cumulus
creative linking

Yrjö Sotamaa

Michael Krohn

Peter D. Stebbing

Joachim Huber

Nelly van der Geest

Michel Guglielmi and Hanne-Louise Johannesen

Kaisu Koski

Elaine Keating

Aukje Thomassen and Mariake van Oudheusden

Maria Cecilia Loschiavo

Maziar Raein

Niklas Andersson

Ineke Teijmant, Bart Sorgedrager and Corinne Noordenbos

Grete Refsum

Cumulus Working Papers

UTRECHT

13/04
UTRECHT
Cumulus Working Papers
Publication Series G
University of Art and Design Helsinki
2004

Cumulus Working Papers

UTRECHT

UNIVERSITY OF ART AND
DESIGN HELSINKI

Editor in Chief
Yrjö Sotamaa
Cumulus President

Editors
Eija Salmi
Jaana Lantto

Lay-Out
Timo Jokivaara

Graphic Design
Original Cumulus Working Paper concept is developed at the University of Art and Design Helsinki,
Department of Product and Strategic Design, Autumn Term 1998 with
Timo Jokivaara, University of Art and Design Helsinki,
Miguel Oliva Sánchez, Escola Superior de Disseny Elisava, Barcelona and
Krisztina Szinger, Hungarian University of Craft and Design, Budapest.

For Further Information on Cumulus Network and
Cumulus Working Papers
University of Art and Design Helsinki
Cumulus Secretariat
Hämeentie 135 c
FIN-00560 Helsinki Finland
T +358 9 7563 0534 and +358 9 7563 0570
F +358 9 7563 0595
E cumulus@uiah.fi
W http://www.uiah.fi/cumulus/

Writer's Manual for Cumulus Working Papers available at Cumulus Secretariat.

ISBN 951-558-173-7 (paperback)
ISBN 951-558-174-5 (PDF)

ISSN 1456-307X (paperback)
ISSN 1795-1879 (PDF)

Valopaino Oy
Helsinki 2005

Contents

Preface
5 **Impact of Art on Society**
Yrjö Sotamaa

7 **THE ZONE, AN AREA OF TRANSITION**

8 **TRANS-CULTURAL ZONE**

9 **Shanghai – Zürich 04**
Michael Krohn

16 **Creating a Real Meeting of Cultures and Media in the Art and Design Curriculum through the Identification of Universals of Aesthetic Behaviour**
Peter D. Stebbing

21 **The Liminoid Zone(-s): Criteria Space of Transition**
Joachim Huber

29 **Transcultural Thinking, New Perspectives on 'Art' and 'Communication'**
Nelly van der Geest

34 **TRANS-MEDIA ZONE**

35 **How to Provide Affinity?**
Michel Guglielmi and Hanne-Louise Johannesen

38 **Media Figures in Performative Space**
Kaisu Koski

43 **The Impact of Multimedia Technology on the Graphic Design Process**
Elaine Keating

48 **REFLECTIVE ZONE**

49 **Practice Based Research: Theory and Practice within the Exegesis Approach**
Aukje Thomassen and Mariake van Oudheusden

52 **Re-Shaping Design**
Maria Cecilia Loschiavo

57 **Reflexivity in Design Educations**
Maziar Raein

65 **Looking in Design in a Pragmatic Way: Re-connecting Intuition and Reasoning by Shifting between Visual Thinking and Visual Research**
Niklas Andersson

70 **Documentary Photography: Between Knowledge and Art**
Ineke Teijmant, Bart Sorgedrager and Corinne Noordenbos

75 **Research, Development Project or Art/Design Process?**
Grete Refsum

Preface

Impact of Art on Society

–The Changing Scene of Education

The growing competition

The European Educational Area and the global educational market are developing dynamically. This development will lead to increasing competition between the educational institutions. The universities will compete with each other for talented students, public money, research funding, collaborators and public recognition. The Universities of art and design do not only compete with each other for public funding, but also with Universities of natural sciences, medicine, technology, business etc.

Governments all over the world are looking critically on public spending and the taxpayers are asking if their euros are being spent in the best possible way to benefit the society or themselves. The high unemployment and the low-income rate of the art and design graduates in many countries raise questions of the quality of education. The investors want good return on their investment also in this case.

The quality of education and research and the innovativeness of the institutions build strong brands, which help in the growing competition of the best brains. There is also a growing need to build indicators which make visible the results and impact of the art and design institutions (and art itself). This would help in arguing to the various authorities of the necessity to invest in creative education. It would also help in building partnerships in education and research and in building collaboration with industry. I think we are forced to take up the issue, even if we feel uncomfortable with it.

What is the impact of art on society?

Art is a value in itself in the same way as science. The value of science to our well-being has become crystal clear in recent years. The 21st century societies are built on the results of scientific research. Scientific universities are also able to make their results visible through different indexes: patents, citations, businesses created based on the innovations etc.

We are used to thinking that making art is an end in itself, and it is a strong philosophy still. I would argue that it is not important what you make, but what you make happen (through your work). But how to make this measurable. Most of the indicators used for example in the media are tied with economic values: development of prices of art works in auctions (like the development of stock prices), number of people visiting art museums, concerts and other art institutions, number of tourists attracted to a city by art. We also know now that there is a strong correlation between innovative design, the value of brands and the performance of companies on the stock market. These impacts were made clear in recent studies by the British Design Council and similar studies made by SVID (Sweden) and ETLA (Finland). But how to measure the immaterial impacts of art and design, the correlation of the quality of environment on our well-being, or the impact of good concerts or exhibitions on the social well-being of individuals or communities?

Indicators – science and economy vs. art

The Finnish art universities have recently had a discussion of how to build indicators, which would be comparable with the indicators of the universities of science. These should be related to our creative production:

– Articles in referred publications = number of large exhibitions, performances, films, collections of products, etc. in major institutions/companies (the institutions should be rated, of course, as publications in science)

– Patents = original works in industrial/artistic production, works in major collections
– Health impacts (for example impact of medical treatment) = psychological or intellectual impact of concerts, exhibitions, performances on our well-being
– Economic impact of innovations = impact of art and/or design on economy (economic success of SMEs, employment)
– Major breakthroughs = important artistic or design innovations
– Competitiveness of regions = application of the theory of Richard Florida to demonstrate the role of the creative professions
– Efficiency of productions = dematerialization of production and consumption through art and design (symbolic exchange instead of material exchange)
– Scientific knowledge as the base of the innovation system = artistic knowledge as a fundament of the innovation system

I am not suggesting direct application of indicators outlined above, I am rather proposing to start an analytical discussion of what the indicators could be and how they could be used.

Need for action

It is clear that there is a need to build indicators to make visible and understandable the impact of art and design and the impact of educational institutions on societies and their success. These indicators would give support to the development of art and design universities and help us to strengthen their role in the society.

I propose that Cumulus should take an initiative to start building these indicators. Instead of trying to develop the indicators separately by each institution or each country, to my mind indicators shared by all Cumulus members would strengthen our role. Cumulus could also collect a common database of these performance indicators, which would help us to share the knowledge and secure the efficient use of it.

Prof. Yrjö Sotamaa, IDSA, SIO, ORNAMO
President of Cumulus, European Association of Universities and Colleges of Art, Design and Media
e-mail yrjo.sotamaa@uiah.fi

THE ZONE, AN AREA OF TRANSITION

THE ZONE is an unbounded area which makes occurrences and encounters possible. One could say that the zone is an area of transition that is open to influences from other areas. It is an area in which meetings take place, where questions are posed, and where there is space for experimentation. Applying the notion of the zone to the arena of design implies that the designer is someone who creates possibilities, someone who can create spaces in which expression has a place, someone who dares to establish new links which can result in something unexpected and exciting for the future.

TRANS CULTURAL ZONE

This zone poses questions about a trans-cultural design education and a trans-cultural design practice. We will be looking at examples of best practices in design and design education, taking as the points of departure the issues of diversity, inclusiveness ethics and tolerance. We invite examples which make visible the prejudices arising from a dominant method of consideration, enabling us to find different approaches.

Shanghai – Zürich 04

A Transcultural Design Project between China and Switzerland

Figure 1. China, a nation in transition…

Figure 2. A young chinese designer: "Behind us the future…"

Introduction

Trans-cultural development also means trans-global education. Whilst the policy is discussing and negotiating the good or bad implications of globalization, design education is forced to point out what this means for our education programs, today as well as in the future.

As an example: more and more goods are designed in the so-called "developed world" but are going to be produced in the rest of the world (so called "developing world") and then sold either in the region in which they are designed or everywhere in the world. But at least in Asia, these relations are changing rapidly.

"Behind us – the future" is a rather courageous sentence we have heard from a young Chinese designer. Looking at the prosperous and fast developing regions in China, the effects of these words become more and more obvious – at least if we compare them with the present situation here in Europe. European design and art schools, traditionally connected with the rest of Europe or the United States, are historically not used to cooperate with Asia, and especially not China. Cooperating with China will be one of the great challenges in the near future if we wish to play an important role in this game called "global design". Here in Europe we should not wait until the effects of these alterations in China have obtained us unexpected.

This was the main reason why we at the school of Art and Design in Zurich prepared a combined research and education project focusing on the demands of future trans-design comprehension between the cultures. The aim was to examine the following facts

and assumptions together with a partner university in China:

– What are the effects for us in Europe if China changes form a "cheap production society" to a "developing and designing society", especially regarding education?
– Which conclusions have to be considered in Europe if more and more design services are provided in or for China?
– If the biggest society in the world changes rapidly, how can we promote a more "trans-cultural thinking" in our education, and enable our students to work more interculturally?

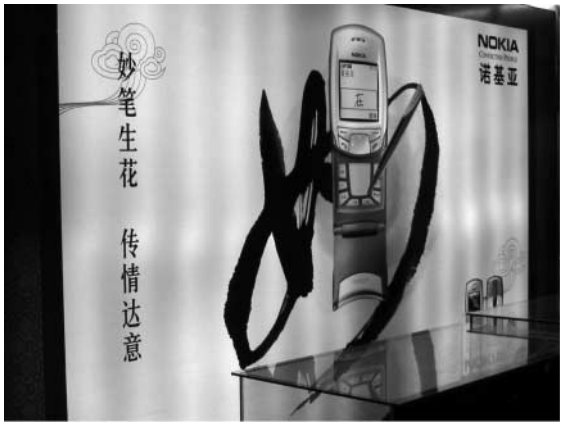


Figure 3. If China becomes a design nation...

The project setup

Why do we do this project? The reason is obvious: if the biggest nation in the world (every 5th person is Chinese) is going to prepare itself not only to consume design, but also to develop design, then this should be important for us in Europe. On the other hand, Europe has long and good relations with China. The Chinese feel themselves culturally more connected to Europe than to other parts of the world. Still, British, German and French influences are important in China and an especially great factor in the design education in China.

The above-mentioned facts and changes in China have an impact mostly on urban environments. Huge cities like Beijing, Guangzhou, Xian, Chongquing, Hong Kong or, as in our case, Shanghai are the melting points of consumption and production. Also through and expressed in design, the society is changing rapidly. This was the reason why we focused our project on Shanghai. With our research and education setup in mind, we had to find a suitable Chinese partner university that was also interested in all our topics and the collaboration project. We found this university 2½ hours northwest of Shanghia, in Wuxi. The Southern Yangtze University in Wuxi is one of the most recognized design universities in China, hosting about 1800 design students in different faculties. Chinese art and design universities are slowly discovering the big potential of the Chinese market and changing their education policy from copying to inventing, and therefore they were

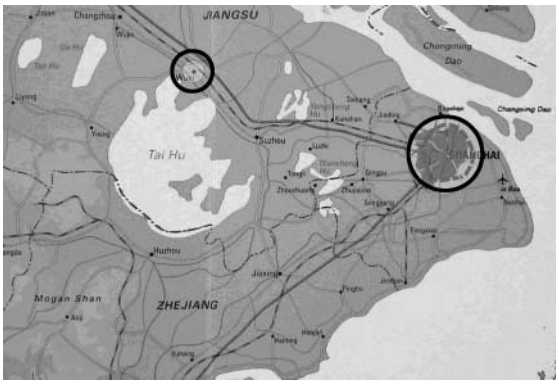


Figure 4. Wuxi and Shanghai locations.

highly interested in collaborating with a European university.

After a 1½-year preparation we were able to start the project in the early spring of 2004. Parallel, 12,000 kilometres away the Chinese partners did the same. Beyond the trans-cultural aspect we also had the aim to work interdisciplinarily. Students from three faculties; Industrial Design, Visual Communication and Interior Design would work closely together. The most important part was to find a suitable topic to deal with. We liked to fully integrate our Chinese partners in the preparation as well as in the whole design process. They needed to have a strong identification and connection to the chosen topic. Another reason was that beyond the topic lies the adoption of different aspects of cultural understandings. At the end we chose "Development of a drinking water brand for China and Switzerland" as the main topic:

– Drinking; we have different drinking attitudes, but especially the young generation tends to a "global drinking culture" where water gets more and more part of the lifestyle.

– Water; it is the source of life and we use it for different purposes. The perceiving of water is very different in Asia and Europe.

– Branding; brands stand in front of the product itself. Belonging to a brand is important and is recognized by the consumer. The process of generating a brand or a brand idea requires an interdisciplinary working method.

– Chinese and Switzerland; stands also for "Asia" and "Europe". Our aim was that the outcoming solutions should be operational in Shanghai as well as in Zurich (as an example).

The parts of the project

The project itself was planned in three steps:

– A research phase; carried out separately in Zurich and in Wuxi. The students were to research local water brands in different aspects. As a result they would describe the connection between design, drinking, water, consumption and the function of the brand.

– A two and a half week collaboration direct in Wuxi itself. For that reason about 20 people, professors and students from Zurich, travelled to China.

– The project was to lead to scientific publications, a research project and a DVD film as documentation.

Figure 5. Working in a typical Chinese design classroom at the Southern Yangtse University in Wuxi.

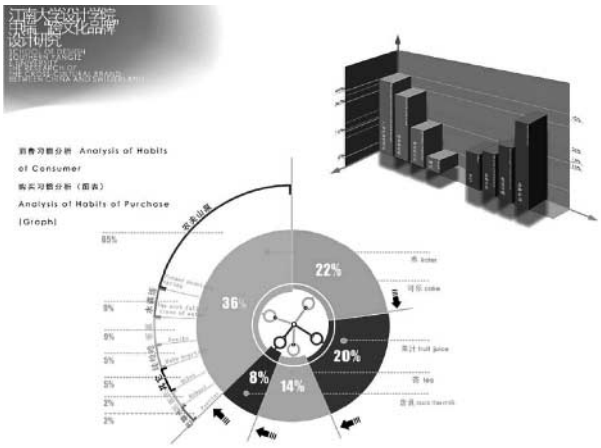
Step 1. Preparation and analysis

As a start the students from both universities had to collect and present the typical properties of the respective market for drinking water (mostly the so-called "mineral water") and the regional drinking culture. After a given briefing, they did this separately before we met in Shanghai. Every group had to gather not only "hard facts" such as the prices, containments, turnover and portraits of the companies, but they also had to present some aspects of the daily drinking culture. This has relevance because Europe has rather a long drinking tradition where water for different purposes such as for health, obeying thirst and caring play an important role. We can follow our own tradition until the Roman time. In China, water never had a similar significance. Tea has been the main beverage for thousands of years until today. But in the larger cities this is changing rapidly. Through the big beverage companies European drinking habits are imported to China, where this new drinking culture is focused on young people. This analysis should result in a visual presentation.

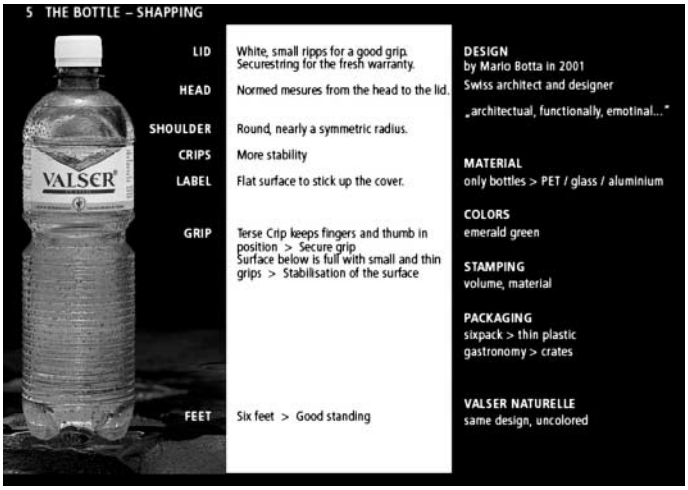
Summary and results

The research phase had two aims: the students should present not only their knowledge but also their way of presentation to the other group. This was evident since the content was not of importance; we had an eye on the different ways to "tell a story", to present results.

I will show, explain and compare a Swiss and a Chinese research result based on local water brands. Through a different eye on the respective cultures, cultural differences will be obvious.



A



B

Figure 6. A–B.
Two examples of analysis results by a swiss and a chinese student group.

Step 2. Running the project in China; designing one drinking water brand for the two cultures

During our two and a half week stay in China we wanted to set up a design project that would end in a final presentation showing an interdisciplinary result. The topic was: can we design in culturally mixed groups a new brand for drinking water which is operational in Asia as well as in Europe? We had the pretension that the results would be:

– Interdisciplinary thought; this should include Industrial Design, Interior Architecture and Visual Communication.

– A result of an intercultural teamwork process; values, habits but also user-focused innovations from both cultures should influence the result. This should be visible. We had in mind that through this working method something like a "merge" between the cultures would evolve. But it should not be a worldwide and anonymous global product, it should show the roots of China and Switzerland.

Teachers from both universities monitored and supported the whole design process. The results in the form of "products" were only one aim; the recognition and the tracking of the cultural differences were more important. How do the students work together, how do they argue their decisions? Is the result something really new? How do they refer to their cultural sources? For this purpose, the project was monitored by a group of Video and Film students form Zurich.

Summary and results

The project ended with a final presentation showing the results of four interdisciplinary and interculturally mixed groups. But this was only one part. We recognized during the process that:

– the basic communication about the different values, the different cultural sources and the question of "where should we go" needed a lot of time, more than planned. But on the other hand, this was the best way to get an understanding for the other culture and the differences in thinking and designing.

– discussions and decisions, even on small details like colours or the chosen typography brought back the whole intercultural diversity. The students recognized that design and the understanding of the meaning of the products is something really "regional". This also included the whole design education that they went through till now. Design is always based on the values of the culture. The more differentiation we can obtain, the more we understand. Even the big brands on the market have some aspects that can never meet the requirements of local cultures.

– looking at the final results, they are part of an intercultural dialogue; an environment was designed that is influenced by Asian and European culture. But also: it was designed by the young generation of designers, who carry something like an "international and contemporary" style. Seeing the same pictures everywhere in the world influences their own design language.

Figure 7. Developing the design process in mixed groups.

Figure 8. The design work was supported by lectures given by Swiss and Chinese professors.

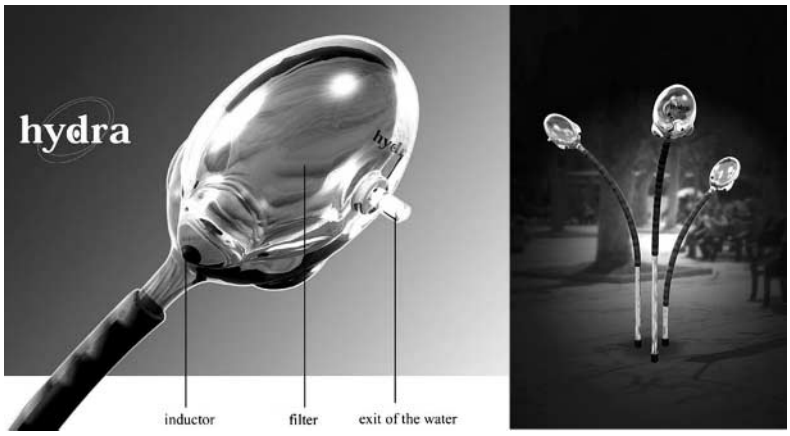
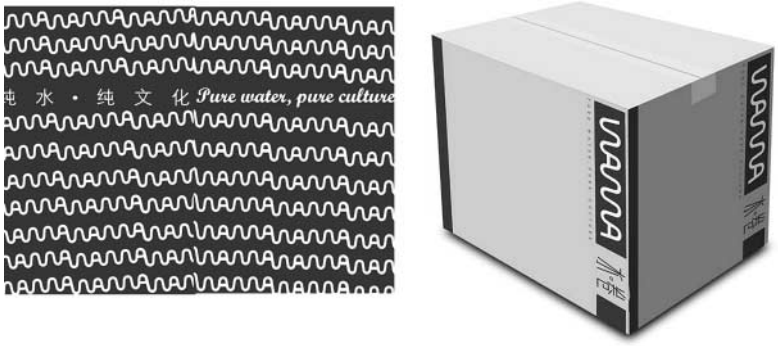
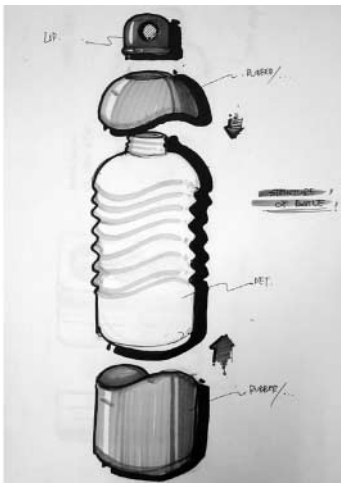


Figure 9. A–D.
A. Hydra; a portable refill system for urban metropoles.

B. Asis; relaxing and refreshing zones for big citys.



C. WAMA; water as newspaper, roll out, read and drink.



D. Yourchoice; customizable bottles for the young generation.

Conclusion

– China is and will be an important factor for design in the future, and we have to face this fact. Collaborating and exchanging learning from the other culture will be the best way to get involved.

– To be successful in China, it requires more than "global" design strategies and educations.

Local culture and global understanding are both necessary for designers and should become values in education. Lessons from earlier mistakes when design was not only an "imperial" export value, but also an expression that oppressed the existing regional design culture should teach us to start cooperating with the Chinese design universities as soon as possible. This will also enrich our own design understanding. We should enable our students not only to understand Asian culture, but also to be prepared for an intercultural dialogue. We learnt that on one hand it requires a lot of time and knowledge to get into the culture, and on the other hand the direct working process between the students helped to become aware of all the necessary points during the project. Next time we should have more time for discussions, since this was the most interesting part of the project. But we are all convinced that this first step will be just the beginning of a fruitful partnership not only between universities and cultures, but also between young people.

Professor Michael Krohn
Head of the Industrial Design
School of Art and Design Zurich
e-mail michael.krohn@hgkz.ch

BIBLIOGRAPHY

2004, *31, No. 5 (Between Switzerland and Wuxi – only a Swan Lake),* Publication of the Institute for Theory from the School of Art and Design Zurich, December 2004.
2004, 'Do you speak Design?', *Design Report*, 1/04.
2004, Hochparterre, 10/04.

Figure 10. Mineral Brand Design Project, Zurich, Wuxi, 2004.

Creating a Real Meeting of Cultures and Media in the Art and Design Curriculum through the Identification of Universals of Aesthetic Behaviour

Introduction

If we want to create a real meeting of cultures and media in the art and design curriculum we need to adopt a deeper and more integrated approach to understanding art and design as a human behaviour. One of the aims of this approach must be to identify the universals of the visual aesthetic expression. This means identifying characteristics common to our species as a whole and therefore common to all cultures. The foundations of human visual expression are rooted in our genetically inherited programs[1]. Our own Western/Anglo-Saxon tradition has so far failed to establish a curricular core for teaching visual aesthetics in art and design because the curriculum is substantially influenced if not determined by changing fashions. I believe that we need nothing less than a paradigm shift of the kind described by Kuhn[2] if we are to achieve the aims of this meeting.

A new paradigm

"Biological systems possess a hierarchy of organisation" [3] – and since we are organisms this scientific principle provides a strategy and a framework for organising a large part of the art and design curriculum. In this way we can integrate our visual aesthetic behaviour with the appropriate levels of our evolved social behaviour. I have already proposed[4] that this bio-aesthetic typology should consist of three hierarchically organised levels. However, here I add a fourth and final level. Space only permits the briefest summary here, but I have described the first two layers more fully elsewhere[5].

Level 1. The basic aesthetics common to all individuals[6]

I have proposed that our basic aesthetic sense of visual composition possessed by every individual of our species resides in the inherited ability to recognise the diversity of organic forms. However, organic forms are very diverse and so the brain must have evolved an organic form recognition program to enable it to respond to a limited number of perceptual primitives by which it could recognise the unlimited kinds of organic forms. Recently, Baum[7] has provided an elucidation of precisely the kind of mechanism I have proposed that over millions of years of evolution the brain has evolved amazingly compact programs that reflect the structure of the world so that the brain knows how to exploit it. My hypothesis proposes that the perceptual primitives are contrast, (visual) rhythm or pattern, visual balance or symmetry and proportion (CRBP). Furthermore, the more of these four perceptual primitives occur in a form, the greater the possibility that it will be an organism. Finally, I propose that it is this same organic form recognition program which now provides us with our aesthetic sense of visual organisation and composition. (Figure 1)

I propose that there is strong indirect evidence in support of my evolutionary hypothesis.

