 'conversation' with the respondents, where researchers reveal themselves in their design of Probes and the respondents are invited to do the same. Thirdly, Probes engage the respondents as experts as they choose what and how to document or reject what is given to them (Graham et al., 2007). We believe this is important since the opinion of people with schizophrenic symptoms according to their own experiences and living environment is seldom gathered.

To illustrate our exploration with the Probes method we describe four different research processes. The teams were supported in their process yet the project explicitly intended the Probes to be a development of the teams themselves. Each team designed Probes for their specific ward and the staff approved the Probes before introducing them to the respondents. The returns were used to inspire concepts for media designs, further developed in an iterative process involving staff and respondents. Beside the importance to stay in touch with the respondents in a sensitive research setting, this process could keep the respondents and staff engaged. Although Probes were meant as an inspiration for media designs, not all teams succeeded in a more exploratory approach. Some designed their Probes to gather very specific information on chosen topics rather than to challenge their assumptions. The Probes of the team of 'Voices etcetera' for instance were created for people who (mostly) after a long residence in psychiatric hospitals now live in sheltered housing. Their Probes were a dinner table to invite guests, a camera to document favorite places and people, and greeting cards to share wishes. The design of the Probes explicitly tests the teams' own assumptions on social contacts in the life of people with schizophrenic symptoms. In a similar narrowing approach the 'Schizoframed' team, who also worked with people living in sheltered housing, designed a package of Probes that as a whole would test existing assumptions, similar to how quantitative surveys are designed to test certain hypotheses. In their package, each Probe assignment attempted to evaluate the importance of the respondent's social network: inviting the respondents to design their ideal party, to design a t-shirt for their ideal imaginary team and to send postcards with greetings or wishes, thereby not applying the potential of Probes as an open exploration but rather exploring the same assumption from different angles for its results to be grounded.

The resulting designs do not express real innovation from a designer point of view. The educational board game 'Voices etcetera' aims to inform young people about schizophrenia. Although symptoms typically occur

in young adulthood, young people are mostly uninformed. Yet early recognition of symptoms is important for good treatment. Their Probes confirmed their ideas about the importance of a social network for people residing in psychiatry. The returns and their own experiences confirmed that a lack of knowledge of schizophrenia often prevents people from approaching a person with these symptoms. To increase empathy, each player gets their own specific character card with specific aims, whishes, strengths and weaknesses. By having a gameboard with a huge amount of possible tracks, the game stresses that everyone has a unique path in psychiatry. The other project 'Schizoframed' resulted in an online facebook application. As an accessible application for a popular network platform it wants to decrease the distance between people with schizophrenic symptoms and everyday life. Also here their probes proved the value of a friendship network for people with schizophrenic symptoms. The game guides players through different aspects of psychiatric trajectories and is like other facebook games based on progress by maintaining social networks. A visit from friends helps people to reach another level in their psychiatric trajectory. Although both designs clearly show information is gained through the use of Probes, presenting educational games to solve informational issues on mental illness isn't really challenging. The medium of a game in itself, for example its poetical, symbolic, critical or imaginative potential isn't explored. The complexity of the subject of schizophrenia and the designers being unexperienced, might explain these results.

Some professional design practices also develop more information-oriented Probes because they value the informational potential of Probes and explicitly problematise the uncertainty of working with Probe returns. Some prefer information-oriented Probes because their focused approach stresses user needs in the process. Information is gained because Probe returns then are also interpreted in a more analytical way, or combined with other research methods to get a profound understanding of the respondents (Mattelmäki, 2006; Boehner et al., 2007). Uncertainty during the interpretation phase also led some of our teams to an analytical interpretation, even if their Probes' assignments were more open in the first place. The team of 'The Encounter' collaborated with respondents of a sheltered workshop. The Probes they made were unfinished cartoons of everyday situations; a feelings clock; a map to visualize their workplace and an assignment to describe their ideal job. Although these Probes were more exploratory, the team explicitly started analysing returns to find practical design solutions to be used in the sheltered workshop. During the analyses however students felt this wasn't a suitable approach for exploring new possibilities. They changed their focus and chose a

particular experience they had with the respondents as a starting point for their project. They translated their own fears and lack of knowledge about psychiatry and schizophrenia into an interactive video installation that tells the story of their first encounter with the respondents. In contrast to their uncertainty and concerns about the encounter the team met a group of relaxed respondents that appreciated humor. The public has to approach the installation to trigger more content and thereby physically experience the difficult path of their encounter.

The design of 'Dreamscape' illustrates another encountered problem with Probes. This team collaborated with a psychiatric care home where the average age of residents is 61 and they have no prospect to live independently. Their Probes contained a grass man to take care of by watering its hair; a bottle to fill with wishes; a friends book in which the team also introduced themselves; a diary; and a Joker to use when not completing a Probe. Although the respondents were enthusiastic when receiving their Probes, they didn't deliver any returns; only one package was opened briefly. This led to disappointment, but as the team already gained insight in the condition with the design of the Probes, they interpreted this in the context of the negative symptoms of schizophrenia as a very specific return. The withdrawal inspired the students, taking passivity as a starting point that triggers beauty, and thereby designing from the perspective of the respondents. 'Dreamscape' literally shapes people's dreams, when put on the nightstand. Movements while sleeping are measured by sensors in the pillow, which is translated in a changing shape, the pattern of people's dreams. The case demonstrates how the act of making the Probes already engages designers. We can state that both teams of the Encounter and the Dreamscape, challenged themselves to explore the design space and included their own imagination into the design process. Probes can elicit engagement, as observed in all teams, but can also hold back designers own imagination in favor of designing solutions that directly solve the respondent's needs. Using Probes did not stop some teams to look for practical solutions instead of more challenging explorations of the context.

