

User driven research approaches in design Pleasurable Product Experience

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North Karelia University of Applied Sciences**



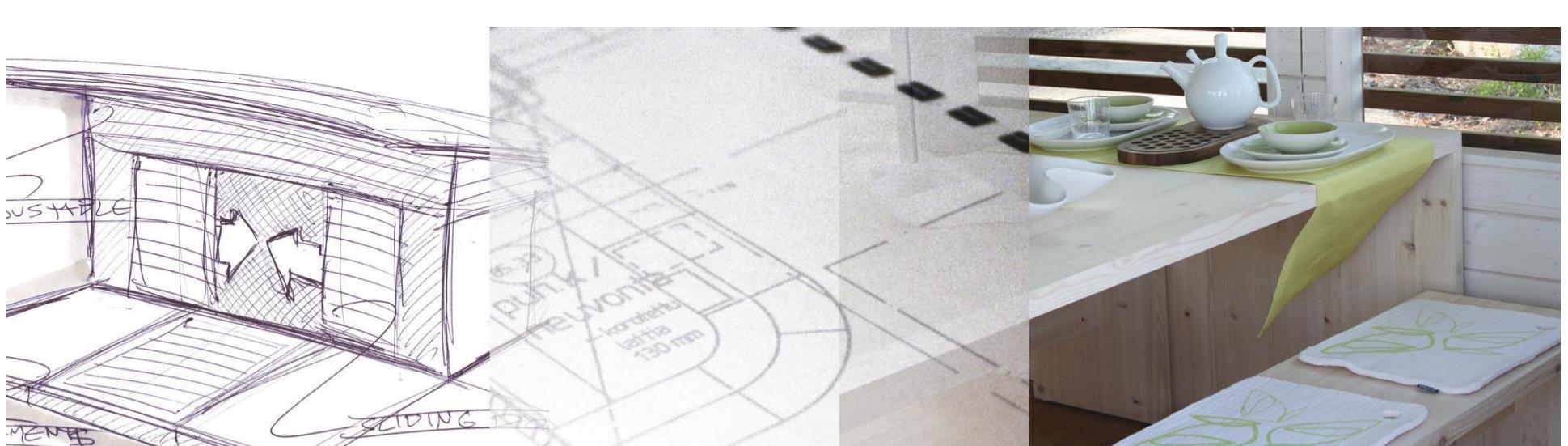
1995 D'ART Design Resource Centre

Regional
development

Project
learning

Teaching

Product development and innovation services
Incubation for student companies



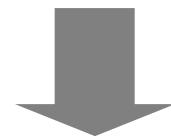
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INNOVATION CAMP



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Sketching



Kuva 8. Nopeita luonnoksia ideoinnin alkuvaiheessa (Tuononen 2004)



Evaluating the sketches



Kuva 10. Ideoiden esittelyä (Tuononen 2004)

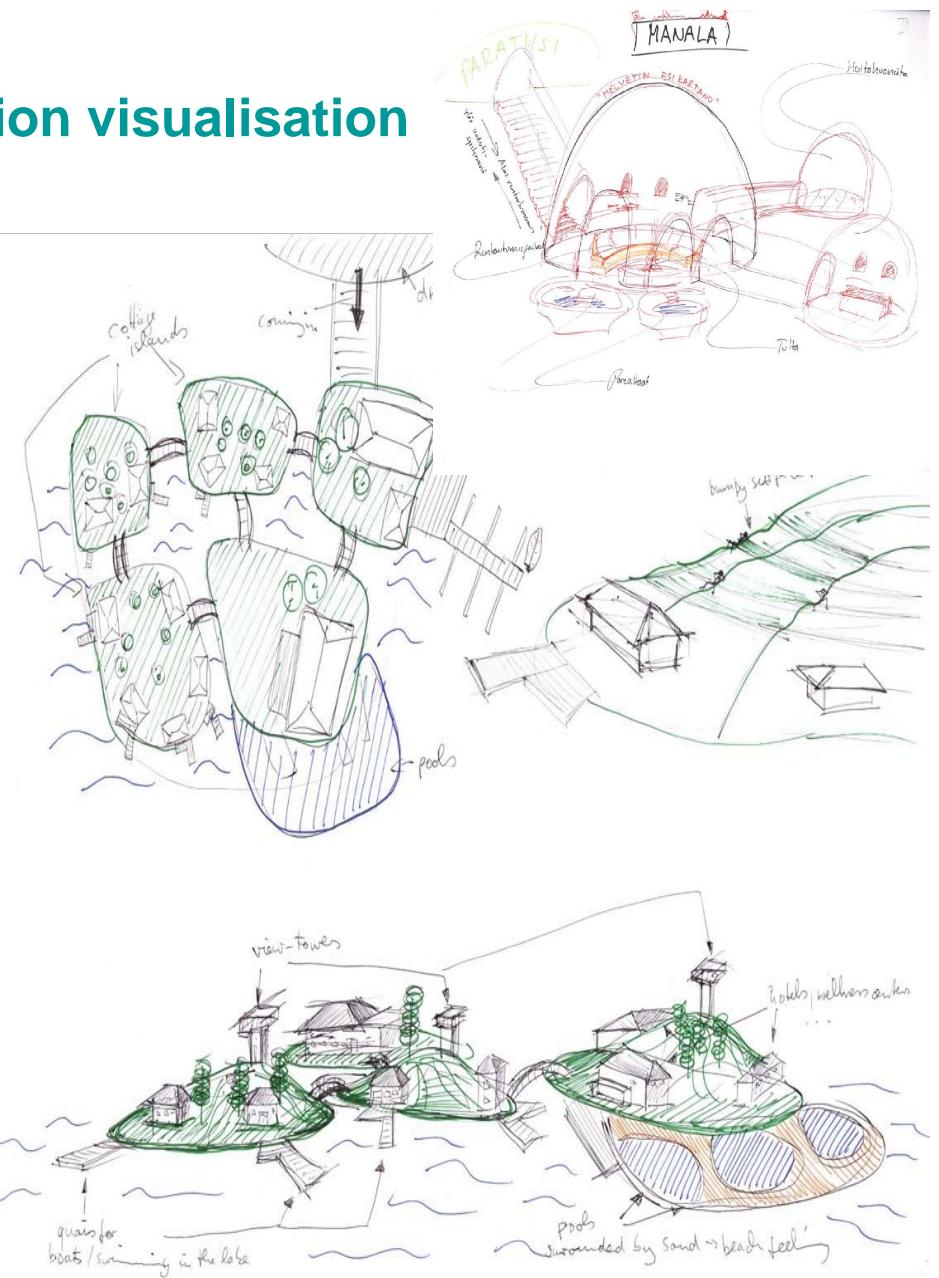
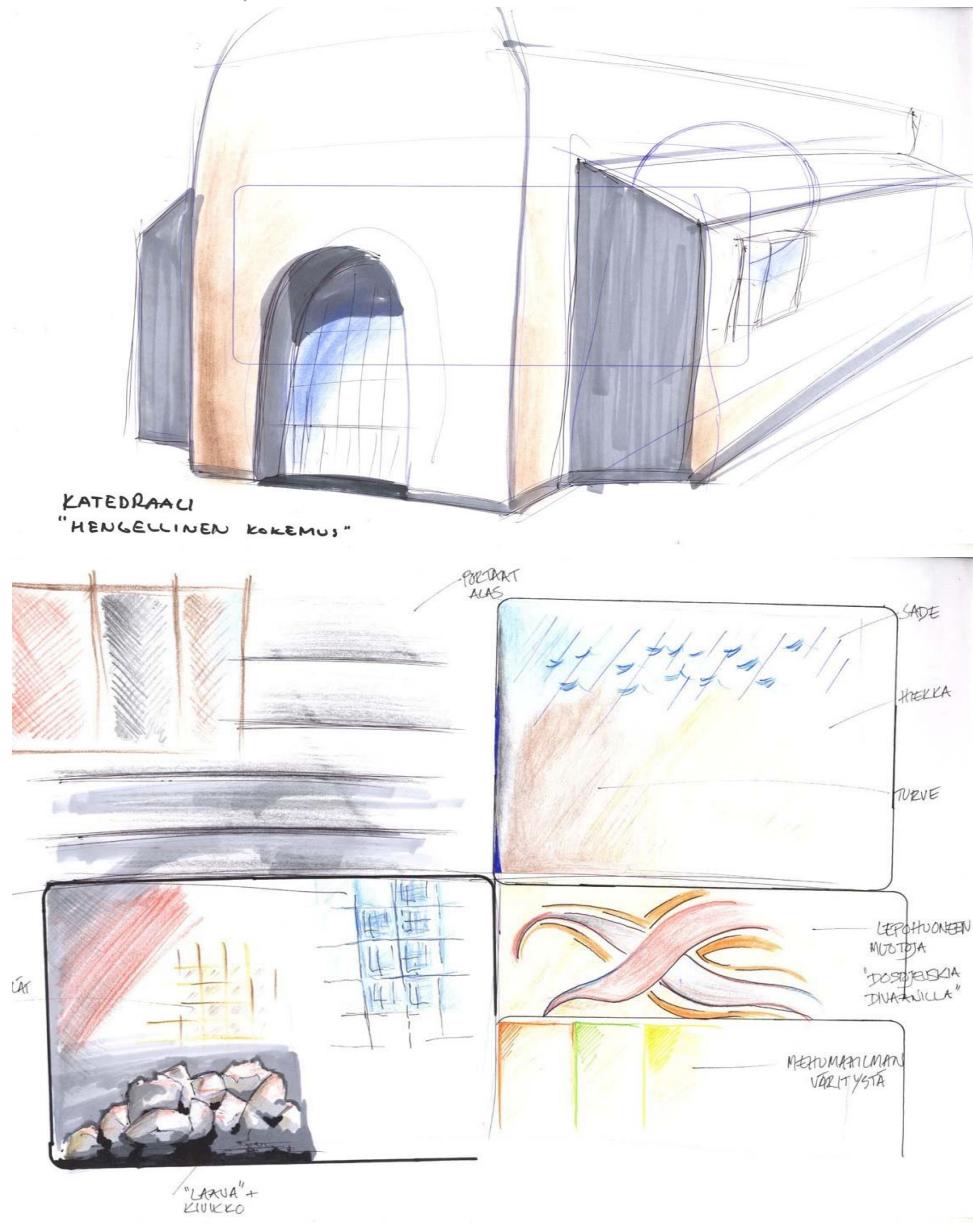


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Problem and solution visualisation





Nykyinen Linnunlahden laguuni on muutettu viihysäksi pienvenesatamaksi, joka toimii kaiken toiminnan keskipisteenä. Satama-aluesta kiertää kivistä rakennettu rantabulevardi.

Rannat ovat täysin katettuja mahdollistaen veneen kiinnittämisen mihin kohtaan tahansa.

Span edessä on viihtysiä kahviloita ja terasseja Välimeren tyylisiin.



Joensuu City Spa

Iso mökki

Mökki koostuu kahdesta erillisestä rakennuksesta. Suuremmassa rakennuksessa sijaitsevat makuu-, ruokailu- ja oleskelutilat. Pienemmäs peseytymis- ja saunatilat.

Rakennusten arkkitehtuuri on kaupunkimainen. Käytetyt materiaalit ovat luonnonmukaisia ja tuovat rakennuksiin "mökkifilistä".

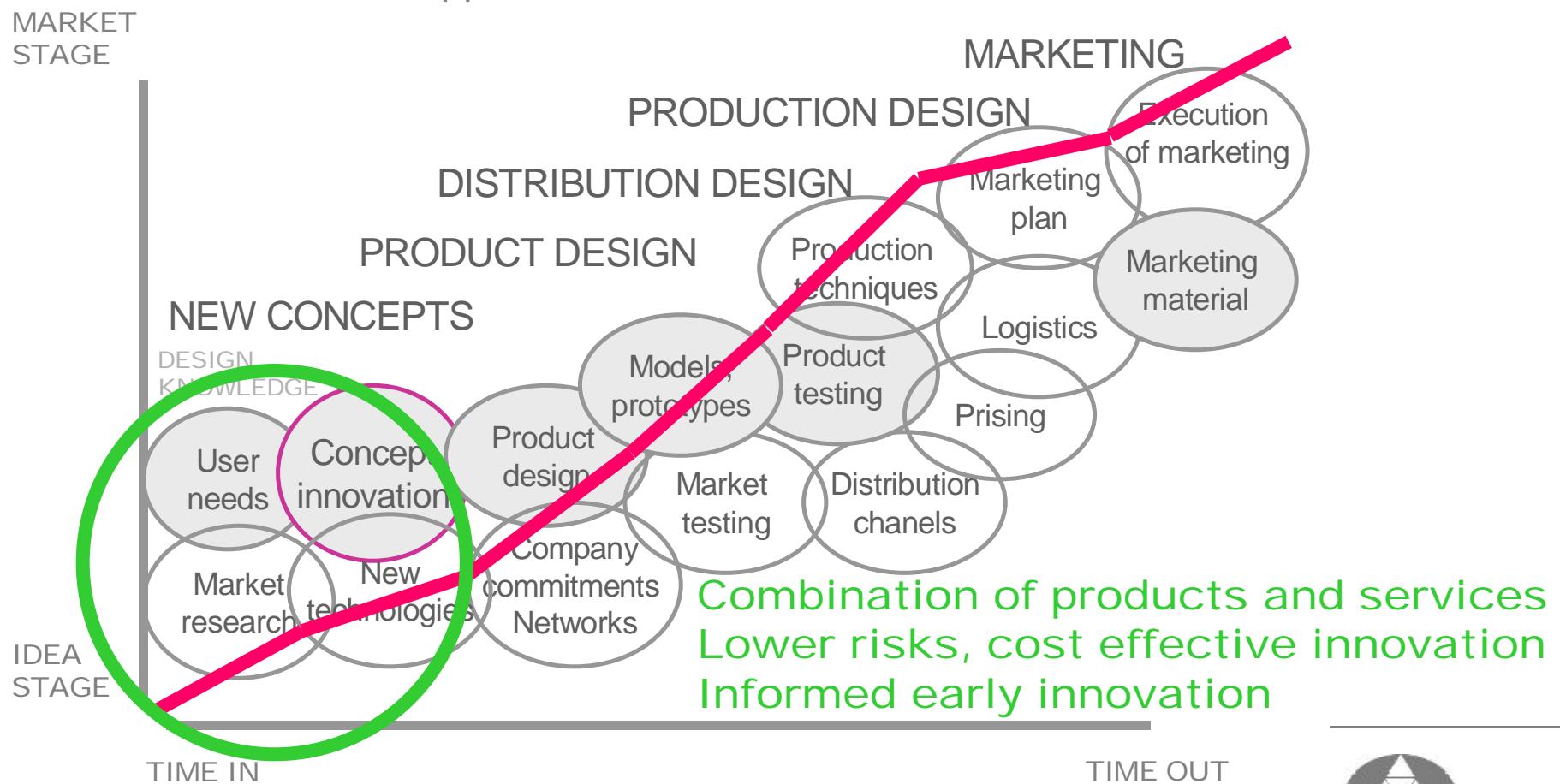
Suurella patiolla sijaitsee oma suojaista grillauspaikesta.



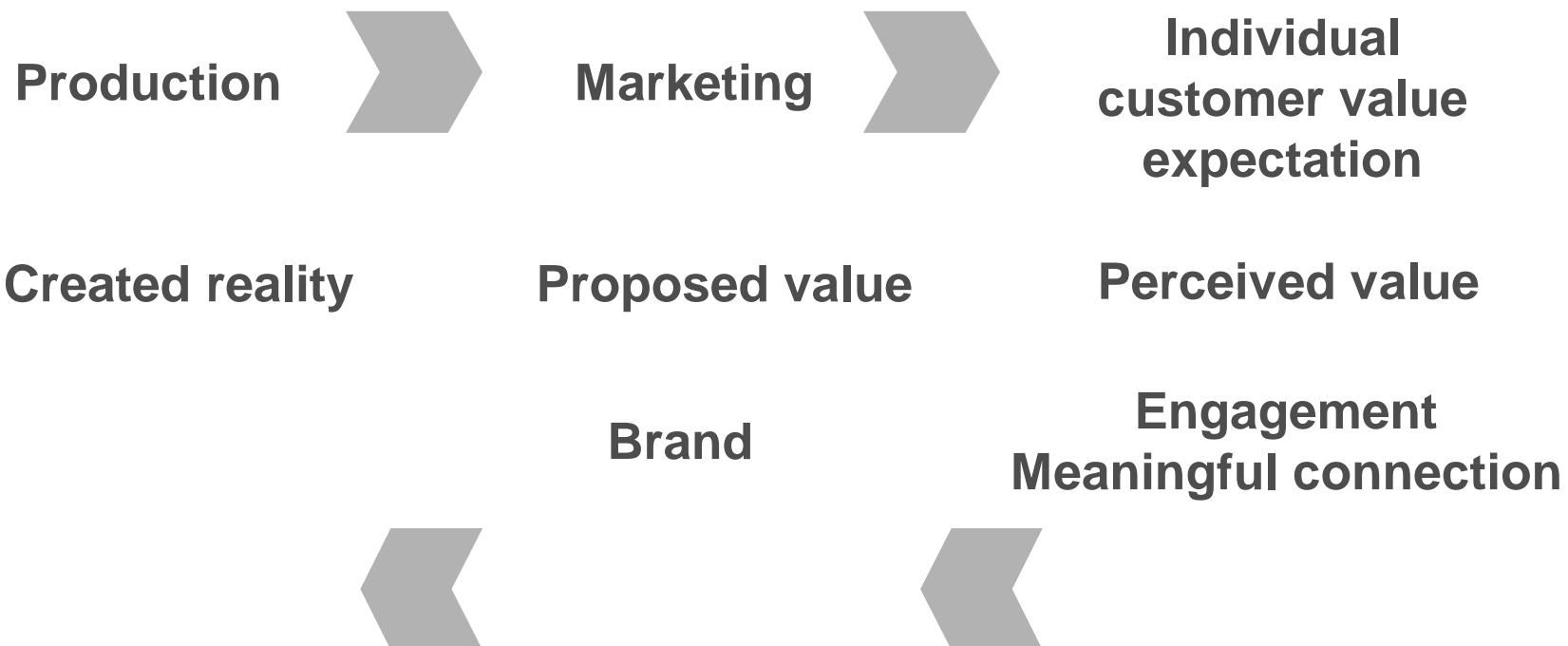


COSTS

Innovation, product development and marketing services in the North Karelia University of Applied Sciences



Value Chain



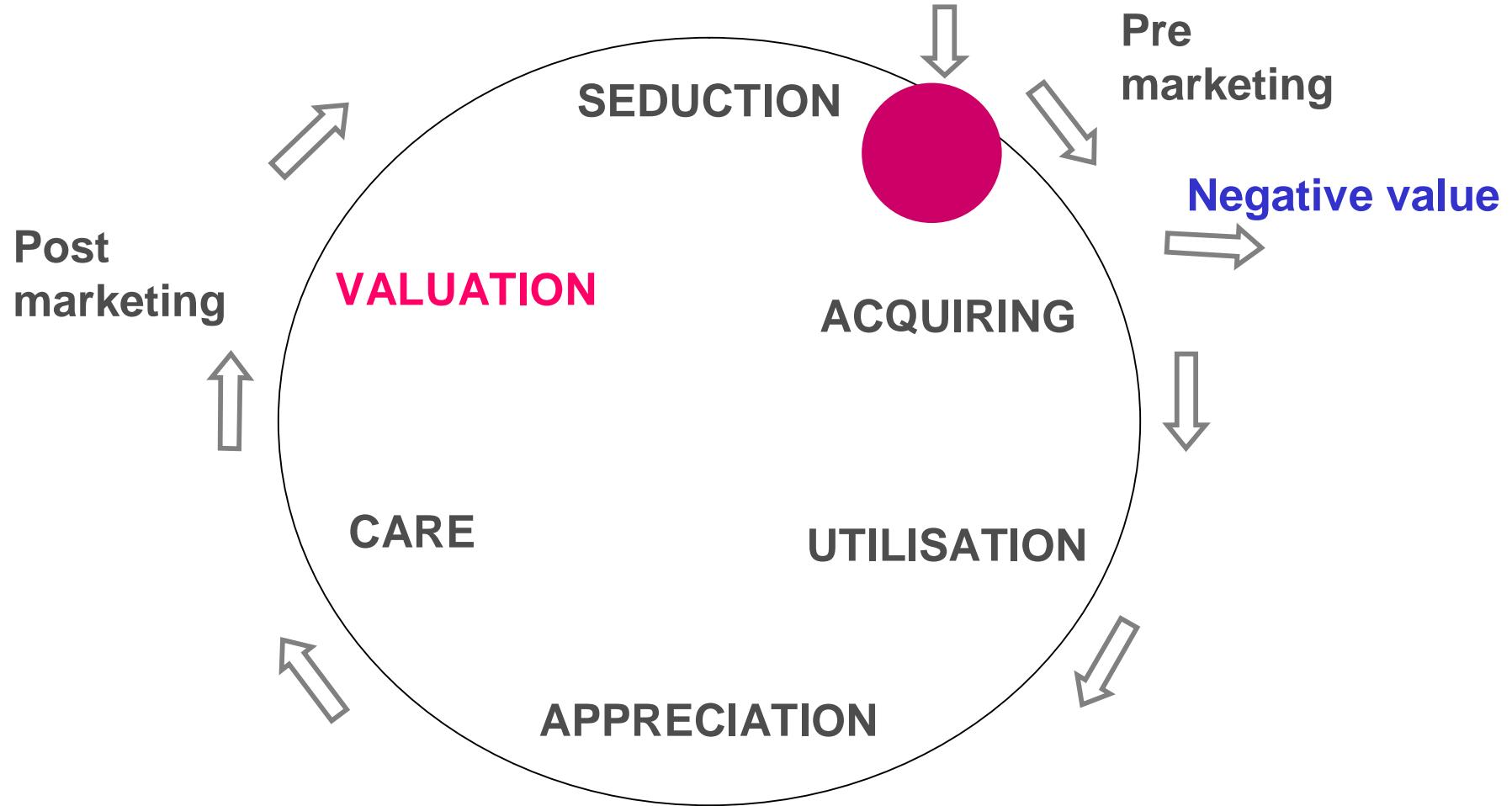
Product and service concepts

Products function among a wide spectrum of services, brands and competitors. Successful companies have understood, that thinking the products consciously into a right use situation and into the services needed in that is important. This is an advantage in creating new, human and desirable products, creating value for the customer and user. This means holistic design, where previously only production orientated company must think also about the service process connected to their products.