—

1 Young 1978; Baum 2004.
2 Kuhn 1971.
3 Davies 1987, p.145.
4 Stebbing 1999b.
5 Stebbing 1999b; 2003b.
6 Stebbing 1998; 1999a; 2003a; 2004.
7 Baum 2004.

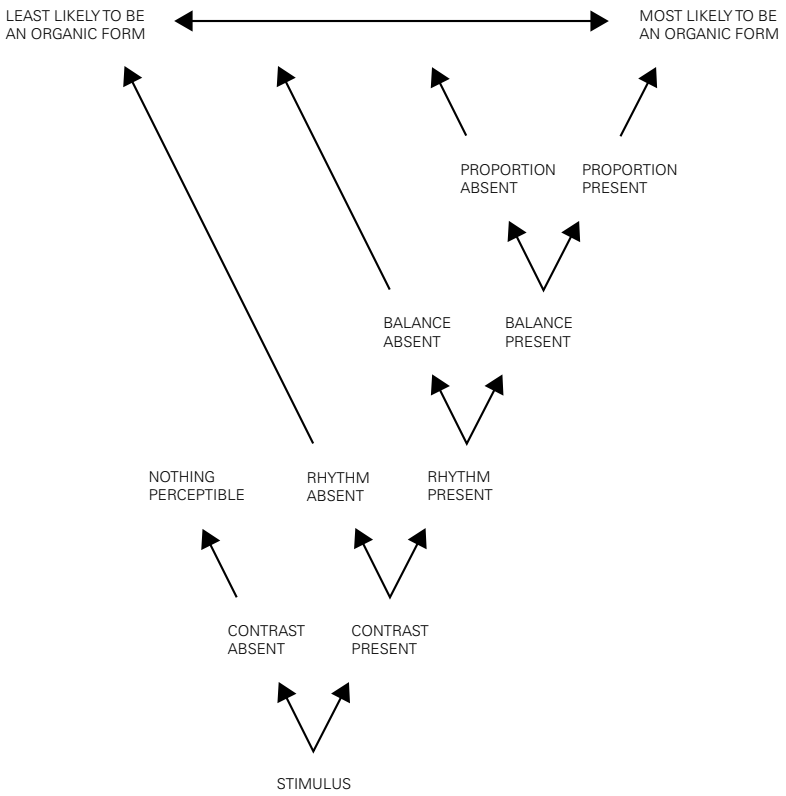


Figure 1. The CRBP Hypothesis. Recognizing organic form.

1 We are inherently capable of recognizing organic forms because they have structured organizations adapted to the processes necessary for their existence. For example over 99% of modern animals possess bilateral symmetry[8]. Furthermore, the leaf arrangement of all higher plants follows one of three patterns [9].

2 Our perceptual system is remarkably sensitive to unclear edges because it has a contrast enhancing capability which makes edges more distinct. We spontaneously recognise all the 17 plane patterns and 7 border patterns regardless of their motif and when they are new to us. In addition, we can recognise forms as symmetrical regardless of our viewpoint. Finally, our sensitivity to proportion is an ancient skill first demonstrated by our ancestors 700,000 years ago in creating hand axes to consistent proportions regardless of size[10].

3 If we had not possessed an organic form recognition program then our ancestors would probably have remained confined by their diet to the niche of our origin on the eastern side of the African Rift Valley. However, they were able to make several migrations out of Africa.

4 CRBP occur within all human media in varying proportions as organising principles apparently favoured by our visual perception[11].

5 The mutability of our use of CRBP in organising different media parallels the mutability of CRBP in the organisation of organic forms. We are perhaps more familiar with this mutability as metaphor where one thing can stand for another[12].

6 CRBP and their synonyms[13] appear to be the most commonly occurring terms in Western/European

—

8 Finnerty et al. 2004.
9 Goodwin 1994.
10 Gowlett 1996.
11 Stebbing 2003b.
12 Gombrich 1968.
13 Stebbing 2004.

books on visual composition. However, CRBP also occurs in all media and the majority of different cultures as organising principles in visual expression[14].

7 Finally, what other explanation could there be for the origin of our visual grammar which is found universally in the visual expression of our species if it did not originally evolve as an organic form recognition program? Astonishingly, Aristotle even proposed that an artwork should possess an organic organisation. Consequently, we can now understand the true significance of "organicism" in aesthetic composition. Furthermore, the biological explanation for our sense of visual composition also provides an explanation for the gestalt percepts which I propose originally evolved as perceptual aids for identifying organisms as discrete wholes. Many organisms have evolved cryptic devices for avoiding detection[15] and, in what scientists call "a biological arms race", our brain appears to have evolved an additional technique for identifying organisms as discrete wholes.

8 In conclusion, we can see that a biological framework draws together disparate aspects of our aesthetic perception into a cohesive explanation.

Level 2. The aesthetics of the two pair bonds: mother-child and woman-man[16]

Two forms occur in the visual expression of nearly all cultures which require explanation for their ubiquity: the eyespot and the asymmetrical curve.

The eyespot

The eyespot with its characteristic spot (pupil) encircled by one or more rings (a variant is the spiral) plays a conspicuous role in our visual behaviour. The eyespot is an inherently powerful sign which in different contexts is either attractive or feared. The markings of many animals exaggerate eyespots in order to frighten would-be predators, or their own eyes are camouflaged in order to remain undetected[17].

In many cultures eyes are enhanced through make-up or used as symbols in different contexts with different meanings. In the first hours after birth a baby is genetically primed to look into its carer's face and reciprocally the mother responds with her gaze in a behaviour which will deeply enhance the powerful bond between them.

The cheek-curve and the hip-curve

An infant during babyhood often lies in its mother's arms looking up into her face and watches her smiling. Smiling alters the outline of the mother's face enhancing her cheek curve. I have proposed the hypothesis elsewhere[18] with more extensive evidence that this provides the child with an imprint. This imprint will later be found to be particularly attractive, especially by men, since it will guide them to seek out a female partner with a low waist to hip ratio. We see the same asymmetrical curve in the artefacts of many diverse cultures (e.g. Greek pottery, war shields of the Celebes, the profile of the Porsche car, etc.)

I propose that through the process of evolution these two innate releasing mechanisms or biological *"auslösers"* have a special visual significance for us, especially in the bonding behaviours between the mother and child and between the woman and man. Consequently, curves are ubiquitous in human visual culture from the stone axe to the present and yet as a subject of study they seldom if ever appear in the curriculum.

Level 3. The aesthetics within the group (to known and unknown individuals)[19]

Our species is a social species and is characterized by group behaviour. There are several principle characeristics of group behaviour which have their origins in the behaviour of our primate ancestors. These are individual identity (contrast), status (contrast) and group identity (contrast). The behaviour of the

14 Stebbing 2003b.
15 Cott 1966.
16 Stebbing 1999b.
17 Cott 1966.
18 Stebbing 1999b.
19 Ibid.

visual demonstration of status is the visualisation of, and the ability to, waste resources and energy. This behaviour is so strong that it now endangers the continued welfare of our species.

The members of a group make themselves visually distinguishable (contrast) from other groups, thus enabling individuals to recognise with whom they can cooperate and with whom they must compete for the resources they need in order to survive. Consequently, archaeologists are able to recognise the group which created an artefact as a result of its visual style [20]. Furthermore, we are able to fully appreciate the significance of corporate identity throughout all mankind's visual cultures. In addition to group identity, individuals within a group signal their "… rank position, and a wealth of other information visually with clothing, body decoration, and behaviour" [21]. Therefore an individual will visually express a balance between their personal identity and their allegiance to a group. These behaviours drive visual aesthetic expression in all cultures since we are a species whose primary sense is vision.

Space does not permit a full account here but I would add a fourth layer to describe…

Level 4. The aesthetics beyond the level of the group (to unknown individuals)

Our visual expression at this level is concerned with very large status symbols which have characterized many cultures ranging from the Egyptians and their pyramids to Louis XIV and the Palace of Versailles up to our own time and Concord etc.

Conclusion

In this very brief summary I have tried to demonstrate how a biological explanation can integrate the visual aesthetic behaviour of our species with our basic social behaviour and thereby provide cohesiveness to the disparity which currently exists in the art and design curriculum.

In our own culture aesthetic expression may be determined by and follow the fashion of a period, but fashion itself must not determine the curriculum as it has done in art and design. Curricula must have at least an objective if not scientific basis. A number of authors [22] have deplored how educators have based the art and design curriculum on subjective decisions and fashions of thought so that we have seen:

1 The removal of drawing from the curricula in the late 60s and early 70s resulting in the loss of a very important cognitive tool.

2 That the word "design" has now largely replaced the word "composition". This is to be regretted due to the different approaches and the very different sets of concepts associated with these two words.

3 "Form" as a discrete subject is no longer taught in some design schools since it no longer interests many part-time teachers who are conceptual artists [23].

4 The development of students' manual skills, their perceptual sensitivities and creativity remain less developed due to the ubiquity of computer technologies. In typography letters are no longer rendered in creating a design, and drawing has substantially given way to computing. The dumming down effect of tapping on a keyboard is difficult to measure although there is evidence that the Chinese are losing the ability to write their own script [24] and tapping keys is neurophysiologically not the same as writing characters. "Writing handsome characters is a prized skill. A good character should have *'li'* – or force. It should also be balanced and fit within an invisible square." These are matters of aesthetic composition and consequently Rennie reports that after two years his script still resembles a toddler's scrawl, is not balanced and "wobbles".

What we see therefore is that the development of the student's creative potential is heavily oriented towards, and limited by, contemporarily accepted fashions and practices.

—

20 Conkey (ed.) 1990.
21 Eibl-Eibesfeldt 1990.
22 for example MacDonald 1973; Burdek 1998; Elkins 1998.
23 Palmer 1998.
24 Rennie 2001.

It is therefore to be hoped that the process of globalization will enable us to recognize that every culture is an educational resource with unique forms of visual expression. However, as we can see the uniqueness of every culture's visual expression is rooted in our biological unity, and it is this biological unity which enables us to appreciate the jade vase and the Porsche car.

Therefore, it is our biology which has provided our species with a common visual grammar and compact program as Baum calls it. "The code can only be compact because it generalizes: evolving very compact code that behaves correctly requires discovering modules like these that generalize to new circumstances." [25] It is also what von Humboldt called "the limited means to create unlimited possibilities". The code or evolved program that we genetically possess enables us to recognise the gamut of organic form, understand the visual expression of different cultures and create new visual expressions regardless of the media.

Nonetheless, in our desire to be visually creative we must understand the underlying biological drives which power our creativity, because creativity driven by fashion, status and consumerism will be lethal for our species. Therefore an understanding of our inborn drives may help us to be creative in ways appropriate for the limited resources of our planet and the enrichment of all cultures.

Peter D. Stebbing
Hochschule für Gestaltung Schwäbisch Gmünd
e-mail stebbing@hfg-gmuend.de

REFERENCES

Baum, E.B. 2004, *What is thought?,* The MIT Press, Cambridge, Massachusetts.
Burdek, B.E. 1998, 'Marginal notes on the debate on design and theory', *Formdiskurs, Zeitschrift für Design und Theorie/ Journal of Design and Design Theory,* vol. 5, no. ii, pp. 108–10.
Conkey, M. (ed.) 1990, *The uses of style in archaeology,* Cambridge University Press, Cambridge.
Cott, H.B. 1966, *Adaptive coloration in animals,* Methuen, London.
Davies, P. 1987, *The cosmic blueprint,* Heinemann, London.
Eibl-Eibesfeldt, I. 1990, *Human ethology,* de Gruyter, New York.
Elkins, J. 1998, *On pictures and the words that fail them,* Cambridge, Cambridge University Press, pp. 213–40.
Finnerty, J.R. et al. 2004, 'Origins of bilateral symmetry: Hox and DPP expression in a sea anemone', *Science,* 28 May 2004, vol. 304, no. 5675, p. 1209.
Gombrich, E.H. 1968, 'Meditations on a hobby horse, or the roots of artistic form', in: Whyte, L.L. (ed.), *Aspects of form,* Lund Humphries, London.
Goodwin, B. 1994, *How the leopard changed its spots,* Weidenfeld & Nicolson, London.
Gowlett, J.A.J. 1996, *Mental abilities of early Homo: Elements of constraint and choice in rule systems,* Mellars, P. & Gibson , K. (ed.), McDonald Institute Monographs, McDonald Institute for Archaeological Monographs, University of Cambridge, Cambridge.
Kuhn, T.S. 1971, 'The structure of scientific revolutions', *International Encyclopedia of Unified Science,* vol. 2, no. 2, University of Chicago Press, Chicago.
Macdonald, S. 1973, 'Articidal tendencies', in: Piper, D.W. (ed.), *Readings in Art & Design Education 2: After Coldstream,* London, Davis-Poynter, pp. 89–99.
Palmer, J. 1998, personal communication.
Rennie, D. 2001, 'Computers may spell the end for Chinese writing', *The Daily Telegraph,* Saturday, 21st March 2001,no. 45, 347, p. 20.
Stebbing, P.D. 1998, 'There is a universal grammar for visual composition!', in: Soddu, C. (ed.), *Generative Art '98, Proc. of the 1998, First Int. Conf. Generative Art,* Milan Polytechnic & Editrice Dedalo Atti, Milan, pp. 127–47.
Stebbing, P.D. 1999a, 'Shaping our creative understanding and the biological origins of our creative understanding of shape – a universal grammar of aesthetic composition', in: *Proc. of the AISB'99 Symposium on creativity in entertainment and visual art,* Edinburgh (Soc. For the study of artificial intelligence and simulation behaviour), Edinburgh College of Art & Univ. of Edinburgh, pp. 31–7.
Stebbing, P.D. 1999b, 'The beauty of the mother's smile: a universal and unconscious source for generative form in visual expression and design', in: Soddu, C. (ed.), *Generative Art '99, Proc. of the 1999, 2nd Int. Conf. Generative Art,* Politecnico di Milano, Milan.
Stebbing, P.D. 2003a, 'From evolutionary adaptation to aesthetic design – an aesthetic grammar', *ICSID 2nd Education Conf. Critical motivationa and new dimensions,* Sept 5–7, ICSID Design Congress 2003, iF International Forum Design GmbH, Hannover.
Stebbing, P.D. 2003b, 'A grammar of visual composition and its biological origin', *Communication & Cognition,* vol. 36 no. 3/4, pp. 353–90.
Stebbing, P.D. 2004, 'A universal grammar for visual composition?', *Leonardo,* vol. 37, no 1, pp. 63-70
Young, J.Z. 1978, *Programs of the brain,* Oxford University Press, Oxford.

—

[25] Baum 2004, p. 171.

The Liminoid Zone(-s): Criteria Space of Transition

From Philosophy of Science to Topology and Transcultural Design Theory

Thesis: The Zone is a liminoid topological space of dynamic constraints in any transcultural design process. It generates an enhanced form of innovation management with a focus on translation, negotiation and democratic communication.

Abstract

The Zone is a trading place for transcultural criteria, codes, values and contents. Thomas S. Kuhn's S*tructure of Scientific Revolution* marked the beginning of a scientific discourse about the coexistence of multiple paradigms. It also formed a debate between Kuhn, Karl Popper, Imre Lakatos and Paul Feyerabend about "incommensurability" – the possible inability of discourse between paradigms. Design is confronted with exactly the same problem when expanding its context into the transcultural realm. How do the transcultural paradigms communicate within the Zone(-s)? Who will translate and how? How do we develop, apply or transfer criteria in a transcultural design process?

Translators will be simultaneously negotiators and "designers" of the common or uncommon Zone(-s) language. To translate means to transform. Criteria play a key role in communication, evaluation, quality control and postproduction. Criteria as term, value, competence and, after all: power. Projects – of teaching and research – in an academic design environment are confronted with a conservative hierarchic system that decides the success or failure of any interdisciplinary and transcultural research. Out of habit scientific, academic bureaucracy uses monodisciplinary and/or Eurocentric monocultural criteria that are creating a great risk for any interdisciplinary team and project. Therefore "new non-standard criteria" are a fundamental constraint for commensurability in interdisciplinary and transcultural research and production – design production though The Zone(-s). The above quasi "neutral" discourse from the philosophy of science must be enhanced in "real" socio-cultural and economical context by Michel Foucault's concept of "power" structures. The Zone(-s) is a symbol or metaphor for reading this moment and quality of transfer as a dynamic "space". Referring to my Doctorate "Urban Topology. Architecture of the Boundaryless City", I call this a topological space of transition; a homotopic space. After all, such spaces occur always in plural Zone(-s), which is creating a doubling of the communication problem; not only commensurability within The Zone(-s), but simultaneously between The Zone(-s)!

Space

When taking this Cumulus Conference title literally, we discover a pleasant hidden prerequisite: "Zone" is defining transculturality in a spatial manner. This position cannot be taken for granted. But it corresponds to a recent trend in cultural science, history and social geography that carried out a "Spatial Turn". Historian Karl Schlögel defines the fall of the Berlin Wall and 9/11 as key moments for the spatial turn. Geography is back in the discourse of cultural theory. Following this, transcultural discourse is not rooted any longer purely in the phenomena of culture and language, but equally in space, a geopolitical and also market determined space. Or, even more importantly, a pluralistic space, full of spaces. For design this is changing the attitude towards context. Space and context become key issues in the innovation process of design. But space is also the pure imbedding space for "form". If we use here the term "space", it is no longer the naive Euclidian space of the 19th century and prior to that that still defines the daily experience for a lot of people. Instead we are confronted with a topological space.

Transculturality

Transculturality is trendy. Together with interdisciplinarity it is the most overused motto in the academic world. In the foreground, there is an exotic factor to discover. Other cultures are eyed in a voyeuristic manner and (ab)used as a spring for inspiration, especially for design innovation. This is an abusive use of the term and content of transculturality. But this exotic factor is still a major problem in the Swiss intellectual scene. Naturally

to them, one had to have visited Moscow already in 1980, in 89 anyway, and today Tokyo on one hand and Cuba on the other. I am interested in different aspects of transculturality, especially where we find a transcultural need in the complexity of every day. This daily life I let happen in the transculturality of the boundaryless global city.

The boundaryless city, the context of the *zone* is *the* second nature of the human world of living. The boundaryless city is entirely decentred and determined by polycontextures and paradigm-pluralism. It is heterogeneous, complex, multilayered, unpredictable, dynamic and "difficult". And it is very, very large – out of control – unstable.

The urban discourse in the 1980/90s was determined by a delayed linguistic turn. The city was a text or texture in the first line. The political, economical and technological developments – with all the related cultural consequences – commonly subsumed under the slogans "globalization" and "virtualisation", have left behind the pure text model of an urban reading. For architecture, design and related arts, a topological approach is propagating a much stronger dedication to space as its very own media. Topology is sometimes read as "unthinkable thinking", and "indirect thinking" or "speculative thought". Urban topology is used to decode spatially complex urban conditions of the boundaryless city. It creates access to design criteria – topological scenarios – and is marking thereby a spatial turn in the context perception and design methodology of urban interventions.

Translation/transformation

The phenomenon of the transcultural is treating elements of communication in-between cultures. In order that not one hegemonic culture is annexing in a quasi-imperialistic act crucial elements of other cultures, there is a need for a translation. A translation is deterring the existence of language and the culture of language. Jacques Derrida has the opinion that seems to some that there is no text other than the translation. "There is probably only writing in translation, as is telling genesis."[1] "Even every speech act is some sort of translation. To talk is to translate – from an angel language into a human language, which means: thoughts into words, things into names, images into signs." The translation is mediating the interaction of words and thoughts, things and images. It is not an intercultural or inter-lingual communication, but a procedure between the psyche and the intentionality content of the human being. Out of this follows that the translator can only produce differences of his thinking and his awareness designs and to introduce them into the language game. The translator is simultaneously a receiver and carrier, he receives and decodes signs and is building up the related determined scenes. To do so, he has to get advice from his own background experience in order to be able to decide which new frame is suitable to express the overall scenery and the plurality of single partial scenes beyond the text dedicated to one specific receiver. Following such a scenes-and-frames approach, translation means a creative process that is taking place within a centre of synthesis – the thinking of the translator[2]. It is all about the frame transformation of the forms of perception and forms of thought and the images of meaning of the initial culture.

Topology

These are all forms of topological spaces read as a cultural space. In examining two topological spaces, one can project one onto the other, which means to transform it. Or one could ask about the different number of ways, paths and modi in which this topological transformation could happen. So there we find whole elastic bundles of ways of projections in-between spaces.

Looked at from the target space, or base space, only the arriving fibres of these bundles of projections are visible. And no sight and no need for the ur-space, the initial space of projection. This mechanism is called fibres above topologies, in total, fibre bundles. Here, a comparison to Jean Beaudrillard's concept of simulacra seems suitable. This cultural construct is exactly the same as the phenomenon of a missing ur-image! And similarly simulacra is dealing with

—

1 Derrida 1988, p. 38. Look also Derrida and Bennington [1991] 1994, p. 174ff.
2 Vannerem and Snell-Hornby 1986, p. 192.

projections and transformations of our cultural context.

Context

Any context of the boundaryless transcultural context is already projected, transformed, deformed and mapped. Vilém Flusser calls the act of design an act of throwing form-constituting information, a throw of one topology onto another.[3] A topological projection is becoming a space-generating contextual intervention ruled by non-metric topological criteria. This actually means that the spatial configuration/ constellations (in a poststructuralist sense) caused by the topological transformation in a transcultural process are interacting translocally beyond the traditional local context. Anthony Giddens defines contextualism by interactions. Contextualism would be a way of interaction situated in space-time that involves a constellation of interaction, of presenting actors and a communication between these.[4] This shows that not every topology of the constellation might be materially manifest in the context of the boundaryless city. Social space and socio-cultural spaces respectively are expressed in multiple ways, they are fragmented, heterogeneous and contradictory. Such topological constellations are determined by pluralistic paradigms and pluralistic forms of rationality.[5] In having the topological definition of space in front of the eyes, it becomes clear how obviously this is contained in *Mille Plateaux* by Deleuze and Guattari. "Milieu" as the space of embedding, "code" as a morphism of this embedding, "substance" as a codimensional body and "form" as the figure of the boundaries, all form stratified spaces of "organisation and development" and "interstrata movement" and "mobility" respectively. Strata are "abstract parts of any structure" and "entity of composition" that allow "inbetween-layerings" of "transcodifications and thresholds between milieus". *What is Philosophy* further develops this concept from *Mille Plateaux*; strata form "the field of awareness as an infinite plain of immanence" [6] as an experience of the immediate given. Stratification, metrification and theory of singularity are applied in a cultural-historic way, with the ambitious task to prove a fundamental deterritorialisation of our very culture and the transcultural implications. The Zone of these transcultural transformations is one powerful Deleuzian "notched"/striated space – a space of first differences with a topological metric constitution.

Criteria for criteria

Transcultural translation and transformation is not a "literal" procedure. In the foreground we find factors of value ability, which means criteria, values, dispositions of power etc. The transcultural translation of "criteria for criteria" is a second-order translation. This discourse about transculturality in a non-standard way does not follow conventional cultural theory; much more it looks into the discourse of philosophy of science, as for instance in the 1960s. Thomas S. Kuhn described his concept of paradigm pluralism in 1962 with *The Structure of Scientific Revolution*. An underestimated key function is the question whether a communication between different scientific paradigms is automatically possible: commensurability or incommensurability. A paradigm forms the basics of any acts of research within a scientific community or discipline. It contains methodological settings (testing criteria for theories and procedures) etc. A change in paradigm is changing everything: one is posing completely different questions, completely different ways of description and procedures of observation and new criteria for testing and proofs. We not only see the known world differently, but we see a new one. In this view, scientific progress is not entirely or is only in parts rational. Rational within a paradigm, but not in between different ones. Understanding is not possible for relativism. Jean Francois Lyotard made this problem of translation and communication central to his "postmodern condition", as a new form to look at culture. Communication is then possible if all the "conditions", the criteria of values and judging power of transmitted transcultural codes, are translated and mediated together by the same means. This is actually hardly the case. This fatalism is actually the source for Feyerabend's anarchistic and actor-like position

3 Flusser 1994a; 1994b.
4 Giddens 1984, p. 373–77, cited in: Soja 1989/1994, p. 147.
5 Welch 1996, p. 194.
6 Deleuze and Guattari [1991] 1996, p. 59.

of a science-as-art, to over jump the cap by an artist's act out of the cuts. Most often we find a non-level difference of power between related paradigms and cultures. A power difference that enforces one-sidedly its own criteria and mechanisms of coding. Above I called this cultural imperialism.

In common language, criteria is a "proof stone, a distinguished mark or a sign". In the world of science it is related in a narrower sense to terminology, to terms of the state of the art. Criteria is a medium for discovering if a certain term is applicable to a certain situation. By that, term and criteria are to be distinguished, but not separable. Both are in close relation to the method. Hegel's concept of speculative terminology relates to a totality of knowledge (that is no longer existent, that is absent, JH), but also to the term as the very essence of knowledge. In Hegel's understanding, this means method and secondly the movement of reflection. The method consists of the construction of mediation, a mediation where one term is showing the very entity of the determination in relation to other terms. The movement of any reflection is causing the very terminology as a resulting effect.

Today, we deny any possibility for a totality of knowledge. Interesting in Hegel's concept is the speculative moment and the reflexive movement of thought.

Similarly, transculturality only works – and not only in design – if translation and transformation of criteria is work-proofed, negotiated and established. If this phase is not done, which happens astonishingly often, we find a moment of transcultural crisis, a crisis that might lead into the failure of any transcultural communication.