Discussion

This article describes the full process of Not Quite 100 to evaluate how all aspects – ward visits, lecture day, workshops, design and interpretation of the Probes and the iterative design process – are part of and can contribute to design empathy. We disagree with Gaver (2001) that a formal definition risks turning the Probes method into a fixed format and aimed at transparency in the description of our research approach and method. We believe Probes are a suitable method for designing at

the borders of our society. First, the need to design the Probes for each research purpose stimulates an engagement with the respondents from the beginning, which can be important in sensitive research settings where the researcher-respondent relationship can be complicated. Designers engage themselves by making their Probes appropriate but also challenging for their target group. Second, Probes respect the concept of human agency, shifting responsibility for research from the researcher alone to both the respondent and the researcher (Graham et al., 2007). Probes can establish an informal researcher-respondent relationship thereby creating a base to challenge both in their interpretations and creativity. Third, Probes stimulate an open exploration, which is necessary when designing for complex contexts. This makes them more suitable for exploratory research than many traditional methods that tend to be better at confirming known entities (Hanington, 2003). Like other design research methods Probes can prevent inexperienced designers from jumping to conclusions and final designs too early (Casakin, 2007). But although Probes can be seen as a facilitator for open exploration, the goals and imagination of the designer may be even more important in deciding how far to take the valuing of uncertainty, play, exploration and subjective interpretation as ways of dealing with the borders of knowledge (Gaver et al., 2004). One can ask if this exploration and suspension of final designs could also be realised by conducting desk research, but here we believe that the Probes specifically benefit from the designerly ways of knowing to investigate everyday life. Since designers are working visually with this method the designing functions as research. Although these are valuable advantages of Probes, this does not necessarily make the design process easier: engaging with someone does not necessarily mean you know exactly what to make for them. The ambiguity of Probes reserves maximal freedom for the designers' interpretation, yet the accomplishing uncertainty sometimes leads to designing and interpreting Probes in a narrowing informational way. When dealing with complex phenomena such as schizophrenia, this freedom might be problematic because this built-in uncertainty can be difficult for (inexperienced) designers. If Probes are design focused and interpreted analytically they will most likely be unsuccessful in reaching their exploratory potential. Since Probes have been developed and applied in various ways, and the interpretation of returns differ, more transparency in the design community's usage of Probes could help designers better understand the difficulties and challenges of the method. Providing transparency on methods invites designers to actively question and play with the borders of (design) research itself.

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Virginia Tassinari

Wunderkammer: archaeology of wonder

We often tend to forget that each and every one of us has been a child at some point¹. We have all experienced that sense of childlike wonder. That 'wonder' often becomes a kind of chimaera, something unattainable. Because of this, it forms a kind of hidden engine driving our lives. Wonder as such is something very personal, often associated with the infancy of our personal history. It is a condition to which we can retrace many of the choices we made during, a condition which we still dream about or look for in our daily lives.

But beyond the personal dimension, wonder can actually be seen as the infancy of our collective experience, the archeology of our history of culture, the starting point of the development of what today we call knowledge. With Plato and Aristotle, we speak of wonder as the beginning of philosophy as the love for knowledge, but also as the very beginning of the creative process.² A child's very first house, for instance, is a place of rêverie, a place where the creative process finds its origin by reading reality in a different way.³

He who is able to set himself free and follow his stream of consciousness, by interfacing it with the reality around him and who is able to make sense of or give sense to what may at first appear unconnected, is not unlike the flâneur in the powerful metaphor of the Parisian passages as described by Walter Benjamin in his *Passagen-werk*.⁴ This mysterious, a-systematic and – to Benjamin's contemporaries – almost incomprehensible text as it was eccentric and irrational, is similar to the ways in which the curiosity cabinets were looked upon in the age of enlightenment, a period in which

light served as a metaphor for the enlightening truth. The light in the Passages however is of a different kind. It is an electric one, such as the lights illuminating cupboards or shelves in a house which exhibit the family treasures. It is the luciferian light of the German expressionists, reflecting the hallucinations of the city, or the pale green absinthe-like reflections, rather than the glorious light that was announcing a new paradigm of knowledge in the mid 17th century.

Michael Foucault speaks⁵ of a paradigm of knowledge which is an alternative to the infallible truth of the Enlightenment. During the Renaissance, for instance, one was acquainted with a kind of Episteme in which all elements of reality were connected to each other. This is now known as the theory of signatures, the *Signatura rerum*, a notion recently also revisited by the Italian philosopher Giorgio Agamben.⁶ It is literally the language of things, a deep connection between the elements of reality where each aspect of reality is symbolically connected to rest of the world. There used to be a language that could be read, where everything was considered to be a sign included within a larger, more comprehensive system of signs.⁷

The Renaissance's Episteme⁸ reflected this kind of 'freelinking' of form and meaning inherited from Medieval times, where science and magic were still connected in profound ways. Man took a central position in the worldview at the time and it was up to him to make sense of the world around him. Man's duty was to reconstruct all the connections between the human and the divine, the scientific and the magical. Man would take it upon himself to make sense of the inner order of the world, which is different from making sense of the world in a scientific way.

What Foucault names the Classic Episteme instead is the paradigm of knowledge that originated during

1 N. Elias, *The Society of Individuals*, Oxford: Blackwell, (1939), 1991.

2 In the concept of wonder we can find an intimate connection between the worlds of design and philosophy.

3 As Gaston Bachelard describes in his *Poetics of space*. G. Bachelard, *La Poétique de l'espace*, Paris, éd. PUF, (1957), 1961.

4 W. Benjamin, Bd. V/1: "Das Passagen-Werk", S. 1–654. Bd. V/2: Das Passagen-Werk, S. 655–1350 in *Gesammelte Schriften*, II, Suhrkamp, Frankfurt am Main 1972–1999.

5 M. Foucault, *Les Mots et les Choses. Une archéologie des sciences humaines*, Paris, Gallimard, 1966

6 G. Agamben, *Signatura rerum. Sul Metodo*, Bollati Boringhieri, 2008

7 For instance a leaf in the shape of a female breast would be considered to cure breast-related problems, since the external shape would be communicating something of its inner powers, being a sign of it. Along the same line of reasoning, the *mandragola* was considered a powerful aphrodisiac, since its roots had the shape of a little girl (or a little man).

8 M. Foucault, *Les Mots et les Choses. Une archéologie des sciences humaines*, Paris, Gallimard, 1966

the Enlightenment. It mostly works in a unilateral way, without looking for further connections, oblivious to the material origin of each metaphor⁹. It tends to move past the notion that all concepts that we consider abstract have at some point been 'embodied' in the material world.