Holistic user experience from Products and services
= value creation

Proposed value



The experience means networking because the
whole process means different stakeholders.
All the pieces must function to user satisfaction.

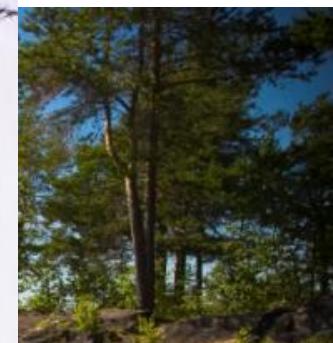
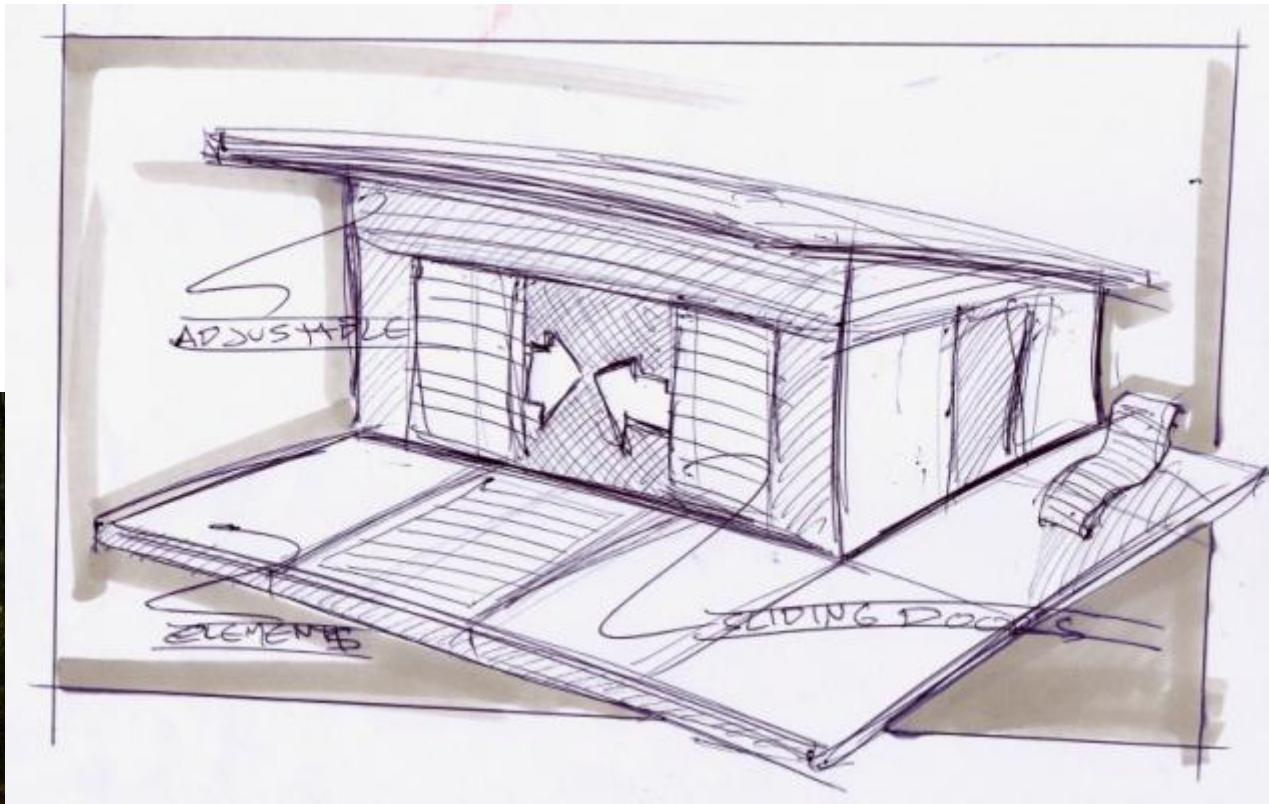
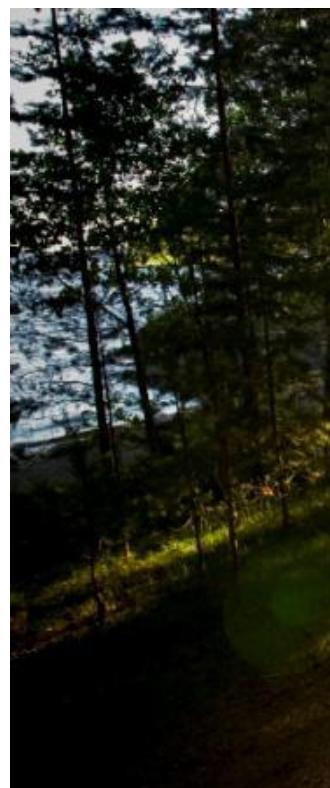




**Recommendation based markets mean:
Leveraging customer based contributions
User generated product reviews
Forums where customers can socialise with each other
Forums where customers can contribute to product development
(eg. Living Labs)**