Forms of criteria

– Transcultural research is generating with each new project new independent criteria.

– Second order criteria appear: criteria autopoiesis that makes possible the development of criteria within an interdisciplinary research process.

– Criteria of transcultural research are modus-2 criteria[7]

– Criteria for process oriented transcultural projects of an enhances program research are equally valued research results.

– Bricolage criteria are post-surrealist artefacts at the threshold to system breach, causing "new" criteria.

– Criteria span the world for transcultural exchange projects.

– User of criteria shall participate in the production of criteria.

Crises

In the way of treatment of the things and the actors that are handling the artefacts, The Zone is hinting towards the theory of rituals and liminalities, the threshold phases and threshold states as analysed by the anthropologist Victor Turner. As a son of a then well known Shakespeare actress he called his studies of social conflicts – and transculturality is always a social conflict – a "social drama". The stage where such a drama, such conflict is taking place, is unfolded, the stage where the partners and enemies can establish a form of negotiation, is the ritual. The social drama is made visible to the public by the phases of breach, crisis, adoption and reintegration or the acceptance of a total non-reparable separation. On the stage of the ritual, Turner calls them rites of separation, liminal rites and rites of reintegration. Liminal rites are threshold situations. The development of the drama might switch into any direction during that stage. (Figure 1)

Thresholdspace

Liminal rites are reduced to archaic societies. In other societies with stronger differentiations, similar phenomena are to be detected at the boundaries of society. To distinguish them from the above ones, Victor Turner is calling them "liminoid". They appear beyond the normative economical, social and political pressure, in short there where social structures lose their relevance. Out from this boundary they can take effect into the centre again. The liminoid phase is a playful deconstruction and recombination of

7 Nowotny 1998.

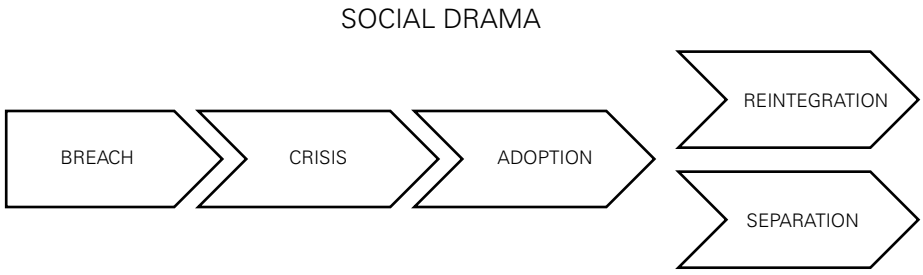


Figure 1. Social drama.

confident cultural configurations. In the topological field this limit is becoming a critical point; a latent instable saddle. In the saddle a "liminal body" is formed, the body of threshold states and threshold phases. Victor Turner distinguishes between the volunteer, individualistic, liminoid states of urban societies and the dutifully liminal rites of passage of native populations. In some sense Victor Turner anticipated Michel Foucault's thesis of the implications of power dispositives in cultural boundary situations. Liminal bodies are the thresholds of emergence and of the social critic: "The New is appearing … mainly at the interface of liminal phases, and will then be legitimized in the central areas." Such moments of emergence of the new is called "design", the designing of our cultural environment.

Instability

The new, initiated in the transcultural *zone*, is in great danger today. Polarisations in the try-outs, directly transmitting societal models are making impossible a translation activity in the liminoid zone. Generally it is to say: self-enclosure of cultural formations (of which design is one of many) is leading to resistance of innovation.

After 9/11 *the zone* is more instable then ever. It is all the more important to re-discover them as ritual spaces for negotiation and not as a (colonialist) economic space for exploitation. Instability belongs to threshold situations. In times of economical and social uncertainty talk about instability is not welcome. It is negatively coded. But here we assume the contrary; affirmative instability for liminoid negotiations of transculturality and its criteria. Instability is the driving force of our civilisation, our socio-cultural living and of the fine arts and design.

Topological instability

Instability is expressed through the interaction of topological space and its fibres. Connections between two fibres are called connexions. Its bending is directly proportional to energy, as used in physics. The layers where these connections occur are stratifications. The theory of stratified spaces is

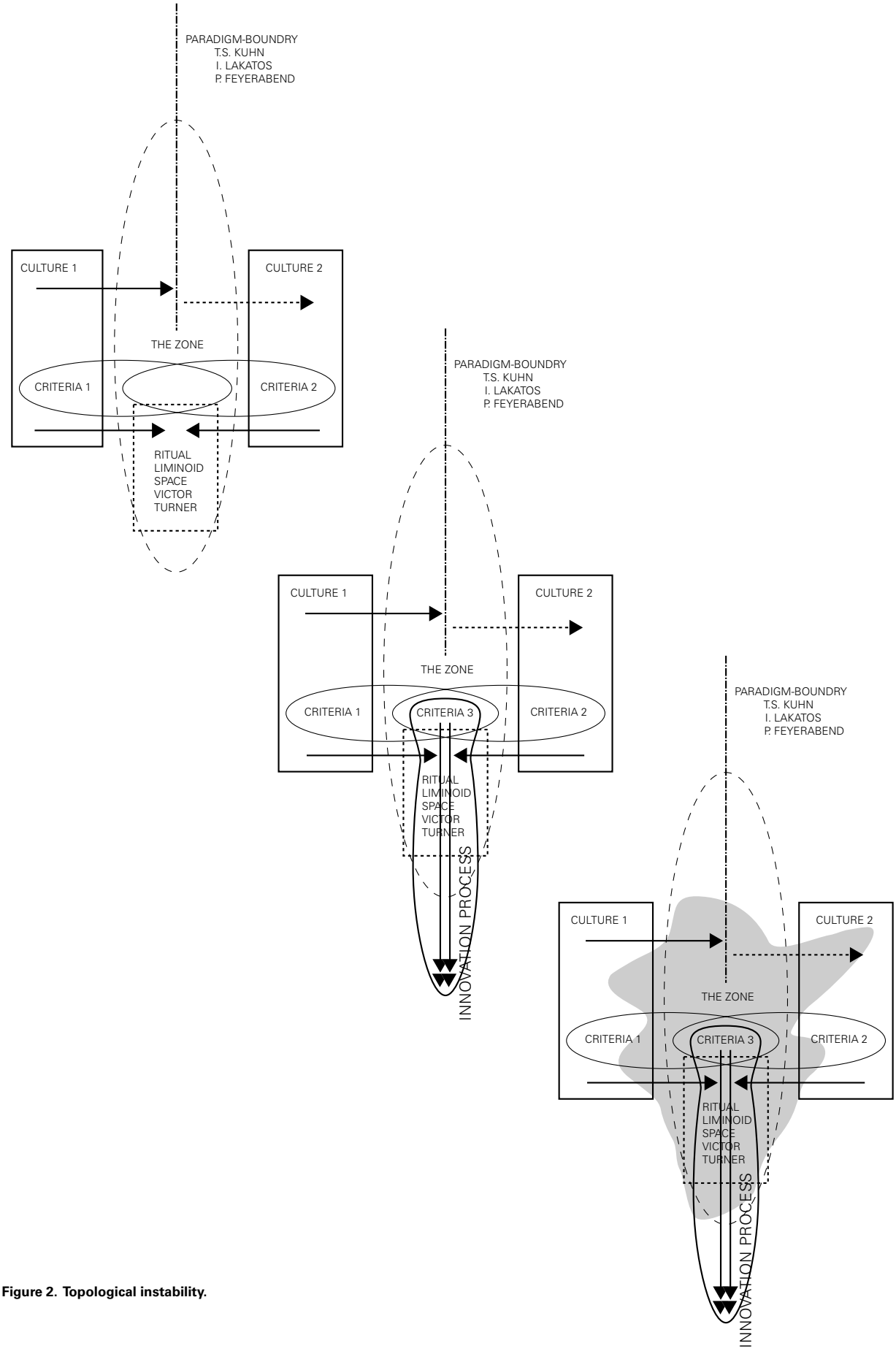


Figure 2. Topological instability.

integrating fragmented and heterogeneous spaces into the topological vocabulary. A stratified space is constituted out of strata, often misunderstandingly called layers, but as strata being part of the space with different codimensions, for instance summing up the boundary and the inside. In stratified spaces, singularities, simply spoken "events" occur on different layers/strata. Fibres and strata ought to lay transversal to each other. Transversality does guarantee that an intersection is actually "a point" and that there is no continuous melting of the two intersecting paths, they are not a part of the tangential space. Only after that will it cross (real cross) the side. A real section/intersection has to lie cross. Otherwise, the space could switch, slip or glide along the fibres. Instead of a singularity, we find there a set of plural solutions. (Figure 2)

Spatial turn

On the abstract side, spatial turn has to acknowledge the fibre spaces of/as simulacra equally as any aspect of the generic topological stability. These "normal" properties are a scale for stability: a commitment to transversality, stratification and non-travelling critical points. By that, one side of a threshold expresses a topological change, the other side a topological instability. Culture uses both. Non-transversality is then not causing destruction, but is giving hint or allowing a play of movement, creating a space for translocation of the crossing. Poststructuralist thinkers such as Jacques Derrida emphasise constantly that this shift of structure is actually constituting the very practice – practice of production (with Derrida: of meaning). The negotiation of transculturality in the liminoid ritual is only generating "meaning" by using the shifting of structure caused by instability. (This is quite a provocative statement).

To transfer these topological concepts into culture owes to Gilles Deleuze / Felix Guattari and their magnus opus *Mille Plateaux* more than Derrida. It is known that they had good advisers in topology. Mainly they observe two phenomena: what metric does a cultural topology have and what is the behaviour of the strata. The discussion of metric is held by Deleuze/Guattari in the subject of manifolds, meaning locally metric, sometimes locally Euclidian metric, spaces. Globally they are then not metric. *Mille Plateaux* is constantly asking about the cultural and historic forms of smooth (non-metric) and striated (notched) metric manifolds. How is space generally structured in the local and in the global? Is a non-structured one even possible? And what space model could describe this? That is why they use topology. (Figure 3)

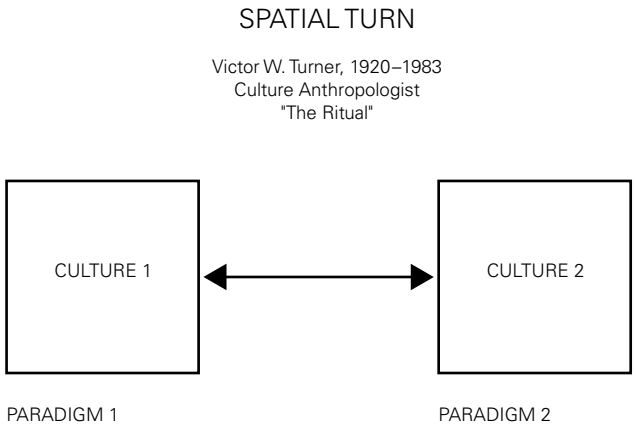


Figure 3. Spatial turn.

Design space

This concept, sending any transcultural exchange of the *zone* through this procedure of topological liminoid transformations, is actually causing a lot of work and trouble. Designers do not like that. They like it smooth – classic modern smooth. They prefer to be dandy-like inspired by the exotic for the design act – a very Eurocentric position.

But because most technological innovation processes are generated or are taking place in the transcultural *zones*, we cannot withdraw from this complexity. In these threshold situations, every project is giving birth to a small "possible world" (James) of future development: design and research together. This is a chance for an integrated transculturality in design and its education.

Joachim Huber
Dr.Ing.Dipl.Arch.ETH/SIA
Lecturer Scenographical Design
Departement Design
HGKZ, University of Applied Science and Art Zürich
e-mail joachim.huber@hgkz.ch

REFERENCES

Deleuze, G and Guattari, F. 1996 [1991]. *Was ist Philosophie*, Suhrkamp, Frankfurt a.M.
Derrida, J. 1988, *Memoires I+II, Passagen*, Wien.
Derrida J. and Bennington G. 1994[1991], *Jacques Derrida.Ein Portrait*, Suhrkamp, Franfurt a.M.
Flusser, V. 1994a, 'Abbild-Vorbild', in: Nibbrig, C.L.H., *Was heisst 'Darstellen'?,* Suhrkamp, Frankfurt a.M.
Flusser, V. 1994b, *Vom Subjekt zum Projekt*, Fischer, Mannheim.
Giddens, A 1984. *The Constitution of Society,* Poltypress, Cambridge/UK, cited in: Soja, E. W. 1989/1994, *Postmodern Geographies: the reasseration of space in critical social theory*, London, New York.
Nowotny, H. 1998. 'Tauschzonen des Wissens', in: *ETH-Bulletin: Technik-Kultur-Gesellschaft*, Nr.270, Juni 1998 pp.10–3.
Vannerem, M. and Snell-Hornby M. 1986, 'Die Szene hinter dem Text: "scenes-and-frames semanties" in der Übersetzung', in: Snell-Hornby M. (ed.), *Übersetzungswissenschaft. Eine Neuorientierung,* Franke, Tübingen/Basel.
Welsch, W. 1996. *Vernunft. Die zeitgenössische Vernunftkritik und das Konzept der transversalen Vernunft*, Suhrkamp, Frankfurt a.M.

BIBLIOGRAPHY

Bhaba, H. 1990, 'The Third Space', in: Rutherford, J. *Identity, Community, Culture Difference,* Lawrence&Wishardt, London, pp. 207–11.
Bunschoten, R. / CHORA 2001, *Urban Flotsam*, 010 Publishers, Rotterdam.
Feyerabend, P. 1993. Wider den Methodenzwang, Suhrkamp, Frankfurt a.M.
Huber, J. 2000, *Urbane Topologie. Architektur der randlosen Stadt*, Verso, Bauhaus-University Edition, Weimar.
Kuhn, T.S., 1997 [1962/1970], *Die Struktur der wissenschaftlichen Revolution*, Suhrkamp, Frankfurt a.M.
Turner, V. 1989 [1962]. *Das Ritual. Struktur und Anti-Struktur*, Campus, Frankfurt a.M.
Virillio, P. 1999, 'Das Dritte Intervall', in: *Ders. Fluchtgeschwindigkeit*, Suhrkamp, Frankfurt a.M.

Transcultural Thinking, New Perspectives on 'Art' and 'Communication'

"Art is an arena of struggle", Joost Smiers says in his book[1] on cultural diversity in the age of globalization, a struggle between the mainstream established ways of perceiving products of art and sub-streams that want to bend the concepts and practices to their own will. I am researching intercultural processes in art in the Netherlands and within this research I make a comparison of the practices in the theatre and in museums. I notice that currently there are three debates at stake on the topic of interculturalisation in Western Europe.

First, of course, is the debate of access to art for all minorities in Western Europe: how can we include artists from all ethnic backgrounds and attract mixed audiences or provide art for subgroups with a partly non-western cultural background? Along with the debate of access a debate on frameworks of interpretation occurs. If art is able to open up to new artists and new audiences, are the used parameters still fitting? I called this debate the reframing debate. Within the access and reframing debate there is the debate on positioning: Who is speaking about these topics? What does legitimate the speaker to stand up for access or a critical review on the frames of art? Does the background of the speaker imply any influence in the content of the works of art? Should the work of art be approached as pure free form or is art never to be understood without context? And with these last questions, we come to the legitimacies of modernism in our Western parameters of art.

In this article I want to focus on the reframing debate: what frameworks of interpretation are present in the landscape of fine art and design. First, I will introduce you to the frames of references, as I noticed them in the discussions in the Netherlands, after that I will shortly introduce two works of art, one seen as fine art but from another culture and the second seen as applied art. I will give an overview of the grounds that were mentioned by the members of the Cumulus workshop after my paper, moderated by Pauline Burmann of the Thami Mnyele Foundation. (Utrecht, 1st October 2004). In this workshop we did an interactive case study on several works of art. The members were asked to motivate whether the shown cases ought to be taken into the canon of western fine art.

Frames of reference

Up until now the frames I noticed in the Dutch context are[2]: Universal Canon and a breeding ground; Double vision; Multiple perspectives; Frame of self-willingness.

A Universal Canon and a breeding ground

The point of departure is the Western criteria that stem from a European modernism where autonomous art is central. A work of art worth to be taken in the canon can be seen from a universal viewpoint and is able to speak to a universal audience. For art from non-western countries or for artists with partly non-western backgrounds, a separate area is reserved, such as museums for colonial art and history. Here, artists may practice until they are recognised by "real" platforms. Works of art qualified as identity art or emancipation art do not contribute to the general development of contemporary art. The West is perceived as the epicentre, and artists who exhibit in colonial or historical museums form the outer edges. From this perspective, the art world is in principle a complete entity.

1 Smiers 2003.
2 Van der Geest 2004.

Underlying this frame of reference is the intentional approach where the artist imposes his or her unique meaning through the work of art. Second, there is an implicit view of artists with non-western backgrounds as holding a pre-modern identity, whereas artists from western background are seen as free individuals with no ties to collectives.

Double vision

The artists must simultaneously gain recognition within the West as well as within the frameworks stemming from art histories elsewhere. The notions of craftsmanship, originality and expressiveness remain central. However, within different art histories, these concepts have acquired their own particular interpretations and values. The assessor must familiarise himself with both assessment systems. Origin can be understood as geographical origin or as rootedness in "other" art traditions and art worlds, which can lead to preference for specific themes or other emphasis of craftsmanship. From this perspective, the West is considered just one of the many centres and the arts world comprises a variety of different worlds.

Underlying this view is the existence of hybrid roots of western modernism, and the mutual influence between art worlds. It is based on thinking in difference: individuals differ because they are raised and educated in different cultures, and art history is part of a local culture.

Multiple perspectives

From this frame of reference, the art world is pluralistic. This pluralistic phenomenon can be based on different grounds: the occurrence of multiple paradigms that lead to a plurality of modernism. Not just the western art went trough a modernism, but parallel modern developments in other centres transformed art into own forms of modern art.

A second frame for a pluralistic notion of art is based on individual appreciation. In the museums where I am interviewing for my research I often hear this motivation: to give voice to those who are either the producer or a subject and connected to the shown works of art and who are not yet heard of in the artistic landscape.

The concept of art is broadening in this frame of reference. Divisions in design and fine art or in commercial and autonomous art are merging.

Assessment in the frame of multiple notions of art is a process that is achieved through inter-subjectivity. In this process the collectives that have the power to decide what works are counted as art become important: are these the specialists, groups of curators, consumers, audiences or buyers of art? Is this inter-subjectivity local or universal?

Frame of self-willingness

In this frame of reference, the artist is not a loner who just makes a work of art but he or she is connected to networks where meanings are produced. He or she actively seeks connections to other producers of meaning: journalists, game makers, designers of city developments, etc. The space between meaning and object is used to produce language and experience. Context – so postmodernism teaches us – is not a fixed or passive entity, but can be deployed actively to inform a work of art by a certain narrative. Some artists construct an own frame or a scope of interpretation around their work. Especially in this time of fragmentation and new media there are chances to develop this self-willing position.

This is the optimistic version of the self-willing frame. The sceptical version thinks that global capitalism is taking over all processes of meaning, and as art in this framework is getting connected to commerce it will just become the make-up of global capitalism.

As art is an arena of struggle, in the Cumulus workshop (Utrecht, 2004) we struggled with our own frames of interpretation and the context we like to shape around art. We discussed works of art and why or why not we thought it should be taken into the western canon of fine art. I selected two works to give an overview of the used motivation. The first work is *Oriental Dreams* from Awad al Shimy (Egypt), the second work are sport veils from Cindy van Bremen (the Netherlands).

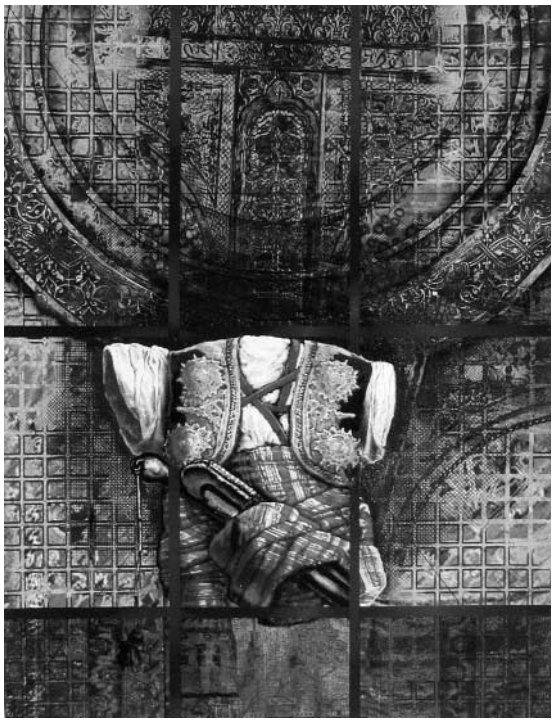


Figure 1. ***Oriental Dreams.***

Oriental Dreams

The first work is *Oriental Dreams* from Awad al Shimy. In this work you see the outfit of a mamluk warrior. Two quotes from Liliane Karnouk, an Egyptian art critic to introduce Al Shimy's work: "His point of departure is … in history, in the Egypt which he links through the historic existence of a prevailing international Islamic style." "From Islamic art Al Shimy retained the detail of miniature painting. The artist added an emphasis on the plastic separation of planes and a western academic style." [3] Karnouk clearly puts Al Shimy in the perspective of a double vision. In this double vision she not only refers to western art traditions but also to Egyptian heritage and distinguishes this from Islamic influences. To gain importance, reference to the western academic art is (still?) indispensable.

Discussing whether or not this work of art was a fundamental tribute to the western canon and should be represented in the museums of modern art in West Europe, these were the grounds that seemed to be most distinctive: those who were in favour of taking Al Shimi in said he could speak to a universal audience. They argued that they received from the work a spiritual quality due to its symmetrical and harmonious composition. In their experience the work referred to their knowledge of Christian art, such as the late medieval miniatures in prayer-books or leaded windows. They supported the view of multiple perspectives: all museums of contemporary art should have a pluralistic collection of work produced all over the world referring to all cultures.

Those who did not agree to take Al Shimy in the western canon, found their grounds in the need of innovation in western art. Since reproduction of "reality" is left over to television news and photographers, artists should react on each other. Innovation should be shown either in subject or style. According to them, neither was the case in the work of Al Shimi. Although the work seemed technically of a high quality, it added neither new style nor a new view to the production of nowadays art. If the work was interesting, it was not compelling enough for the West as the West had no interest in mamluk warriors whatsoever. Maybe nice work to put on the wall above a blue couch, but not needed in a museum of modern art in the West.

—

[3] Karnouk 1995.

Sport veils

The second case study was the work of Cindy van Bremen. She designs sport veils. Cindy van Bremen calls herself a contextual designer. "Context is my inspiration, the multicultural society my source. I do not call myself an artist, because the art I make is functional and solves a question. What questions to be solved, comes from my own initiative and observation. From that I invent projects. I want to be in society and not only in a museum." [4]

In the Cumulus workshop we discussed the thesis of whether or not this work is fine art and therefore part of the contemporary canon. Those who argued in favour of design as separate from fine art brought into focus that applied art reacts. It is the not the inner vision or inner world of an artist that provokes the work: it is the surrounding society. Applied art does not intend to produce unique exemplars. It gives an answer to daily problems. Of course a lot of creativity can be involved but design is in the first place problem solving and interactive. Besides that, works of applied art are often produced by a group of artists. This vision was opposed by the reasoning that the works of Cindy van Bremen should be read as conceptual works of art. By showing sport veils that refer to western concepts of simplicity, functionality and beauty she shows that veils are not just referring to a pre-modern society but also fit in post-modern times. This is an artistic way of reorganizing the context so known in fine art. Putting a distinction between fine art and design or between group products and a solo artist is a concept of the role of an artist that no longer fits the twenty-first century art practice of the West. Artists combine hybrid practices of art such as design and conceptual art. Innovation is found in these hybrid practices more than in fine art and therefore these practices are essential for the western canon.

Figure 2. Sport veils: A aerobics, B tennis, C outdoor, D skating. Photos: Faruk Kilic.

[4] Cindy van Bremen in an interview with Nelly van der Geest, 2nd September 2004.

Some remarks on frames of reference

Both case studies make clear that the premises of western art are still very influential in the art scenes all over the world. The ones in favour of opening up Western Fine Art but also the ones opposing it still stood the ground of a universal canon after a western model. Two motives, fundamental to the concept of western art as the centre of art history and practice, came up at both sides of the discussion. The artist is seen as a free individual not bound to any collectives. The modern concept of identity that occurred in the West after the Enlightenment is taken for granted to define the role of an artist. Second, an appreciation of art proceeds from an intuitive, not an educated way of perceiving. Art must communicate to every individual everywhere. Therefore, if an artist does not find recognition, he or she does not produce "good art". At the same time recognition of an artist is measured either by the amount of buyers (often with western money) or art critics that can promote works of art on platforms that are able to set standards. This paradox makes appreciation subject to the economic power structure of the West. The concept of innovation, so central in the western art discourse, is one of the most drifting grounds. Often it is confined to the innovation of style. Western critics do not always recognize innovation in themes, especially not when the themes do not derive from western issues. Innovation in the style of artists stemming from non-western art worlds can be kept exotic and not placed in art histories of other regions.

It will take us, members of Cumulus, who educate artists, some time to train artists that are self-willing and art theorist that have enough education to contribute to a pluralistic view of the world of art. Hybrid practices between eastern and western fine art or between design and conceptual art shatter our spectacles and give a glance on a pluralistic art.