The shift towards a new paradigm, where systems of categorization and classification become the center around which to build the identity of the world, its being "scientific" or not, does not only have to do with purely philosophical matters but also with very practical things, such as the way in which objects and images were supposed to be shown in a new entity such as a "museum": hierarchical, reasoned (think about the term: catalogue raisonné), purist (fine arts, applied arts, etc...). In the Wunderkammer, images, texts and objects, natura-*lia* and *artificialia* were instead all mixed together, because the act of placing them together was an act of attributing meaning to them, of awakening a sense of the worldview, of all the interconnections that the owner wished to communicate.¹⁰ The Wunderkammer was telling the tale of a personal viewpoint and story, inviting the fortunate spectator to make sense of the collection up to the point that the perceived meaning would coincide with the owner's vision as in Giulio Camillo's Theater of memory.¹¹ By means of his cabinet – i.e. a physical instrument that would combine texts and books with their corresponding objects and images and creating, through their disposition, a series of interconnections between different concepts – it was believed that one could grasp the whole of knowledge of the world, climbing one's way up in order to finally literally look down upon the world, top-down, from God's point of view.

After the Renaissance, the Wunderkammer was almost forgotten and remained misconceived for a long time as something irrational and confused, as it was following an inner order, instead of a pre-defined scientific order. It was as such profoundly misunderstood by the following generations, for which it was merely a testimony of the chaotic and barbarian state of the past. From the Classic Episteme onwards, people came to consider their own way of looking at the world as the right one, the only possible true one, literally "the truth".¹² We all recognize this pattern of thought and we

⁹ J. Derrida, *Marges de la Philosophie*. Paris, Minuit, 1972

¹⁰ E. Hooper-Greenhill, *Museums and the shaping of knowledge*, London, Routledge, 1992

¹¹ F. Yates, *The Art of Memory*, London, Routledge, 1966 and F. Yates, *Theatre of the World*, London, Routledge, 1969

¹² This is what Roland Barthes would have called a "myth", an assumption of something that seems self-evident, but for which no evidence has ever been presented. Within the mythical landscape one thinks that things have always been the way they are and can never change. R. Barthes, *Mythologies*, Éditions du Seuil, Paris, 1957

probably also realize that the critical notions that design brings along nowadays are once again questioning the order of things, or the apparent eternity of certain structures/ways of thinking, that seem fixed and yet are changing.

Once again we are walking a tightrope, looking for that special, that alchemic point, which Aby Warburg called the "science without a name", the science of the interstitial¹³ which can see and grasp a whole range of connections which unilateral rationality cannot. This would have to be a qualitative science, grounded in similarities, correspondences, the details which connect what at first appears to be distant, different. This science, or rather, proto-science of creating connections, could read the underlying, intimate red thread connecting the most diverse elements similar to the way it used to be done before the rise of the positivistic paradigm.

Again, this reminds us of the challenges design faces nowadays, resisting to be defined in constringent terms or to be reduced to a single, restrictive meaning. The plasticity and dynamic nature of design reminds us of Warburg's science of the interstitial places of borderlines. "God hides in the details", Warburg used to say. It is in the details, in the exceptions, in the remains and the wonder of our lost childhood, where the possibility hides to draw new connections that break the patterns of the grid of what is accepted and recognized as the right point of view, the truth. This recalls us about what design nowadays is increasingly about, i.e. thinking differently, treading beyond the beaten path, beyond the mainstream of conventionalism, daring to follow patterns that most people would not even consider.

Aby Warburg's project of the *Mnemosyne Atlas*¹⁴ – a sublime expression of the science without a name – as much as the Renaissance's Theater of Memory¹⁵ are intimately linked in their associative character, there where the collection becomes a material form of writing. Words, images and objects were all part of the same discourse. They were considered equally valuable ways

¹³ G. Agamben, «Aby Warburg e la scienza senza nome» in G. Agamben, *La potenza del pensiero. Saggi e conferenze*, Vicenza: Neri Pozza, 2005

¹⁴ A most tangible example of Warburg's science without a name is the sublime, never completed project of the *Mnemosyne Atlas* in which he was trying out and discovering along the way, a new visual associative language to speak about art history as a cultural phenomenon. It was an atlas in which a reproduction of Botticelli's Venus as well as images from contemporary advertisements of detergents or home-made pictures would weave a thread together. They would write a story explaining art history in a totally revolutionary way. A. Warburg, *Der Bilderatlas MNEMOSYNE*. Hrsg. von Marfred Warnke u. C. Brink. Berlin 2000.

¹⁵ F. Yates, *The art of memory*, London, Routledge, 1966

to convey meaning.¹⁶ As such, the objects of the collections together become a text.¹⁷

A red thread runs through the allegorical relationship between the different elements of all these different ways in which Renaissance's Episteme¹⁸ manifests itself, as being a paradigm of knowledge not based on separations or differences¹⁹ but rather on inclusion and similarities, an invisible inner language which connects all elements of the world to form a text that can be interpreted, managed, and become part of an inner wisdom. This science of connections, is what precedes, not only timewise but also ontologically, our often dichotomic, either-or based patterns of thought, patterns based upon distinctions rather than on analogies. It consists of "relating one form of language to another form of language; in restoring the great unbroken plan of words and things; in making everything speak."²⁰