**Living Lab for Design and Services
Joensuu, NKUAS, JSP**

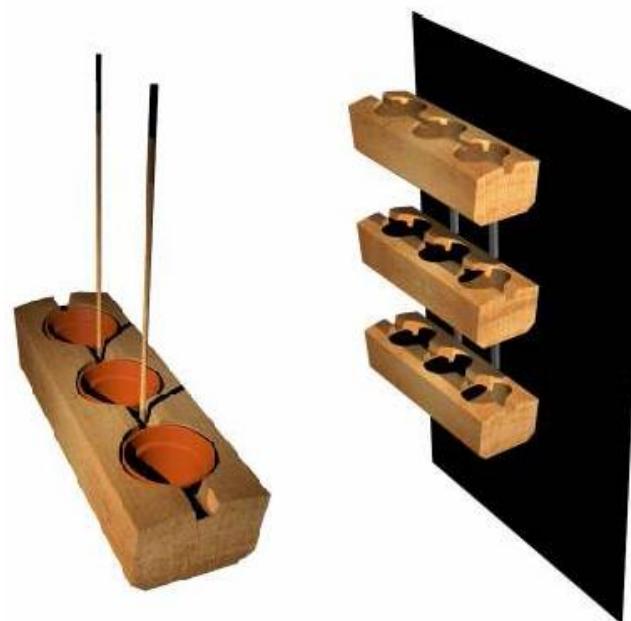








Plant-it growing basis 2007
Oy Timber Frame Ltd
Riku Rantala/ Jani Tanskanen



Future research

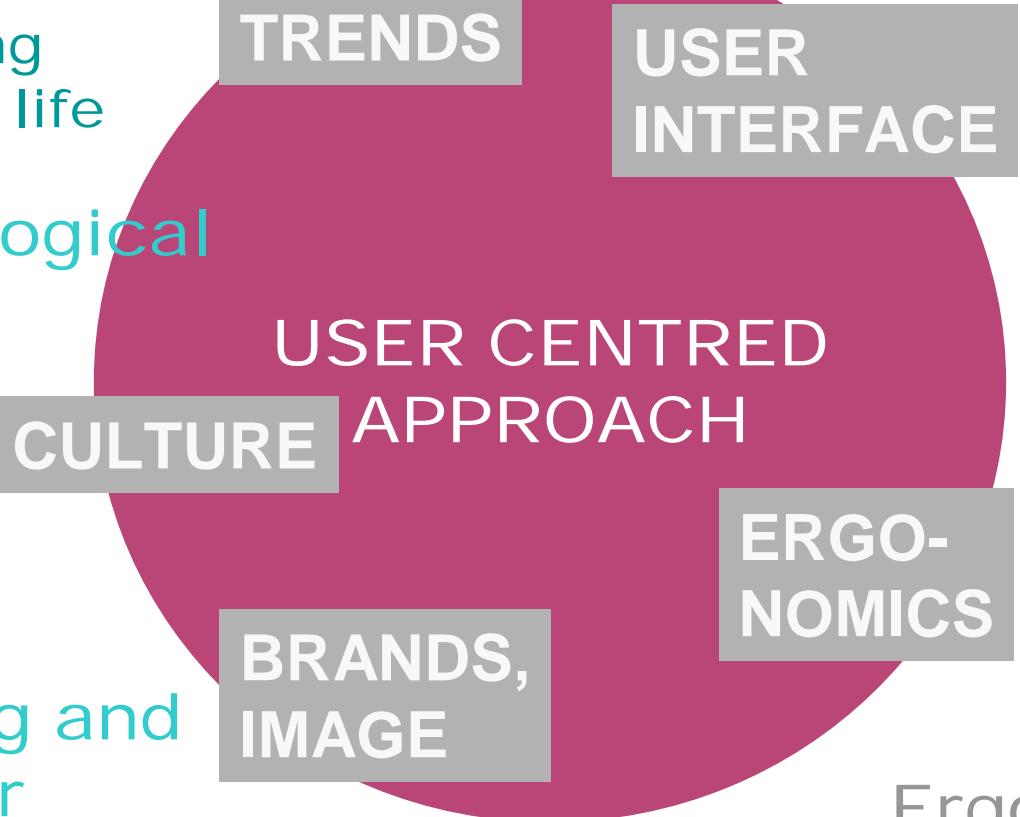
Changing ways of life

Anthropological research

lifestyle

Marketing and consumer studies

meanings
emotions



applications for technology

Technological development

Cognitive and perception psychology

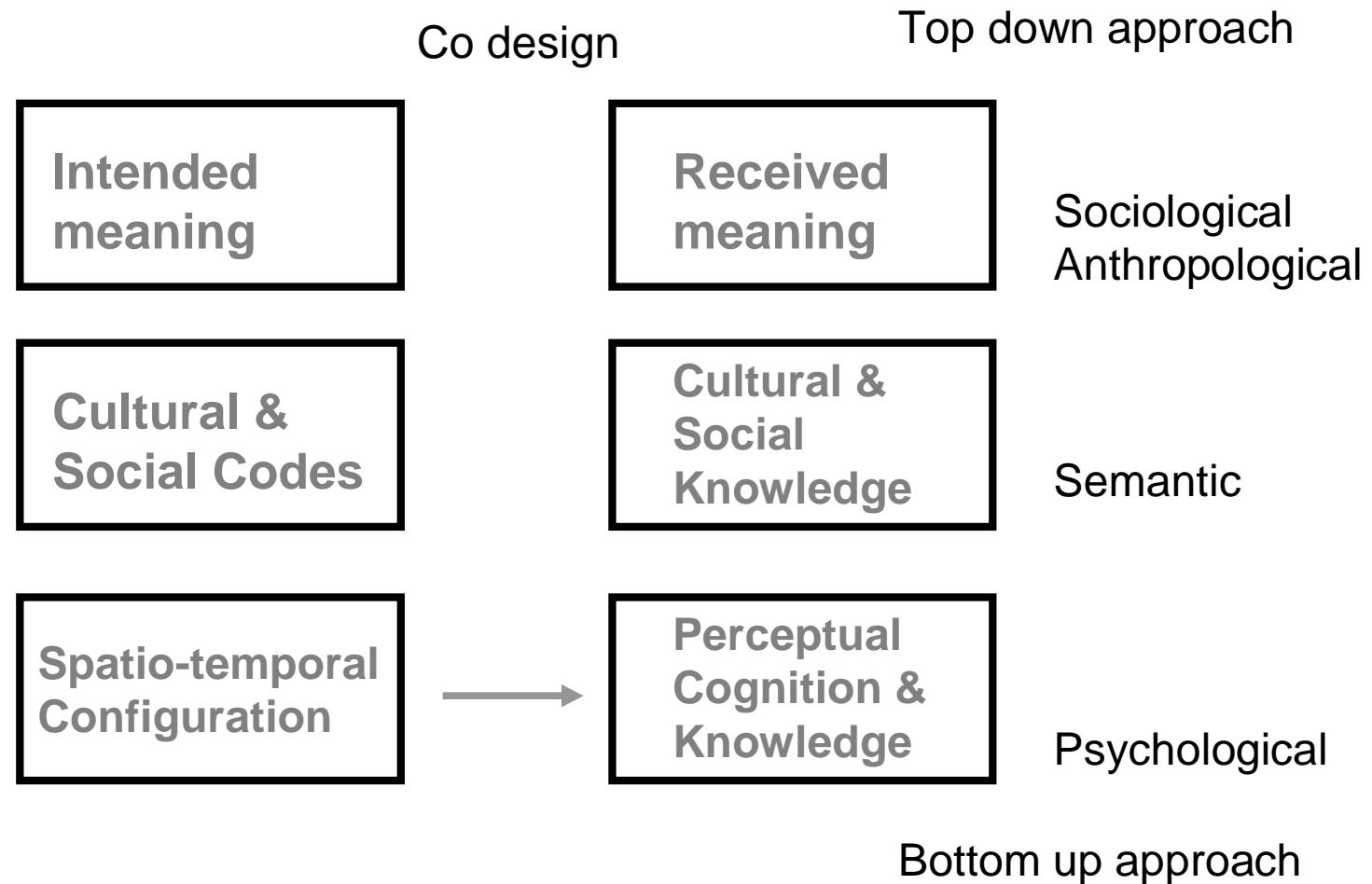
perception
attention
understanding

physical measurements, cababilities

Ergonomical and Anthropometrical studies

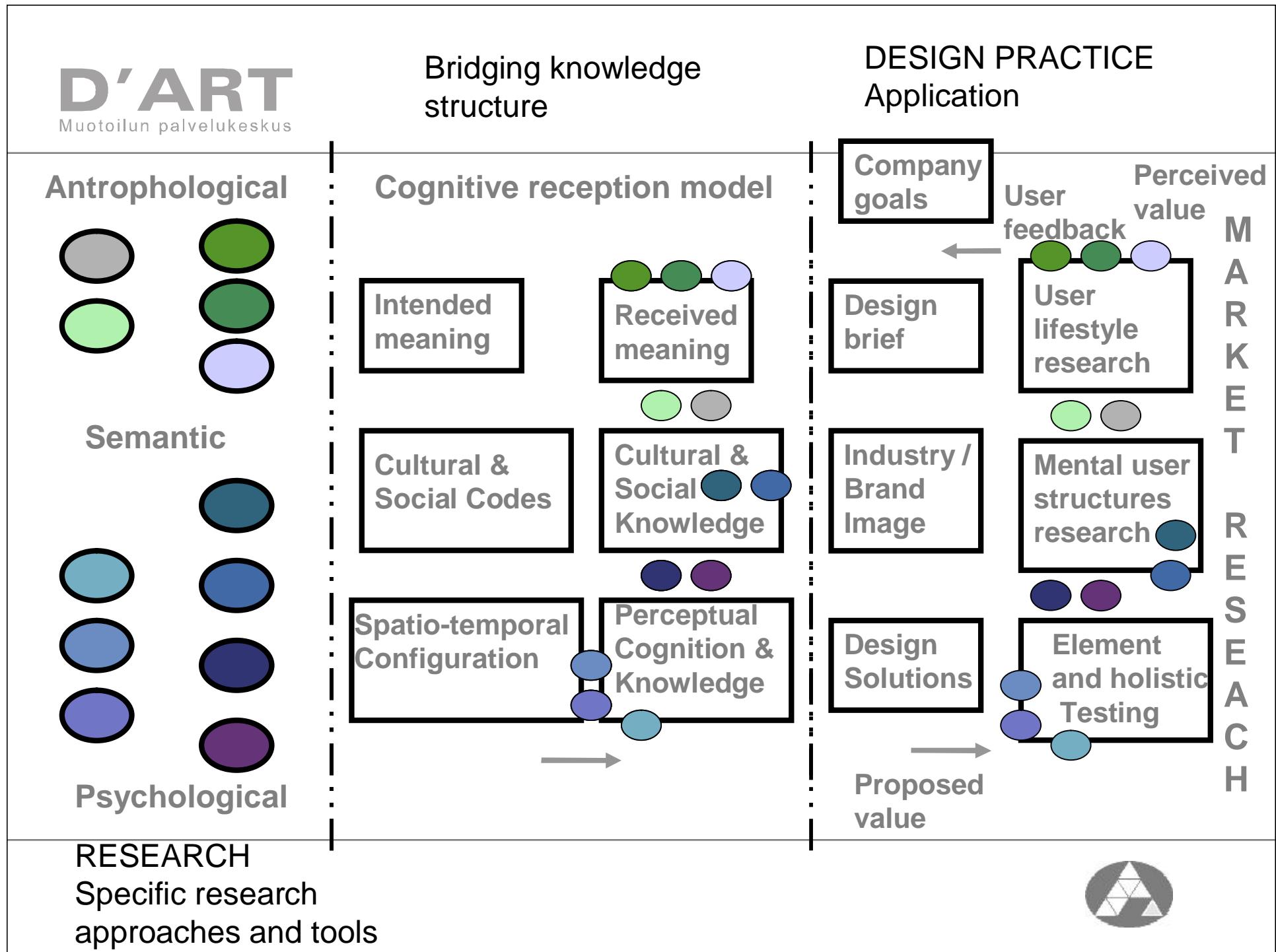


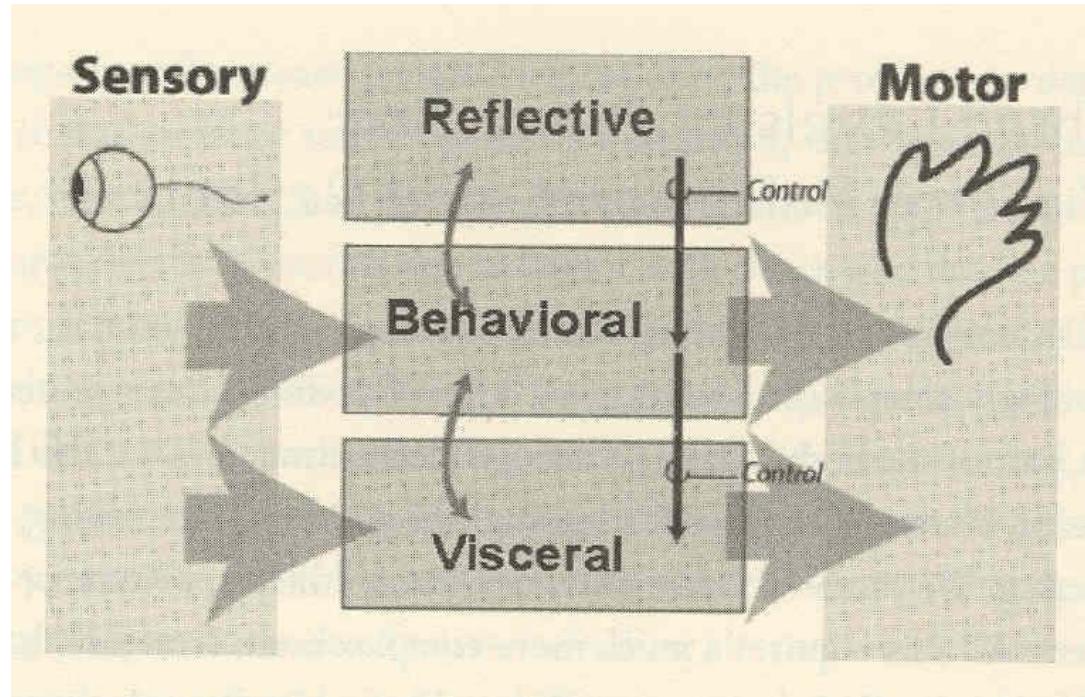
Cognitive reception model



Tools for investigating the role of sign elements for
the product experience







Reflective
symbolic value

Behavioural
function

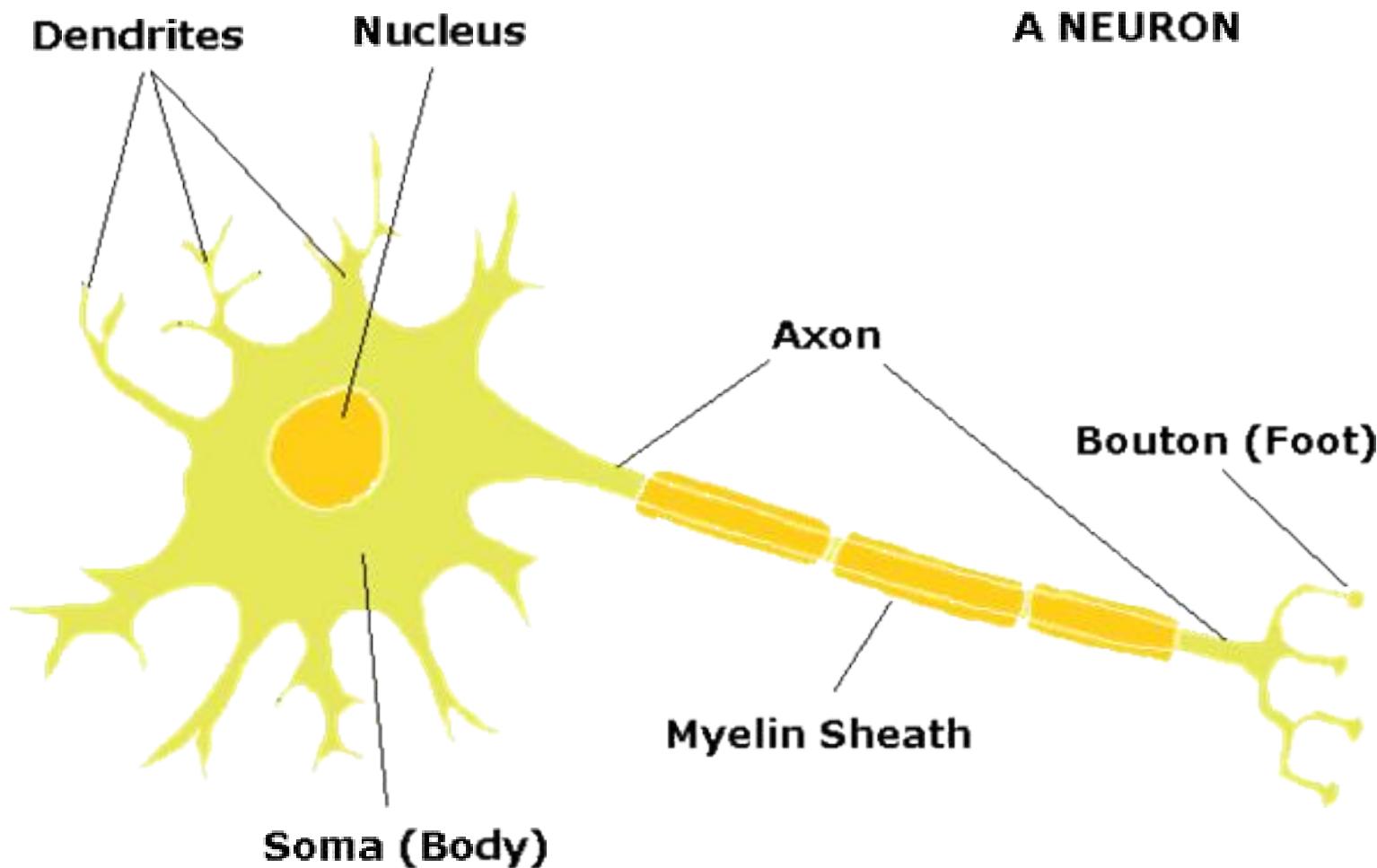
Visceral
form and aesthetics

Norman: Emotional Design, 2004



**Psychological
Perception
Mental images
Usability**



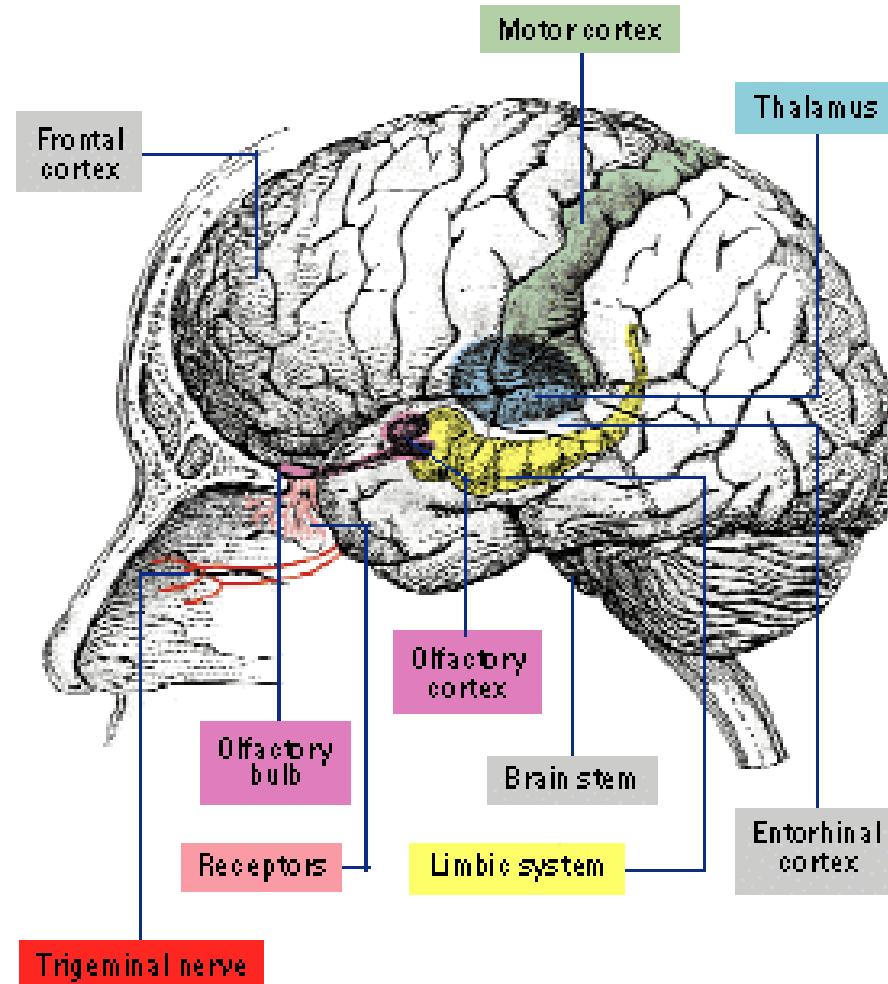




Style



- Unconscious and conscious
- Emotion and logic
- Nonverbal and verbal



NetworkOasis, Joensuu Science Park



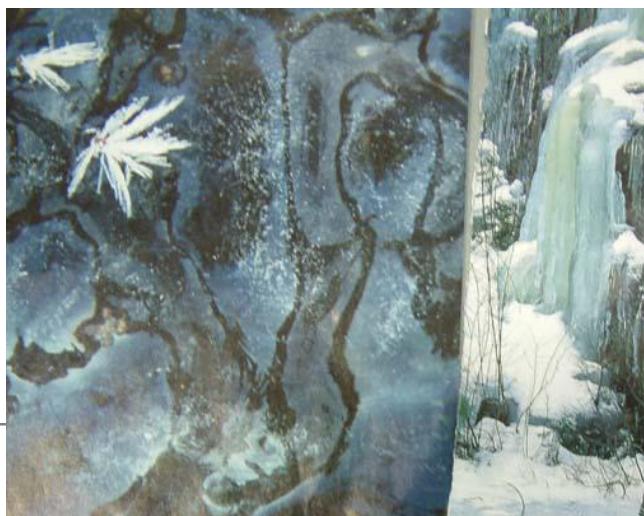
Respace Oy / Olli Hakanen

<http://www.network-oasis.net/en/>



Love for Potential:
Sound, voice, music, light
Laughter, sparkling
Yellow, green, blue, clear colours
Rhythm in composition: shadow, line, color, semiabstract
Surface foms, patterns, feel
Transperancy, layers, microscopic pictures
Space, you can see far, involvement in the picture
Nature, trekking, travelling, leaving
Earth, water, fire, emptiness, eternity
Lightining, surprise, birth, seed, child





The beginning of the journey:
Love for Potential



Celebrating the results:

Red, violet

Hopeful, happy, heaven, satisfaction, joy, thanksgiving

Emptyness, relief

Round

Success, seeing the results, feedback, reward, pride

New challenges

Together, friends, sharing

Fruits of the work, energy
exhibition,

Feast, dance, food and drink, music

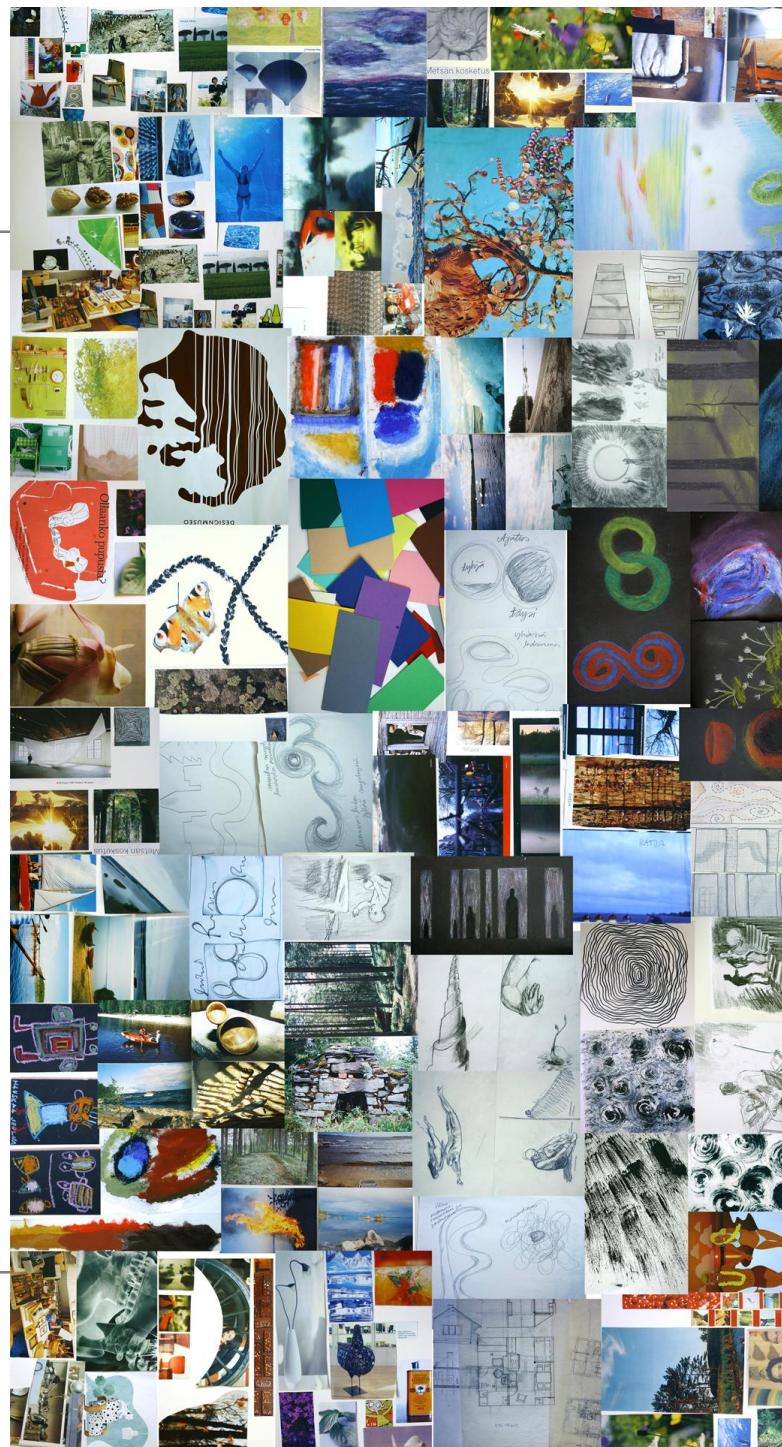
Future, continuation

Empowerment, deep sigh



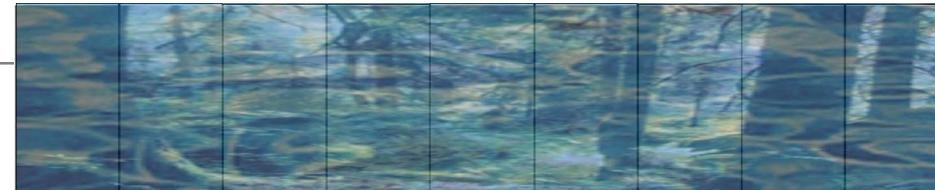
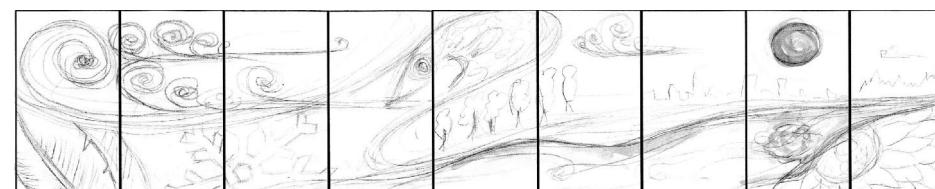
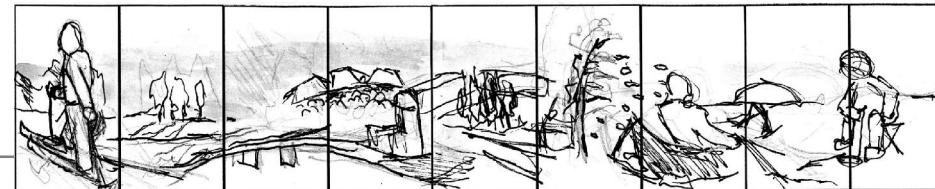
Celebrating
the results





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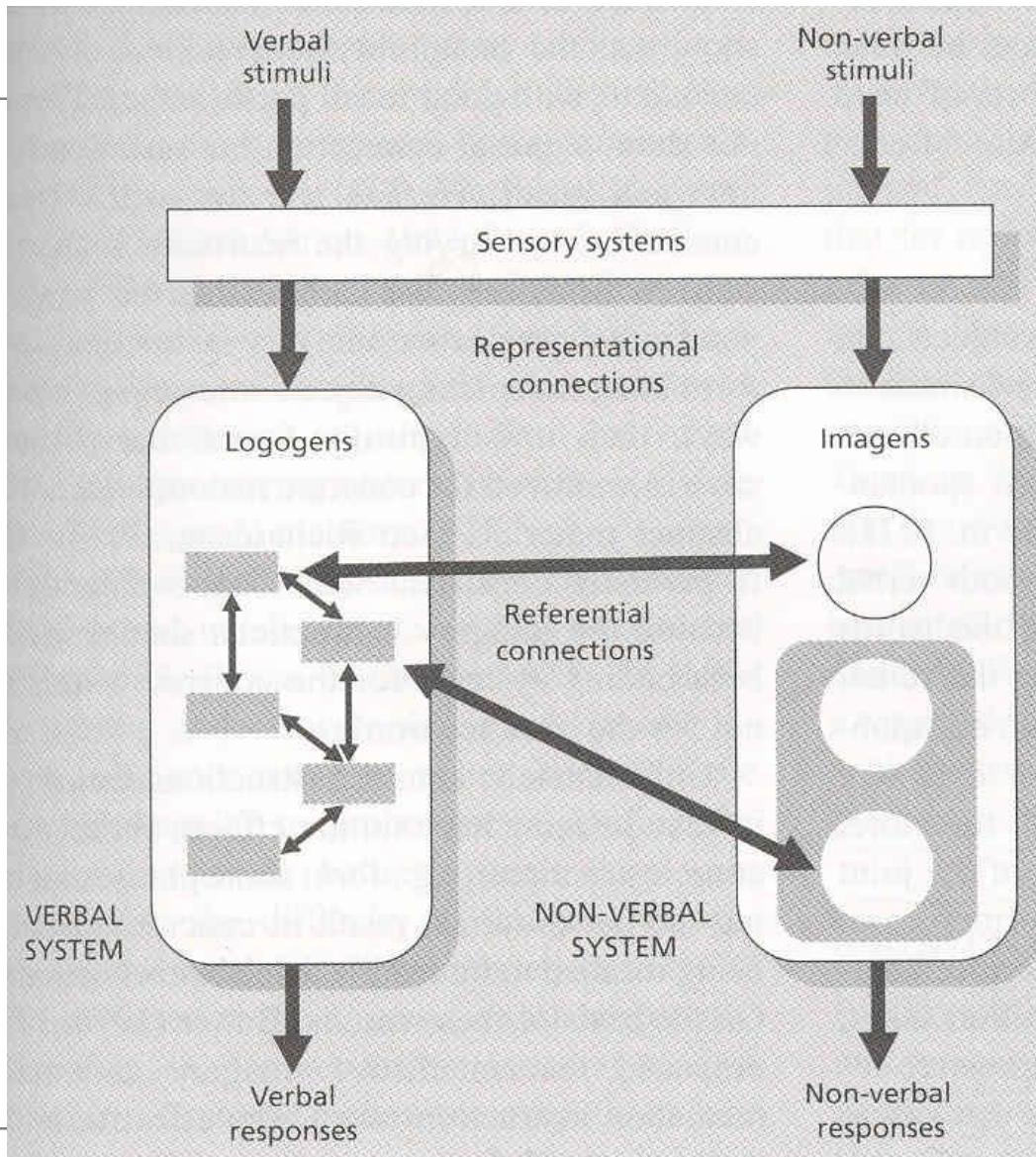
Muotoilun palvelukeskus



D'ART

Muotoilun palvelukeskus

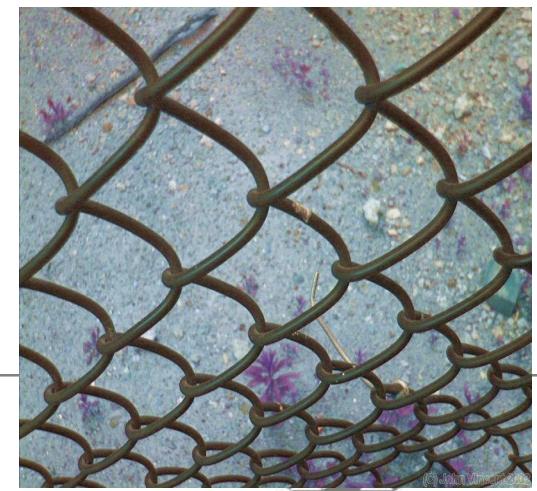


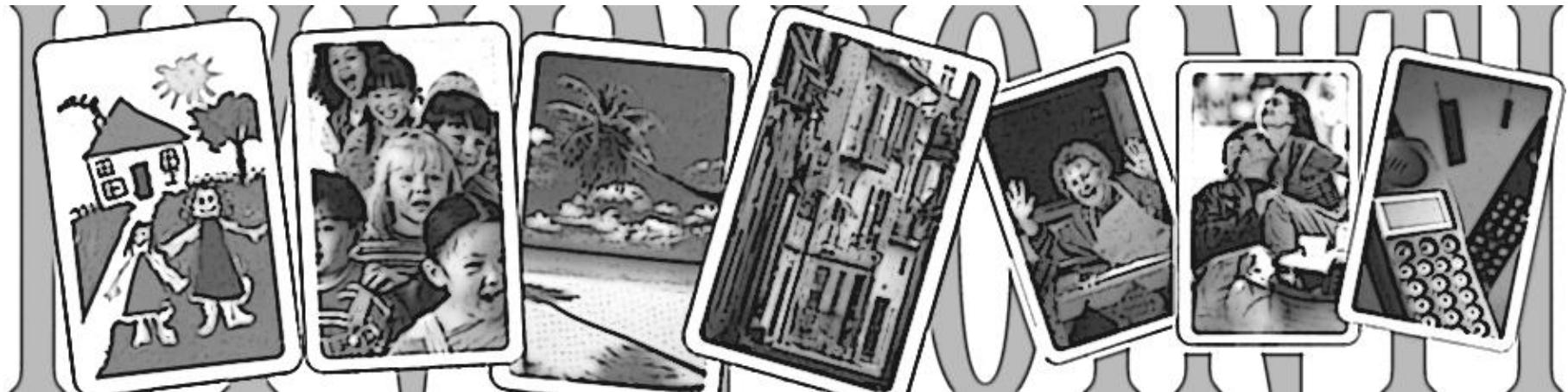


Paivio: Mental representations: A dual coding approach



Safety



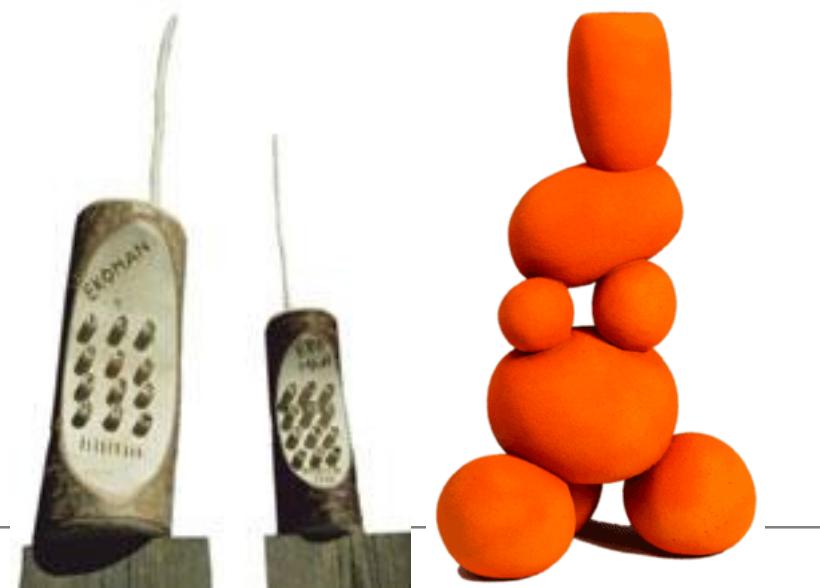
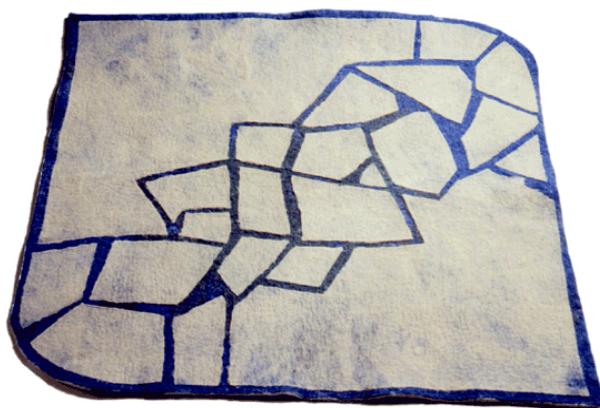