Nelly van der Geest
MA, Utrecht School of the Art (HKU)
e-mail nvdgeest@central.hku.nl

The author is director of the Center for Intercultural Studies in the HKU and member of the research group Arts and Economics. She studied sociology and theatre and conducts a research after intercultural processes in the arts in the Netherlands.

REFERENCES

van der Geest, N. 2004, 'Nelly van der Geest in Single, double, multiple or self.willing. In search of frames for a global perspective', in: Westgeest, H. (ed.), *The Reflective Zone*, HKU, Utrecht, 2004.
Karnouk, L.1995, *Comtemporary Egyptian Art,* University Press, Cairo.
Smiers, J. 2003, *Arts under pressure,* Zed Books.

UNPUBLISHED REFERENCES

van der Geest, N. 2004, interview with Cindy van Bremen, 2nd September 2004.

TRANS-MEDIA ZONE

The central focus of this zone is on digitalisation as a technology, and how it throws the notion of separate disciplines into dispute. We will be looking at examples which stress that the innovations within communication and interactive processes need a different mentality, content structure and form.

How to Provide Affinity?

This paper and our project aim at the need to create space that fosters and supports communication, emotion and experience. Traditionally, architecture has been a static, physical structure of vivid concepts, experiences and a rich virtuality, but with the new technology you could propose supple solutions that recognize architecture as the operational setting for the events of experience – at least that is the current ideology. Contemporary architecture is a meta-space residing in almost any thinkable field, striving to blur the boundary between art, architecture, design, urbanity, politics etc., and breaking down the distinction between the material and the user. The ideas of space have changed focus from organized ideology of modernity, via the displaced multilayered references of the post-modern era, towards organized information and intuitive experience within contemporary culture. Communication through technology delivers a tangible concept of time and a new sensibility of space through the collection, creation and distribution of data.

Space becomes a place for performance where you have to perform in order to use the potential of space. Performative space offers a symbiotic state between the inhabitant and environment in an experience of flow. In this performative space the opportunity to step back and become a viewer disappears and leaves the inhabitant inside a network of media, emotion, power and appearance. In order to sustain a balance of reality and free will, emotion, technology and design have to go hand in hand.

These ideas are very present in the project Landmark East England presented below. The project was made by the design group called diffus[1], where the mixture of theory and practise is essential in both practical and theoretical solutions. The project was sourced by an idea competition[2] that we used as an inspiration for our work method. The goal was to develop and deliver a visionary idea for a landmark, a sustainable icon representing a new region in England, which comprises Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk.

Research found that there was a lack of identity or sense of belonging and nothing anchoring people to the region as a whole. Common affinity seems somehow forced to the people of East England with this new region. We came to the conclusion that a single landmark or a series of landmarks would do little to achieve true affinity. A bridge might have been a solution. Bridges have an ability to connect physically as well as mentally. But where should that bridge be? How would people in Norfolk connect to a bridge between Hertfordshire and Bedfordshire? Would more bridges do? Or would that just be bridges for the sake of bridges? And again, would it connect all the areas when not all are having common borders? In our conviction common affinity appears when people have a common history, interest or myth. Therefore, we based our design strategy on trying to elaborate an *alternate reality* based on fabulation, virtualization and narratives that we subtly interweaved into architectonic structures (fabric) of the real. We wanted to give the people of East England a mythology specific to East England – something that would be unique to the jointed area.

All the elements of the project are connected to a constructed myth.[3] The myth is of an ancient population called Draugemits (palindrome for timeguard)

—

1 Online: <www.diffus.dk> and <www.diffusmagasin.dk>.

2 Online: <www.landmarkeast.co.uk>.

3 We constructed this myth and worked on it in several levels. Michel made some sketches of possible dwellings for the population of the myth and Hanne-Louise started to write a children's story. Then Aurelien Bedel made some 3D models and 2D sketches using animation software.

who have lived in East England ever since Great Britain was little and only existed in the area of East England. This mythological population was and still is controlling time from a range of holes. The holes are spread randomly in the East England area. If the public are lucky enough to find one of them, they will have the possibility to explore the cavity and look for traces of the ancient population. The holes are small and deeply rooted inside the earth. They will therefore offer an intimate and sensual experience to the explorer. But moreover, augmented reality technology will enhance the experience by creating a feeling of shared space through the telepresence among people exploring different holes at the same time. You can see the existence of the Draugemits, but like time they are only visible through traces.

Virtuality in physic space

With the help of computer technology the diversity and complexity of space has become conspicuous. The ways in which we are exposed to objects of the media has fundamentally changed with the rise of computing. Different kinds of media are somehow brought into the same level, where the relations between non-hierarchical elements become essential.

The foundation of design and architecture becomes interactive and related to relations. The human body and mind become a part of this network of relations. The challenge of designing architectural space based on the described conditions is to optimise the quality and likelihood for interaction, contemplation and play to occur. Inhabitants both generate and become an integral part of the environment as they engage with it. When activated by a user an environment exists simultaneously as a durational "performance"and an immersive installation environment.

The theoretical approach of performative space was essential for the Landmark East England project. We wanted people to actively discover and participate in their affinity – in other words to perform their affinity rather than have someone force it upon them. Therefore, the project is a creation of potential plots and situations in an undeterminated process of resolution.

With the Landmark project we wanted people to immerse themselves in their affinity. And taking the immersive idea that has developed explosively in the computer game industry and applying it to affinity is the result of the exact opposite phenomenon of immersion. The medium of immersive virtual reality is not merely an abstract space but also an experienced physical space, due to the fact that the body cannot be abandoned. The immersive virtual reality is a spatial and temporal arena, wherein mental models or abstract constructs of the world can be given virtual embodiment in three dimensions, and then artificially and synaesthetically explored and operated through interaction. But in the words of the American architect Marcos Novak the immersive element of the digital space is not a "complete conceptual apparatus"[4]. A complementary concept is missing, describing the outpouring of virtuality into the physical space. Novak says:

"Eversion' is the term I employ to describe a motion complementary to the familiar notion of immersion. Whereas 'immersion' describes a vector moving from ordinary to virtual space, 'eversion' describes the countervector of the virtual leaking out into the actual. Eversion predicts that the content of augmented reality and ubiquitous computing will be the population of the physical world with phenomena and entities first encountered in virtual space." [5]

By introducing the term eversion Novak emphasizes the importance of trans-coding between digital and analogue space. We need the bodily experience to be able to operate virtually. It is with the experience and memory from reality that we are able to act immersed. On the other hand, will whatever we experience in virtual space become part of our memory, bodily as well as mentally? Immersion in the virtual computerised space has become a part of our memory, everted and a part of a human everyday skill. The immersive experience in the Landmark project is highly low tech and desperately analogue, mainly based on fabulation, cartoons, and mushrooms growing in local

4 Novak 1999.
5 Ibid.

forests. It ultimately appeals to the experienced sense of tangible reality or a non-algorithmic virtuality where curiosity, combined with a story where you have to fill in the missing gaps yourself, suspends the experience. The interplay between immersion and eversion continuously occur, and the challenge of design processes seems to be the mastering of the virtuality of physical space as well as the physics of virtual space.

The virtual outside the computer media is the true virtual in the words of Pierre Levy[6]. The virtual is not opposed to the real but instead to the actual, and the virtual should be conceived as that which could become real. Levy's notion of the virtual supports a positive idea about a field of possibilities in a distinction between realisation, which is the transformation of the possible to the static, and actualisation, which implies the production of new qualities. The real is on a fixed path, where only transformation is capable of actualising new possibilities and solutions to problems. The virtual on the other hand can take one of many paths, some of which are real, others actual.

The Landmark project is very much a product of a trans-coding[7] between the physic and virtual space, and the virtuality connected to dreams, thoughts and fabulations seems to carry the project. Besides that an equalizing and blending of different media has occurred. There is a certain architectural structure present in the project but it is also a mythology, a social space, a political issue, a bedtime story etc. Of course, architecture has always contained these elements but the difference lies in the impossibility to tell what media is the most important. The relations between elements or the performability of the project seems to take over the former architectonic protagonist. Media is beyond matter.

The mingling of different media could easily get muddy though. Boundaries between media are blurred by media-beyond-matter or a certain post-media[8] ideal that becomes a pre-orgasmic state of mind where the catharsis never occurs, and the fear of the emptiness on the other side of redemption exceeds the lack of purification.

Michel Guglielmi and Hanne-Louise Johannesen

Michel Guglielmi
Architect and teacher at the Danish School of Design, Copenhagen
Member of diffus, <www.diffus.dk>
e-mail michel@diffus.dk

Hanne-Louise Johannesen
Master in Art History and teacher of Visual Culture at University of Copenhagen
Member of diffus, <www.diffus.dk>
e-mail Hanne-louise@diffus.dk

REFERENCES

Guattari, F. 1996, *Soft Subversions.* Semiotext(e), New York.
Levy, P. 1998, *Becoming Virtual: Reality in the Digital Age, P*lenum Publishing Corporation.
Manovich, L. 2001, *The language of New Media,* The MIT press, Cambridge.
Novak, M. 1999, 'Eversion', in: Perella, S. (ed.), *Hypersurface Architecture II, Architectural Design Profile 141,* John Wiley & Sons, London.

BIBLIOGRAPHY

Guattari, F. 1992, 'Regimes, pathways, and subjects', in: Crary, J. and Kwinter, S. (eds.), *Incorporations: Zone 6* , The MIT press, Cambridge.
Gullbring, L. 2001, 'Marcos Novak interviewed' [Online magazine] Sweden Calimero, available from: <http://home.swipnet.se/~w-35482/novak2.htm>, accessed 1st April 2005.
Slater, H.1998, '>> POST-MEDIA OPERATORS <<' [Online magazine] Nettime, available from: <http://www.nettime.org/Lists-Archives/nettime-l-9809/msg00116.html>, accessed 1st April 2004.

6 Levy 1996.
7 Lev Manovich uses trans-coding as one of his characteristics of new media in his book *The Language of New Media*. Manovich 2001.
8 Post-media as introduced by Guattari 1996.

Media Figures in Performative Space

Summary

In this paper I will discuss the presenting and representing of body through media, the presenting of media figures, and I will try to find connections with different representational modes. This I will do in a context of performative art, using my own work, the trilogy *4:3* as a case study. I draw a line between the live actor and his representations, computer-generated media figures and puppetry. Questions of real/actual and copy/virtual are relevant here. Representations and simulations also create new time-space constructions by mixing real-time/pre-recorded elements.

Technology and its possibilities in manipulating time-space dimensions, in multiplying and creating artificial objects has been one major pathway in the entertainment industry, but also in the storytelling tradition and the theatre. The way we present, represent, see and consume the human body has changed a lot. Although I am talking here mainly about a body, I see it very much as connected to its environment. In talking about any kind of action of a body, we should see beyond a physical embodiment to it having non-matter aspects as well. From the systemic psychology's point of view the important ones are consciousness and memory. Talking only about body quietly accepts the dominant view in cognitive psychology where stimulus leads to inner action which again causes reaction. I disagree with this chain reaction model, which considers the organism (also the body) and environment as two separate systems. On the other hand, the body term in a certain context can be seen as a description of an image, and activity in those occasions is not relevant. Still, when I am talking about movement, the crucial and basic activity of an organism and its representations, I have to see the body in a larger perspective, as movement under spatial-temporal conditions.

Interestingly, Järvilehto sees the organism and environment as one system. This system is created by functional actions of an organism and there are no boundaries between the organism and its environment. The air that I breathe is part of me as much as my environment. Further on, talking about movement, time and space, memory of an organism is considered to be everything it is. Instead of separating memory as a storage space, it is seen as based on evolution and individual experiences and is constantly changing according to our actions.[1] From this there is a short way towards the aura of an organism, as well as the aura of art. The constant change is essential to the organism-environment system theory. When talking about any sort of reproductions it becomes interesting to ask what we consider to be an organism. For example, a live video can be seen as organic, but does it have an aura? Media figures can have an intelligence, memory and even changing memory according to actions, but are they organisms? (Figure 1)

Trilogy 4:3

4:3 explores the possibilities of the mediated theatre, the performative pieces that appear through the variable media and interface forms. All of the pieces can be described as reactive performance spaces. It means that they create an environment that enables physical actions to affect and manipulate electronic media.[2] In this case the performer interacts and moves with her reproductions, and in the installations the participant can experience the same theme from a subjective point of view with reactive space. The reactions of the installations are both driven by an internal motivation of its creatures, by the external actions of the participant or by the combination of both.

In *Eve 4:3* an audience sits in the middle of the room in rows with the stage both behind and in front of them. The stage area in front is a projection floor. The audience senses that real activity is taking place right

1 Järvilehto 1994, pp. 154–55.
2 Lovell 2001.

Figure 1. Presenting and representing the same organism.

behind them, they hear real footsteps but they see the performance through a projection. The image is built in layers of the same dancer. The variations between recorded/looped material, live video stream and live dancer are presented. By multiplying a dancer, the question of digital reproduction, a dance between a live performance and a recording is apparent. It is impossible to know which image is a live one. The set-up is the primary model of telepresence, practically a canon of copies/reproductions; a multipresence. *Eve 4:3* deals with the issues of theatrical framing, actual space-projection compositions and the following aspects of movement: actual, live video and pre-recorded material. (Figure 2)

Pinhanez has divided the usage of computers in the theatre into four subcategories. First, computers can be used as electronic puppets, with a human puppeteer controlling a computer-generated character on stage. The second scene is called a computer actor, where the computer itself controls a character. When this controlling happens in real time, it establishes a true interaction with man and machine. The third category is a hyper-actor, which includes bodily voice and other expansions of a human body on stage. The fourth and the most common option is a computerized stage, where spatial elements such as sets, lights or sound are controlled by a computer. [3] All the pieces of *4:3* meet the description of the fourth category, but it is more interesting to look at the first three options. The first category in which a human controls a computer-generated character takes place in some form in the *Prologue 4:3*, where the participant appears as a puppeteer and controls the object in projection. This object is hardly a character, but anyhow has a big significance within the installation. The second category appears actually in the same installation, where the other projected object is controlled by a computer. If I read the third category as not based on technology but on activity, I would see *Eve 4:3* as expressing a hyper actor by expanding the same character to appear numerous times simultaneously.

Media figures and puppetry

Reproductions of a human body through media can be seen as media figures that share similarities with

3 Pinhanez 1997, p. 1.

Figure 2. ***Eve 4:3*** **set up from side perspective**

puppetry. The definition of a media figure can be roughly divided into computer-generated figures that are created and exist only with computers, and figures that are reproduced through the media. More accurately, the last ones are mediated figures; having their actual source presented through the media. Therefore I would use a division to (1) computer-generated figures (CGF) and (2) mediated figures. Both the media figure and the puppet present a character through a site of signification other than an actual living being.[4] The marionette has a perfection of movement because it has only one centre of gravity. From that point its movements flow spontaneously, giving the impression of weightlessness.[5] One perspective in making a distinction between live and artificial is to claim that the human being is accompanied with a living soul and mind, whereas artificial characters as virtual 3D-graphics would be only visual, or at the most, physical. An interesting point of view is to see the marionette as a being that has achieved a state of grace both in the spiritual and physical sense. The marionette is perfectly co-ordinated and therefore innocent; it is free from the earth and drawn upward from above.[6] An interesting point is that a gravity centre of a virtual character can be anything. Also it is controlled from above, under or from any angles possible.

According to Kaplin there are four aspects in the new technology that could be applied to puppet performance. He calls these aspects the emerging sub-genres: (1) Docu-puppetry makes use of the sampling, cropping and re-editing of media figures. It involves the depiction of a puppet performance of factual and authoritative material, illustrating historical, social or cultural phenomena. *Eve 4:3* presents the docu-puppetry form in this sense. (2) Virtual puppetry involves performing objects that exist only within the computer. It is generated out of digitalized bitmaps and given tightly controlled behaviour parameters and linked by manual controls to the outside world. *Prologue 4:3* installation can be seen as a virtual puppetry. (3) Hyper-puppetry is a collective extension, a corporate entity and created out of the merged energies of users/participants. (4) Cyber-puppetry means networked computer

4 Tillis 1999, p. 183.
5 States 1988, p. 461.
6 Ibid., p. 462.

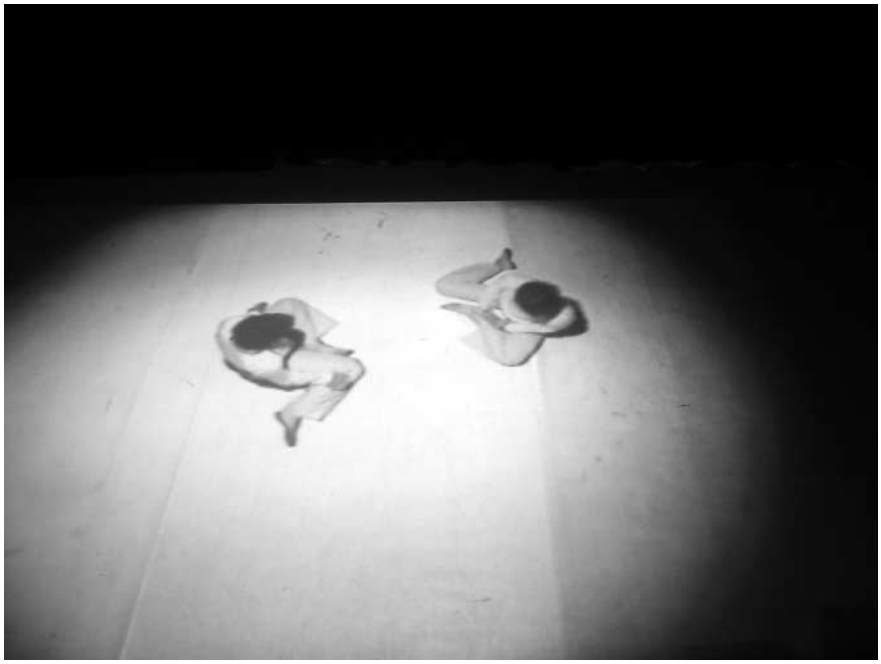


Figure 3. Live and pre-recorded representations.

puppetry with an online, interactive dimension that allows for the artist to conceive of performances as collaborative creations with the audience.[7] The trilogy *4:3* includes elements from all four forms; in *Eve 4:3* the multiple presence of the virtual dancer has similarities with multi-user hyper-puppetry. Also it has an on-line presentation, where it comes close to virtual puppetry, although lacking the real possibility of interaction or collective creation. (Figure 3)

Eve 4:3 can be considered both a docu-puppetry in terms of sampling, cropping and re-editing images, and hyper puppetry, where the merged energies of one user are reproduced. Still, as much as media figures can appear puppet-like, Kaplin´s four categories do not stress the very puppet-like phenomena of performative media figures. In fact, *Eve 4:3* somehow reminds of a traditional puppet theatre, where the puppeteer is hidden and has the power to operate the actions of puppets. Eve is thus not a puppet, but her reproductions can be considered as such, and the computer operator picks the right figures at the right time and creates an interaction between them by editing. Of course, the biggest difference is that a puppeteer operates with unconscious puppets, artificial bodies, whereas Eve exists as a human being, even in the same space (not in the same scenery most of the time, though) and thus a computer operator does not control her actual actions, but functions more as an editor by separating and combining those actions in time and space.

Representation and simulation

The question of the aura of an artwork has been a dilemma at least since their mechanical reproduction. Benjamin describes an aura as one's actual presence. Thus, applying his critique of mechanical reproduction is problematic when talking about media-generated figures. According to him, even the most perfect reproduction is lacking one element: its presence in time and space, its unique existence at the place where it happens to be.[8] Obviously, media-generated figures cannot have their actual presence in any other space and time than where it is presented. Or further, a media-generated figure either lacks its

7 Kaplin 1994, p. 37–9.
8 Benjamin [1933] 1969, p. 220.

aura totally or its aura follows automatically to all of its reproductions, which again are more like clones or multiples than reproductions or mediations, since there is no difference with the source. They are not media reproductions but original productions made possible through the media.[9] On the other hand, mediated figures do have their actual source and therefore in a traditional sense lack their aura when mediated. I say traditional, because nowadays it is possible to present both the actual and its reproduction at the same time and space. This is where I am using *Eve 4:3* as an example. As a puppet, the video image is signifying Eve, not (only) her actually.

We need to make a difference between representation and simulation. According to Baudrillard, the representation starts with the principle that the real and the sign are equivalent, even if this equivalence is utopian. On the contrary, the simulation starts from the utopia of this principle of equivalence, from the radical negation as the sign as a value, also from the sign as a reverse and a death sentence to every reference. Baudrillard defines four successive phases of image. Firstly, an image can be a reflection of a basic reality. Secondly, an image can mask or pervert the basic reality. Thirdly, an image can mask the absence of a basic reality. Finally, an image might bear no relation to any reality; it is its own pure simulacrum.[10] *Eve 4:3* is an interesting example in this light. The first three phases of an image can be found in *Eve 4:3*, they can also be considered under mediated figures and representations. Live video without sampling is definitely a reflection of a basic reality. On the other hand, when it is edited in layers, presenting copies of one person at the same time, twisting the image, it can be seen masking or perverting the basic reality. The video-image of Eve also definitely works as masking the absence of a basic reality. Baudrillard´s last phase of image can be found in the *Prologue 4:3*, where animated objects and the environment have no relation to any reality. Those images represent also computer-generated figures.

Kaisu Koski
MA, Reseracher
e-mail kaisu.koski@ulapland.fi

REFERENCES

Baudrillard, J. 1998, 'Simulacra and simulations', in: Poster, M. (ed.), *Jean Baudrillard, Selected Writings*, Stanford University Press, pp. 166–84.

Benjamin, W. 1969 [1933], 'The work of art in the age of mechanical reproduction', in: Zohn, H. (ed.) *Illuminations*, New York: Schocken Books, pp. 217–51.

Järvilehto, T. 1994, *Ihminen ja Ihmisen Ympäristö. Systeemisen Psykologian perusteet,* Pohjoinen, Oulu.

Kaplin, S. 1994, 'Puppetry into the next millennium', *Puppetry International*, 1, pp. 37–9

Lovell, R.E. 2001. 'A blueprint for using a reactive performance Space' [Online], New Publication, available from: <http://www.intelligentstage.com/papers/blueprint.html>.

Pinhanez, C.S. 1997, 'Computer theater' [Online], available from: <http://web.media.mit.edu/^pinhanez/isea/isea.html>.

Tillis, S. 1999, 'The art of puppetry in the age of media reproduction', *The Drama Review,* vol. 43, no. 3, pp. 183-95.

9 Tillis 1999, p. 183.
10 Baudrillard 1998.

The Impact of Multimedia Technology on the Graphic Design Process

Intro and background

This paper presents a qualitative inquiry into how the graphic design process is being reconfigured within the new digital media landscape. The methodology involved three cycles of investigation: a literature review, a live project of investigation and consultation with the New Media Industry. The setting for the live project was the School of Art, Design and Printing within the Faculty of Applied Arts at Dublin Institute of Technology. The student participants were required to develop a web site for the School of Art, Design and Printing, and to reflect on the actions they took.

The graphic design profession is currently aware of uncertainty, complexity and instability in an environment where the communications technology is demanding new skills and new knowledge from designers. Technology has continually influenced the graphic design process, and the most significant development in recent times has been the shift from print to screen as a medium for communication. As McKoy writes, "nearly all conventional forms of design … are fused with electronic media … that interact with their users and audiences"[1] and as Nielsen states, "graphic design is the first and last part of the interface observed by the user[2]". The computer is no longer a tool for graphic production but a medium of visual communication. Much has been written about how the products of graphic design are being reconfigured by digital technology, but less attention has been given to the ways in which the graphic design process itself is slowly but inevitably changing to meet the requirements of digital design.

The effects of digitisation on the design process

This paper combines the design process outlined by James Garrett[3] with that outlined by Hot Studio[4], a San Francisco based design firm. Both models contribute to our knowledge about the digital design process because each concentrates on specific aspects of the process. Garrett's model illustrates the current duality of web site design and refers to the web as both a software interface and as a hypertext information space. The vertical division in Garrett's model relates to the duality of the web. The activities on the right relate to designing an information space, while those on the left relate to the web as a software interface. The Hot Studios model describes the digital design process from a graphic designer's perspective. (Figure 1)

Starting at the bottom, the s*trategy* phase involves defining the *main objectives of the site* and *user needs*. This relates to Hot Studio's *discovery* phase, during which the graphic designer collaborates with the client to define the brand development for the site. Communicating an identity is linked to interaction design because "In the minds of your users, an impression about your organisation is inevitably created by their interaction with your site"[5]. Hot Studio state that the graphic designer may collaborate with the user, client and other stakeholders to determine the site goals.

—

1 McCoy 1998, p. 1
2 Nielsen 2000.
3 Developed in 1999 by James Garrett. See Garrett 1999, p. 33.
4 Hot Studio 2003.
5 Garrett 1999, p. 42.