If Foucault's dream was to return to a more organic paradigm, where can we situate today's reality? We could say that that about which philosophy speaks, and for which it looks, design is literally materializing in front of the philosophers' eyes. The blurring of boundaries between different paradigms, the since long predicted coming of a new age of openness, in which specialism leaves room for integrative, holistic approaches and transdisciplinarity, in which the Mephistophelian solitude of the artist and the designer in their creative process becomes an act of co-creation instead, an open-source-like process. Design teaches us in practice how different challenges are worth different solutions, where there is no methodology which is right or wrong but more an attitude of questioning phenomena and questioning the relationship between challenges, solutions and contexts. If we utter 'design' nowadays, words come to mind like fluidity, connection, the shift from the vertical to the diagonal, top-down vs. bottom-up, dedicated & shielded vs. open source & shared, obsession for a focused identity vs. fragmentation, but also constellations of meanings, the added value of feelings and emotions as complementary to the (limited) world of the purely rational, openness of meaning, the value of ambiguity and of rich sensorial experiences, the blurring between the virtual and the real, the return of attention to the pre-rational state, where objects can be

seen in relationship to subjects. We can speak of relational objects, a sort of mature appendix to Winnicott's transitional objects²¹, as an in-between space, dynamically shaped by tensions and energy²², where one does not design a pure object, but also its relationship to its environment, its user, the user experience, touchpoints of a service, an experience, a transformation etc. Design is literally designing the interstitial space that very often has been used by contemporary philosophers as an image of hope, as a gateway to a new paradigm, a new Episteme, a new way of thinking.²³

One can see in this a lesson for today's hyper-specialism and artificial distance between theory and practice, between the arts and engineering, design and humanities, since their roots do not seem as distant as they might at first appear. The Wunderkammer was expressing this tensegrity-like connection between naturalia and artificialia, between the world of God and the world of man. Think about how many dichotomies design is annihilating nowadays by providing room for them together, for a third way of inclusion and mutual empowerment: e.g. art-design, society-theory, industry-academies. Design nowadays also represents a cross-road between different disciplines, where theory and critical thinking meet society in practice. The same feeling of wonder, which used to characterize the first philosophers, today becomes an instrument by which design feeds and provokes critical consciousness. Criticism moves beyond the realm of mere theory to become an ethical practice²⁴.

²¹ D.W. Winnicott, *Playing and Reality*, London, Routledge, 1971.

²² As in Giorgio Agamben's theory on the relationship between subject and object, mostly inspired by E. Benveniste, *Le Vocabulaire des institutions indo-européennes 1 et 2*, Paris, Minuit, 1969.

²³ Important in this framework is the return to objects and the fascination of contemporary philosophers with objects. The invisible analogies amongst objects present in the Wunderkammer express the poetry of such objects in their own, silent yet ever so meaningful language. To philosophy, through its muteness the object represents a metaphor of that which is not subjective, not rational. To allow the objects to express themselves, to speak their own language, means to recognize the limits of a knowledge based solely on the subject and the pretense that its categories of thought cover the meaning of the world. The subject does not decide what the world needs to become, but rather needs to listen to the world, to its needs and its prerogatives.

The need for a more sustainable way of living changes also the idea of looking at nature in an objectified way, as something which can be used and towards which we have no active responsibility. Again, in our archeology of wonder we encounter the blurring between the role of the designer and the one of the philosopher, as in Giulio Camillo's *Theater of Memory*, where no uncomfortable separation is perceived between theory and practice.

²⁴ As in critical design for instance.

¹⁶ F. Yates, *The art of memory*, London, Routledge, 1966, p.6.

¹⁷ A. Lugli, *Wunderkammer*, Torino, Umberto Allemandi, 1997

¹⁸ The inclusion of Aby Warburg's Science without a name in this paradigm finds a confirmation in the importance of the Renaissance in Warburg's work.

¹⁹ As can be seen later in the "age of the catalogue", as Foucault calls it in M. Foucault, *The order of things*, Pantheon Books, 1970, p.131

²⁰ M. Foucault, *Les Mots et les Choses. Une archéologie des sciences humaines*, Paris, éditions Gallimard, 1966; M. Foucault, *The order of things*, Pantheon Books, 1970, p.40

In the Wunderkammer one can retrace as such a kind of archeology of design.²⁵ In the forgetful scientific paradigm in which we live, design helps to cross the borders, to reconnect that which used to be connected but became separated through time, to reanimate and enrich the world with a different, emotive, subjective perspective.

The system seemingly forgets – or facilitates the forgetting of – its origin in the exceptional, in the a-systematic, in child-like wonder. Once again, this notion makes us realize that the concept of evolution and change which ground a system, arises from the exceptions to the system, the monstrosities of the Wunderkammer. It is thanks to them, that we can explain the changing, also that which today we would call innovation. The scientific paradigm tends to forget its grandfather was a freak.²⁶ Theory forgets practice is not only its ancestor but also its natural companion.

Some might say that theory found its independence from praxis, in order to become more important than the latter. In an age characterized by a predominance of the rationalistic model, praxis continuously seeks out theory in order to find its justification and become as such pure theory. Agamben describes the artist as the man who has lost his content²⁷, the triumph of theory on practice. The rational eye, imbued with dichotomies, becomes the only ratio, the only perspective through which to look at the world. When the manual world and the intellectual one become separated, the manual receives its dignity only in the confirmation of the abstract point of view. In this landscape the practice, which has lost its identity becomes just another way of “killing the frog”²⁸.

It is in this context, in this nexus of time, that the metaphor of the Wunderkammer can help us to remember the vocation of praxis: not to mimic theory by taking an unilateral point of view on reality, but rather to find its strength in its open character. It is in the complementary relationship between theory and practice, nature and artifact, art and product, that one makes theory through practice and practice by means of theory.

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²⁵ This archeology of design would be inspired both by Agamben and Foucault

²⁶ In the Renaissance's *Episteme* it was still possible to let meaning flow and create connections in an open way, leaving room, besides science, for what people imagined, dreamed. In this framework, the fairy tale, magic, etc. were still conceived as parts of science.

²⁷ G. Agamben, *L'uomo senza contenuto*, Milano, Rizzoli, 1970

²⁸ As in Mark Twain's story.

Yanki Lee & Denny K L Ho

www.designing withpeople.org

Enabling designers to cross
borders for social inclusion

Introduction

www.designingwithpeople.org is a new web tool created to support designers to design more inclusively. It intends to be the trigger for developing a new discourse or awareness within design community about existing development of the relationship between designers and other stakeholders of design, esp. 'users' of design. As part of the reflections of Inclusive Design development in the UK, constructing this web tool revealed a number of insights and critical thoughts for the future of design practice in relation to interactions with people who are embedded in it. This paper describes these insights through five key questions of how to move design practice towards a new era: rigorous redefining of terminologies, attitude and exploring new methodologies and collaborative practice.