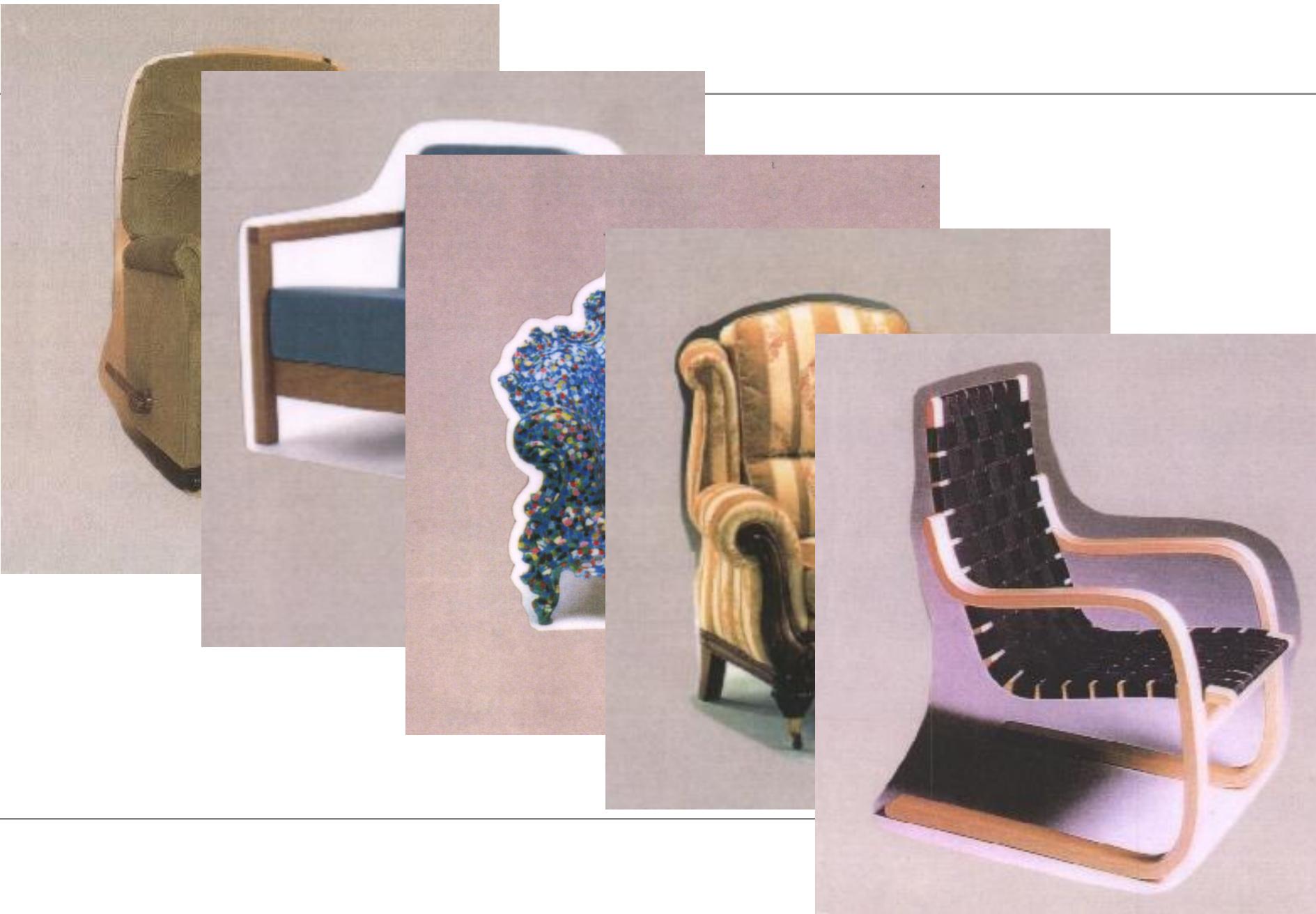
+



Product choices

-





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Please make "piles" by grouping cards that "belong together." Cards can belong by themselves.
Make at least 2 piles and no more than 23.
Stand-alone cards count as piles, too.
When you finish, click the "Done" button on the far right.

Done

Quit



D'ART

Muotoilun palvelukeskus



Please make "piles" by grouping cards that "belong together." Cards can belong by themselves.
Make at least 2 piles and no more than 23.
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When you finish, click the "Done" button on the far right.

Done

Quit



Young, stylish

young, experimental, modern, fashion/design conscious



Special

grannies, money,
class,
special



Ordinary

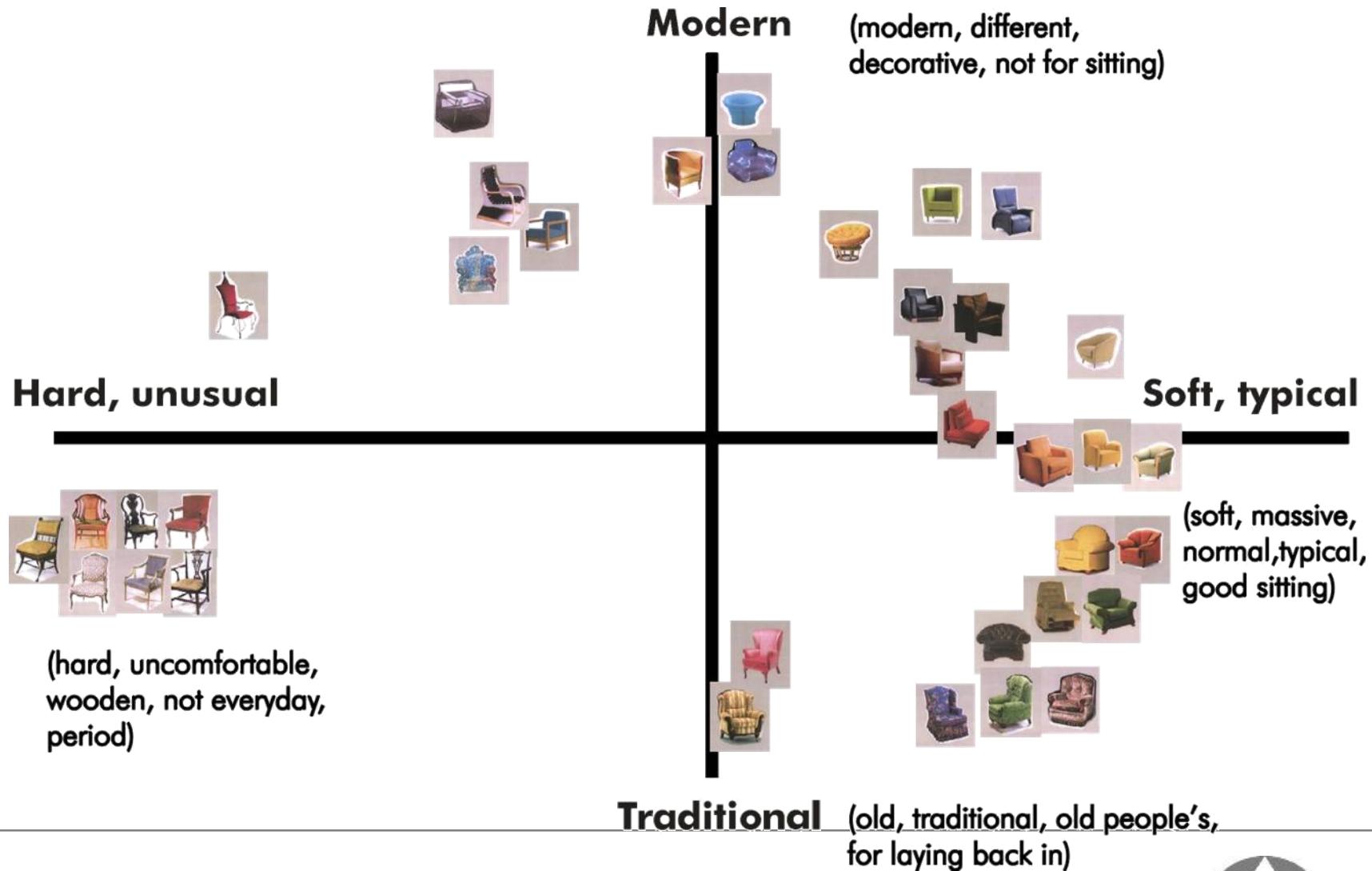
basic Finnish,
20-40,
everyone,
cheap



Older, not stylish

40+, lower class, not much style





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Muotoilun palvelukeskus



Lifestyle collections





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Muotoilun palvelukeskus

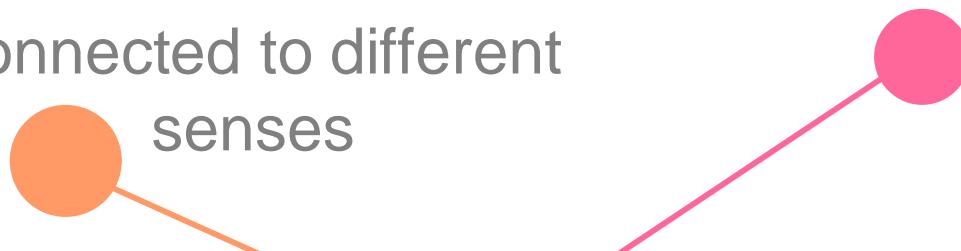
One Way Sport Oy



Semantic Meanings



Different sorts of
associations
connected to different
senses



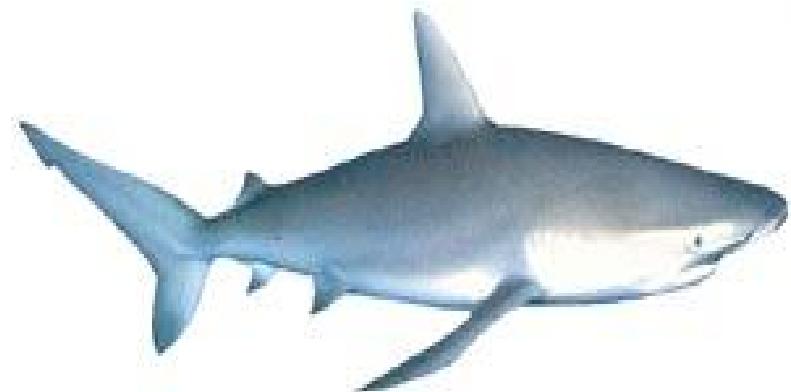
Neural centre is activated

Associations form
chains



D'ART

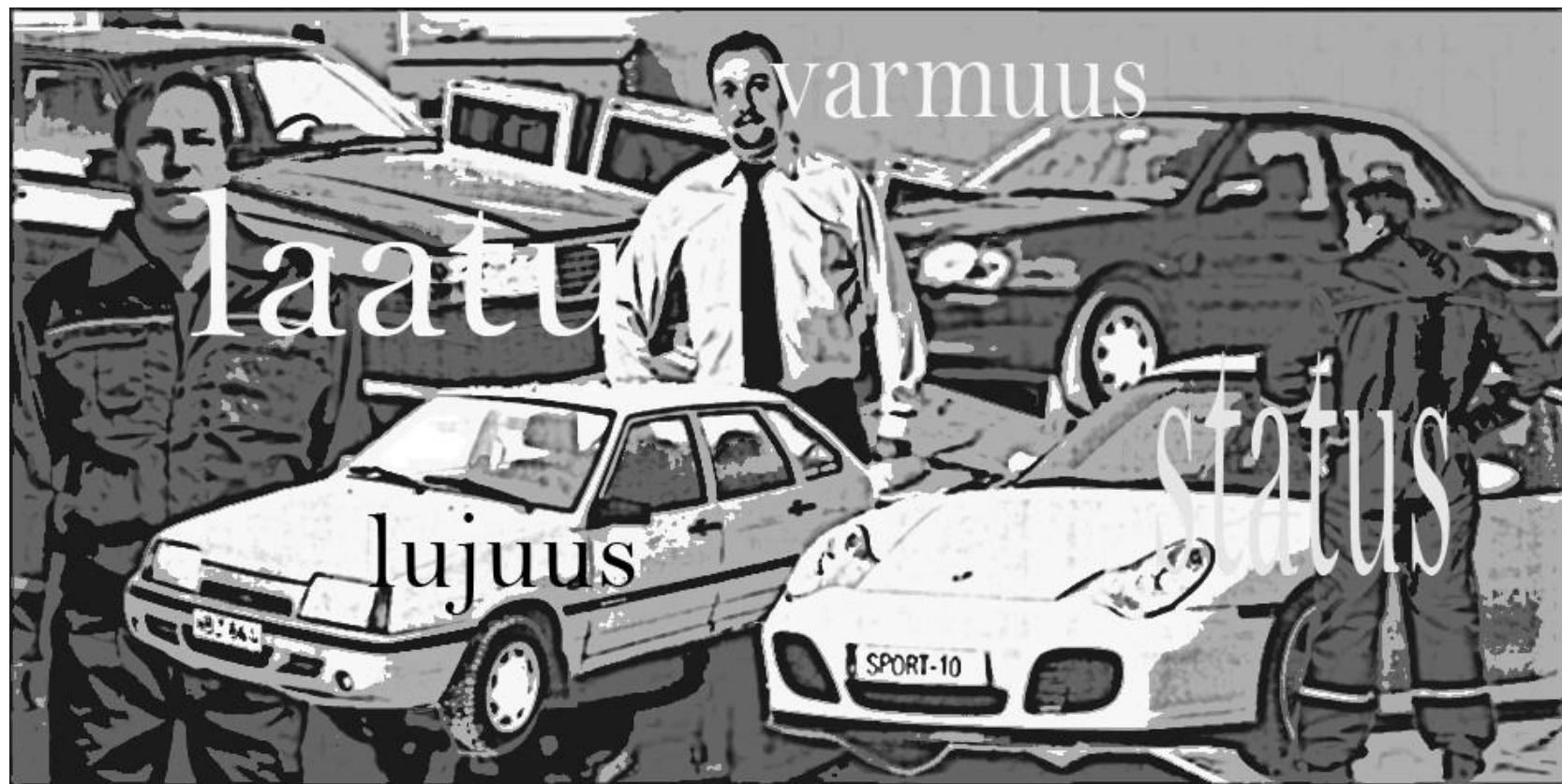
Muotoilun palvelukeskus





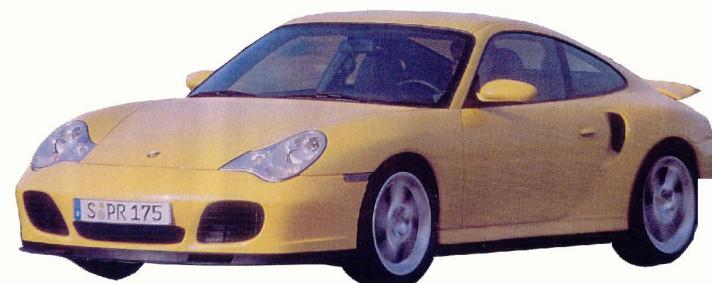
D'ART

Muotoilun palvelukeskus

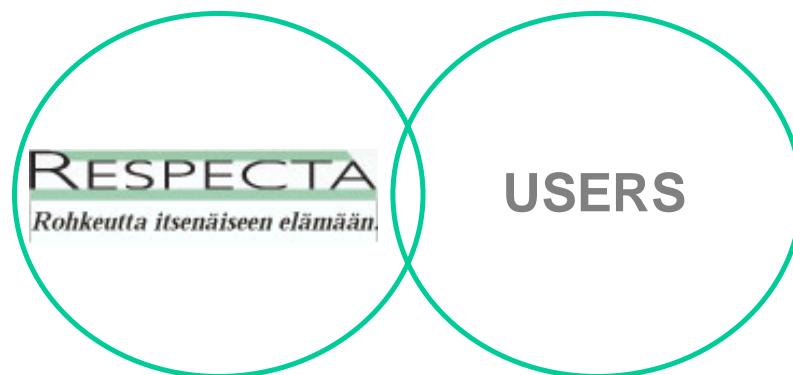


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Respecting the individual.
Constant learning and renewal.
High ethical level of functions.

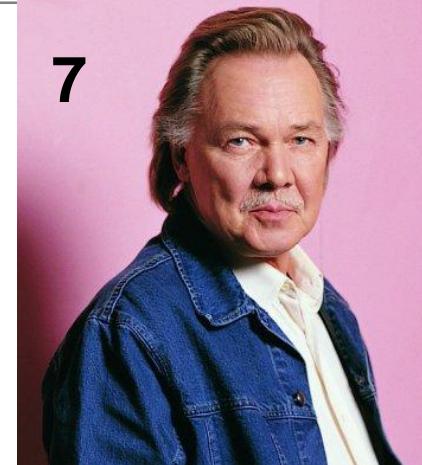


What is
Quality of life?
Good life?
Good environment?
Independence?
Functionality?

Respecta Ltd. Produces research and unique services for assistive devices. The goal is to improve individual functionality, quality of life and living environment. This means new ways of working and collaborative models in acquiring the products to promote independent living and experience of good life.