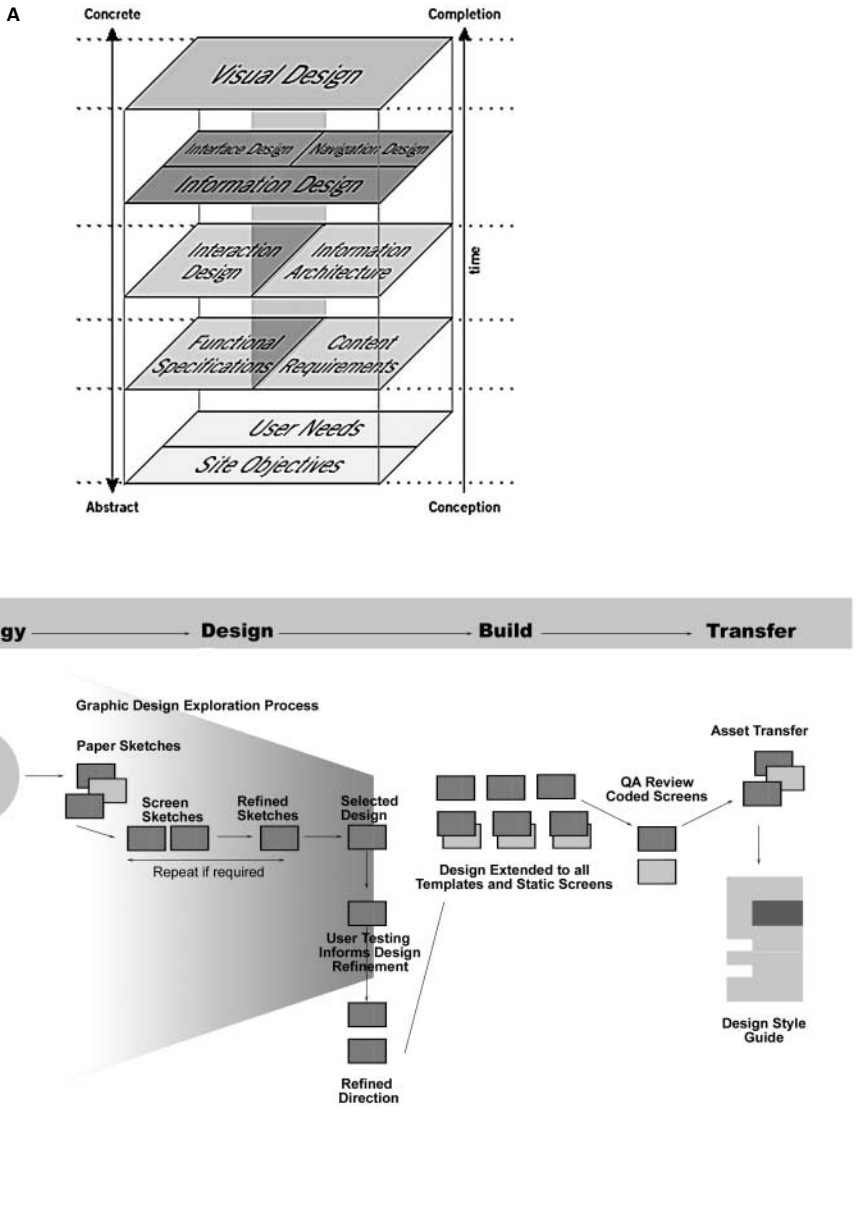


Figure 1. Design processes of (A) Garrett and (B) Hot Studio outlined.

The *scope* plane involves defining the *content and functional requirements*. Garrett's *scope* plane corresponds with Hot Studio's *strategy* phase during which a high-level site map is defined and a creative brief is formulated in respect to identity concerns and visual design.

Garrett's *structure* plane involves defining the *information architecture*. This relates to Hot Studio's *design* phase, during which the visual design direction is selected and refined. Garrett specifically refers to *interaction design* as a distinct element of this phase. It is concerned with defining how the system will accommodate and respond to user behaviour. This is an important factor in web design, as the medium becomes more applications based. The output of this phase consists of wire frames, which indicate the general structure of the site and what content will rest on what page. The graphic designer works closely with the information architect to produce screen sketches of the site. The choice of categories and links influences the look of a page.

An overly complex information structure often yields an equally complex design, thus confusing the audience.

The s*keleton* plane involves *navigation design*, *interface design* and *information design*. Navigation design refers to the design of the buttons and labels that allow a user to move through the site. Interface design refers to the interface through which the user will perform various tasks. Information design refers to how elements are laid out on the screen. Design firms are becoming increasingly aware that the visual design and navigational design of a web site are interconnected and that a designer's participation in the site mapping process may help team members think of the site in yet another way.

The skeleton phase is concerned with individual pages and their components. The s*urface* plane represents the visible web page. Here the aesthetics of the site are considered. During Hot Studio's *visual design* phase the visual designer delivers clean Photoshop files and fonts for production and reviews coded pages for design consistency.

During the *transfer* phase the style guide referring to the maintenance of the digital space is handed over to the client. The document outlines how a site should progress both structurally and visually. This phase is significant for the graphic designer because the products of digital design are dynamic and must be maintained and updated but is not included in Garrett's model.

Usability testing is an aspect of digital design referred to by both Hot Studio and Garrett. It may occur at any phase during the process and often leads to reiterations of the design cycle.

Three major aspects of digital design emerged during Art Forum as having a profound effect on the graphic design process: (a) new technology, (b) the information architecture process and (c) teamwork.

The complexity of digital design problems requires multidisciplinary teams to work together on design problems. This is a new concept for the solo graphic designer of the desktop publishing era. Lack of expertise in certain areas and a necessity to collaborate with others has taken full control over the entire design process away from the graphic designer who now needs to develop open communication channels with programmers, technicians and users. But what is the role of the graphic design in interactive design?

The role of the graphic designer in interactive design

A digital design team may incorporate a graphic designer, copywriter, interaction designer, information architect, usability expert, programmer, manager, and technician. The distinctions between the various professions involved in digital design tend to be ill-defined and job descriptions ambiguous. The role of the graphic designer in interface design is often multifaceted and can vary from project to project. Design firms are becoming increasingly aware that the graphic designer should be incorporated into the design team from the outset. The MIT guide to teaching web design writes:

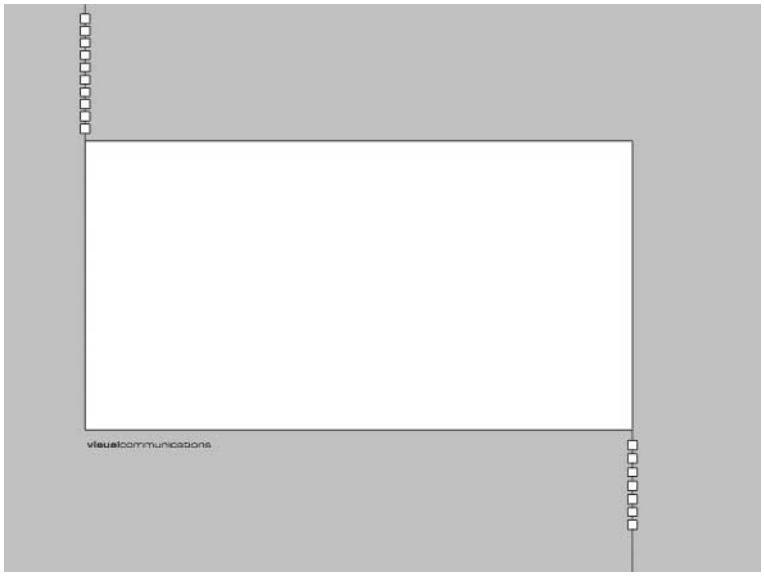
"Through words, images and colours, a graphic designer works to build navigational structures, users will instinctively understand, capture a tone and mood for the site, and provide layouts that work to further the sites overall goals. Design is not merely decoration – in many ways it is as important as good content organization; thus a designer should always be a full member of a Web development team, not an afterthought." [6]

The case study Art Forum has shown that graphic designers have a major role to play in guiding the user through an information space in a creative, intuitive way. Meggs writes of the capability of graphic designers to create identity, aid navigation, and bring visual interest to web sites [7]. The usability of the interface is also directly influenced by the visual design.

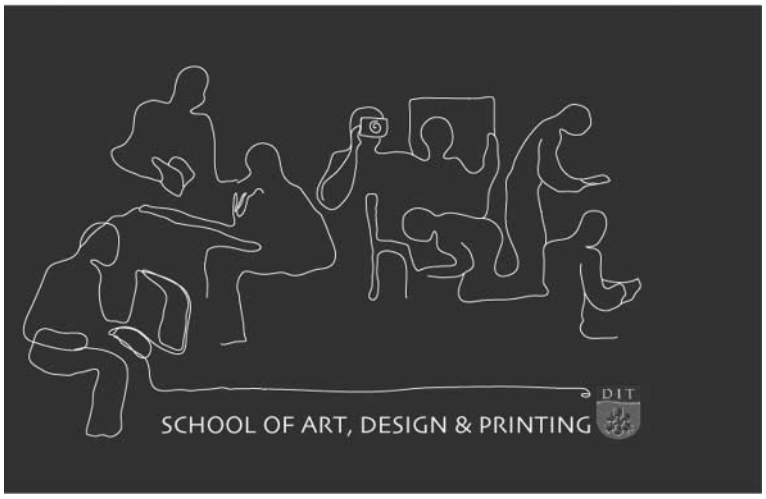
The students in the case study approached the visual design from the perspective of providing a rewarding

6 Barnett et al. 2001, p. 44.
7 Meggs 1983, p. 40.

A



B



C

Figure 2. A–C. These images represent the unique creative approaches the students took to the same design problem.

visual navigation experience. The image shown in figure 2B represents one group's solution to the brief and it shows how closely the visual design and navigation design were interconnected from a graphic designer's perspective.[8]

Macdonald writes that, "Interface design today tends to concentrate on structural matters more than on translating these in an accurate and aesthetically interesting visual form, … they may carry interesting information, but from a graphic design point of view they are often poorly executed" [9]. Stephandis has also commented that a major shortcoming of the present generation of user interface design is that it remains a programming intensive task as opposed to a design intensive task. A balance needs to be obtained between the designer's preoccupation with the visual design and the programmer's concern with the technical and functional aspects of the site.

In print design the graphic designer uses an almost implied, internal, design process. This is insufficient for digital designers who are accountable to team members, users and clients. Design firms such as Hot Studio have recognised the value of an explicit, well defined and documented design process which can help communication between team members, define roles within the design process, provide transparency and reassurance to design clients, and enable the effective management of a digital design project.

Graphic designers have a social responsibility to create satisfying, efficient and effective information spaces for users in a society which is becoming increasingly dependent on the digital screen. The graphic designer is no longer self-sufficient in the digital realm and therefore must adapt his/her process in a social and multidisciplinary context.

Elaine Keating
Graphic Designer
e-mail keatingelaine@hotmail.com

Elaine is a 25 year old graphic designer who has recently completed an M.Phil. with the Dublin Institute of Technology in Ireland.

REFERENCES

Barnett, E., Levinson, D. and Lisanti, S. 2001, *The MIT Guide to Teaching Web Site Design,* Cambridge Mass. The MIT Press, p. 44.

Garrett, J. 2003, *The Elements of User Experience, User Centred Design for the World Wide Web,* New Riders, New Jersey.

McCoy, K. 1998, 'Introduction: digital communications design in the second computer revolution', in: Redman S., *Transformations and Collaborations in New Media,* Northlight Books, Cincinnati, Ohio.

McDonald, N. 1997, 'Not as other media', in: *Eye,* vol. 7, no. 26, pp. 6–7.

Meggs, P. B. 1983, *A History of Graphic Design,* Viking, New York.

Nielsen, J. 2000, *Designing Web Usability,* New Riders Publishing, Indianapolis.

UNPUBLISHED REFERENCES

Hot Studio 2003, DUX Conference, 'Designing the user experience', San Francisco, June 2003 – AIGA.

—

8 As I have outlined in the case study, the line drawing represents eight individual links to the eight departments within the School of Art Design and Printing.

9 McDonald 1997, p. 6.

REFLECTIVE ZONE

The zone is about giving more space for a critical and reflexive design practice. Research is becoming more important because the discipline of design is trying to define its own body of knowledge. We need to investigate the following: what are the methods particular to our own discipline, and what are the pedagogical strategies for implementing this research.

Practice Based Research: Theory and Practice within the Exegesis Approach

Introduction

This paper discusses the exegesis approach as a means of conducting practice based research. In the educational field of Art, Media and Technology artefacts are being created and developed in which research plays a central role. Both preceding and during the process of creating artefacts, research is a substantial part of this process. By bringing these two elements (creating and research) together, a new kind of didactic structure has been developed in the curriculum of the EMMA (European Media Master of Arts): the exegesis approach.

Utrecht School of the Arts: setting the scene

Utrecht School of the Arts (HKU) is one of the largest institutes of higher education for art and culture in the Netherlands. The school consists of five faculties, which together offer around 100 courses. The Utrecht School of the Arts offers courses within the area of Visual Arts and Design; Music; Theatre; Art, Media & Technology; Art & Economy. The Utrecht School of the Arts aims to provide an exceptionally high level of education; each educational facilitator (teacher, supervisor, tutor) – in whatever faculty – is a highly driven expert in his or her specialist area. Within this context, the Utrecht School of the Arts is focused on imparting sufficient knowledge and experience to the students in order to enable them to flourish in the world of art and culture.

The approach as discussed in this paper is being applied and educated within the European Media Masters of Arts. The MA in European Media (EMMA) is a master's program for young professionals with a multimedia background who want to extend their technical and theoretical scope towards a master's degree. The program has been validated by the Open University, London.

The exegesis approach

The exegesis approach has been introduced as a means of applying research methods and gaining insight into the processes of practice based research. In this module the students will conduct self-directed research on an individually assigned project of their choice. This will result in a creative artefact. In support of this process of creation and research, they will write a thesis in order to provide a substantial piece of work in which both critical theory and practice can be demonstrated. Both the project and thesis provide evidence for the culmination of Master's level achievement on the program. The thesis and the individual project represent a relationship of mutual influence. The thesis provides a research based theoretical and contextual framework for the practical work performed in the individual project.

The individual project should bear evidence of theories, propositions and assumptions. The individual project will be embedded in the thesis part as a case study. Relevance of theory and design will be shown at an early stage. At the completion of this module students are expected to present a practical as well as theoretical body of work that is not only of a high quality, but also a result of rigorous and reflective research, both practical and theoretical.

The value of the exegesis

Within both the preceding of the creation as well as during the process of creating the artefacts, research is a substantial part of this process. By bringing these two elements (creating and research) together, a new

kind of didactic structure has been introduced in the curriculum of the EMMA: the exegesis. The focus is set both on the thesis and the individual project constituting a combination of fundamental based research and applied research, which we can define as practice based research.

Therefore theory and practice cannot be seen as separate parts. Theory and practice are partners of conversation that should be equally balanced. The exegesis intends to contribute to a willingness to look beyond the immediate concerns of making an artefact; it should enhance an integration of ideas and results from the underlying research into the creation of the artefact. This will be a process of continuous modification and unification.

The thesis will then represent the undertaken research that has been initiated to create the artefact. Within the context of the exegesis approach the artefact will reflect and embody the research, as the thesis supports the artefact and discusses the connection between the research and the product. The artefact is partly the outcome of the exegesis and is as important as the accompanying thesis. This process can be defined as a circular process. A continuous communication between the thesis and the individual project is what identifies the character of the exegesis.

The exegesis in practice

The exegesis has been developed to educate students on how to define their research. At an institutional level the exegesis will show what kind of research has been done and what results have been reached. As mentioned earlier, the most important issue is the connection between the artefact and the thesis. The role of the artefact and the thesis will be supportive and complementary. The artefact will gain insight into the way the methods of research have been used. In our understanding the knowledge gained on a design project should be reliably employed in other projects and should be continuously involved in the design processes. The thesis describes the methods of research which have been used in creating the artefact, and is a reflective part of the design process. The research will consider how the artefact should be developed. Due to the connection of these two elements, the students will have to be critically aware of the advantages research will offer them in creating their work. In the end the knowledge creation and exchange within research will be a continuum of mutual influence without boundaries. To make students aware of this, they should be triggered to be more interested in and to enjoy the research part and shown that by doing research the project will embody more knowledge and vision. The exegesis approach encourages students to expansive out-of-the-box thinking and will stimulate an inventive and inquiring attitude.

Educational support within the exegesis

The students will be supported within their exegesis trajectory both in content and in process. This support is reflected within the following three dimensions:

– Direct support: The student will receive full support from both a project supervisor and a thesis supervisor; both supervisors will be appointed based on their expertise and experience within the field. In addition, the supervisors will trigger and direct the student in completing the exegesis by keeping a close connection to the artefact and thesis.

– Methods of research: The exegesis also invokes the new field of practice based research as such. The students will be supported during the whole phase of the exegesis in their methods of research. These tools focus on the following identified research approaches: (a) contextual research: context analysis, dichotomies and semiotic squares; (b) content research: content analysis, dichotomies and semiotic squares; (c) user studies: script research, projective techniques, field research; (d) application research: system verification, user-usability tests, component tests

– Reflective research: The last dimension of support plays a more reflective role and evidently plays no direct role. Insights into the used methods and undertaken research will not only help the students to reflect on their research and, as such, perceive their artefacts more critically, but it will also provide the institute with more personal and close insights into the exegesis process. Accordingly, the students have to collect all their results into a research folder, in which they have to address the following objectives:

(a) description of used methods; (b) description of the purpose of applicability of the methods; (c) description of the usage of the methods; (d) reflection on the additional value of the methods.

The focus on the methods of research is to foster re-orientation of attention and concerns in a meaningful way. Research is deeply embedded in creating design. By doing so the students will both articulate and reflect upon their research and the used methods.

Conclusion and opening

The exegesis approach originated as a response to traditional approaches for design learning. It was implemented in 2004 in the EMMA program as such. It is difficult to come to any definite conclusion yet. Therefore, we propose here some preliminary conclusions which are set out for the new academic year.

The exegesis is the educational program that enables the student to create an artefact accompanied by a thesis, which reflects the research undertaken within the process of creation. For both the student as well as for the institute this process is very beneficiary as this approach will capture and enable the knowledge created in terms of research and development. Because of the iterative and cyclic approach of the exegesis the student will deliver an inspiring artefact and a thorough thesis. The exegesis will provide the institute with a body of knowledge and research material which will support future generations of students and staff within this highly innovative field of art, media and technology. Or as Friedman stated (2000), practice tends to embody knowledge. Research tends to articulate knowledge. The knowledge creation cycle generates new knowledge through both theorizing and reflection.

Aukje Thomassen and Marieke van Oudheusden
Utrecht Research Institute for Digital Cultures
Utrecht School of the Arts
Faculty of Art, Media & Technology
e-mail aukje.thomassen@kmt.hku.nl
e-mail Marieke.vanoudheusden@kmt.hku.nl

BIBLIOGRAPHY

Bijk, E. and Thomassen, A. 2002, 'Knowledge management in design education', in: *Proceedings of 2002 EDEN Conference.*

Bijk, E., Thomassen, A. and Renger, W. 2002, 'E-learning and arts pedagogy', in: *Proceedings of 'e-Learning and Distance Learning in Arts Pedagogy', 7th ELIA Conference, 'Comhar'.*

Renger, W. 2000, 'Nearness in distributed learning environments for the digital academy', in: *Making and Unmaking*, Design History Society.

Thomassen, A. 2003, *In Control*, PhD Thesis, published by Utrecht school of the Arts, The Netherlands.

Thomassen, A. and van Oudheusden, M. 2004, 'Knowledge creation and exchange within research: the exegesis approach', in: *Working papers in art and design*, vol. 3, United Kingdom, 2004.

Weggeman, M. 1997, *Kennismanagement, inrichting en besturing van kennisintensieve organisaties,* Scriptum.

Weick, K. 1991, 'The non traditional quality of organizational learning', *Organization Science*, vol. 2, issue 1.

University of California 2002, *Design Vision; Proposal for a School of Design at the University of California.*

Re-Shaping Design

A Teaching Experience at COOPAMARE: Listen to the Recyclable Collectors' Voice

Abstract

A critical and reflexive design education is becoming tremendously important across the world, particularly in countries such as Brazil, where contemporary poverty has become worse with the alarming increase in urban population. The level of poverty referred to means millions of people living in unbearable conditions in the high risk areas of the cities, such as the river banks, *favelas* and slums, while there are thousands of abandoned street children, unacceptable levels of public health provisions and basic education, violence against landless peasants and urban homelessness.

In this context it is important to define a proper body of design knowledge as well the corresponding pedagogical strategies which will allow students to transgress against class boundaries in order to achieve a re-conceptualization of design practice.

Considering the high importance of design re-conceptualization, since 2003 I have been teaching a design course on urban artifacts around the area of COOPAMARE, a recycler cooperative. The main focus of the course is to design urban artifacts that could minimize the conflict between the neighborhood and the cooperative. How could the design of urban artifacts for the area of conflict facilitate the relationship between the recyclers and the neighborhood? How could design creatively reshape the area in order to facilitate public understanding of the recyclers' activity within the city, as well as to improve the living and working conditions of the recyclers?

The paper presents students' different solutions in terms of design, including the work apparatus, communication system, web design of internet sites publicizing the cooperative activities, design of vehicles for waste collection and management, uniforms for recyclers, as well as some devices for resting using reused tires. The paper also acknowledges the role of the collectors as an important source for new models of design education and student practice.

The job market for the unemployed and an uplifting alternative: the collectors' cooperative in São Paulo, Brazil

The increasing joblessness and homelessness in Brazil in the last 20 years has lead to the development of a new strategy to generate income. In order to overcome poverty and social exclusion, many jobless and homeless people have engaged themselves in recycling activities as their major means of subsistence. Mainly they collect discarded mass produced objects and recyclable materials. The COOPAMARE is located in São Paulo, under a viaduct, in the western part of the city. In this cooperative the collectors are engaged in the development of a solidary economy in the context of a post-industrial economy.

In the past 20 years Brazil has seen an incredible growth of a social movement called *Movimento Nacional dos Catadores* (National Movement of Recyclable Material Collectors). The recyclable material collector collects all kinds of disposable material, mainly cardboard, aluminum, disposable bottles, and so on.

The typical recycler was a homeless person, who through the rescue of discarded material has been able to overcome his/her condition of severe poverty. Recyclers have been doing their work in an informal and marginalized manner for decades, but some of them have created recyclers' cooperatives in order to generate a solidary dynamic of collection, selection and commercial activities, thus generating some income.

In a giant metropolitan region like São Paulo, which contains 17.5 million people, and which produces a huge amount of all kinds of discarded materials, products and garbage daily, recycling collectors play a vital role in the management of sustainability of the city. They clean the city, the materials they find are sorted and reintegrated into the productive cycle, but more importantly, they are forcing us to rethink our relationship with discarded products, and making us aware of new and sustainable ways of living, based on a solidary economy.

Although they play an important role in urban waste management, they receive no health, housing, social security or education benefits. Many Brazilians consider recyclers to be dirty people, even delinquents,

rather than productive members of our society. This attitude is generating a very serious conflict, especially in the areas where the cooperatives are located.

The teaching experience at COOPAMARE: listen to the collectors' voice

The main focus of the course is the design of urban artifacts that could minimize the conflict between the neighborhood and the cooperative, as well as to re-shape the public image of the collectors of cardboard and other materials. Initially, the students had some preparatory classes on the university campus in order to discuss the issues of class, gender, domination, privileges, social equality and how design conveys these aspects and values historically. They were encouraged to situate themselves socially, and many of the undergraduates said that they had never visited a collectors' cooperative.

After this introductory class we made the first visit to the area of the cooperative and the urban conflict, followed by an encounter with the collectors at the cooperative. It was a very rich and productive time and the students quickly understood the complexity of the problem and the possibility of design intervention in the area. The successive meetings with the collectors brought out the issue of voices and the sources of design knowledge, raising the question of whose design history we are addressing. Whose history are we talking about? For whom are we designing? This experience changed their sense of design knowledge and opened their minds.

The methodology of the course has included a variety of voices in order to provide the students with a better understanding and a testimony of the local urban conflict – voices of the collectors, the students, the neighbors, the municipality authorities, the NGO staff and the teacher.

Along with the meetings and field work in the area, the students made participatory observations of the daily routine of the collectors at the cooperative and around the area in order to identify the local material culture and its relationship with the cooperative. After the articulation of these sets of information the students were able to bring in their proposals and design outputs. They presented the first drafts of their creative work to the cooperative members and they got individual evaluation and comments from each one of the collectors. It was an extensive and intensive exchange between the undergraduates and the collectors, and essential for providing practical knowledge to improve or even re-formulate the creation of useful artifacts. As a result of these criticisms the students improved their work and presented them again after a while. There were reflective conversations among all those present in the real scenario, quite different to studios or classrooms environments. The concrete location of the cooperative and its urban dilemmas with the neighbors as well as the possibility of an immediate and sincere critique by their "clients" turned that space into a special milieu for design education.

The long conversations with the collectors and their availability to the dialogue was vital to the students' work, not only for the development of the design process, but also for the recognition that the pedagogical practice of design always empowers particular ways of life of the privileged social classes, while making the deprived and have-nots invisible. This was an experience of high importance to all participants involved in the process, bringing us an opportunity to re-think the relationship between power and design knowledge. This experience provided all participants with new ways of thinking, new ways of seeing and new ways of doing.

Course methodology

The main aspect of methodology is a combination of the tools of design history, aspects of cultural and critical studies, as well education for critical consciousness; mainly Paulo Freire's ideas of transformative education and education for critical consciousness. Freire helped us to realize that design knowledge is a narrative construct including students' lifelines and class perspectives. Freire provided us with an important understanding of design education as a practice of freedom and emancipation and as a way of re-inforcing domination. Within this context, criticism was central to the development of design proposals by the students. Another important reference was bell hooks, famous for her books on Freirean

pedagogy, especially *Teaching to Transgress. Education as the Practice of Freedom*.