Reflections from Inclusive Design development
Since its emergence in the UK in the 1990s, Inclusive Design (ID) has been promoted as an important element of business strategy [3]. Over the years, it has been proved that ID is a creative process that contributes to inclusivity in society [10]. One recent argument of ID in design education suggested that the missing information that would enable designers to practice ID is the anthropometric data on potential and specific users [4]. It further urged development of supports to help designers to address existing anthropometric data through the three categories of Usefulness, Usability and Desirability of the user data set [11]. However, we found that designers who have been practicing ID or other user-centred methods expressed different viewpoints,

*'tools like anthropometric data and persona can only give general impressions of users; they cannot replace interactions with real people'*¹

¹ Interview with Adrian Berry of Factorydesign and John Corcoran of Wire Design, London, Jan 2007

Furthermore, most of the interviewed designers added:

*'it is more difficult to know how and where to find the 'users'*²

Therefore, we designed an inspirational tool rather than a substitute for interactions with real people during design processes. It aims to act as the first step and one-stop learning tool for designers to explore and find their own ways to design with people. These comments by designers were key to developing the tool. This web tool encourages designers to go out to meet people for their design process. One important element of meeting people face-to-face, especially older and disabled people is the change of attitude from sympathy to empathy, which is crucial to the interactions.

www.designingwithpeople.org (Fig.1) is aimed to be an education tool to encourage designers to develop their own ways to make connections, not only within their subject area but also beyond it, to be able to generalise and transfer the ideology of designing for social inclusions into their own practices. By registered its domain name as .org rather than .com, we also aim to create a community of designers or design researchers to share their experience of user researches in design and improve the practice.

Through discussing five questions about the ethos of this new web tool, we aim to discuss the methodological practice of design in relations of interactions with people. They are presented in the next subsections, along with some of our reflections of practicing and researching in ID. These five subsections project the future implications for ID as well as special emphasis on the social impacts of design practice.

1. How to shift from the term 'user' to 'people'?

From ID practice, learning from the social model of disabilities, we maintained that design is a way to figure out *'a pragmatic attempt to identify and address issues that can be changed through collective action rather than medical or other professional treatment'* [12]. While design remains a professional activity, design practitioners should remind themselves of the trap of being a

² Interview with Madlene Lahtivuori and Elisabeth Ramel-Wahrberg of Ergonomidesign, Missionsvagen 24, Bromma, Sweden, May 2009



Figure 1. Screen shot of the content page of the www.designingwithpeople.org

dominant expert in the designer-people partnership, overriding the decisions of active design partners. If it is the case, it cannot be likened to an exchange of equals. This is why we decide to create a web tool but not a web site so that it can act as an on-going platform for public discourse of the practice.

Our first task was to design the domain name. Deciding on the correct term to describe those who use the results of design has been a long-term argument [9]. What does the term 'user' mean and how does it relate to other terms used to objectify different people? Designers, architects, planners and policy makers create products, services, systems, or environments through design processes. 'Users' is the general term used to describe those whose lives are directly affected by the material outputs of design processes.

Within many design disciplines, 'user' is the common term to describe the unknown person who is going to use the objects and systems, such as in the 'user manual' for computer software. However, the practice is changing. Forty [6] quoted Swain that many designers now prefer to use the term 'people' rather than 'users'. 'People' denotes the population as a whole and is a more general term than 'user'. On the one hand, using the term 'people' can show a bigger vision of design. On the other hand, using such a general term responds to Forty's criticisms by suppressing all the differences which exist between specific labels such as 'customers', 'clients' or 'inhabitants'. The researchers involved in the 2004 UK Government Department of Trade and Industry (DTI) study about user-centred design (UCD) support the use of the term 'people'. Researchers visited top design consultants in the USA to track the transformative trajectory from user-centred design (UCD) to people-centred design (PCD). This report suggested the term 'people' to replace 'user', because:

'...UCD is often thought to be purely about 'usability' or making things 'easy to use'. Frequently, UCD becomes

merely 'user testing' and is brought in at the end of the product development cycle. Users are often conceived in a task-centric way that fits into current technology-led business models.' [5]

2. How to move from designing for, to designing with?

The consideration of the people who are going to benefit from design processes is not a new concept; many humanitarian designers have emphasised this relationship. The best examples include design classics like *Designing for People* (1955) by industrial designer Henry Dreyfuss and *Designing for the Disabled* (1976) by architect Selwyn Goldsmith. However, these relationships between designers and design users have in the past been mainly restricted to a quantitative approach based on measuring people's bodies and analysing the usability of designs in relationship to people's abilities or disabilities.

Through ID experiences, we chose to leave all the terminologies and focus on the relationship between designers and people who would be affected by the adoption of the new way to look at design as action. Here, we realised that the shift of preposition from 'designing for' to 'designing with' is essential. 'Designing with people' can become the common platform of design participation projects, i.e. it is more about the actual interactions rather than the 'products' and the users. Jane Fulton Suri (2005) from IDEO presented the model of 'for>with>by' as a new democratic design development that encourages designing 'with' people and even 'by' them. This indicates that design practices should consider people's emotions as well as their physical ability to use the design in question. That is why this web tool is called www.designingwithpeople.org. It offers the 'midway' and aims to link both sides, i.e. 'for' and 'by' approaches, and collates all of them into a comprehensive tool to let newcomers pick the appropriate approach. It also works as a benchmark for established practitioners to check where they are in their relationships with people in design. It contains four areas: METHODS, ACTIVITIES, CHARACTERS and ETHICS.