Valitse Respectan senioribrändille sopiva persoonallisuus





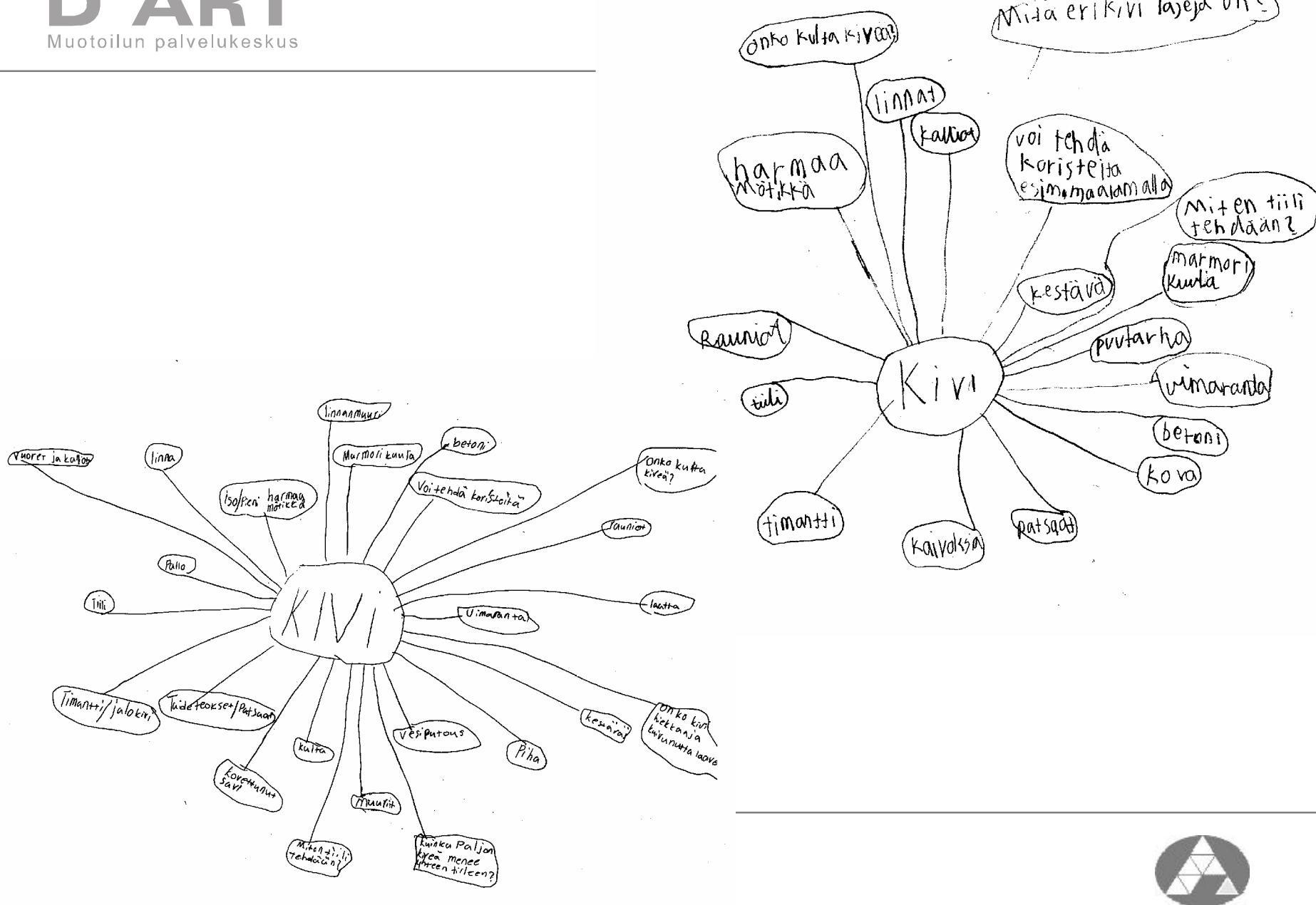
Old Mine
tourism concept for families
with children and school children 2015



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Contact to water

Nature

Activities

Mining

What to make

Properties to explore

Birth, evolution, destruction

How to handle

Different sorts

History, art

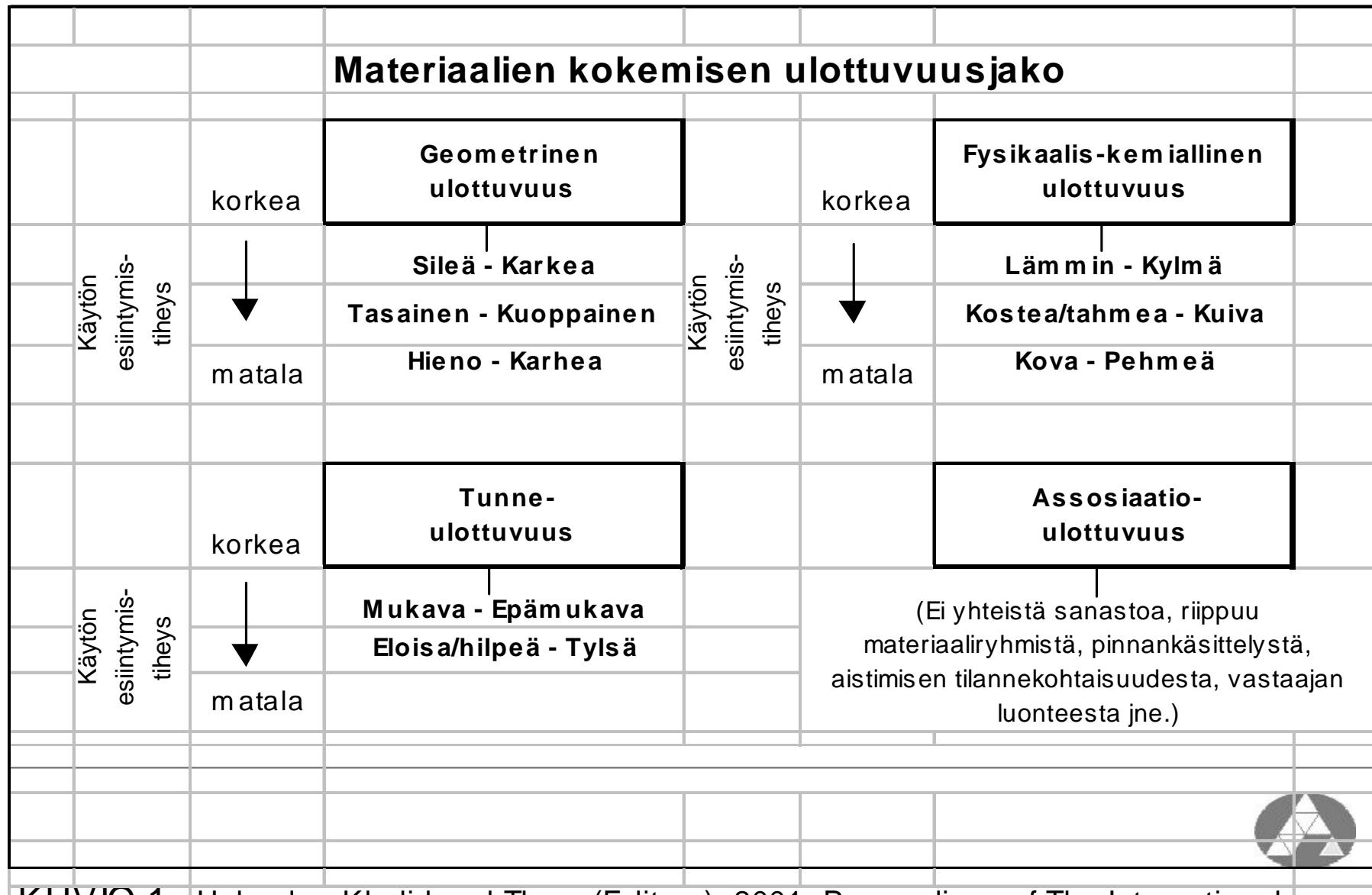
Gold, diamonds



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Geometrical stone:
"stone is beautiful like polished"
"monotonous"

Physical-chemical stone:
"cold and chilly material"
"it is so massive"
"heavy and valuable"



Emotional stone:
"serenity"
"stability"
"sturdiness"
"stylish"

Assosiationsal stone:
"gravestone"
"heavy and valuable"
"it brings nature close"

"hunders of years of cultural history saved in old buildings"



Luonnonmateriaalien kokeminen

Miellyttävimmiksi koetuista materiaaleista annetut vastaukset

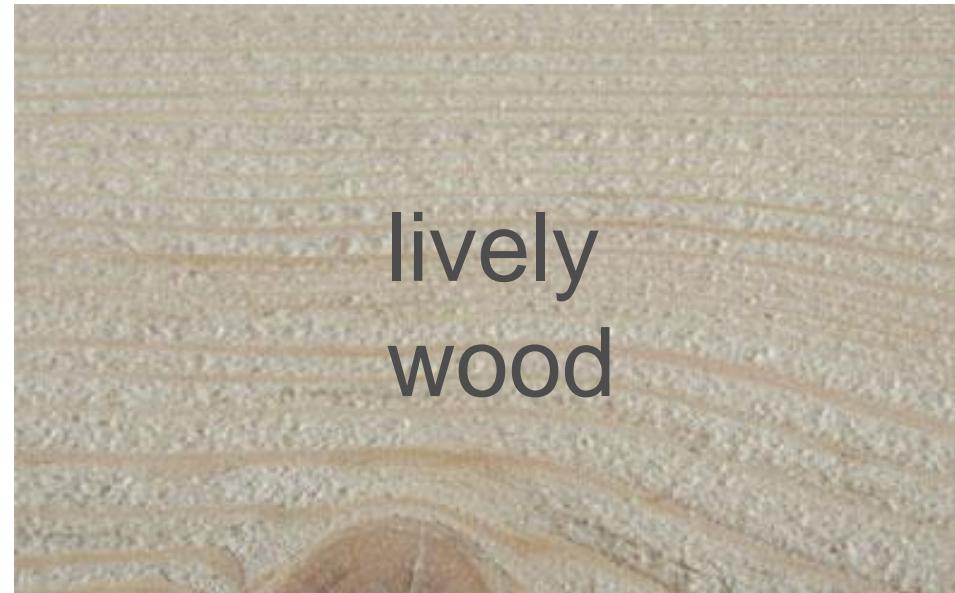
Skaala	1	2	3	4	5	6	7	
1 Pinta on sileä	4	7	3	2	1	2	1	karhea
2 Pinta on lämmin	6	9			2	3		kylmä
3 Pinta on kostea			1		1	6	12	kuiva
4 Pinta on kova	4	5		1	2	4	4	pehmeä
5 Pinta on kiiltävä	1	1	4	2	1	3	8	matta
6 Pinta on liukas		5	6	4	3		2	tahmea
7 Väri on kirkas		6	4	4	4	1	1	likainen
8 Painavaa	2		3	3	1	7	4	kewyttä
9 Käytännöllistä	11	2	4	2			1	epäkäytännöllistä
10 Helppo puhdistaa	1	4	4	3	3	4	1	vaikea puhdistaa
11 Tasalaatuista	5	6	4	3	3	2		epätasalaatuista
12 Symmetristä	2	2	2	3	5	4	2	epäsymmetristä
13 Helppo työstää	5	7	4		1	2	1	vaikea työstää
14 Kutsuu koskettelemaan	9	9	1			1		ei kutsu koskettelemaan
15 Tuoksu on tärkeää	4	5	5	2	1		3	ei ole tärkeää
16 Kaunista	14	5	1					rumaa
17 Innostavaa	9	4	6	1				tylsää
18 Modernia	3	1	1	2	2	4	6	perinteistä
19 Myrktyntä	14	2		2	2			myrkyllistä
20 Turvallista	11	5	2	1	1			vaarallista
21 Rauhottavaa	13	6			1			levotonta
22 Tuottaa hyvää mieltä	12	6	2					ärsyttää
23 Näyttää kalliilta	2	2	3	6	3	2	2	halvalta

Yksi vastaus puuttuu kysymykseen 18, haastateltavalta 13/20.

_____ = keskiarvo

2 haastateltavaa oli valinnut kiven hiotun pinnan, 4 koivua, 6 mäntyä, 1 tuohen,
3 ohuen parkkinahan, 2 ohuen huovan ja 2 neulotun villan.

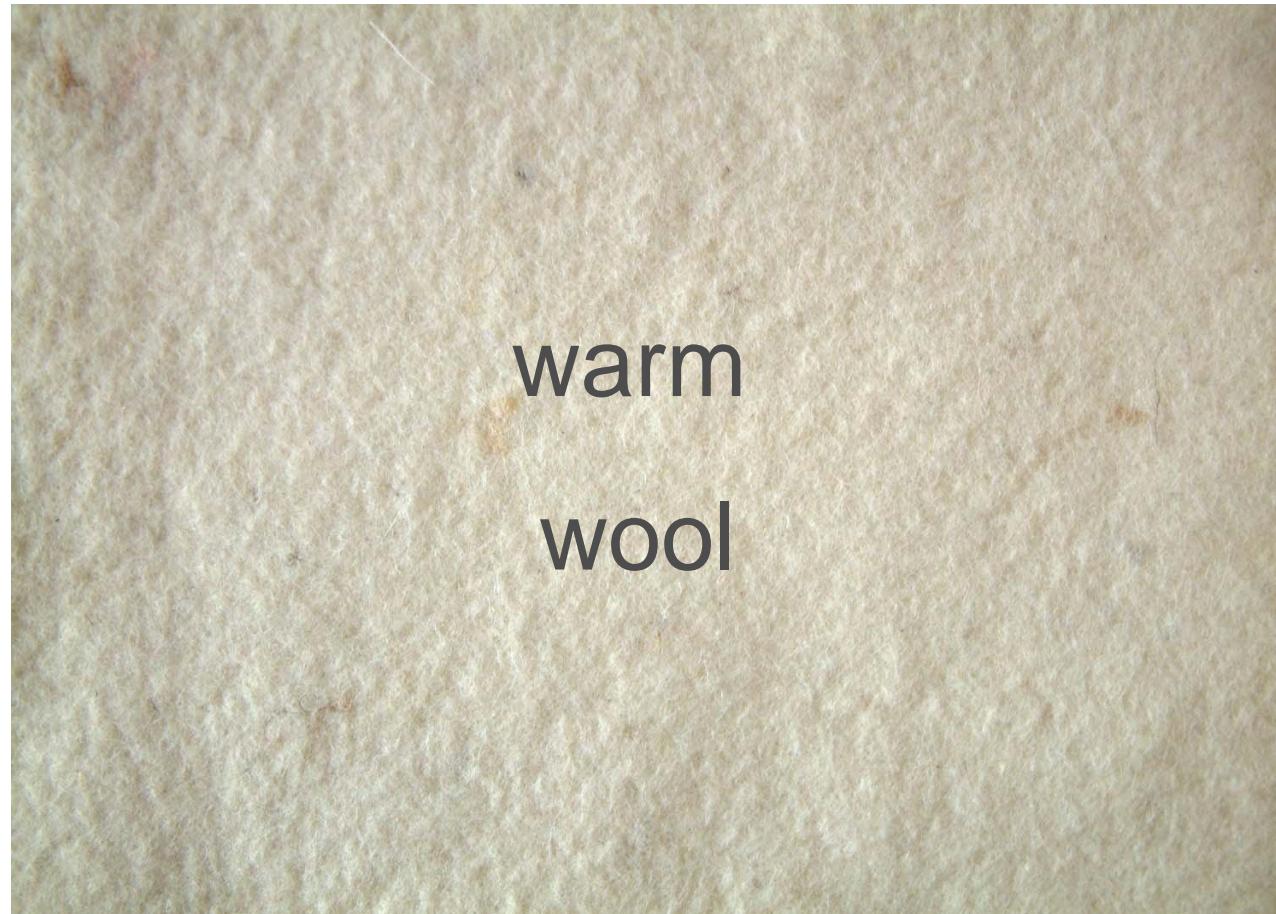




lively
wood

“Wood is of course this kind of rough as life itself. It is not simple and unitary, it is more alive.”





Natural material experience in general:

Associations with the nature, connection to the nature, return to the natural, ecological concerns, wears off beautifully, ageless, clean, simple, peacefull, warm, renewable, growth, perceivable process of birth, uniqueness, liveliness, mysterious qualities, positive touch and odour, positive mind, therapeutic qualities, expressing the Finnish roots and tradition, natural look and knowledge of the origin makes it geniune.





User Image Tool



EUROOPAN YHTEISÖ
Rakenneraahastot



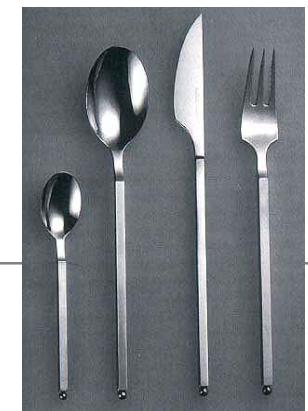
ITÄ-SUOMEN LÄÄNINHALLITUS
Sivistysosasto

KUOPIO MUOTOILU
AKADEMIA.
POHJOIS-SAVON AMMATTIKORKEAKOULU



D'ART SÄKÄ

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Arrange by clicking and dragging different pictures of products in between the three pairs of words so that the most common product is placed nearest to the word **common**, etc.

common



special

word



opposite
word

word



opposite
word





Place those words that describe the different kinds of cutlery on top of each picture. You can place each word several times.

easy to store

disposeable

festive

machine wash

ordinary

easy to use

hygienic

durable

precious

comfortable
to eat

Plastic



Wood



Silver



Steel



Wooden Cutlery

Move the cutlery that matches best with the situation in the picture on top.

▼

Steel	Wood

►

Plastic	Silver

Explain why?



Emotions Linked to The Bathroom

Visual Research Software

Look at the surface pictures below. What feelings are aroused by them?
Which of these pictures describe the feelings that you feel during an ordinary morning at a bathroom? Move the chosen pictures to the boxes below.

My ordinary morning at a bathroom:

These do not describe my morning:





Building the test



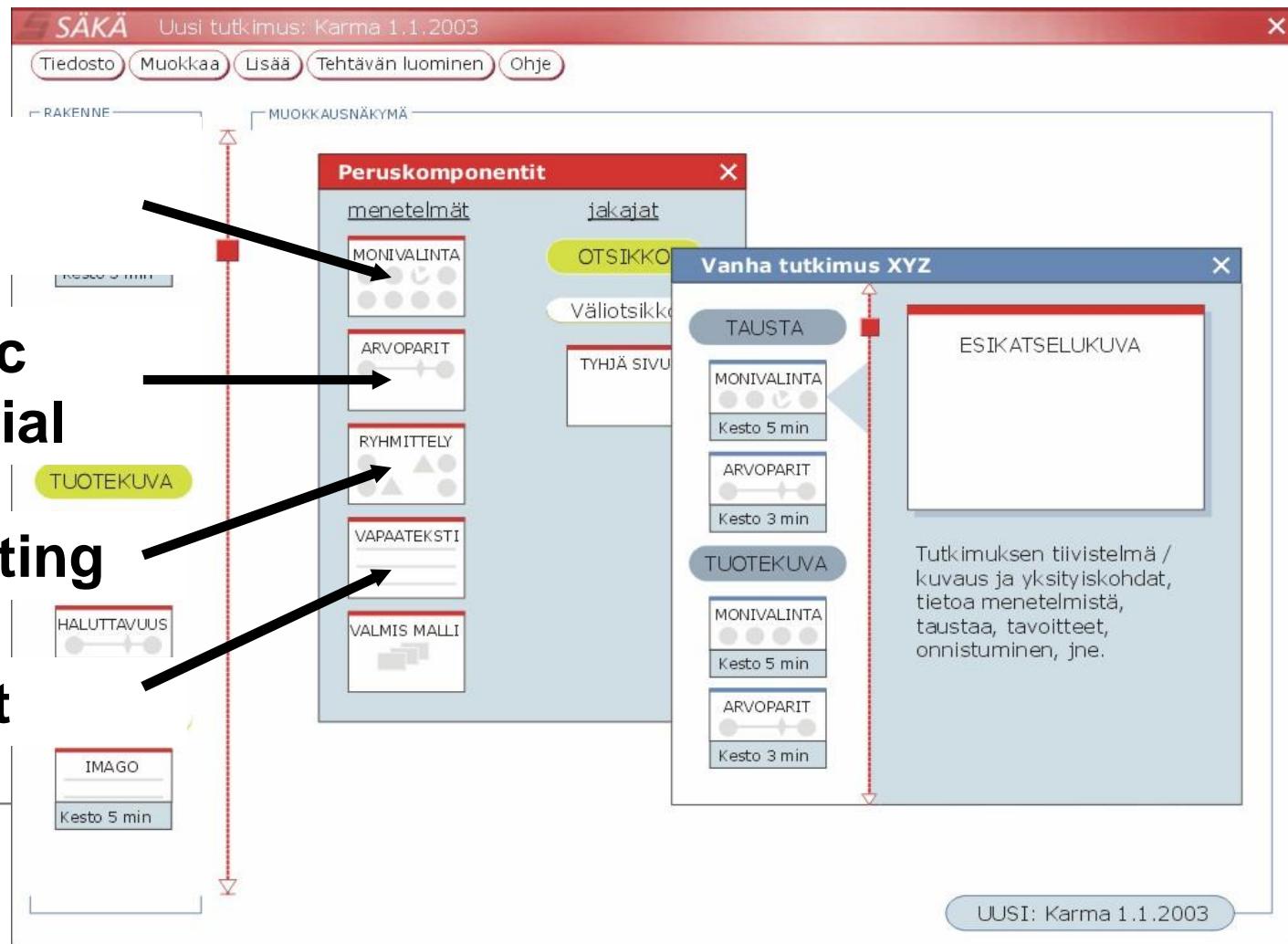
Building the test

Multiple choice

Semantic differential

Free sorting

Free text



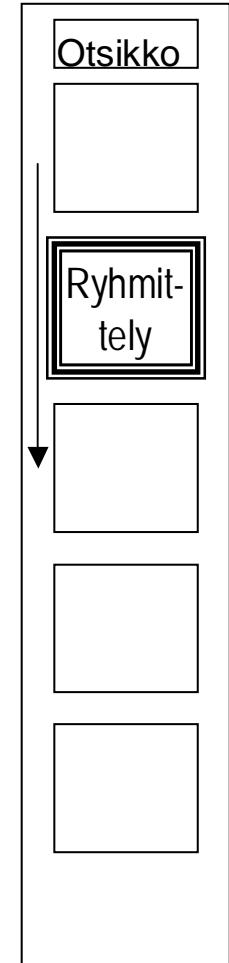


Presenting
the results

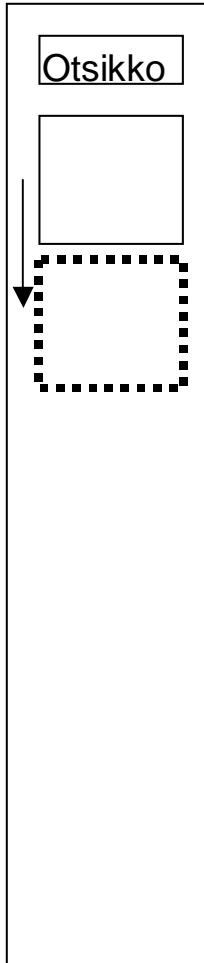


The report building part

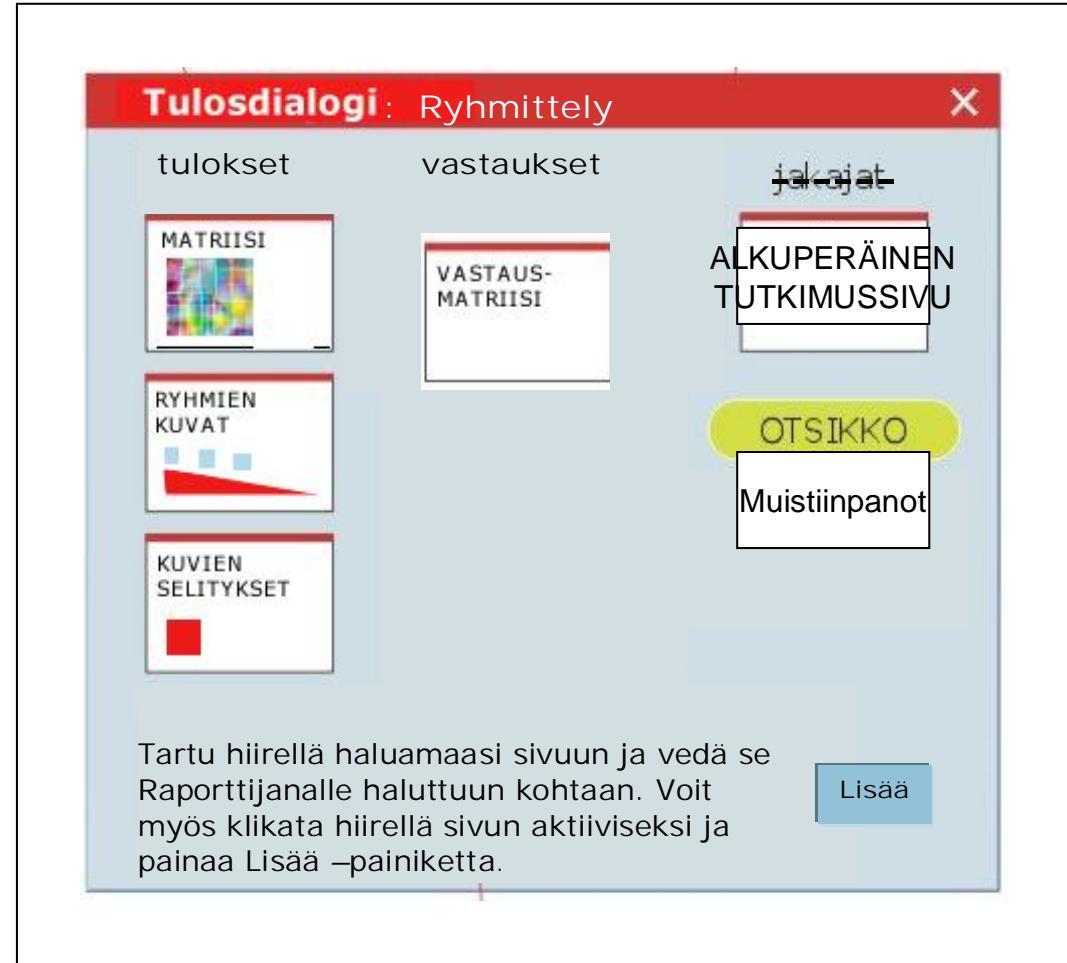
Tutkimusjana



Raporttijana

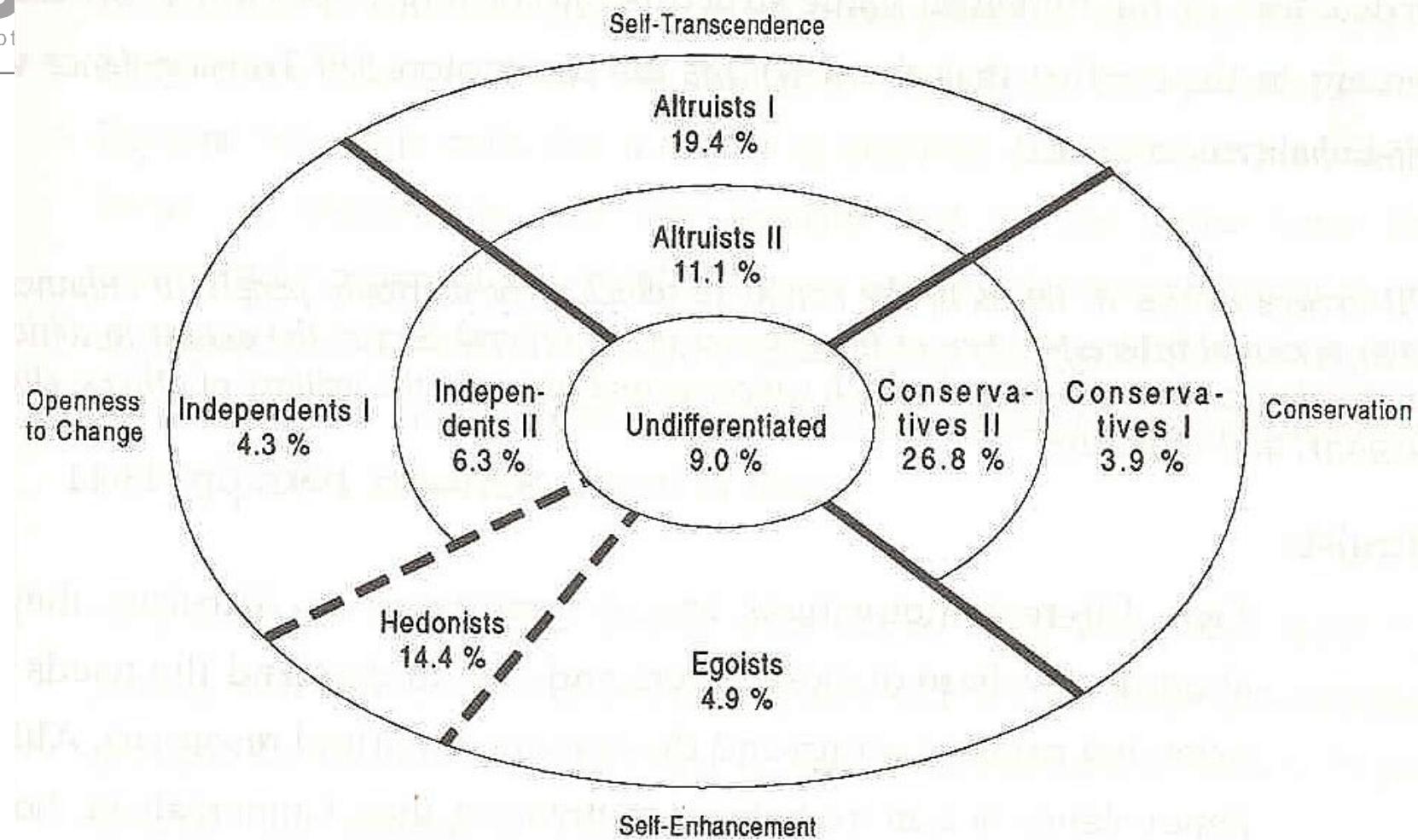


Katselunäkymä



**Sociological
Anthropological
Life style
Rituals, habits**





Puohiniemi: Finnish value structure 1995



Integration milieu
THE WELL-KNOWN PUB TOUR

Entertainment milieu
MIAMI BEACH

Self-fulfilment milieu
THE ARTIST

Status milieu
THE PRESENTATION OF THE NOBEL-PRICE

Harmony milieu
WEDDING



**Kälviäinen, Mirja 2002. Product design for consumer taste.
Pleasure with Products. Beyond Usability. Editors William Green
and Patrick Jordan. London: Taylor & Francis.**

Distinction:

The capacity to make difference between things and to choose some things as pleasurable for oneself.

To notice the difference or the feature that makes the difference.

Taste:

Is a preference based on the consumers capabilities of distinction.



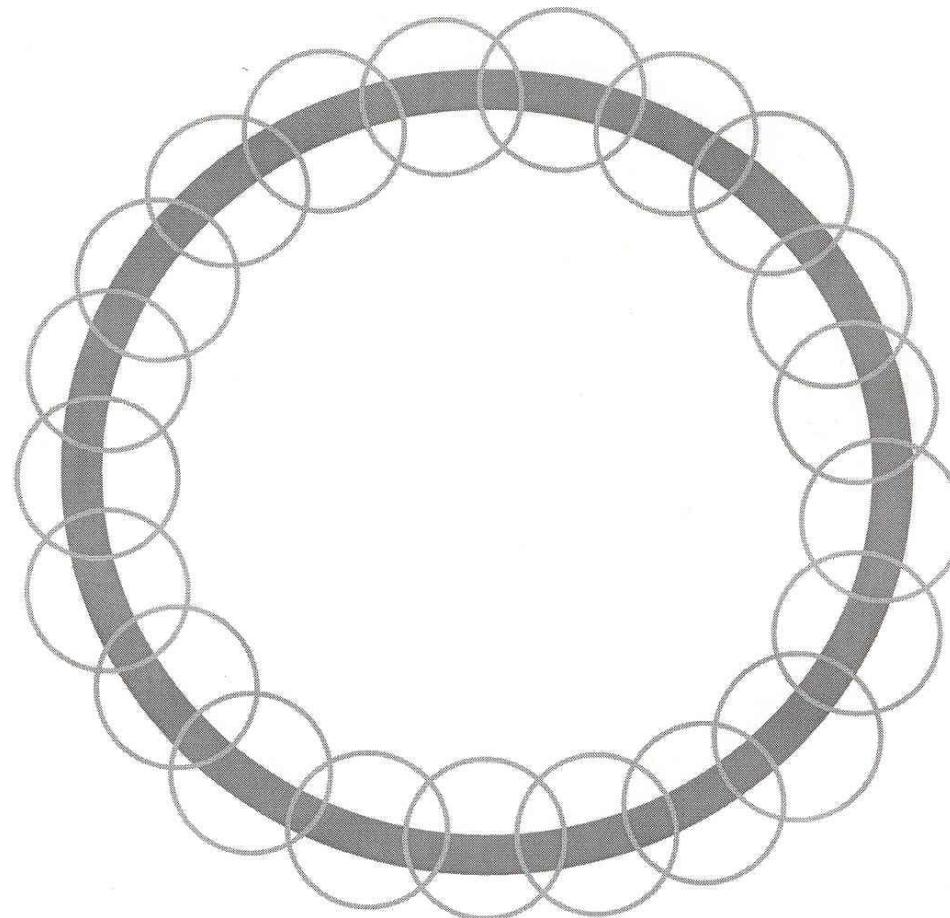
The ideology lying behind the capacity to make distinctions is composed of subjective, intuitive values.

In the social situations of usage in everyday life, the distinction happens intuitively guided by above mentioned deeper structures.

These deeper structures of our understanding and ideology of life can only be grasped by combining the boundaries and possibilities of objective points of life with subjective and social aspects.



The objective framework



The objective framework, the context

Use environment and products around, situation, people who are interacting in the situation and their roles.

Organisational issues such as use of time, division of tasks and space

User group's demographic features such as age, gender, educational level, occupation, income

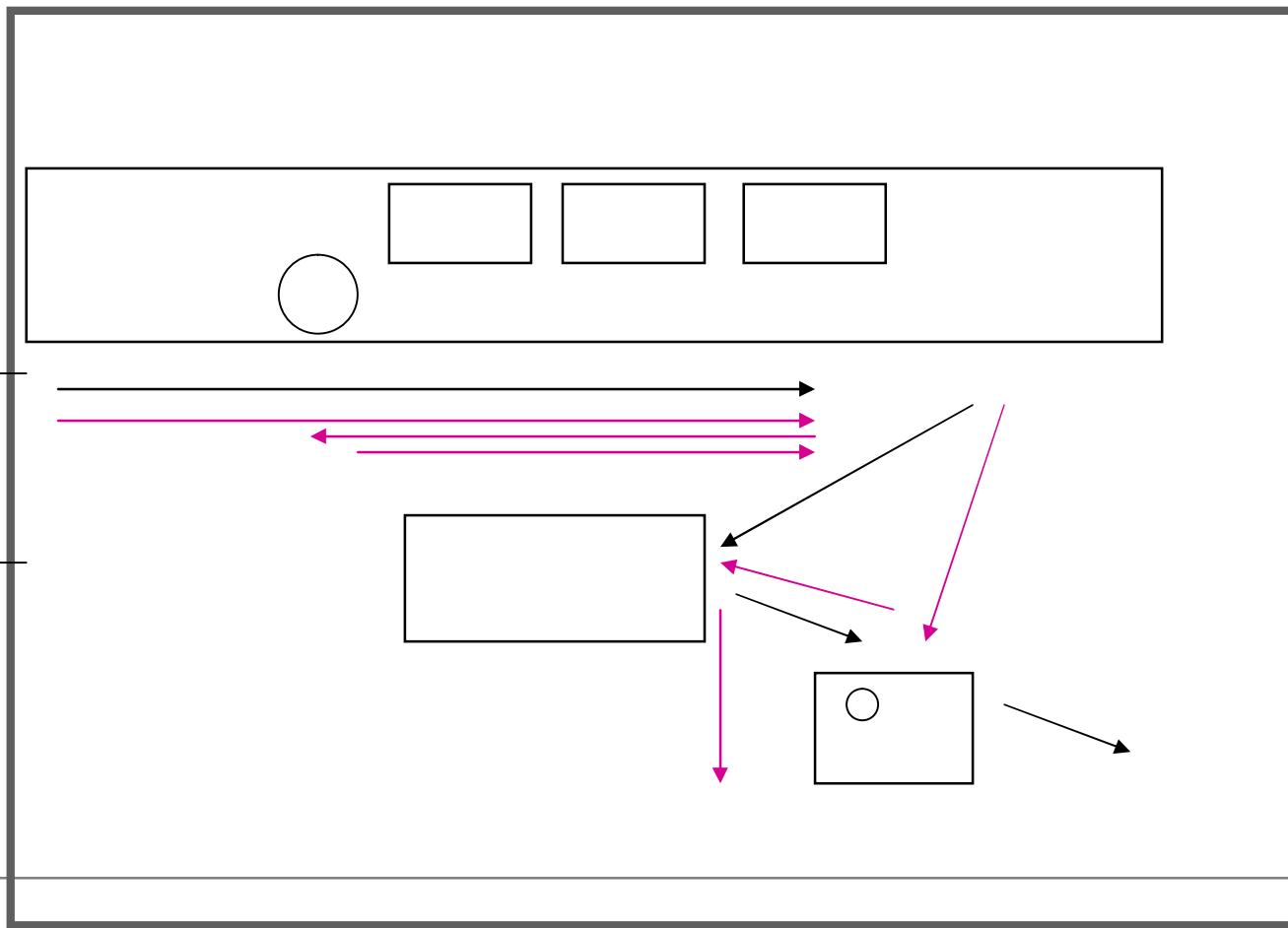
Social background

Institutional bonds

Etnic background, religion

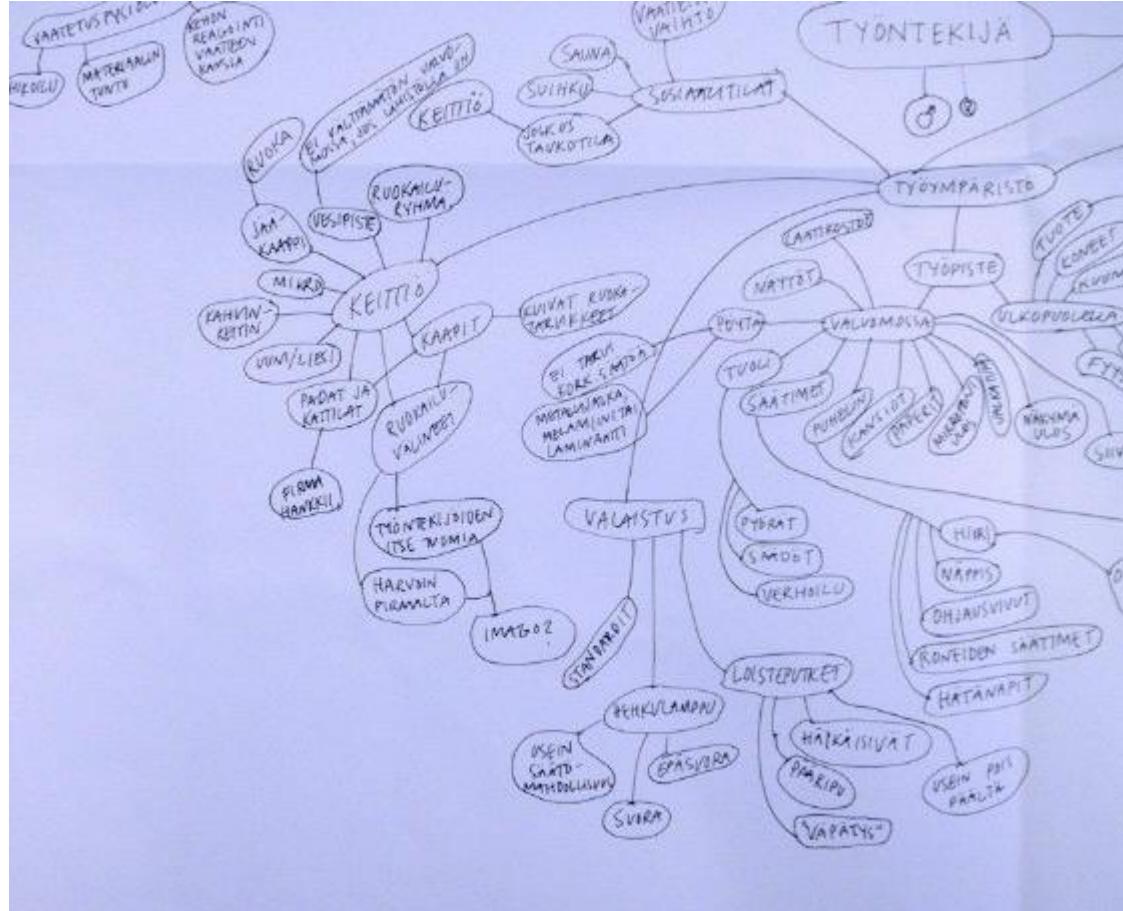


Kartoittaminen



User observation





Analysis of complex information

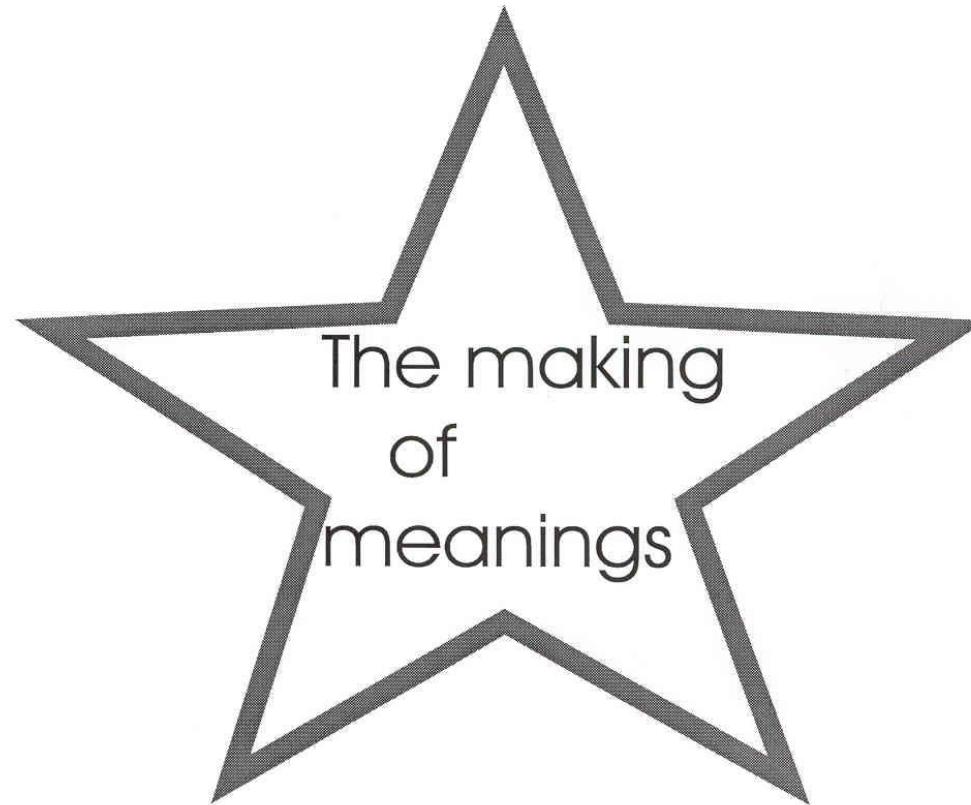




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The making of meanings, the world of personal symbols

The definition process of the meaning in life:
Ideology, value basis, inner orientation, aims, interests,
desires and dreams.