There were several levels of design intervention involved:

1) the decision making process about what to design, from an emancipatory design perspective;
2) the design choices and actions according to the collectors' needs;
3) the representation of the proposals in order to be understood clearly from the perspective of the collectors' comprehension;
4) the public presentation and the students' exhibition.

Conclusion

During this course we have widely discussed how important reflective design practices are in dealing with conflict, based on a collaborative and participatory process. The course stressed the high importance of the collectors' input and participation, either through their generous conversation, or their open dialogue with the students. It is important to stress here that the dialogue between them was the key point in the successful pedagogical experience, because dialogue requires an equal participation of both sides, which involves the recognition and legitimization of the collectors as knowledgeable agents. In this process even the traditional teacher position as depositary of knowledge was re-shaped, and we had an extraordinary opportunity to experience what Paulo Freire precisely explained as: "The mark of a successful educator is not skill in persuasion – but the ability to dialogue with educates in a mode of reciprocity." This pedagogical experience provided us with a reflective and effective design learning process. In figure 1 I present some of the projects developed by the students. Before presenting them, it is important to convey our feelings in words. We are tremendously thankful to the COOPAMARE collectors' community for generously welcoming us in their working spaces and providing us with invaluable information and friendship.

Finally, it is worth stressing that this is an educational experience in progress and the results depend on the participation and work of the students. The teaching of this course has brought me a new understanding of design education standards and new insights have emerged in the experience of the 2004 course. In the current year, 2005, I will continue the experience and I will develop it further.

The author is grateful to Paola Cabrera Viancha, who generously did the presentation at the CUMULUS Conference in Utrecht, October, 2004.

Maria Cecilia Loschiavo
Associate Professor
University of São Paulo, Brazil
e-mail closchia@usp.br

Maria Cecilia Loschiavo dos Santos is a philosopher and associate professor of Design at the Faculty of Architecture and Urbanism, University of São Paulo. She achieved her master's at University of São Paulo, Philosophy, in Aesthetics, 1985 and her PhD at the University of São Paulo, Philosophy, in Aesthetics, 1993. She was a visiting scholar in a postdoctoral program at the following universities: University of California, Los Angeles. School of Public Policy and Social Research, 1995-96; University of Campinas, Brazil, Institute of Philosophy and Human Sciences, 1997; Nihon University, Tokyo, College of Design and Arts, 1999; Canadian Center for Architecture, Postdoctoral, Architecture, 2001. She has had many articles published and is the author of several books, among them *Móvel Moderno no Brasil*, which was sponsored by FAPESP and jointly published by the University of San Paulo Press and Studio Nobel in São Paulo. She is a scientific consultant for Brazilian Research Agencies, such as FAPESP, CAPES, FAPEMIG and CNPq. Currently she is the coordinator of the Workshop of Social Design at the Institute of Advanced Studies at the University of São Paulo. Dr. Loschiavo dos Santos' current research is about Discarded Products, Design and Homelessness in Global Cities and she is deeply committed to design and social responsibility issues. She was awarded with the First Prize by the Museu da Casa Brasileira, for her book *Móvel Moderno no Brasil*.

Figure 1.
A. COOPAMARE, manufacturing of basic uniforms and a logo proposal.
B. Resting device for the recyclable material collector.
C. Plastic cover for the wooden wagon.
D. Recycling bins to be used for the selective collections of trash.
E. Co-operative under the viaduct.
F. Package of compressed recyclable plastic bottles collected by COOPAMARE collectors.
G. Students' proposals for the improvement of the relationship.
H. Corporate Identity of the COOPAMARE.

BIBLIOGRAPHY

bell hooks 1994, *Teaching to Transgress. Education as the practice of Freedom*, Routledge, New York.
Freire, P. 1987, *Pedagogia do Oprimido,* Paz e Terra, Rio de Janeiro.
Freire, P. 2000, *Education for Critical Consciousness*, The Continuum International Publishing Group Inc., New York.
Freire, P. 2001, *Ação Cultural para a Liberdade e outros escritos,* Paz e Terra, Rio de Janeiro, 2001.
Freire, P. 2002, *Pedagogy of the Oppressed,* The Continuum International Publishing Group Inc., New York.
Heller, S. and Vienne, V. 2003, *Citizen Designer. Perspectives on design responsibility,* Allworth Press, New York, 2003.
Margolin, V. and Margolin, S. 2002,, 'A "social model" of design: issues of practice and research'. *Design Issues*, vol. 18, issue 4 /Autumn 2002.
Santos, M.C. Loschiavo 2003, 'Responding to conflicts through design. Urban artifacts for COOPAMARE' presented at *Visions of Possible Worlds. Scenarios and proposals for sustainability,* International conference organized by the Faculty of Design of Politecnico di Milano and the Triennale di Milano, 28–29th November 2003, Milan.

Reflexivity in Design Education

"Education is experience and the essence of experience is self-reliance" – The Once and Future King, T.H. White, 1939

Like all things English there is an element of the class system to this story. Vestiges of the class system have clung on to English society even in art school education, and this can be best demonstrated by the separation that existed and to some extent still does between the arts and crafts. This separation is embedded in the very architecture of the buildings such as the current site of Central Saint Martins College of Art & Design. Designed by W.E. Riley and A. Halcrow Verstage in 1903, the entrances to the old Central School of Art were split so that the artists and architects entered via one entrance while the more crafts-orientated students (London Day Training College) entered via a separate entrance. The rationale may have been that the well educated middle class students would not have to mix with the not so well educated working class crafts students. This issue of class is important in relation to the educational experience of the time, since middle class art students would have been exposed to the study of "high culture" and would be acquainted with art history. However, the working class students would not have had these experiences and would have therefore been ignorant of its significance.

It was against this historic backdrop and reacting to the new influences in society such as the emergence of the teenager, POP art and the advent of "popular culture" that a more democratic approach to curriculum design was initiated in 1960 by the National Advisory Council on Art Education report (better known as the Coldstream report).

One of the aims of the Coldstream report was to address such disparities and also to usher in "academic credibility" to studio practice and to legitimise art and design education as an academic activity. One outcome of this attempt was to legitimize studio practice by locating it within a historic perspective. As a result art historians were imported from universities and asked to explain to artists and designers why and how the artifacts and objects they produced were part of a historic continuum.

Art historians taught in the only way that art historians knew how to teach; they switched off the lights, turned on the slide projector, showed slides of art and design objects, discussed and evaluated them and asked art and design students to write essays – all according to the scholarly conventions of academia. The subsequent report in 1970 took note of the radicalisation and activism of students, who were challenging the established order with their politically motivated demonstrations in the streets of Paris, London and San Francisco. Yet at no time did the educational establishment display awareness or question the teaching methods that were being imported into art schools from other disciplines. So over the years we moved from Historical studies to Liberal, Cultural, Complementary, Theoretic and Contextual Studies. All these variations on the theme essentially employed a common teaching method which was and still is at odds with the traditional activities of studio learning and teaching.

Cultural studies, and let us call it that for the sake of convenience, teaches through imparting information by using the lecture format (in lecture halls and away from the studio, with students sitting in rows – a tradition which is derived from German military teaching methods) or seminars. Evaluating the students' comprehension of the subject is by testing their abilities through the essay format. A one-way stream of information is imparted to students with references to text and image employing the conventions of critical analysis that:

– examines the subject
– references the subject
– objectifies the subject/artifact
– dismembers the subject to its constituent elements
– looks at the essential components and elements of an image
– compares and contrasts etc.
– proposes a thesis
– presents case studies
– draws a conclusion etc.

Therefore, the process of understanding information and its transformation into knowledge becomes fundamentally an intellectual and cerebral activity for the student. (Figure 1)

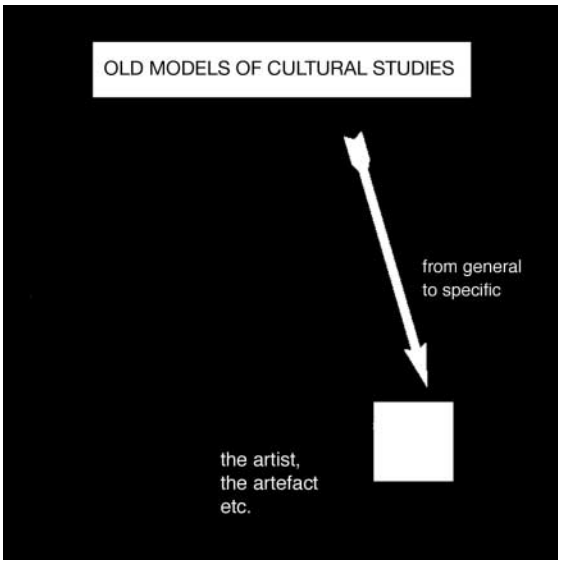


Figure 1.

This form of teaching wrongly assumes that art and design operates within a stable landscape of knowledge – a knowledge base that has arrived at positions of scholarship through the rigours of academia and empiricism. Harriet Edwards and Jonathan Miles[1] at the Royal College of Art have challenged this assumption and have gone some way in describing the "shifting landscape of knowledge" within which art and design operates. In this shifting landscape, a landscape where there is a more fluid interaction between the practitioner, the subject and culture as a whole, the rules based modus operandi of the scholarly essay is often at odds with what John Wood[2] describes as:

"the more opportunistic judgments involved with much [art and] design practice".

In contrast, studio teaching and learning allows our students to learn through "doing"; learning through projects and briefs which can lead to observation, play, assimilation, translation, repetition etc. This form of learning is more interactive and employs a range of multi-sensory techniques in its relationship with the "knowledge base", the curriculum and the subject of studio teaching. Implicit in the tradition of studio teaching is the notion that information is transferred into active knowledge through *experience*.

In studio based teaching the students' comprehension of the subject is assessed in an arena known as

1 Edwards & Miles 2004.
2 Wood 1999.

the studio critique (the crit), where the teacher and students come together, and the students are invited to demonstrate their understanding of the learning outcomes of a project by taking part in a dialogue. This dialogue has at its core a degree of negotiation and the student has the opportunity to display insights and understandings of the subject through a verbal presentation. They are able to interact with artifacts and discuss the processes of learning they have undergone and affirm (and self assess) some of the insights which they have gained. This form of assessment is in itself a learning process and not just an indicator of achievement.

Hence, we in art schools have that age old conundrum of a student who shows a "bad" piece of work, and having in essence *"failed",* is awarded a high mark. Why? Because they have been able to display their learning insights through talking, discussing, reflecting upon, speculating about and analysing their work. Yet we as educationalists have yet to address the question: How do we assess failure when it demonstrates reflective and deep learning? This a difficult dilemma for us, since somewhere in our psyche we feel the obligation of scholarly "evidencing" weighing down upon us.

Recently educational theoreticians have formulated a name for this form of teaching, it is called Problem Based Learning or PBL[3], which was interestingly initiated as a form of teaching in the Canadian medical education (McMaster University in Canada). PBL in a sentence is: setting problems for students, enabling them to develop a knowledge base through the processes of active and self-directed learning, and to arrive at solutions. If all of this sounds familiar, it is because art schools have been carrying out this form of education for a very long time. PBL as a theory of teaching and learning does go some way in formalising a critical framework which can address questions like the one posed earlier.

John Wood, to whom I referred earlier, in his seminal paper "The Culture of Academic Rigour: does design research really need it?"[4] reflects that there is an:

"uneasy liaison between the mediaeval monastic ('Book') and the crafts guilds ('design studio') traditions"

and the difficulties we have had as educators in integrating these different and disparate modes of:

"knowledge in [art and] design education".

So why do we need to integrate theory and practice in design education?

No better and apt rationale can be made than to quote Julia Lockheart who states in the introduction to the Primer Report for Writing Purposefully in Art and Design (Writing PAD)[5] project:

"Imagine you are a student at a university about to begin a BSc. [Bachelor of Science] As you begin your course you are told that in order that you learn to be more 'academic' and that you receive a more balanced education, you will be expected to devote 20% of your time to visual research and the rest to your subject area. Moreover, in your third and final year, you will be expected to hand in a substantial folder of work based on visual research into an intricate variety and array of themes. This will be your Major Visual Project and contains up to 30% of your degree marks. It will be an in-depth visual study and you can choose subjects which may or may not relate to other work you are doing on your course. You must be creative!

Where would you, our student, begin? When at school, you always stayed away from the art rooms, never expressed yourself through drawing and painting, and were more interested in finding information about the world in books rather than through observation."

This statement speaks for itself. Moreover, we should take account of research carried out by Jane Graves and Dr. Beverly Steffart[6] in the 1990s at Central Saint Martins College of Art & Design, which indicates that a disproportionate number of art and design students are dyslexics and large numbers of them,

3 Boud 1985.
4 Wood 1999.
5 Lockheart 2003, p. 4.
6 Graves and Steffart 2001.

though not certifiably dyslexic, do certainly display dyslexic styles of behavior and employ "Visual Spatial Learning Styles". This profiling allows us to glimpse into the minds of many art and design students, where there is a perception of the wide divide that exists in the traditions of studio and theory teaching. Moreover, many art and design students feel alienated by the methods of teaching employed in the teaching of theory.

It is widely acknowledged that a widening of the scope in the pedagogy of art and design education is desirable. For the sake of brevity, it is not possible to go into this aspect of the argument, other than stating that art and design student need to develop a lifelong relationship with research in order to become *reflective practitioners.* (Figure 2)

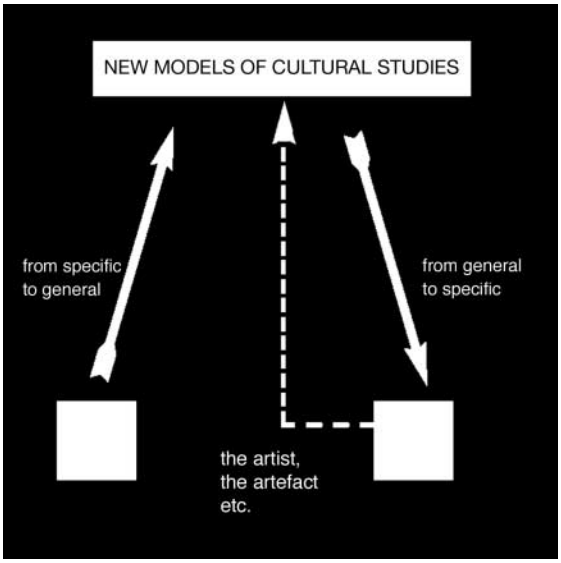


Figure 2.

However, what do we mean by "research through practice"?

Artists and designers, and by implication, students need to undertake many forms of research and Christopher Frayling [7] delineated these forms of research:

"In a sense, the concept of design as research – either applied research, where the resulting knowledge is used for a particular application, or action research, where the action is calculated to generate and validate new knowledge and understanding, or even (but very rarely) fundamental research – is so well established that it doesn't need elaborating here".

So to reiterate:

– applied research can be described as research in an industrial sense
– action research can be used to develop new points of view, as in the case of postgraduate studies
– fundamental research is where the very core of the subject is investigated

Many of our students define their research, however unconsciously, by finding themes that may express their interests (for instance in their proposals for

[7] Frayling 1993/94, p. 4.

their final thesis or major projects), which are often about:

– the Practitioner of art and design – i.e. I am interested in the work of …
– the Practice of art and design – i.e. I am interested in the process or way we do this, that or the other
– and the Product of art and design – i.e. I am interested in books, bags etc.

In turn, tutors are often in the position to use this starting point, to enable students to advance from a *position of conjecture* to a *position of critical insight.* Tutors introduce students to contextual and critical frameworks, discuss their ideas and develop strategies to undertake their projects according to appropriate methodologies or structures of thinking. Again to quote some of the differentiations drawn out by Frayling:

"– research into art and design
– research through art and design
– research for art and design"[8]

The idealised route map for this activity enables students to locate their understanding of the subject within a knowledge base and develop avenues of research which will determine their development. Embedded within the activity of research are a variety of investigative processes, each displaying a characteristic of a mode of inquiry. The range of these activities and actions can according to Prof. Martin Barker[9] be:

– exploratory [a search: using primary and secondary sources]
– archival [looking at lost histories]
– narratives [looking at a sequence of events]
– textual [visual] / analytic [what is the significance of these objects etc.]
– argumentative [I want to challenge your understanding of this subject]
– scholarly [here is a field of study, what is already known]
– critical [here is a knowledge claim, I will challenge, doubt, reason etc.]
– conceptual [people keep using these terms, concepts and ideas, but I think they need clarifying…]
– methodological [here is a way of thinking or set of procedures, I will take them apart]
– model-building [here is disorganised materials, let us try to sort them out]
– case study [here is a phenomenon, let me tell a story and bring it in to focus]
– hypothesis-testing [from what we already know, here is some deduced logic, let's find out]

Research is generative

It is essential to note that when we look at the characteristics of research described above, we can see that it is as an activity a generative process. It is a process that actively expands and amplifies ideas, processes, positions and connections – it is expansive in nature and promotes inquisitiveness. Moreover, this activity is an elaboration and development of a series of discourses.

One imagines that research has always been a generative activity, even in a time when the term had not yet been coined – it may have been described as enquiry. It is patently clear that as a generative activity it is closely linked, as Prof. Evans[10] describes, to our creativity and inventiveness as human beings. However, historically the western (heuristic/scientific) tradition has developed the dominant paradigm of making explicit the processes of research. This is achieved through the process of articulation and the creation of a logical and sequentially evidenced series of justifications for the actions which result from research.

In the arts we describe practice as an activity that allows the practitioners to submerge themselves into the chosen field; to explore, engage, interact and develop their interests, through a series of investigative (here the term investigation is used to imply its use in the arts tradition) actions. Significantly, these forms of studio activity share many characteristics with research as we have described. So where is the *disjuncture* between these approaches?

—
8 Frayling 1993/94, p. 4.
9 Barker 2003.
10 Evans 1998.

It would be difficult to separate between the activity of research in the arts and sciences, and the examination of research will demonstrate that there is a mutual approach. However, how we deal with the outcomes of research and the way we utilize them as an activity becomes a question of the descriptive or explanatory style.

Artists and designers recognize that the *material/subjective outcomes* of research can inhabit a variety of psychological, intellectual or physical spaces where the actions of research could be contemplated and assembled. How we create or describe these spaces and the formative activities that take place in them is the key to the understanding of research as practice.

Assemblage spaces and reflections, as opposed to critical analysis and synthesis

It is here, in these types of "assemblage space" where the process of generation becomes more than a storage archive – rather it is where the processes of reflecion can take place. During the generating of creative ideas, the designer and artist reflects by contemplating, deliberating, musing, in a state of reverie and preoccupation, daydreaming or even "floating about". This is a form of reflection that demands of students the activation of the visual imagination, where the process of connection-making or pattern-making happens. (Figure 3)

At this point it could be argued that though the traditions of scholarship and crafts have much in common in regard to research, the approaches to the process of analysis and synthesis are radically different. Again referring to John Wood, the monastic and truth-oriented knowledge has generated a form of knowledge that served to:

"validate and fortify belief"

and by doing so uses a knowledge base as a distant platform to view and examine the *specific* – for instance a "case study" in an academic paper can be seen as an example of this. A positional movement from a generalist stance to the specific example, to affirm the case for the whole. (Figures 4 and 5)

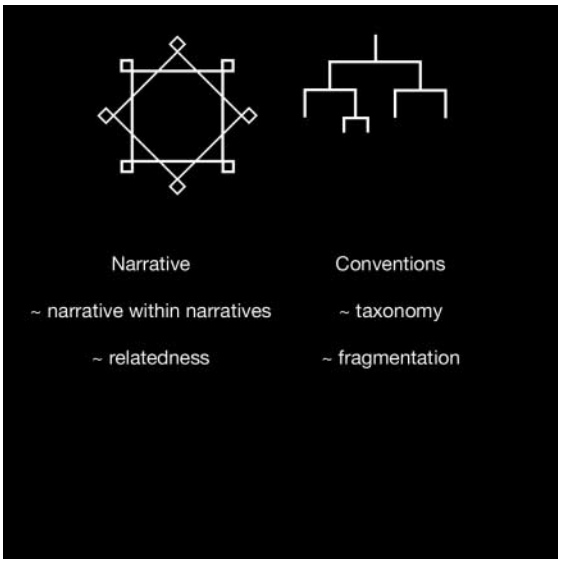


Figure 3.

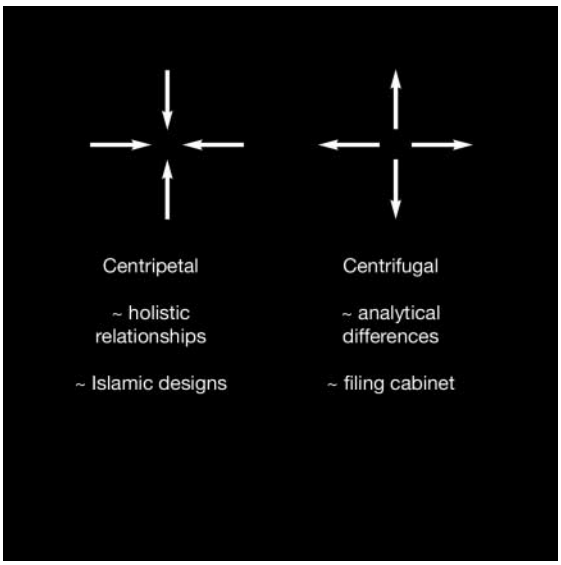


Figure 4.

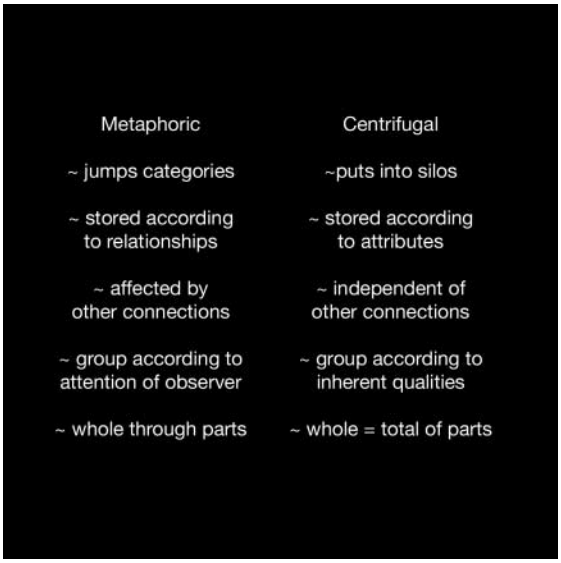


Figure 5.

In contrast we in art and design draw on a heritage derived from the Craft Guilds and have produced works and artifacts which are the products of:

"result oriented knowledge".

This could be described as a developmental process, where the specific becomes a starting point for the activity of affirming a knowledge base. A transition is made to the general by a process of re-contextualisation.

As Georges Perec[11] describes how as a child he used to write his address on the inside of his school book:

"Georges Perec
18, Rue de l'Assomption
Staircase A
Third Floor
Right-hand door
Paris 16e
Seine
France
Europe
The World
The Universe"

This description not only moves us from the specific to the general but it also, empathetically, allows us to comprehend the world through the eyes of the young Perec.

In conclusion I would suggest that instead of asking our art and design students (and practitioners) to strike the pose of a detached, divorced and abstracted examiner, we in fact design curricula that impel our students to manoeuvre and project themselves from the *specific* to the general (and returning to the specific and then back to the general etc.), when they embark on the activity of research.

The consequence of this would be that they do not embark from an intellectual or ideological position when they undertake research. Rather we start from artifacts and move towards discourses that can help locate the audience and the artifacts, processes, practice and practitioners of art and design within a landscape of interconnected cultural narratives. Essentially, the act of movement becomes the key to understanding both for the artist and designer and significantly the viewer/reader/audience or client.

The hermeneutic philosopher Hans-Georg Gadamer[12] describes the relationship of the whole and the part as:

"The anticipation of meaning in which the whole is envisaged becomes actual understanding when the parts that are determined by the whole themselves also determine this whole." [this statement takes some thinking about].

This sense of wholeness through the part is again re-enforced by …

"Schleiermacher elaborates this hermeneutic circle of part and whole in both its objective and in its subjective aspects. As the single word belongs in the total context of the sentence, so the single text belongs in the total context of a writer's work, and the latter in the whole of the literary genre or of literature. At the same time, however, the same text, as a manifestation of a creative moment, belongs to the whole of its author's inner life. Full understanding can take place only within this objective and subjective whole."[13]

In this way we can locate the presence of "I" within any research activity. Drawing from the conventions of acting the "Fourth wall", (where the actors acknowledge and make references to the audience), we can allow for research projects to create a dialogue with its own audience. Where there is an "I" then there is a "You" and also the possibility of a conversation between "Us".

I believe that many artists and designers persistently and subconsciously are attempting to recreate the environment of the crit when they engage in a dialogue with their audience. This dialogue needs to be based on empathetic models which encompass

—

11 Perec 1997, p. 84.
12 Gadamer 1975, p. 291.
13 Ibid.

democratic arenas for debate between designer as author (and writer) and audience as clients (in the case of designers). As Wood relates:

"Empathetic modes of writing – i.e. those with an author-reader relationship of less than 90º – enable designers to focus onto shared issues by "thinking-as", "thinking-for", and "thinking-into" their nominated [viewer / reader / audience or client /] reader.