First of all, in the METHODS section, different design cases were analysed and shown in the web tool for designers to browse. Our aim is to guide them to understand and reference their own practice to the methodological discourse. The new classification method also becomes the structure of the METHODS section of the web tool:

1. Design for People (Current practice)

Designers control the whole process while people are treated as passive subjects

2. Design with People (Emerging practice)

Designers share the process with people who are act as active participants

3. Design by People (Future practice)

Designers enable people to control the process and people become collaborators and creative clients

3. How to collaborate between design and other social science subjects?

Another distinction between the different design practices from the ID movement is the academic research methodology with which they are associated. The user-centred approach is linked to Grounded Theory, a social science systematic qualitative research methodology emphasising collecting data to generate theory during the process of conducting research. The people-centred approach is closer to Kurt Lewin's Action Research model, as outlined in his 1946 paper 'Action Research and Minority Problems.' In this he described action research as '*a comparative research on the conditions and effects of various forms of social action and research leading to social action;*' this uses '*a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action*' [8]. Both of them are qualitative research methodologies but the main difference is the relationship between the researchers and the researched.

Today mass collaboration has become a relatively common phenomenon, especially with the advance of technology and the internet [15]. It has proved that the involvement of people is important in research or knowledge-generating activities, including design practice. Apart from the encouragement of the UK's funding bodies, the changing relationship between individuals and the State (involving the challenge of grassroots movements to top-down institutional practices,) is the other main force for user participation in social researches [16]. However, until recently, there were few models of good practice to draw on [ibid]. One of these is the continuum between consumerism and empowerment, 'The consumerist model consists of relatively small incursions by [esp. older] people into the research process, most commonly as a relatively passive reference point among several to be "consulted," for example through focus groups or membership of project advisory committees. At the other pole, much less frequently, older people are more closely involved as active research participants' [1].

In order to make designers and design researchers aware of this distinction between methodologies while they are designing, the METHODS section of the web tool is designed to map out the majority of design methods in practice with new classifications and a catalogue of methodology that these methods belong to. However, unlike social scientists' classifications, we decided to describe the methodology for designers simply as a way of working and a rationale of their interactions with people.

4. How to balance user-centred and people-centred approaches?

Sanders and Stappers [14] put a distinction between user-centred design and participatory design (similar to DTI's definition of people-centred design). They explained that in the former approach 'users are *subjects*' while the latter 'users are *partners*'. Actually, the ID practice gradually covers both approaches. In other word, ID is an ideology rather than methodology: engaging people who are excluded by design but its main aim is to generate mainstream designs for all but through different methodologies or methods.

This leads to the development of the main part of the web tool: 'MEET THE PEOPLE', which contains two sections: ACTIVITIES and CHARACTERS. It provides two ways for designers to meet their future users virtually before meeting 'real people'. The ACTIVITIES part is based on the user-centred model, which is driven by activities. The need for information regarding people comes later in the process. The first set of ACTIVITIES is from the Helen Hamlyn Centre's ten-year track record of ID projects. All their user interaction records from a wide range of design issues are distilled into insights and include such themes as Personal Care, Household, Work & Money and Communication.

The CHARACTERS section is based on a different model where people's contributions come first. This is the essence of Participatory Design/People-centred design. CHARACTERS, this section contains a series of character profiles that represent different the spectrum of abilities and disabilities within the UK population: Vision, Hearing, Dexterity, Mobility and Cognition. Instead of creating conventional virtual personas, we called this section CHARACTERS since these people are called the 'creative partners' of design, i.e.; individuals with special situations such as disability or being in an older age group. Apart from their data of capability and the lifestyles of these characters are mapped and shown, its important part is to provide actual design cases that were inspired by them. This holistic way to present people aims to enable designers to develop inspirational skills to work with people in the real world.

5. How to transfer knowledge from academic research to improve design practice?

Since the term 'Inclusive Design' was introduced in the mid 90s in the UK, the definition of the word 'design' is changing. There are a lot of different interpretations; for example, Sanders's differentiation of the traditional design disciplines focuses on the designing of 'products,' while the emerging design disciplines focus on designing for 'purpose(s)'. Similarly, Participatory Design, Emotional Design, Inclusive Design can all be classified as the emerging design practices which focus on designing for a purpose and centre around people's

needs or societal needs, with a different approach for longer investigation into larger scopes of inquiry (Sanders et al., 2008). G K VanPatter, co-founder of the Next-Design Leadership Institute in New York presented another new classification of design at the EXPOSED 09 Conference at the Arizona State University School of Design. He described four types of 'design,' from 1.0 to 4.0. The concept of 'Design 4.0, Social Transformation Design' is the latest development, which is focused on design thinking and the application of creativity to contribute to social development.

All these definitions of 'design' align with the fundamental philosophy of ID, which is to 'encourage designers to design inclusively and design for social inclusion and for those being excluded by design' [2]. The more specific question after more than ten years of development might be: how to transform our societies through design ethically? There are many ongoing discourses on the subject of ethics and our ETHICS section aims to imply a simple structure of three 'Cs' of user research to design community: Consent, Confidentiality and research Conduct [7]. There contains step-by-step procedure on the interactive web pages to suit designers from different levels to understand the principles of ethics of user involvement.

The Next Steps: Design for the real world

Very important in the development of ID in the UK and Europe was the influence of American social designer and educator, Victor Papanek (1927–1999), and his early book, *Design for the Real World*. He was a strong advocate of the socially and ecologically responsible design of products, tools, and community infrastructures,

'[all] men are designers. Design is composing an epic poem, executing a mural, painting a masterpiece, writing a concerto. But design is also cleaning and reorganising a desk drawer, pulling an impacted tooth, baking an apple pie, choosing sides for a backlot basketball game, and educating a child' [13:3]

Papanek suggested that designers should spend time on six neglected areas³ and said that *'as designers, we can pay by giving ten percent of our crop of ideas and*

³ According to Papanek (1971, 1992:234-247), there are six areas that design has neglected:

1 *Design for the Third World*

2 *Design of Teaching and Training Devices for the Retarded, the Handicapped, and the Disabled (terminology current at time of publication)*

3 *Design for Medicine, Surgery, Dentistry, and Hospital Equipment*

4 *Design for Experimental Research*

5 *Systems Design for Sustaining Human Life Under Marginal Conditions*

6 *Design for Breakthrough Concepts*

talents to the seventy-five percent of mankind in need' [13:68]. He called this social self-tithing of design. However, the most important message from Papanek to the design community was to urge a change of attitude. He suggested that designers should learn from people who are capable of solving their own design problems, and avoid behaving like 'instant experts' [13:85]. He wanted designers to ask themselves how they could empathise with people and design with them. This is the question that the www.designingwithpeople.org is intended to answer.