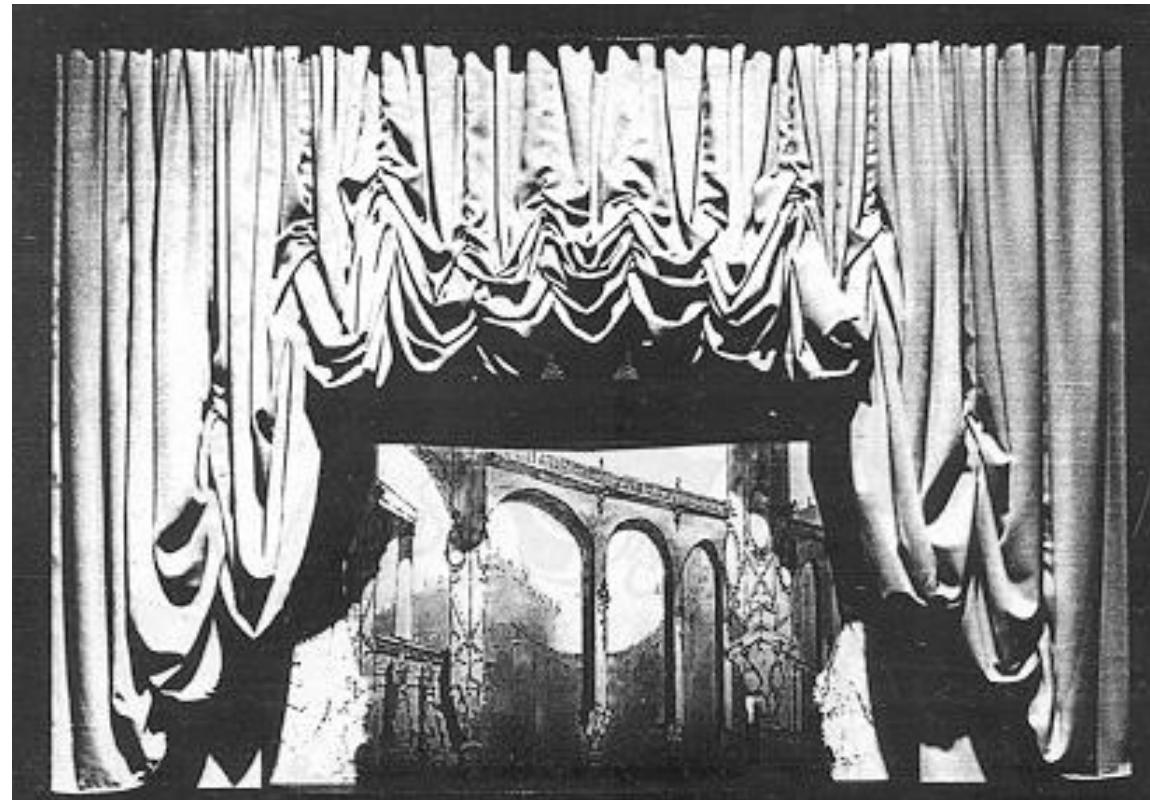
Need for:
Change, novelty, stimulus or risk.
Peace, traditions, roots, security.
The interpretation of the preferred model as
a search for identity or personal identification.

The life histories of the consumer.



"This touches the basic feelings about life. For someone else it is cute and warms the soul but maybe this person does not have much reality and criticality. For me pleasurable beauty is something that includes craques and crude realities of life."





Ervin Goffman: The presentation of self in everyday life, 1959.



The network of influences

Fashion



The network of influences, impression management

The social world of the user:

Possibilities, boundaries, rules, influences

Social placement and interaction in this world

Social distinction connected to the acquisition of profit and status or certain role with symbolic meanings.

Rules of interaction:

Social distance or intimacy,
adaptation, pressures, competition, orientation,
identification, classification.

The social sharing of experiences and taste.
Fashion.







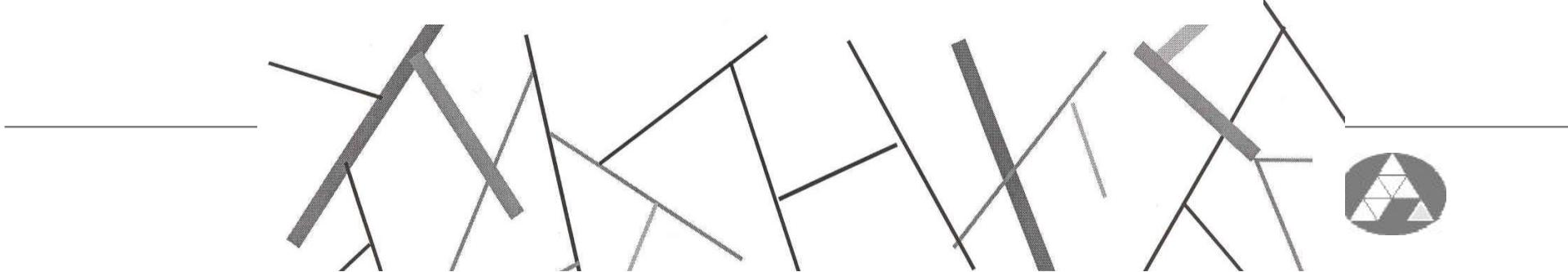
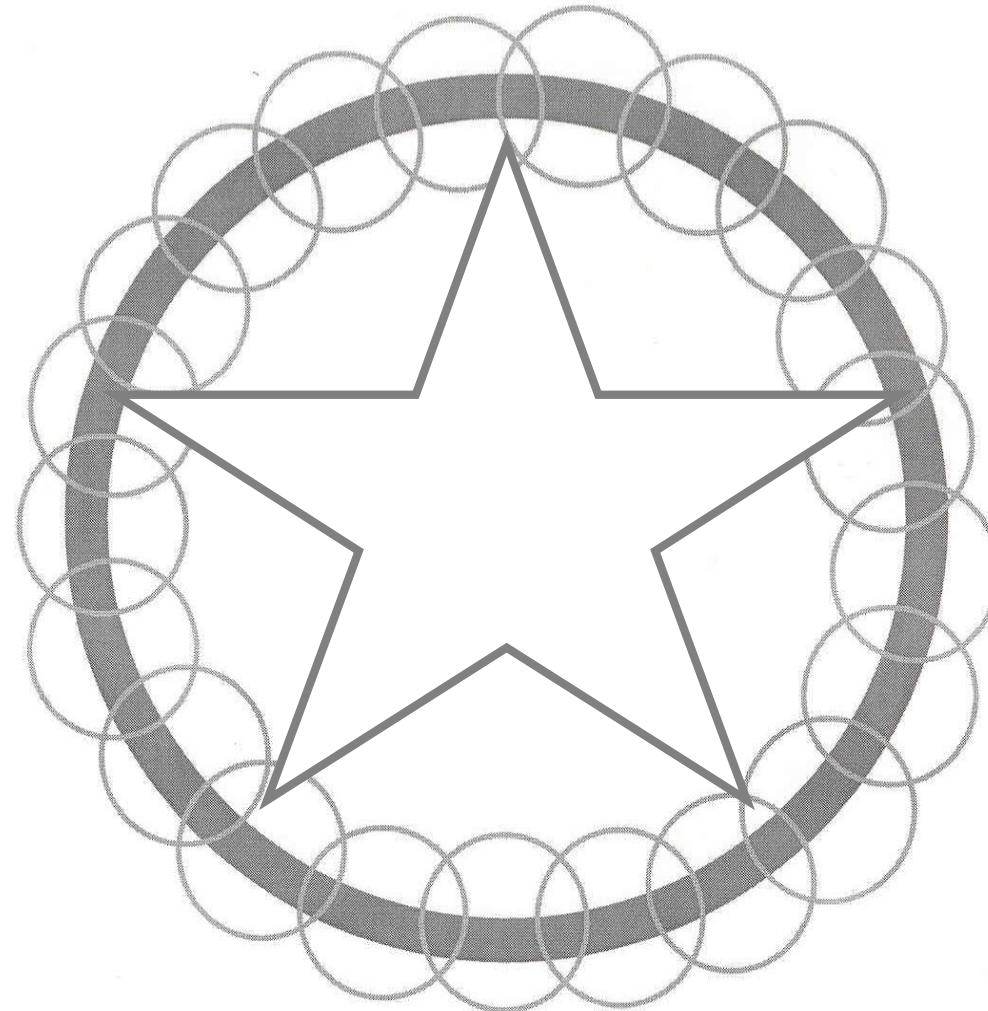
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D'AI
Muotoilun palve





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Your ideal bathroom:

E.g. 30-39 years males

Much space

Jaguzzi

Lots of light

Total harmony of the
materials and color
shades

Specific details

E.g. 30-39 years
females

Spacious, lightness

Glass tiles

Bathtub, jaguzzi, 2 showers

Good storage possibilities
for laundry and detergents

Warm harmonious shades
of color

Water spring, plants

Coloful lights

Sitting places



Males seemed to be more interested in aesthetic issues

With female respondents the practical functionalism went even ahead of aesthetics.

Females required more privacy in the use of bathroom than men.
Females required more hedonistic enjoyment.

Both payed attention to the lightning:

It even needed to be transferable for different purposes.



IDO Bathrooms
Collection of user themes

- * Hygienic care
- * Enjoyment
- * Peace
- * Entertainment
- * Beauty

***Cleaning the space**



Interviews about consuming crafts summer 2002

*20 females ja 10 males aged 19-70 years
*The interviews lasted about 1,5 hours
*The interview consisted of visual judgement and choice tasks from pictures, discussions about the meanings of consuming craft products; buying places, materials, techniques and style choices, introduction of an own meaningful craft product and a future story about craft product dream.



Language teacher, female
52 years old



"It is in our household just in everyday use. It is something that is always in your eyes and it is rather important. I saw that one and I ordered that colour, the suitable colour for our kitchen. It was a textile person, a textile artist. It has been really enchanting, nice for eye and not so traditional. The warp has been coloured in checks with different shades of violet and green and that is partly woven of special natural fibre, not from paper. It has been in use for years and it has not changed a lot in spite of the grease and milk stains. I think it is especially important that it has been made by hand and it is central that you notice at once that it is not just an usual piece of a table cloth. It usually is rather tranquil and it has some deep qualities, because of the dye it has a lake or forest shade. I think it is even art although it is used every day and is excellent in that use."



"It is important that they are made by hand and you know when I saw that person, who has made them it is as well important to me. I felt it was wonderful to speak with her and when she told me about the production process, how she picks up the wood and how it goes on and how her husband is with her to help in that work. When you see that person, who produces that kind of beauty ..."



A health care nurse, female, 40 years old



"That feeling, it is so alive this surface of the wood. It is a wonderful object. I think in this product it is important that it is made by hand. It would be too even and so otherwise. When I think about it it is a wonderful feeling that someone has carved it. You do value that it has been made by hand although I did say it is equal. It has a value, one cannot deny it. Of course, the history behind it, that you can imagine in the Lapland. Where would you have needed it in the wild forest trips, and as a eating vessel and it must be a very old habit of making those. It reflects something that gives it a special mark."



A student
councillor,
female,
59 years old





“There are so intense emotional bonds connected to it. A man who has a severe arthritis and who lives close to our summer cottage has made it. The making of these wooden objects is a way to treat himself and a therapeutic way to still achieve something durable with his hands in spite of the illness. This is something that appeals to me that a person who is not able to do much things can make so impressive, unique products. There are no two similar products. My parent bought this as a graduation gift for my husband. He graduated from the forest science and they wanted to have this kind of element with a very deep atom of the nature and that is why they bought this kind of a present. It is so earnest and it has the sign of the maker that through the product you can connect with original and humane and warm things. It talks about our common Finnish roots.”

Journalist, female,
31 years old





Product meaning as a combination of different aspects

Important
everyday
use

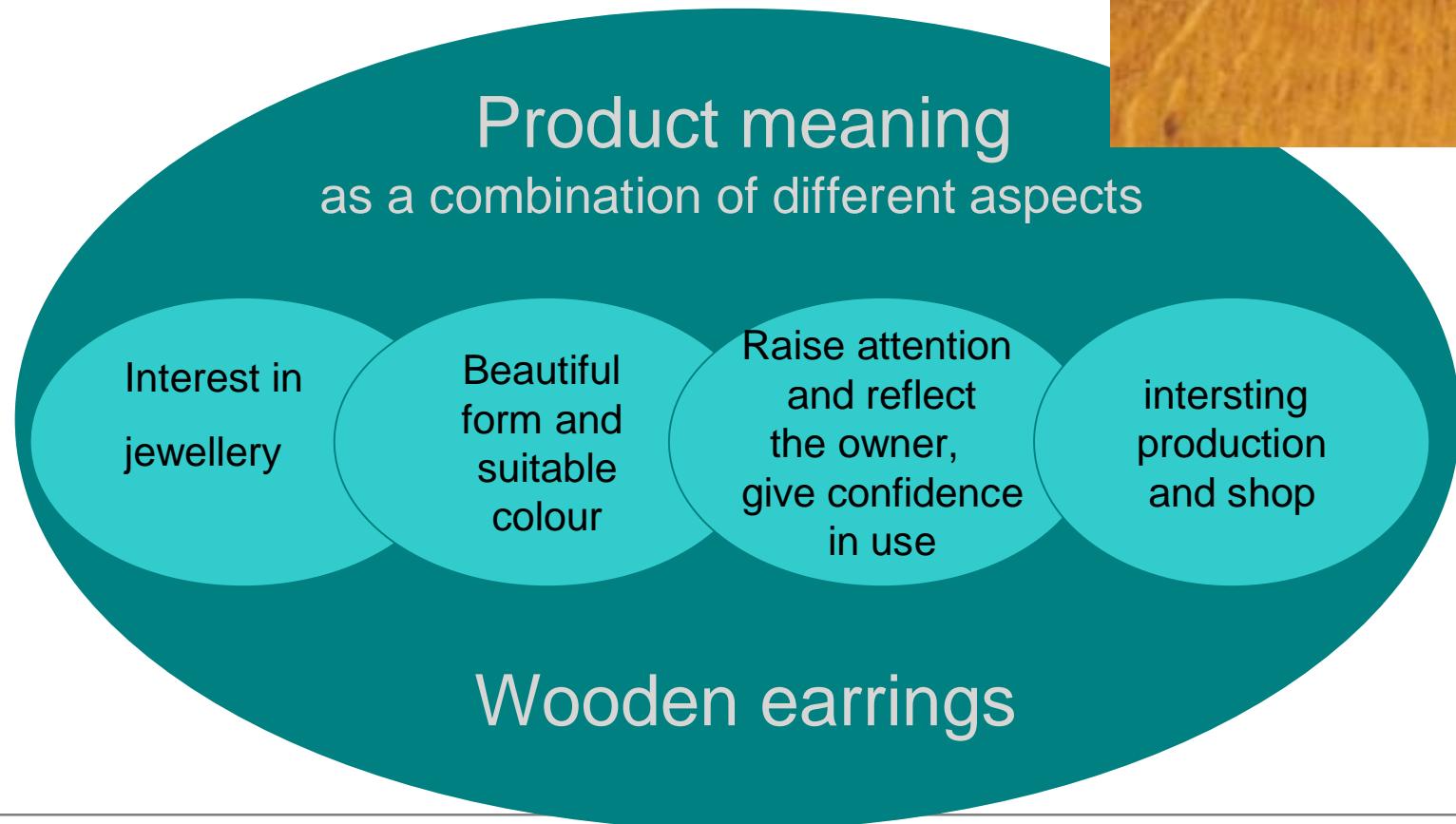
Beautiful
colour and
suitable
form

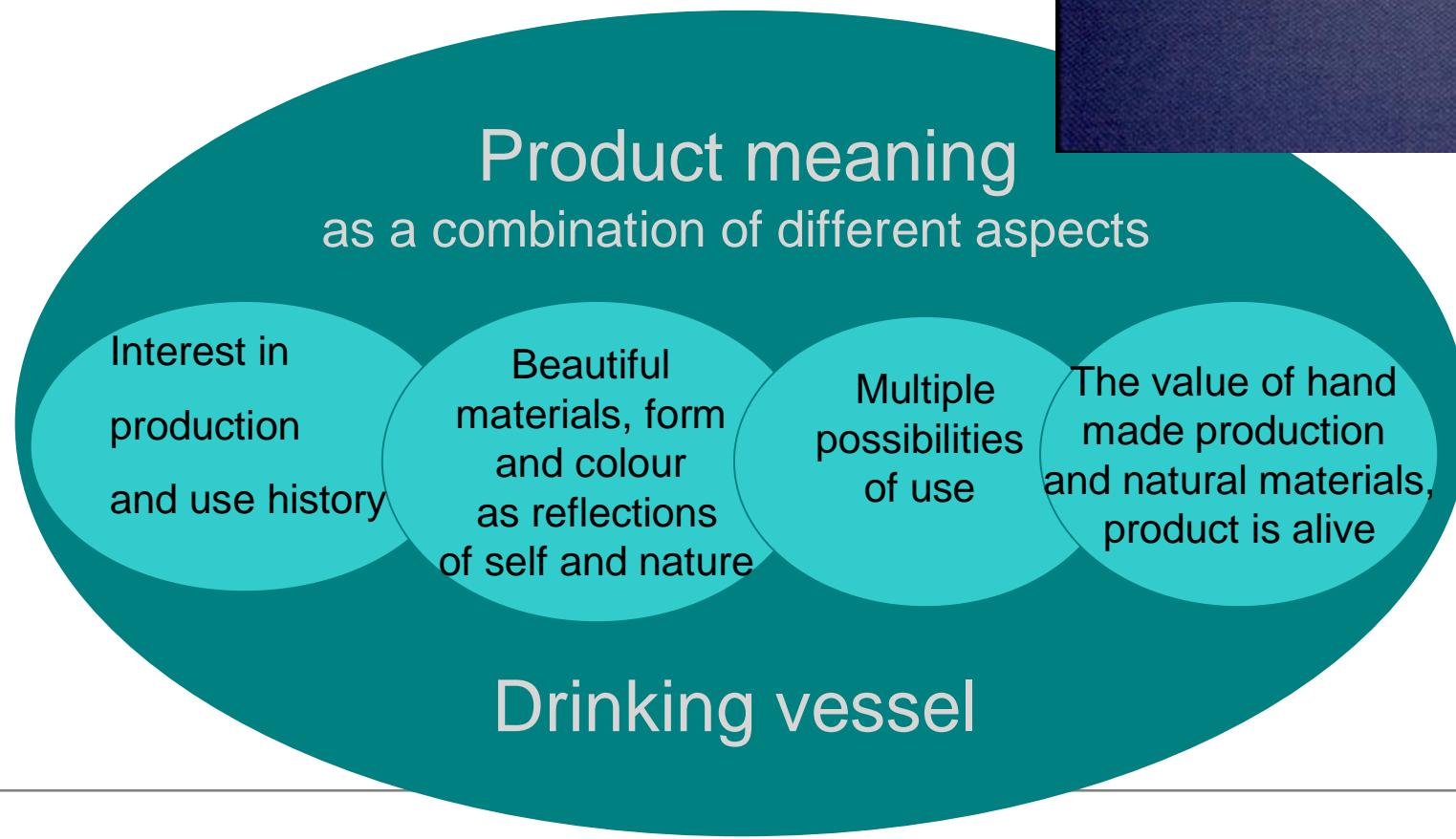
Good to
wash,
durable.
of good material

Hand made
quality and
uniqueness,
even art quality

Kitchen tablecloth









Product meaning as a combination of different aspects

Gift for an
important
occasion

Natural materials
wood, reflecting
the reason for
this gift

Emotional bonds
and memories
of the making place
and the maker

Maker who
could do skillful
things despite of
disability

Wooden table



Own meaningful products and their themes

Several themes varied simultaneously in the meaningful products for different respondents:

- *the reinforcement of the owner's identity (the product had a connection to the personality, family roots, important relationships with other people or to a hobby)
 - *It had connection to memories of roots and meaningful events
 - *The product was used in practical everyday life and was uplifting this life
 - *The availability of the product was rare or difficult otherwise than as handmade.
- Usually one meaningful product carried more than one of these themes at the same time.



Assumptions about human relationship to craft products

*rich and multisensory stimulation in the embodied experience with the product

EXPERIENCED ALSO THROUGH THE PROCESS OF MAKING

*authenticity and uplifting feelings typical with art

IN FUNCTIONAL EVERYDAY OBJECTS

*unique, tailor made products as an example of mass customisation possibilities

OWN DESIGN IS EVEN NECESSARY IN SOME PRODUCT NEEDS

*an inspiration for stories that the product owners connect with their own life stories.

CRAFT PRODUCTS STAND FOR MEMORY CUES IN MANY DIRECTIONS



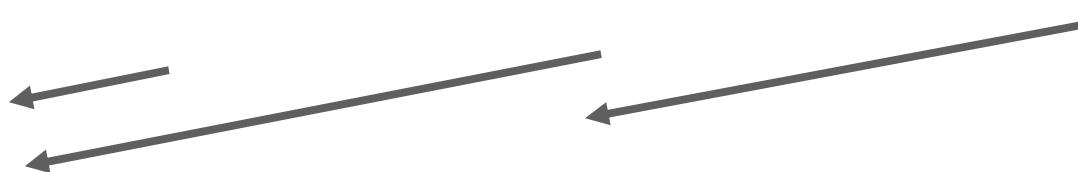
Production Acquiring Product qualities Use

A process of making, acquiring and using the product builds the meaning. Meaning is reflected through the personal background and experiences of the owner also when the actual properties of the product are in question.