Maziar Raein
Head of Context
B.A. [Hons] Graphic Design
Central Saint Martins College of Art & Design (BAGD | CSM)
The University of Arts London
e-amil m.raein@csm.arts.ac.uk

REFERENCES

Boud, D.J. 1985, *Problem-Based Learning in Education for the Professions*, Higher Education research and Development society of Australasia, Sydney.

Edwards, H. & Jonathan, M. 2004, 'Seeing and making: an enquiry into the nature and place of creative writing within the context of MA practice and dissertations', *Centre for the Learning and Teaching in Art & Design (CLTAD), London, 2nd International Conference*, Barcelona, April 2004.

Evans, F.T. 1998, 'Two legs, thing using and talking: the origins of the creative engineering mind', *AI & Society*, vol. 12, pp. 185–213.

Frayling, C. 1993/94, *Research in Art and Design*, Royal College of Art – Research Papers, London, ed. 1, vol. 1.

Gadamer, H-G. 1975, *Truth and Method,* Continuum, New York.

Graves, J. and Steffart, B. 2001, *Visual Spatial Ability and Dyslexia Research Project*, University of Arts London, London.

Lockheart, J. 2003, *Writing Purposefully In Art & Design, Primer Report* [Online], the Higher Education Funding Council for England – Fund for the Development for Teaching and Learning – Phase 4 Project, London, p. 4, available from: <www.writing-pad.ac.uk>.

Perec, P. 1997, *Spaces, Species of Spaces and other Pieces,* John Sturrock (trans.), Penguin Books, London.

Wood, J. 1999, 'The culture of academic rigour: does design research really need it?', *The Design Journal,* vol. 3, pp. 44–57.

UNPUBLISHED REFERENCES

Research and lecture material as presented at the Engagement Workshop, in May 2003 for Writing Purposefully in Art & Design a Higher Education Funding Council for England, Fund for the Development of Teaching and Learning, Phase 4 project: <http://www.writing-pad.ac.uk>. For additional references and information please refer to Martin Barker, Department of Theatre, Film and Television studies, University of Wales, Aberystwyth, <www.aber.ac.uk>.

For additional references and information please refer to: John Wood Programme Leader, MA Design Futures, Goldsmiths College, University of London,<http://futures.gold.ac.uk>.

Looking at Design in a Pragmatic Way: Re-connecting Intuition and Reasoning by Shifting between Visual Thinking and Visual Research

Introduction

The theory of visual thinking introduced by the gestalt psychologist Rudolf Arnheim[1] has become an increasingly popular term among writers within the area of design activity research, although the concept has seldom been challenged until recently with the works of Kathryn Moore[2] and Daniel Fallman[3], who both advocate the use of a pragmatic approach to design and the visual. In this paper, I will give some examples of problems and possibilities of utilising traditional and pragmatic visual research methods in a recent interaction design project. Finally, I will state that design researchers have to shift the approach from *mere looking* to an *active reading that involves interpretation of visual data*, otherwise the research results might not stand rigid examination.

Visual thinking and the design process

Research conducted in different scientific disciplines over the last decades[4] has confirmed what more or less always has been acknowledged amongst practising designers: visual thinking and sketching are inherent and essential parts of the design process. Gabriela Goldschmidt[5] sees sketching as a dialectic process between different modes of "seeing", between *seeing-as* and *seeing-that*.

Louise Valentine[6] explores in her intriguing PhD thesis the relationship between words and images, and focuses on how the designer's mind visually understands. Valentine defines visual thinking as an evolution of a designer's process as a means of externalizing, analysing, interpreting and communicating. Later in the thesis Valentine connects visual thinking with *intuition* and *mindfulness*, and uses the concept of classical rhetoric to describe the process of a designer's thinking as an iterative and rhetorical practice of looking, listening and questioning.

As with words, images help the designer to shift levels of abstraction in the system to be designed. Architectural research has a long tradition of using abstractions in the process, shifting the scale and point of view[7], or using pattern or sign languages to design complex environments[8]. Sketching and visual thinking have also been recognized as essential tools for idea generation and rapid evaluation[9] in the search for a complete gestalt[10] rather than just tools for plain problem solving.

Transforming visual thinking into visual research

As we will see later in this paper, using a designer's skills in visual thinking as "unreflected raw data"

1 Arnheim 1969.
2 Moore 2003b.
3 Fallman 2003.
4 Arnheim 1993; Moore 2003a; Oxman 2002.
5 Goldschmidt 1991.
6 Valentine 2004.
7 Moore 2003a.
8 Alexander et al. 1968.
9 Buxton 2003.
10 Stolterman 1999.

when conducting design research can be problematic. One of the apparent issues for the design researcher is how to deal with subjectivity and prejudice and to become objective and reflective. Fallman [11] makes this dichotomy apparent by describing three accounts when he describes the activity of design in a broad sense. Firstly, in the *Conservative Account* the design process is a rational search procedure that is fully transparent as in the natural sciences and engineering. Secondly, in the *Romantic Account* the design process is largely opaque and mystical, mostly apparent in the areas of music, poetry, drama and art. Thirdly, in the *Pragmatic Account* the design process is a reflective process and a dialogue, with human sciences and sociology as role models.

Moore [12], who observed how the students of landscape architecture struggled with the formalistic constraints of traditional design visualisations – such as rendered orthographic scale drawings – and how it negatively affects the implementation of the designs, has also recognised something similar in the romantic account. Moore argues against the concept of visual thinking in design education, stating that it is a harmful philosophical and metaphysical construct doing "more harm than good". Moore suggests that this issue can be avoided by re-conceptualising the visual not *as the only way* of design reasoning, but as just one version of events, one way of understanding the world. This can be done by adopting the approach from a pragmatist perspective building on the philosophical works of James, Holmes, Pierce and Dewey. By applying the pragmatic perspective, Moore argues that we can remove some of the mystery from the process of designing, however admitting that ambiguity and metaphysical concepts will continue to inspire designs.

Visual intuition without reasoning

My twenty years of personal experience using visual methods in the design process has been both successful and problematic in the implementation phase of a design project. As an example, I will describe a recent applied research project in interaction design where the aim was to improve the cognitive workload of factory workers by simplifying the system monitoring screen layout placed nearby the robotic cell it controlled. The original layout contained three different images, dense with information, with the operator constantly having to shift between them on a monitor. The team, with me as the lead designer, suggested that the information was to be prioritised, simplified and compressed into one screen by using an abstract 3D representation of the environment and the data. The end result was a complete aesthetic overhaul compared to the original design (figures 1A–B), but the reception from the operators was a negative surprise for the team during the following design clinic – very few users understood that the 3D representations on the screen were abstractions, not a true depiction of the actual equipment.

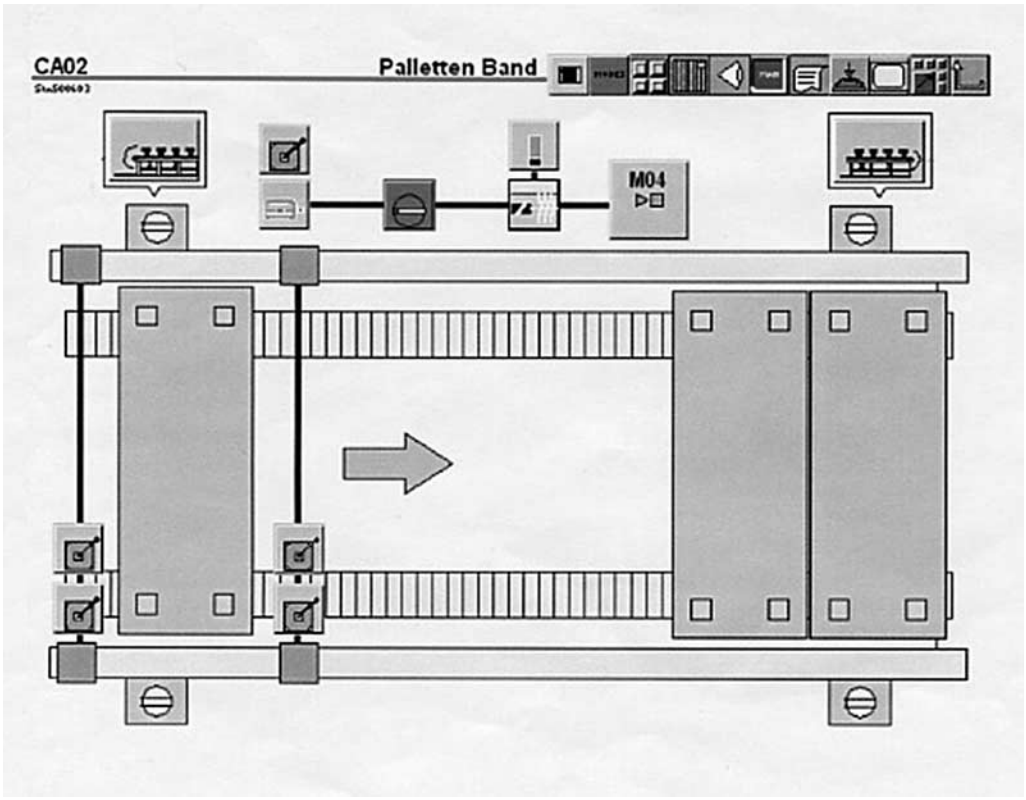
One of the most striking comments illustrating the problem of utilising three-dimensional abstractions came from one of the operators when exposed to our results:

"I really don't know ... Why is the conveyor belt so short?"

This statement demonstrates that the design team had overestimated the usefulness of the 3D representation and underrated the power of 2D pictures, no matter how primitive they might look. The comment about the length of the conveyor belt is very revealing; if you look carefully, you will see that the conveyor belt is in fact shorter in the 2D layout and about 50% longer in the 3D representation. However, compared to the length of the actual conveyor belt in the factory, it is still half of its true length. The operator sees the 2D picture as a symbolic representation with no spatial connection to the reality, whilst the 3D picture is automatically compared with the spatial proportions of the original object. The operator knows that 2D drawings seldom correspond to the real proportions – 3D pictures mostly *do* correspond to the real proportions of the depicted object. In this case – we, the designers – did not succeed in separating our metaphysical appreciation of 3D aesthetics from an analytical view of the original layout – the 2D drawings were quickly overlooked as amateurish

11 Fallman 2003.
12 Moore 2003b.

A



B

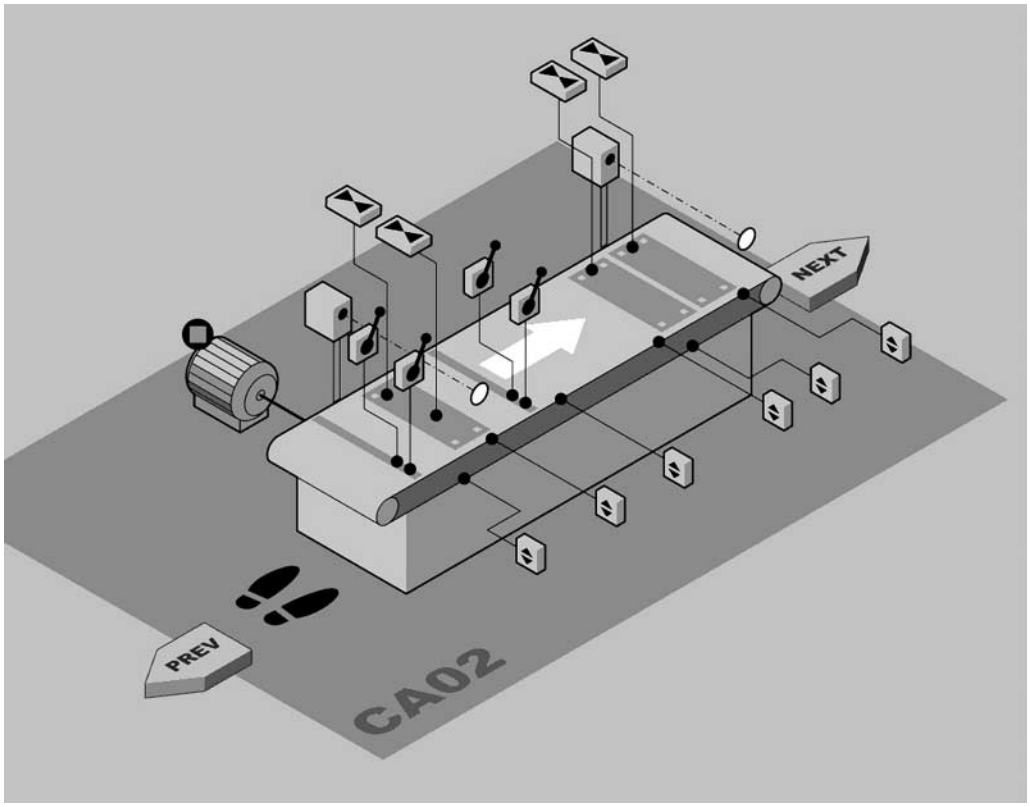


Figure 1. A–B.
A. One of the three original 2D layouts.
B. The proposed combined 3D layout.

and unattractive illustrations, and for that reason no functional analysis of the original layout were carried out by the team. We relied on what Fallman [13] calls the romantic account of design, trying to produce a functional piece of art, neglecting the qualities in what we encountered in the first place.

The aftermath of the negative outcome of the user clinic resulted in a different approach, where only 2D visualisation techniques were used and the results were much more appreciated by the operators.

Shifting from looking to reading visual data

The problem of the described project is not unique; it is rather a symptom of how contemporary design practice emphasizes the matter of *making* – focusing on tools, techniques, and materials – with a tendency to forget the end user. My argument is that this is not enough if we conduct visual research the results of which can withstand rigid questioning. One way of dealing with this problem is to embrace what Fallman describes as the pragmatic account:

"... Design is about being engaged directly in a specific design situation. It holds that design is always carried out somewhere in particular. This 'situatedness' locates the design process in a world which is already crammed with people, artefacts, and practices, each with their own histories, identities, goals, and plans." [14]

By following Fallman's reasoning, design research must be qualitative and situated, with the focus on users, their environments and their cultures. Instead of just *looking at* pictures, drawings, and videos, the researcher must make the effort of *reading* the visual data, in order to be able to analyse, interpret and reflect its content. In my design teaching practice, I have seen this ability of visual reasoning emerge among students who are not only able to create and interpret sketches, but who also can verbalise and textually describe and analyse the visual data in relation to the used context.

Visual research methods utilizing verbalisation and textual analysis are not new phenomena in many other disciplines, mainly within the humanities and sociology; photography and film were used to describe native tribes from the late 19th century, and were refined for example by the Chicago School when documenting urban cultures in modern North America [15]. Anthropologist Jeanette Blomberg [16] reports on the use of an ethnographic approach to IT design at Xerox PARC and Sapient, via a variety of visual methods such as participatory observations, video and photography. Buur et al. [17] and Mackay et al. [18] promote the use of video to engage users directly and actively in the design process, resulting in the so-called "collaborative representations" [19].

Discussion

In order to stand rigid academic examination, I have suggested in this paper that a shift of mode in visual research from *mere looking* to an *active reading and interpretation of visual data* is essential – in combination with other methods. This perspective does not exclude other design disciplines, apart from interaction design, from becoming active readers of visual data, and there is still room for intuition and creativity in the process. On the contrary, my own experience is that design students who develop into both intuitive "lookers" and active readers become more reflective and self-confident in their professional role by the time they leave the education, ready to face the challenges of a constantly changing working life.

Niklas Andersson
PhD Student
Umeå Institute of Design
Umeå University
e-mail niklas.andersson@dh.umu.se

—

13 Fallman 2003.
14 Ibid., p. 227.
15 Ruby 1996.
16 Blomberg 2001.
17 Buur et al. 2000.
18 Mackay et al. 2000.
19 Banks 1995.

REFERENCES

Alexander, C., Ishikawa, S. & Silverstein, M. 1968, *A Pattern Language Which Generates Multi-service Centers,* Center for Environmental Structure, Berkeley, USA.

Arnheim, R. 1969, *Visual Thinking,* University of California Press, Berkeley, USA.

Arnheim, R. 1993, 'Sketching and the psychology of design', *Design Issues,* vol. IX, no. 2, Spring 1993, pp. 15–9.

Ashwin, C. 1989, 'Drawing, design and semiotics', in: Margolin, V. (ed.), *Design Discourse: history, theory, criticism*, pp. 199–209,

Banks, M. 1995, 'Visual research methods', *Social Research Update*, issue 11, available from: <http://www.soc.surrey.ac.uk/sru/SRU11/SRU11.html>.

Blomberg, J., Burrell, M. & Guest, G. 2001, *An Ethnographic Approach to Design,* Sapient Co., pp. 1–54.

Buur, J., Binder, T., Karasti, H. & Brandt, E. 2000, 'Video as design material: expanding the potential of video in user centred design', *Tutorial at NordiCHI 2000*, STDMI.

Buxton, B. 2003, *Sketching and Interaction,* Public lecture at Umeå University, 17th December 2003.

Clews, D. 2003, 'Visual research for learning in design technologies', Wadham College, Oxford, UK, in: *The Proceedings of BUILDING THE LINK 2003 – Integrating Teaching with Research and Practice in the Built Environment Conference*, Wadham College, Oxford, UK, 8–10th September 2003.

Fallman, D. 2003, 'Design-oriented human-computer interaction', in: *The Proceedings of CHI 2003*, ACM, Ft. Lauderdale, Florida, USA, 5–10th April 2003, pp. 225–32.

Goldschmidt, G. 1991, 'The dialectics of sketching', *Creativity Research Journal*, vol. 4, pp. 123–43.

Mackay, W., Ratzer, A. & Janecek, P. 2000, 'Video artifacts for design: bridging the gap between abstraction and detail', in: *The Proceedings of the Symposium on Designing Interactive Systems DIS'00*, ACM Press, Brooklyn, New York, USA, June 2000, pp. 72–82,

Moore, K. 2003a, 'Between the lines: the role of drawing in design' [Online] *Loughborough University*, available from: <http://www.lboro.ac.uk/departments/ac/tracey/comm/moore.html>, accessed 10th August 2004.

Moore, K. 2003b, 'Overlooking the visual'', *The Journal of Architecture,* vol. 8, Spring 2003, pp. 25–40.

Oxman, R. 2002, 'The thinking eye: visual re-cognition in design emergence', *Design Studies,* no. 23, pp. 135–64.

Ruby, J. 1996, 'Visual anthropology', Levison & Ember (eds), *Encyclopaedia of Cultural Anthropology,* vol. 4, pp. 1345–51, .

Stolterman, E. 1999, 'The design of information systems: parti, formats and sketching', *Information Systems Journal*, vol. 9, issue 1, January 1999, pp. 3–20.

Valentine, L. 2004, 'The activity of rhetoric within the process of a designer's thinking', *Designjournalen*, vol. 11, no. 1, pp. 17–27.

Documentary Photography: Between Knowledge and Art

The Use of "The Grounded Theory Approach" in Documentary Photography

Introduction

Our point of departure was the following position: a trained eye is able to see more. We raised the next question from that position: if a trained eye sees more, how can we train this eye in such a way that it is able to see more? Or to put it in another way: can we develop a method of documentary photography for our students that helps them to have a grip on their subject, to broaden their outlook and to develop and sharpen their point of view.

From personal experience we know that the way a sociologist operates resembles the manner of a documentary photographer. In their working method they follow partly the same route. They both have society as their subject matter. They both collect comparable information, and they use similar research methods. But while in the study of sociology a lot of attention is given to the development of research methods and the way it has to be handled, the documentary photographer has to find his or her own way. An appeal is made for them to use their intuition or to follow their feelings. To put it straight: in the Dutch higher art education we lack a method that is specifically developed to teach the future documentary photographer to work systematically and to think analytically.

If there are many similarities in the working method of a documentary photographer and a sociologist, it is obvious first to investigate which methods used in sociology match best those of a documentary photographer and second, to try and find examples of documentary photographers who make use, consciously or unconsciously, of these methods.

Our idea behind this is that when there appears to be a pattern in the working method of a documentary photographer, one can speak of a research method that can be known, made transferable, and learned. We have focused on the so-called grounded theory in sociology and have tried to recognize this theory in the working method of four documentary photographers. From each of these photographers we have chosen a project: the project *The Americans* from Robert Frank published in 1959, Martin Parr's project *The Last Resort* published in 1986, *Pictures from Home* from Larry Sultan in 1992 and *Territorium* from Theo Baart published in 2003.

The grounded theory approach

The grounded theory approach in sociology is a research method in which one gradually develops a theory by systematically looking at the social reality. This means that one does not depart from hypotheses that will be tested on their validity. The grounded theory departs from more general insights, so-called "sensitizing concepts". Even though these sensitizing concepts do give a sense of direction, one never knows beforehand where one is going to end. In the course of the research process the searching will become more specific and more directed. By looking at comparable cases and theoretical sampling, one tries to penetrate the phenomenon and sharpen the concepts, necessary in order to describe and clarify the social phenomenon more adequately. This is an "emic" procedure, which means that one tries to put oneself in the social circumstances of the ones being examined. The objective of the grounded theory approach is the constantly sharpening of concepts coming from experience and not from theory, i.e. substantive concepts.

They phase their research as follows: perception and analysis are being alternated with reflection; fairly general insights are being sharpened in the course of the research process.

A comparison between documentary photography and sociology

The sociologist uses the grounded theory to form new theories that can explain reality. The documentary photographer does research in order to be able to express his view on reality. Essential in this approach is that the researcher is looking intensely with and at the subject that is being researched in order to find the meaning of it, or in order to get to know and interpret the situation. Both disciplines realise that there is no such thing as *the* reality. It always means a construction of reality. Our research shows that there are many similarities between the working methods of documentary photographers and sociologists, as far as they both make use of the grounded theory approach:

– Both choose subjects from society.
– Their point of departure is generally speaking a personal experience or a fascination.
– It takes a long time to collect the data by using a diversity of sources derived from an important part of daily life (like newspapers and ego documents).
–Both disciplines acknowledge the fact that most subjects do not stand on their own but have a history.
– In the process of data collection neither of them selects beforehand.
– They use a continuing cycle of perception, reflection, analysis, reflection, perception, reflection etc. in order to come as close as possible to the essence of the subject.
– And, last but not least, both acknowledge the existence of prejudice, the so-called "myths" that exist around their subjects. An important motive for them to start researching the subject is to chase existing opinions, the so called "myth-hunting".

Analysis of the working method of the chosen photo projects

The Americans

In 1954 Robert Frank was the first European photographer to receive the Guggenheim fellowship. From his application form for the fellowship we have selected some quotations:

"To photograph freely throughout the United States, using the miniature camera exclusively. The making of a broad, voluminous picture record of things American, past and present."

"The project I have in mind is one that will shape itself as it proceeds, and is essentially elastic."

"Incidentally, it is fair to assume that when an observant American travels abroad his eye will see freshly; and the reverse may be true when a European eye looks at the United States."

"I speak of the things that are there, anywhere and everywhere – easily found, not easily selected and interpreted."

"The uses of my project would be sociological, historical and aesthetic. I intend to classify and annotate my work on the spot, as I proceed."

Frank formed a broad notion of the American society by writing down some core conceptions (sensitizing concepts):

"A parking lot, a supermarket, the man who owns three cars and the man who owns none, the farmer and his children, a new house and a warped clapboard house, the dictation of taste, neon lights, gas tanks and backyards …"

However, in the course of the project Robert Frank took a cliché and turned it inside out. Mobility is a word which seems to appear most often in the foreigners' accounts of American life. But mobility also had a second meaning. The promise of an American life was the opportunity to move upward on the social and economic ladder. To be an American was to be ambitious. Robert Frank saw the flipside of the American dream. He photographed the non-mobile American, the working classes who live the life of a specific place. The only mobile person in Robert's Frank's *The Americans* is the artist himself. He does this by using the technology that made American mobility possible: highways, gasoline stations, railway stations, telephones, motels and automobiles. Starting in 1954, he finished his project in 1959.

One can call Robert Frank a grounded theorist avant la lettre. Applying for the Guggenheim Fellowship he presented himself pointedly as an outsider. (Eyes will see freshly). In the course of his project, taking place in the period of McCarthyism, he was spotted as an outsider and accused of espionage. He even got arrested. It is events like these that also coloured the result of the project.

What speaks for the grounded theory is Frank's remark "the project I have in mind is one that will shape itself as it proceeds, and is essentially elastic." He does so by developing his films every evening in his lodging in order to look at his project in progress and in order to make decisions about how to proceed and where to go next. But the most striking quotation is perhaps "I speak of things that are there, anywhere and everywhere – easily found, not easily selected and interpreted." Once the book is published Frank receives a lot of criticism. He reacts as follows:

"The view in the book is personal and therefore, various facets of American society have been ignored ... I have been frequently accused of deliberately twisting subject matter to my point of view. Above all, I know that life for a photographer cannot be a matter of indifference ... It is important to see what is invisible to others ..."

The Last Resort

Martin Parr's book *The Last Resort* is concerned with a resort in decay which in spite of that stayed popular with the population of a nearby industrial city. When Parr himself moved to that city he knew there was a subject to be photographed, though he did not yet know which subject it was. He finds the resort "energetic", to paraphrase. He worked five years on this project, including an interval of two years he spent in Ireland. He started his project by making black and white photographs on a 35 millimeter, but gradually he started using colour and a medium size camera including flashlight. He himself said concerning his working method:

"I'm a very intuitive person, and I just do what I think is right. Nothing is planned. My experience of my daily life overlaps with my subject matter, and I'm trying to articulate in photographs how I experience the world. As a photographer, you usually don't work these things out overnight. There's a gradual realization of what it is you do."