By combining design activism with support from rigorous academic research, we aim to introduce www.designingwithpeople.org to persuade more designers to design with people and to use design thinking as a tool to enable different disciplines to collaborate. Its goal is to synergise more collaboration between different practices but also encourages self-reflections by illustrating the distinctions between different ways of practices. It aims to promote the methodology of 'designing with' in every design discipline, as an element of social movement, bringing improvement through design for wider social issues such as sustainable lifestyles, social education and public participation, with the intention of including people in design at all levels.

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- University for Applied Science (FH-JOANNEUM), Industrial Design, **Graz**
- Vorarlberg University of Applied Sciences, Media Design, **Dornbirn**
- University of Art and Design **Linz**
- Salzburg University of Applied Science, **Salzburg**
- University of Applied Arts **Wien**

BELGIUM (4)

- Katholieke Hogeschool Limburg, Media and Design Academy, **Genk**
- Sint Lukas Brussels University College of Art and Design, **Brussels**
- **Mechelen** University College
- Ecole Supérieure des Arts Saint-Luc, **Brussels**

BRAZIL (3)

- Pontifícia Universidade Católica do **Rio de Janeiro** – PUC-Rio
- Universidade do Vale do Rio dos Sinos (UNISINOS) Design School, **Porto Alegre**
- ESDI – Escola Superior de Desenho Industrial, **Rio de Janeiro**

CANADA (3)

- Ontario College of Art & Design **Toronto**
- Emily Carr University of Art and Design, **Vancouver**
- University of Montreal, School of Industrial Design, **Montreal**

CHILE (3)

- Pontificia Universidad Católica de Chile (PUC Chile), FADEU, **Santiago**
- Instituto Profesional DuocUC, School of Design, School of Communication, **Santiago**
- University of **Valparaíso**

CHINA (9)

- Central Academy of Fine Arts CAFA, School of Design, **Beijing**
- Hunan University, School of Design, **Changsha**
- Shandong University of Art and Design (SUAD), **Jinan**

- Hong Kong Polytechnic University, School of Design, **Hong Kong**

- Tongji University, College of Architecture and Urban Planning (CAUP), **Shanghai**

- Tsinghua University, Academy of Arts and Design, **Beijing**

- Cheung Kong School of Art and Design, Shantou University, **Shantou**
- **Hong Kong** Design Institute
- School of Design, Jiangnan University, **Wuxi**

CZECH REPUBLIC (1)

- Academy of Arts, Architecture and Design, **Prague**

DENMARK (4)

- Aarhus School of Architecture, **Aarhus**
- Danmarks Designskole, **Copenhagen**
- Royal Danish Academy of Fine Arts, School of Architecture, **Copenhagen**
- Designskolen **Kolding**

ESTONIA (2)

- Estonian Academy of Arts, **Tallinn**
- University of **Tartu**

FINLAND (6)

- Aalto University School of Art and Design **Helsinki** (Coordinator of Cumulus)
- HAMK University of Applied Sciences, Programme in Design, **Hämeenlinna**
- Lahti University of Applied Sciences, Institute of Design, **Lahti**
- University of Lapland, Faculty of Art and Design, **Rovaniemi**
- **Helsinki** Metropolia University of Applied Sciences
- Savonia University of Applied Sciences, Kuopio Academy of Design, **Kuopio**

FRANCE (16)

- Ecole de design Nantes Atlantique, **Nantes**
- Institut d'Arts Visuels (IAV), School of Higher Education in Art and Design, **Orléans**
- Ecole d'Art Maryse Eloy, **Paris**
- **Paris** Institute of Art and Design, Ecole Duperré
- **Paris** Institute of Art and Design, Ecole Estienne
- Ecole de Communication Visuelle (ECV), **Paris**
- Ecole Supérieure d'Arts Graphiques et d'Architecture Interieure-Design (ESAG)-Penninghen, **Paris**

- Olivier de Serres, **Paris** – École Nationale Supérieure des Arts Appliqués et des Métiers d'Arts

- Les Ateliers – Ecole Nationale Supérieure de Creation Industrielle, **Paris**

- Reims School of Art & Design, Department of Design and Art, **Reims**
- Strate College Designers, **Paris**
- Ecole Supérieure d'Art et Design de Saint-Etienne (ESADSE)
- Ecole Internationale de Design (EID), **Toulon**

- University of Toulouse Le Mirail, Art and Design Department, **Toulouse**
- Parsons Paris School of Art and Design, **Paris**
- Higher School of Visual Arts and Design (ENSAD), **Paris**

GERMANY (8)

- University of Applied Sciences **Cologne**, Köln International School of Design (KISD)
- Folkwang University Faculty of Art and Design, **Essen**
- Burg Giebichenstein University of Art and Design, Faculty of Design, **Halle**
- Hochschule für Gestaltung **Offenbach am Main**
- Pforzheim University of Applied Sciences, School of Design, **Pforzheim**
- Hochschule für Gestaltung, **Schwäbisch Gmünd**
- University of Applied Sciences **Würzburg**, Faculty of Design
- FH-Dortmund, FB-Design

GREAT BRITAIN (13)

- Arts University College at **Bournemouth**
- Edinburgh Napier University, School of Arts and Creative Industries
- **London** Metropolitan University, Sir John Cass Department of Art, Media and Design
- Ravensbourne College of Design and Communication **London**
- Royal College of Art **London**
- University of **Salford**, School of Art & Design
- University College Falmouth, **Cornwall**
- University for the Creative Arts, **Epsom**
- Gray's School of Art, The Robert Gordon University, **Aberdeen**
- **London** College of Communication, University of the Arts
- **Leeds** College of Art