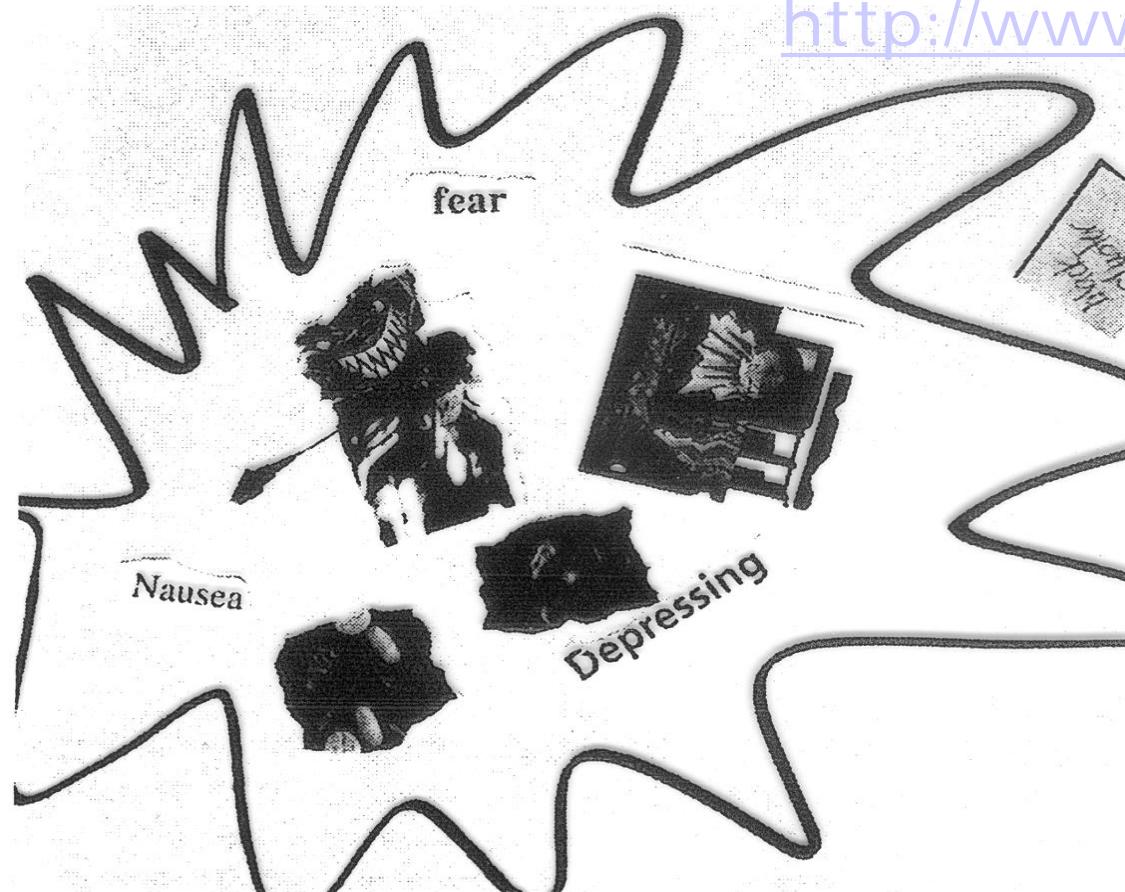


A Checklist for product design?

Production	Acquiring	Product qualities	Use
Value	Experience	Type	Functionality
Design	Importance	Aesthetics	Importance
Maker	Giver	Identity	Suitability
Materials	Memories	Reflections	
Techniques			



<http://www.sonicrim.com/>



say
talk
think

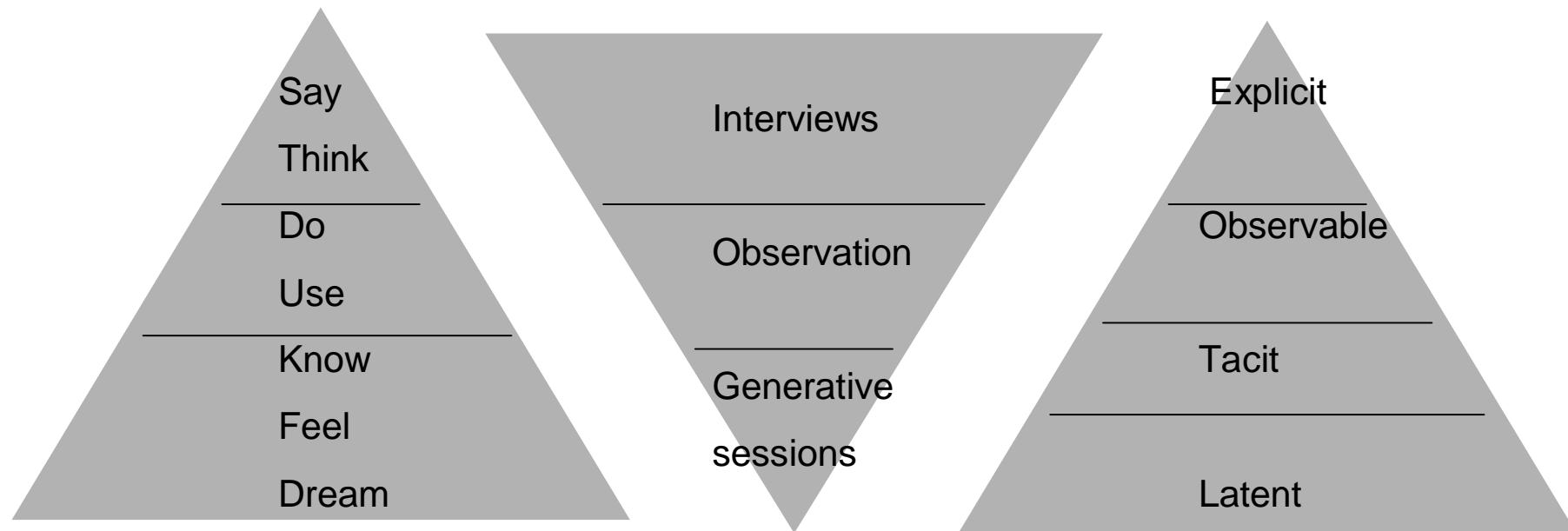
use
act

do
know
feel
dream

Sonic Rim, scaffolds
cultural probes

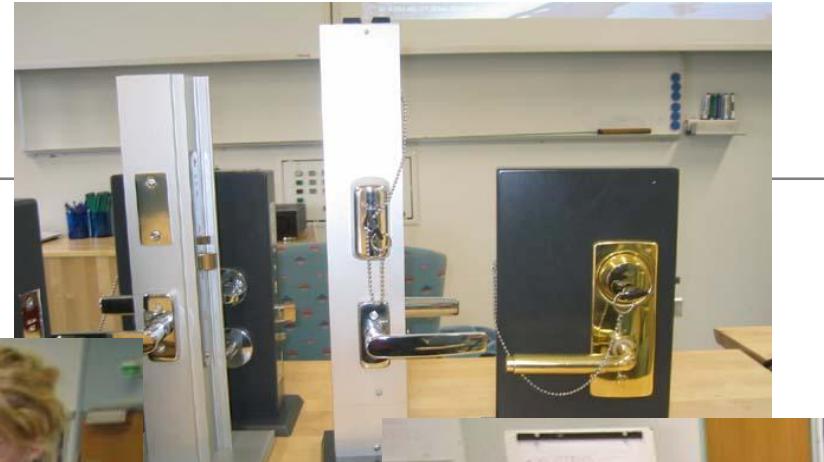


Surface



Deep





From the target to an actor ISAK

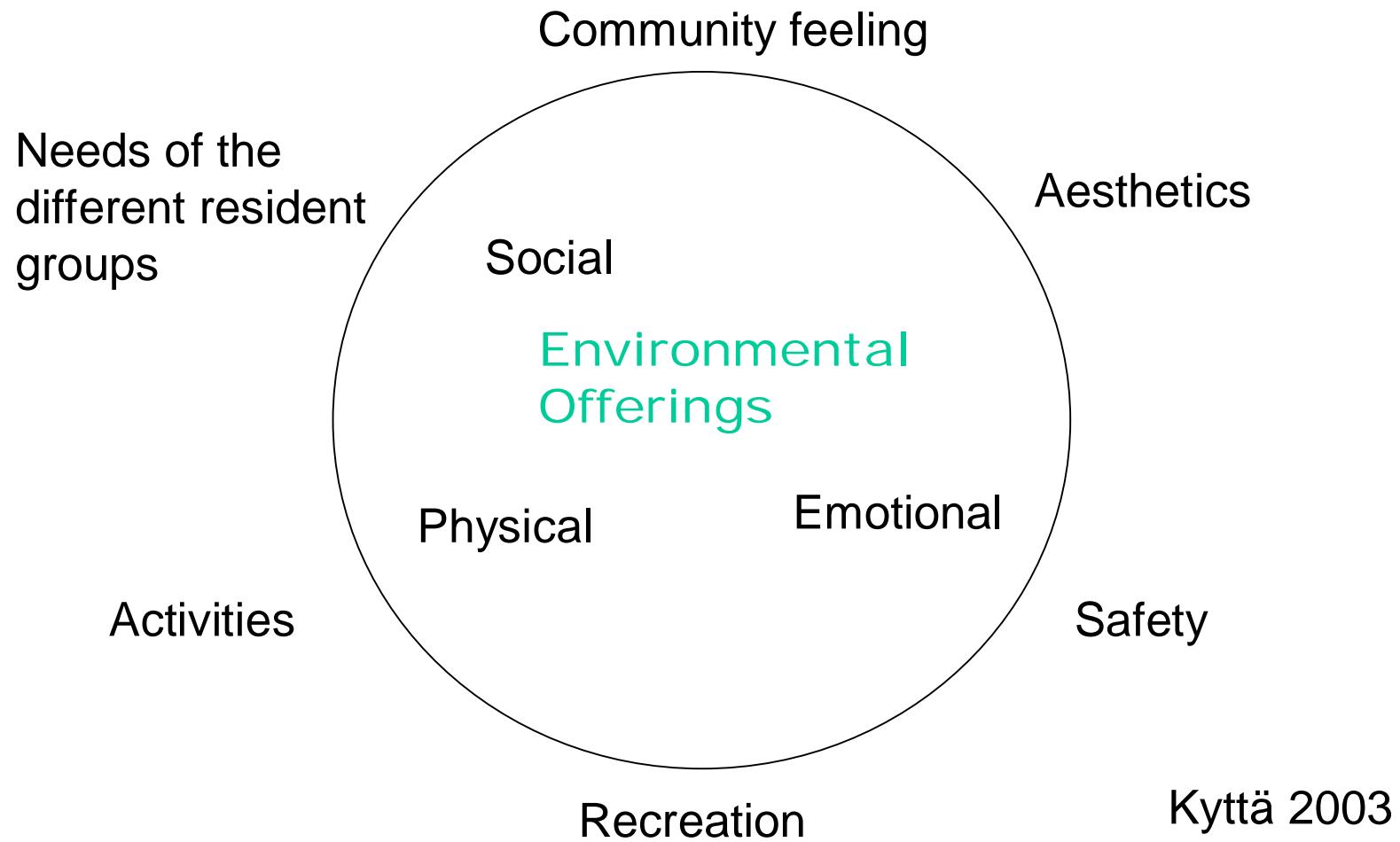


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Choosing a housing area

Comfort, enjoyment
Lifestyle, values
Identity
Atmosphere
Peace
Nature
Roots, attachment
Esteem of the area
Space requirements

Urban wooden housing Area



Enjoyable and comfortable Housing environment



The Best Picture



The second best picture



Close to nature Space and individuality

Nature

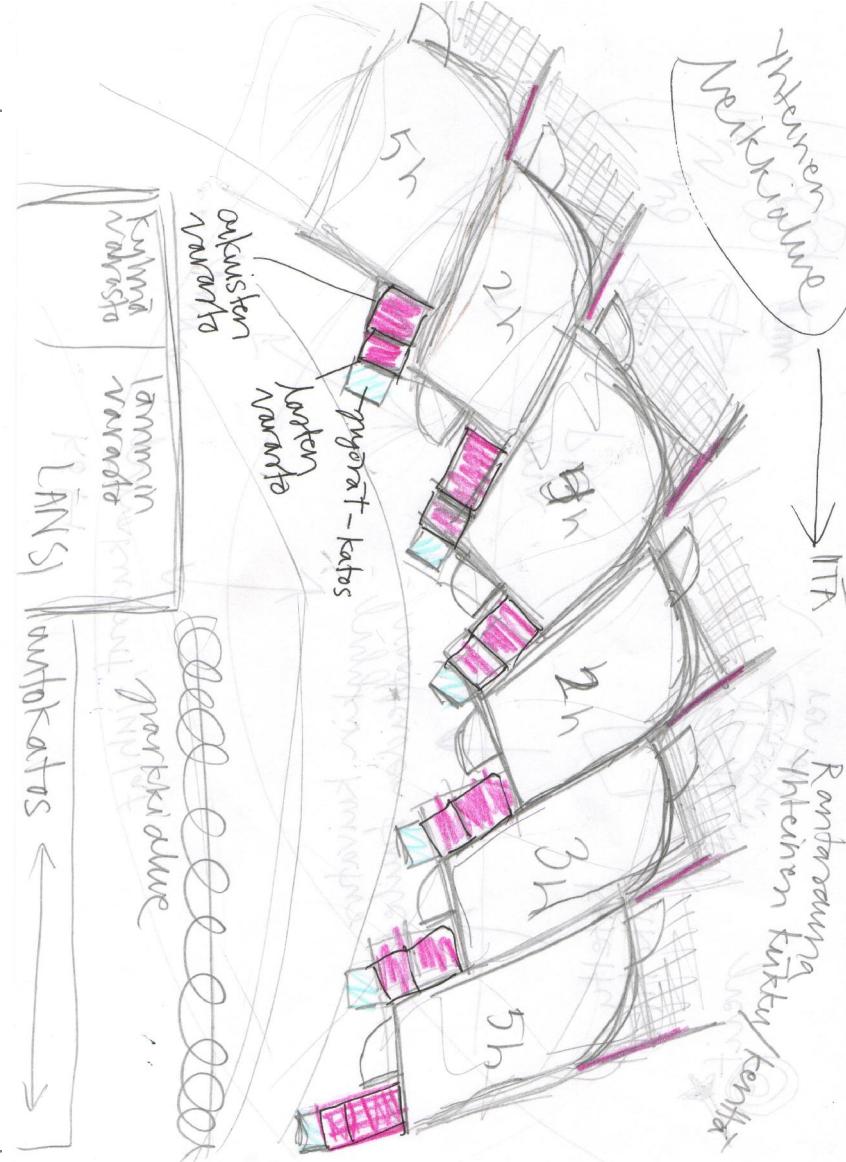


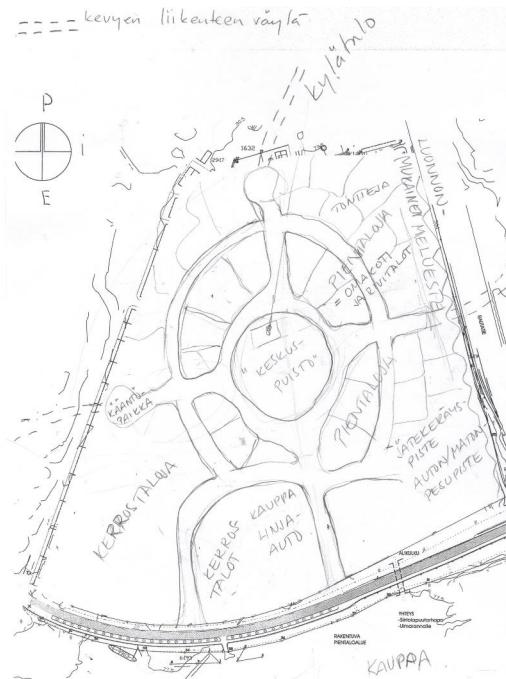
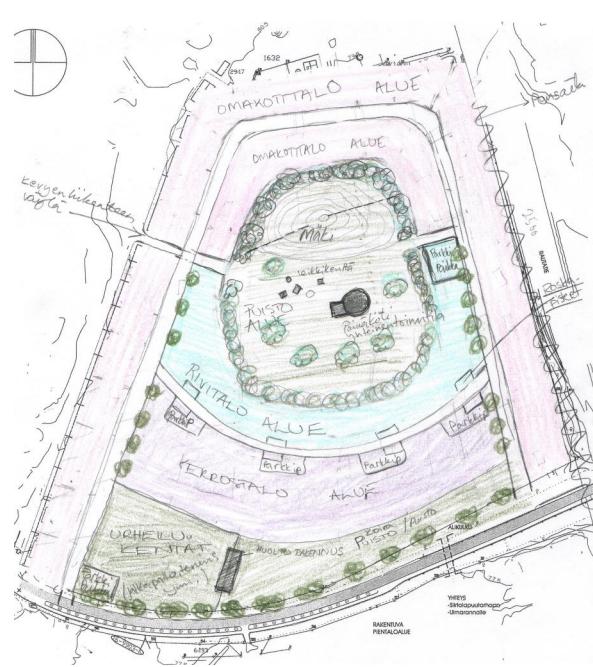
"close to each other
with space to breath"

Individuality with coherent style



- Individuality
 - Privacy
 - Close to nature
 - The bending terraced houses





Group work how the whole area should be designed

Thank you





Living environment
INNOstudio



User centred living concept





EMMI 5V.

CONTRASTS OF COLORS

DISTINCTIVE FORMS

VARIATION IN HOUSES

BIG WINDOWS

DIVERSE PLAYGROUDS

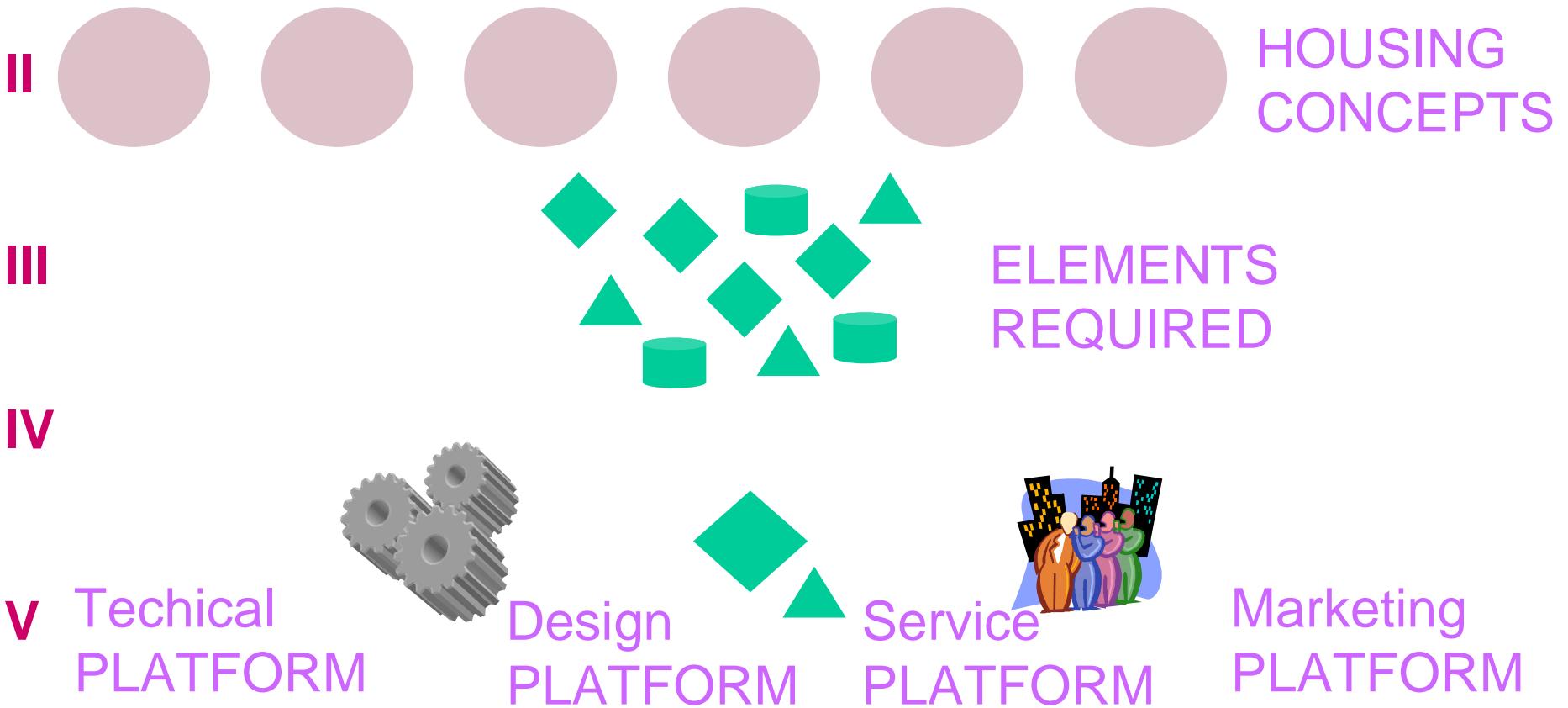
OWN BACKYARD

SURROUNDING NATURE
WATER, TREES, WOOD, PLANTS

SPACE FOR YOUR OWN FAMILY IS CLEARLY
SEPARATED



In depth interviews of 7 different families



Building company A. Taskinen
User centred living concepts
Deep interviews 2007
Content, narrative analysis about relations to the heating systems



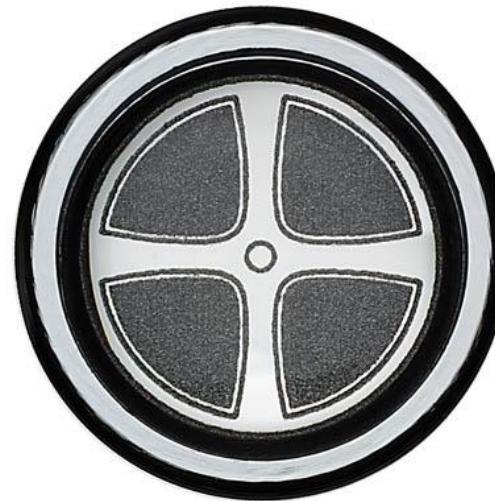


Guidance/feedback/
playlearning

Own playing
Taping/ distribution

Own identity
/ Tuning

Social activities



Ubi

Portability

Physical
KANTELE
Border to the virtual

Ecological footprint

Usability