Parr's working method resembles in great outlines that of the grounded theory. He sees himself as a typical exponent of the middle class and wants to portray that middle class. His subject matter is related to his personal life. For example during *The Last Resort* project he is asking himself whether he wants to become a father and examines this question by focusing on other families and photographing them. Unlike anyone he goes deeply in the visual language of other photographers. He is a great collector of photo books, postcards, and all other kinds of vernacular photography.

In *The Last Resort* one can see in the use of colour the influence of American photographers such as Eggleston and Steinfeld. In the way he uses flashlight one can also see the influence of the English photographer Chriss Killip. Furthermore, one can see that he is using aspects of the postcards of John Hinde.

Pictures from Home

Larry Sultan's project *Pictures from Home* depicts his family history in the era of the American dream. The book consists of stills from home movies, family photograph albums, text and photographs of his parents. The written commentary in the book describes strikingly his working method:

"I wake up in the middle of the night, stunned and anguished. These are my parents. From that simple fact, everything follows. I realize that beyond the rolls of film and the few good pictures, the demand of the project and my confusion about its meaning, is the wish to take photography literally. I want my parents to live forever."

Here he presents himself as an insider:

"I wanted to puncture the mythology of the family and to show what happens when we are driven by images of success. And I was willing to use my family to prove a point."

But he also changed his perspective by taking the position of an outsider and vice versa.

"What drives me to continue this work is difficult to name. It has more to do with love than sociology, with being a subject rather than a witness. And in the odd and jumbled process of working everything shifts; the boundaries blur, my distance slips, the arrogance and illusion of immunity falters."

The next example will show that Sultan during the process of the project is constantly sharpening his attention towards his subject matter. He included some commentaries of his father in his book:

Father: "What do you do with all those pictures that you make? You must have thousands of them by now."

Larry replies: "I tell him that most of my photographs aren't very interesting and so I just file the negatives away in boxes."

Sultan worked on the project for ten years.

Territorium

Territorium is a project by Theo Baart, a Dutch photographer, published in 2003. It deals with a new housing quarter in Amsterdam where he himself lives. Baart is probably the best example of participating observation. He uses an inside view as well as an outside view. His own experiences as a resident, written down in his diaries are being alternated with interviews with key figures in the quarter. By researching and photographing he forms himself an opinion about the changes that take place in this new quarter of the town. He says:

"My view concerning the Bijlmer has changed. My trips in this quarter have answered a lot of my questions."

Altogether his project took seven years.

Summary

All chosen photographers started from a personal fascination. In an ongoing and long process of observation, reflection, analysis, reflection and again observation, they gathered information from a variety of sources. They all succeeded in breaking myths, in getting into the subject and in finding an essence. Sometimes they did it by taking a distance when looking at the subject, sometimes they searched intensely in trying to find the proper visual language. They all came to a conclusion by focusing intensely and for long periods on the subject.

Conclusion

We noticed from the various careers of the chosen photographers that all of them, almost self- evidently, applied the same working method. The supposition in photography, even documentary photography, that aesthetics is the most important issue for the photographer, is extended in such a way that it shows that aesthetics is the result of a search which comprises a lot of different elements. Only by including those different elements documentary photographers can succeed in articulating most adequately their view on social reality. If we can recognize this working method, we can transfer this to our forthcoming students in art. A trained eye sees more.

Ineke Teijmant, Bart Sorgedrager and Corinne Noordenbos
Utrecht School of the Arts
Universiteit van Amsterdam

Bart Sorgedrager
Freelance documentary photographer, guest lecturer at Utrecht School of the Arts. Studied photography at the Rietveld Academy in Amsterdam. Published several projects in collaboration with Ineke Teijmant, such as *Meer en Vaart: disappearing neighbourhoods in Amsterdam* (2004).
e-mail b.sorgedrager@chello.nl

Ineke Teijmant
Urban sociologist at the University of Amsterdam, guest lecturer at Utrecht School of the Arts. Published several projects in collaboration with Bart Sorgedrager.
e-mail I.Teijmant@uva.nl

Corinne Noordenbos
Freelance documentary photographer, course leader BDes Photography School of the Arts.
e-mail corinne.noordenbos@bkv.hku.nl and corinne.noordenbos@wxs.nl

Corinne Noordenbos, Bart Sorgedrager and Ineke Teijmant are working on a book on the practice of documentary photography. Their first article on this subject was called "A trained eye sees more", published in *The reflective zone*, Utrecht School of the Arts (2004).

REFERENCES

Aletti, V. 1993, *Family Viewing,* Village Voice, July 6.
Baart T. 2003, *Territorium*, in collaboration with NAI Publishers, NAi/Ideas on Paper.
Becker, H. 1974, 'Photography and sociology', *Studies in the Anthropology of Visual Communication*, 1, pp. 3–26.
Glaser A. & Strauss B. 1967, *The discovery of grounded theory: strategies for qualitative research*, Aldine, Chicago, pp.1–2.
Frank, R. 1959, *The Americans*, Grove Press, New York.
Frank, R. 1986, *New York to Nova Scotia*, Museum of Fine Arts, Houston.
Frank, R. 1994, *Moving out,* National Gallery of Art, Washington, Scalo.
Liu, C., Sultan, L. 1990, *Bomb # 31*, Spring 1990.
N.N. 1987, *Interview with Martin Parr for Gkfbulletin*.
Parr, M. 1986, *The Last Resort,* Promenade Press.
Sultan, L. 1992, *Pictures from Home*, Harry, Abrams.
Vroege, B. & Herst D. 1995, 'The autographie realism in recent photography and media art', *Perpective Quartely Photography Magazine,* no. 49.
Willams, V. 2002, *Martin Parr,* Phaidon, London.

UNPUBLISHED REFERENCES

Boot, C. n.d., *Magnum Stories* [Manuscript].

Research, Development Project or Art/Design Process?

Contribution to Clarifying Terminology

Introduction

Ten years ago I was convinced that creative work within the fields of art and design – which in this paper will be denoted art/design work without elaborating their likenesses and differences – might be considered research, given that the artist/designer accounted for the thinking that went into the art/design project. Today, I am uncertain of this position although it is still accepted in some art/design milieus. This uncertainty has arisen due to a deepened understanding of the characteristics of both scientific and art/design processes. In 2003, a new postgraduate programme was established in Norway for art/design development projects in which the art/design product is to be the primary outcome. Such development projects are defined non-scientific, as equal, but different from doctoral programmes [1]. If artists/designers want to acquire doctorates, they have to carry out research projects in which the production of theoretical knowledge is to be the main outcome, not art/design.

This paper first clarifies the terminology by elucidating the differences between research in the established, scientific understanding of the term and art/design processes. Second, it shows alternative plans for art/design processes, suggesting how research may be integrated.

Clarifying terminology

In order to understand each other when we speak, the words or the terminology we use have to be clarified.

Research

The English word "research" is not unequivocal. Research may signify as different phenomena as to simply search for something, or to execute scientific enquiry [2]. In consequence, problems arise when using the word. The Norwegian language has two separate words for these different meanings: *forske* and *utforske*. The first word defines (normatively) scientific activities, the latter non-scientific. *Utforske* may be regarded similar to "explore", denoting activities that anyone may undertake, young or old, lay or professional, without indicating procedures of any kind. In this paper, research refers to scientific enquiry only.

The task of research is to conceptualize observations, analyze data and to build a theory that explains the situation dealt with, and helps to predict future events. Central in research is finding ways of testing the validity of the new knowledge created [3]. Research projects are characterised by being purposive, inquisitive, informed, methodical, and communicable [4].

Research and science

The concepts of research and science are interlinked. Science stems from the Latin word *scientia* that means knowledge [5]. It is an umbrella concept that can hardly be defined. However, science has at least three basic characteristics, which are:

– precision
– generality
– intersubjectivity

1 *Forslag til program for kunstnerisk kompetanseutvikling i kunstutdanningsinstitusjonene,* 2000, p. 5.
2 The New Shorter Oxford English Dictionary on Historical Principles, p. 2558.
3 McNiff 2002, p. 7.
4 Cross 2000, p. 98.
5 *The New Shorter Oxford English Dictionary on Historical Principles,* p. 2717.

Precision deals with clarity and the specification of the treated topic. Generality is demanded when theories are put forward to secure a broader perspective than mere personal speculation. Intersubjectivity refers to the necessity of establishing shared concepts and terminology to allow discourse and critique to take place[6].

Research is the activity that provides the new knowledge that science – understood in a broad context including social sciences and the humanities – comprises and manages. However, considering research and science, the words of the late philosopher of philosophy Paul Feyerabend are challenging: "… the events, procedures and results that constitute the sciences have no common structure … successful research does not obey general standards"[7].

Art/design

Broadly speaking, art/design concerns the human capacity to reflect through matter and form in order to express ideas and shape our environment[8]. In this context, it may suffice to say that especially design aims at providing new conceptual and formal solutions to particular problems[9]. Characteristic of art/design processes is that they are unpredictable, open-ended creative activities with innumerable possibilities. There is not one solution to a problem or a task, but many that may be equally good and satisfying. Some products or solutions are better than others, but none are false or true.

Theory

Theory stems from the Greek word *theoria* that means sight, contemplation or speculation[10]. A theory may refer to everyday thinking about anything, but in a scientific sense the above-mentioned characteristics must be present. A definition offered by the British art historian Eric Fernie says: "A theory is a speculative attempt to explain a number of apparently disparate factors ... theory should be made to work by being tied to practice and practice illuminated by being questioned by theory"[11]. The Norwegian art historian Ståle Sinding-Larsen says that a theory related to art/design concerns the connections one thinks there are between different things. He writes: "… In its simplest form a theory is a systematic survey" (my translation)[12]. Social scientist and artist/designer Ken Friedman holds that: "In its most basic form, a theory is a model"[13].

Theory for praxis

During the debate on the development of a theory in art/design in Scandinavia in the early 1990s, the Danish philosopher Søren Kjørup suggested that artists/designers themselves start to build theories for praxis – "production aesthetics" or "poetics". Such theories should conceptualize, systematize and articulate the thinking and understanding that artists/designers execute throughout their making processes. Aesthetics in general relates to that which is perceived and explains what art/design is in philosophical terms, while theories for praxis arise from and point to the creative acts, their goal being to improve future art/design processes and outcome[14].

Research, development projects or art/design process

Art/design processes

Most art/design processes include phases of information seeking on the task in question[15]. This information seeking can be short or long, shallow or deep. It may span from finding contingent books in the nearest library to lifelong study and research. Several factors are influential: personal interests and talents,

6 Nerheim 1995, p. 11–2.
7 Feyerabend 2002, p. 1.
8 Kjørup 2000, Heskett 2002.
9 Lawson 2002.
10 *The New Shorter Oxford English Dictionary on Historical Principles*, p. 3274.
11 Fernie 1996, p. 366.
12 Sinding-Larsen 1994, p. 20.
13 Friedman 2002, p. 1.
14 Kjørup 1993, p. 35–6.
15 Lawson 2002, chapter 3.

the task, the resources given: economical, cultural, time, etc. However, crucial is the artist's/designer's personal notion of what may be sufficient to solve the given task satisfactorily.

Practitioners and research

Sometimes practitioners – artists/designers included – become researchers. One reason why this is, is expressed in the book *The Craft of Research*: "Most everyday research begins not with finding a topic but with confronting a problem that has typically found you, a problem that left unresolved means trouble." [16]

Faced with a problem that blocks further artistic/design work, the artist/designer has to find a solution or quit the job. If the artist/designer wants to pursue the problem, he/she may engage in research [17]. Without losing his/her personal goal, the artist/designer has to acquire research skills in order to carry out his/her task effectively [18] (figure 1).

Hopefully the research findings will help the artist/designer continue his/her art/design process.

If he/she does, such a process is what in Norway is suggested to be awarded a *doctor artium aestheticarum* (dr. aest.). This doctorate demands academic standards, but incorporates art/design work [19]. The candidate has to manage the double procedures both of research and art/design work [20].

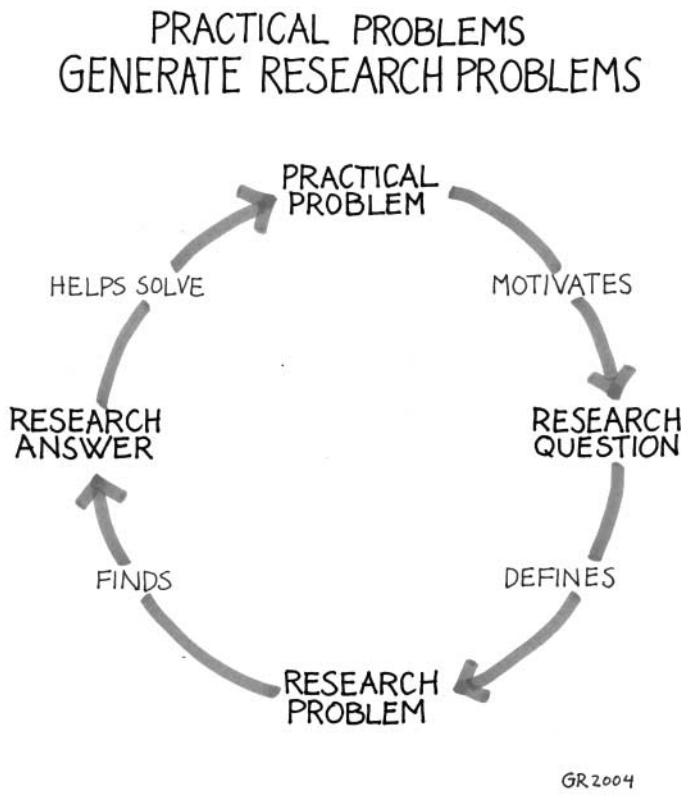


Figure 1. Diagram drawn after Booth, Colomb, and Williams 1995, p. 49.

16 Booth, Colomb and Williams 1995, p. 49.
17 Refsum 2003b.
18 Refsum 2003, p. 233a.
19 "Doktor kunst" 1999, p. 5.
20 Refsum 2000.

Development projects

Art/design development projects, as established in Norway, represent a parallel to basic research, applied research and experimental development as defined by OECD [21]. The outcome of such projects is expected to be more than art/design products of quality; an account of the process and a contribution to the theory building within the field are also demanded.

Projects in which the information seeking is extensive, or the research aspect is lacking from a scientific point of view, may fall into this category. Most graduates in the Norwegian art/design schools deliver some kinds of development projects for their exam, pure making processes or research being the exceptions.

Conclusions

Researchers deal with solving research questions, providing articulated, reliable knowledge. Artist/designers also engage in problem solving of some kind, producing expressed ideas, artifacts and products. The two activities may share a resemblance to each other, but are not and should not be synonymous since their goals are basically different (figure 2):

– Alternative one shows a craft (craft used synonymously to profession) based process carried out with a minimum of information seeking, relying on the knowledge the artist/designer already has acquired.

– Alternative two represents a development project

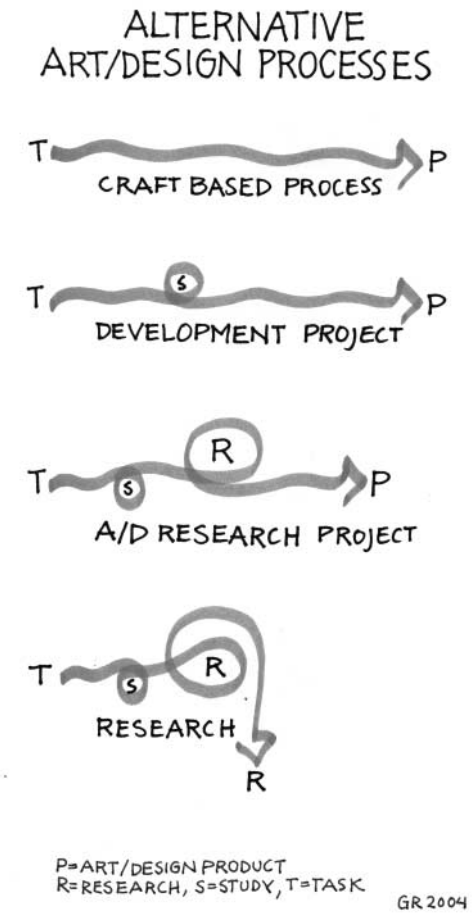


Figure 2. Alternative art/design processes.

21 *Forslag til program for kunstnerisk kompetanseutvikling i kunstutdanningsinstitusjonene,* 2000, p. 5.

in which information is sought.

– Alternative three illustrates a project that includes research, a "Dr. kunst" project.

– Alternative four suggests a process in which the artist/designer leaves praxis for research.

In my opinion, the fields of art/design need all these alternatives[22]. However, lacking is an understanding – let alone consensus – about their differences, characteristics and specific qualities. I think that a deepened understanding of this variety of praxis, which exists within the art/design fields, is required in order to adequately fulfill the task of being a contemporary artist/designer. One simply has to know what tools to use, when and how.

Dr. Grete Refsum
Associate Professor
Oslo National College of the Arts, Faculty of the Visual Arts
e-mail grete.refsum@khio.no and grete@refsum.org

Grete Refsum (1953) is a professional visual artist and Associate Professor at The National Academy of the Arts in Oslo, Department of Visual Arts. Refsum has edited *Yearbook 2004; Forskning, utviklingsarbeid og fagutvikling i kunstfagene*, Oslo National College of the Arts. She contributes regularly to papers on the research in art and design in international conferences. As her private work, Refsum works theoretically and artistically on central Christian themes, contributing to the establishment of a contemporary visual theology, see online: <http://www.refsum.org>.

REFERENCES

1993, *The New Shorter Oxford English Dictionary on Historical Principles,* vol. 2., Clarendon Press, Oxford.
1999, *Det norske universitetsråd*, Oslo, p. 19.
2000, *Forslag til program for kunstnerisk kompetanseutvikling i kunstutdanningsinstitusjonene,* Innstilling fra en arbeidsgruppe nedsatt av Kunsthøgskolen i Bergen, Kunsthøgskolen i Oslo og Norges musikkhøgskole, Oslo.
Booth, W., Colomb G. and Williams J. (eds.) 1995, *The Craft of Research,* The University of Chicago Press, Chicago, London.
Cross, N. 2000, in: Durling, D. and Friedman, K. (eds.), *Proceedings of the Conference Doctoral Education in Design: Foundations for the Future, 8–12th July 2000, La Clusaz, France,* Staffordshire University Press, Staffordshire, pp. 93–100.
Fernie, E. 1996, *Art History and its Methods. A Critical Anthology,* Phaidon Press, London.
Feyerabend, P. 2002, *Against Method,* Verso, London, New York.
Friedman, K. 2002, in: Durling, D. and Shackleton, J. (eds.), *Common Ground. Proceedings of the Design Research Society International Conference at Brunel University, 5–7th September* Staffordshire University Press, Stoke on Trent, UK, pp. 36.
Heskett, J. 2002, *Toothpicks and Logos. Design in Everyday Life,* Oxford University Press, Oxford.
Kjørup, S. 1993, Forskning i praktisk-æstetiske fag – nogle overvejelser og idéer, in: *Kunstfaglig forskning. Rapport fra konferanse 13.-15. Februar 1992, Åsgårdstrand,* Norges forskningsråd, avdeling NAVF/RHF, Oslo, pp. 26–8.
Kjørup, S. 2000, *Kunstens filsofi – en indføring i æstetik,* Roskilde universitetsforlag, Roskilde.
Lawson, B. 2002, *How Designers Think. The Design Process Demystified,* Architectural Press, Oxford.
McNiff, J., Lomax, P. and Whitehead, J. 2003, *You and Your Action Research Project,* RoutledgeFalmer, London and New York.
Nerheim, H. 1995, *Vitenskap og kommunikasjon. Paradigmer, modeller og kommunikative strategier i helsefagenes vitenskapsteori,* Universitetsforlaget, Oslo.
Refsum, G. 2000, *Genuine Christian Modern Art. Present Roman Catholic Directives on Visual Art Seen from an Artist's Perspective, doctor thesis,* Oslo School of Architecture, Oslo.
Refsum, G. 2003a, 'Historical Studies in Practice Based Art and Design Research', in: Tostrup, E. and Hermansen, C. (eds.), *(theorising) History in Architecture* Oslo School of Architecture, Oslo, pp. 229–38.
Refsum, G. 2003b, *Journal of the Asian International Conference,* 1, p. 103.
Refsum, G. 2004, *FoU i Kunsthøgskolen. Forskning, kunstnerisk utviklingsarbeid og fagutvikling,* in: Refsum, G.(ed.), *Oslo National College of the Arts Yearbook,* vol. 1, Forskning, kunstnerisk utviklingsarbeid og fagutvikling, Oslo National College of the Arts, Oslo, pp. 17–44.
Sinding-Larsen, S. 1994, *Arkitekturteori og bygningsanalyse,* Tapir, Trondheim.

—
22 Refsum 2004.

Cumulus Educational Institutions

Aarhus School of Architecture (AAA) **Aarhus**
Gerrit Rietveld Akademie **Amsterdam**
T.E.I Technological Educational Institution **Athens**
Escola de Disseny Superior Elisava **Barcelona**
Central Academy of Fine Arts CAFA **Beijing**
College of Art and Design **Bergen**
Akershus University College, Department of Product Design and Development **Blaker**
The Arts Institute of Bournemouth **Bournemouth**
Academy of Fine Arts and Design **Bratislava**
Universitatea de Arte **Bucharest**
Hungarian University of Craft and Design **Budapest**
Danmarks Designskole **Copenhagen**
School of Architecture, Royal Danish Academy of Fine Arts **Copenhagen**
Academy of Fine Arts **Cracow**
National College of Art and Design **Dublin**
The Design Academy **Eindhoven**
University of Essen **Essen**
Kathiolieke Hogeschool Limburg, Academy for Media and Design **Genk**
School of Design and Crafts Gothenburg University **Gothenburg**
School of Photography and Film Gothenburg University **Gothenburg**
The University for Applied Science JOANNEUM **Graz**
Royal Academy of Art **The Hague**
University of Art and Design Helsinki **Helsinki**
Häme Polytechnic, Wetterhoff **Hämeenlinna**
Designskolen Kolding **Kolding**
Lahti Polytechnic, Lahti Design Insitute **Lahti**
École Cantonale d´Art de Lausanne **Lausanne**
Escola Superior de Design IADE **Lisbon**
University of Ljubljana, Academy of Fine Art & Design, Dept of Design **Ljubljana**
University of Ljubljana, Department of Textiles and Fashion Design **Ljubljana**
London Metropolitan University **(/London Guildhall)**
Ravensbourne College of Design and Communication **London**
The Programme of Industrial Design, Lund Institute of Technology (LTH), Lund University **Lund**
Hochschule für Gestaltung und Kunst **Luzern**
Domus Academy SpA **Milan**
Politecnico di Milano **Milan**
Istituto Europeo di Design **Milan**
L´École de Design Nantes Atlantique **Nantes**
National College of Art and Design NCAD (ONCA) **Oslo**
Oslo School of Architecture AHO **Oslo**
Oslo University College **Oslo**
École Supérieure d´Arts Graphiques et d´Architecture Interieure ESAG **Paris**
Paris Institute of Art and Design (Ecole Boulle, Ecole Duperret, Ecole Estienne) **Paris**
Strate College Designers **Paris**
Academy of Arts, Architecture and Design **Prague**
Iceland Academy of Arts **Reykjavik**
Art Academy of Latvia **Riga**
The University of Rome, "La Sapienza", Industrial Design **Rome**
The Willem Kooning Academy **Rotterdam**
University of Lapland, Faculty of Art and Design **Rovaniemi**
Ecole des Beaux-Arts de Saint-Etienne **Saint-Etienne**
Saint Petersburg State University of Technology and Design **Saint Petersburg**
Konstfack **Stockholm**
Estonian Academy of Arts **Tallinn**
West University of Timisoara, Faculty of Arts **Timisoara**
The European Design Institute **Toulon**
Institute of Design Umeå University **Umeå**
Utrecht School of the Arts **Utrecht**
The University Cardenal Herrera CEU, the School of Design **Valencia**
Vilnius Academy of Arts **Vilnius**
Academy of Fine Arts in Warsaw **Warsaw**
Universität für angewandte Kunst Wien **Wien**
Hochschule für Gestaltung Zürich HGKZ **Zürich**

Publications in Cumulus Working Papers Series

1/98 PRAGUE	Academy of Arts, Architecture and Design
2/98 DUBLIN	National College of Arts and Design
3/99 ROME	Istituto Europeo di Design
4/99 LJUBLJANA	University of Ljubljana, Academy of Fine Art & Design, Dept of Design
5/00 HELSINKI	University of Art and Design Helsinki
6/00 KOLDING	Designskolen Kolding
7/01 BALTIC SEA	Konstfack
8/02 PARIS	École Supérieure d´Arts Graphiques et d´Architecture Interieure ESAG
9/02 COLLE DI VAL D'ELSA	Istituto Europeo di Design
10/03 TALLINN	Estonian Academy of Arts
11/03 SAINT-PETERSBURG	Saint-Petersburg State University of Technology and Design
12/04 OSLO	Oslo School of Architecture AHO
13/04 UTRECHT	Utrecht School of the Arts

Cumulus Working Papers, documentation of meetings by Cumulus, European Association of Universities and Colleges of Art, Design and Media, established in 1991. CWP is published by the University of Art and Design Helsinki, the network coordinator.