- **Nottingham Trent University**
► Central Saint-Martins College, **London**
- GREECE (1)**
 - Technological Educational Institution (T.E.I.) of **Athens**, Faculty of Art and Design
- HUNGARY (1)**
 - Moholy-Nagy University of Art and Design **Budapest**
- ICELAND (1)**
 - Iceland Academy of the Arts **Reykjavik**
- INDIA (2)**
 - Ujwal Trust, Srishti School of Art, Design and Technology, **Bangalore**
 - Indian Institute of Technology **Bombay** (IIT), Industrial Design Centre (IDC)
- IRELAND (2)**
 - National College of Art and Design **Dublin**
 - Dublin Institute of Technology (DIT), School of Art, Design and Printing, **Dublin**
- ISRAEL (2)**
 - Bezalel Academy of Arts and Design, **Jerusalem**
 - Holon Institute of Technology
- ITALY (8)**
 - Free University of Bozen-Bolzano, Faculty of Design and Art
 - Domus Academ, **Milan**
 - Istituto Europeo di Design – Scuola S.p.A., **Milan**
 - Politecnico di Milano, Facolta del Design, **Milan**
 - University of Rome "La Sapienza", Industrial Design, **Rome**
 - ISIA di Roma, Istituto Superiore Industrie Artistiche, Industrial Design, **Rome**
 - Scuola Politecnica di Design (SPD), **Milan**
 - ISIA Florence, Higher Institute for Artistic Industries
- JAPAN (5)**
 - Kyoto Seika University, Faculty of Art, Design and Manga, **Kyoto**
 - Tokyo Zokei University **Tokyo**
 - Nagoya City University, School of Design and Architecture, **Nagoya**
 - Chiba University
- Kobe** Design University, Faculty of Arts & Design
- LATVIA (1)**
 - Art Academy of Latvia, **Riga**
- LEBANON (1)**
 - Lebanese American University, **Beirut**
- LITHUANIA (1)**
 - Vilnius Academy of Fine Arts, **Vilnius**
- MOROCCO (1)**
 - Ecole supérieure de Design, Art'Com Sup **Casablanca**
- THE NETHERLANDS (5)**
 - Design Academy **Eindhoven**
 - Royal Academy of Art, **The Hague**
 - Rotterdam University, Willem de Kooning Academy
 - Utrecht School of the Arts, Faculty of Visual Art and Design
 - Windesheim University of Applied Sciences, **Zwolle**
- NEW ZEALAND (4)**
 - Unitec New Zealand, Department of Design and Visual Arts, **Auckland**
 - Victoria University of Wellington, Faculty of Architecture and Design, **Wellington**
 - Massey University, **Wellington**
 - Otago Institute of Design
- NORWAY (5)**
 - Bergen National Academy of the Arts (KHiB), **Bergen**
 - Akershus University College, Department of Product Design, **Blaker**
 - Oslo National Academy of the Arts (KHiO), Faculty of Design, **Oslo**
 - Oslo School of Architecture and Design (AHO), **Oslo**
 - Oslo University College (HiO), Faculty of Art, Design and Drama, **Oslo**
- POLAND (3)**
 - Jan Matejko Academy of Fine Arts, **Cracow**
 - Academy of Fine Arts, Faculty of Industrial Design, **Warsaw**
 - Polish-Japanese Institute of Information Technology, **Warsaw**
- PORUGAL (3)**
 - Instituto de Artes Visuais Design e Marketing (IADE), Escola Superior de Design, **Lisbon**
- Escola Superior de Artes e Design (ESAD), **Senhora da Hora**
- University of **Aveiro**
- REPUBLIC OF KOREA (3)**
 - Kookmin University, Graduate School of Techno Design, **Seoul**
 - Hongik University, International Design School of Advanced Studies (IDAS), **Seoul**
 - Seoul National University, Future Culture Design Agency, **Seoul**
- RUSSIA (3)**
 - Moscow State University of Design and Technology, **Moscow**
 - Saint Petersburg State University of Technology and Design, Department of Design
 - Saint-Petersburg State Polytechnical University
- SINGAPORE (1)**
 - Temasek Polytechnic, Temasek Design School, **Singapore**
- SLOVAKIA (1)**
 - Academy of Fine Arts and Design **Bratislava**
- SLOVENIA (2)**
 - University of Ljubljana, Academy of Fine Art and Design
 - University of Ljubljana, Department of Textiles
- SOUTH AFRICA (1)**
 - Greenside Design Center, College of Design, **Johannesburg**
- SPAIN (3)**
 - Escola Superior de Disseny Elisava, **Barcelona**
 - Mondragon Goi Eskola Politeknikoa, Mechanical Department and Chair of Industrial Design
 - Escola D'Art Superior de Disseny de Castello **Castelló**
- SWEDEN (10)**
 - University College of Borås, Swedish School of Textiles
 - Chalmers University of Technology, Dept. of Product and Production Development, **Gothenburg**
 - University of Gothenburg, Faculty of Fine, Applied and Performing Arts
 - University of Gothenburg, HDK Steneby, School of Design and Craft

- University of **Kalmar**, School of Design
- **Lund** University (LTH), Industrial Design
- Beckmans College of Design, **Stockholm**
- Konstfack **Stockholm**
- **Umeå** University, Umeå Institute of Design
- **Linnaeus** University, Department of Design

SWITZERLAND (5)

- Nordwestschweiz, University of Art and Design (FHNW), **Aarau & Basel**
- **Genève** University of Art and Design (HEAD)
- University of Art and Design **Lausanne** (ECAL)
- **Lucerne** University of Applied Sciences and Arts
- **Zürich** University of the Arts, Department Design & Art Education

TAIWAN (2)

- National Yunlin University of Science and Technology (YunTech), College of Design, **Yunlin**
- National Chiao Tung University, Institute of Applied Arts, **Hsinchu**

TURKEY (3)

- **Istanbul** Bilgi University, Visual Communication Design Department
- Anadolu University **Eskisehir**
- **Istanbul** Technical University

USA (5)

- Maryland Institute, College of Art (MICA), **Baltimore**
- Rocky Mountain College of Art and Design, **Denver**
- Art Center College of Design, **Pasadena**
- Parsons The New School for Design, **New York**
- Ringling College of Art and Design, **Sarasota**

List of cumulus associate members 6/2010

1 country & 1 member

BELGIUM (1)

- Design Innovation, **Charleroi**