Designing the way into the future.
Content

- Trend navigation
- Meta-trend
- Media revolution
- Sustainability
- Globalisation
- Orientation
- Semiotics
- Science or art
- Visual grammar
- Designer’s role
Trend

[engl.] \( m, \)

1. **Common:** Direction of a development, general direction, e.g. in income, fashion, voters opinions ...

2. **Statistics:** Component of a time line that has evolutionary, lasting and sustainable effect and expresses the general direction of a timeline. Besides a trend, cyclic or seasonal movements have to be considered.
Navigation

[latin] _f_,

Process of leading from a given position on a defined course to an aimed position, including all necessary methods of measuring and calculating to define the point of origin and the course.
Trendnavigation

Basing on known facts of the past one can derive future scenarios. Information design visualises the development.
trend relevant factors

1. Change of Meta-trend
   - Economy
   - Society

2. Media revolution
   - Technology
   - Society
   - Culture

3. Crisis of resources
   - Energy
   - Economy
   - Ecology

4. Globalisation
   - Culture
   - Economy
   - Society
change of meta-trend
meta-trend

Long lasting cultural and economic cycles.

We are witnessing at the moment the transition of two meta-trends. Such an event takes place approximately every 50 years. Society and economy have to find and follow new ways. Values have to become redefined.
Kondratjew

**Kondratjew, Nikolai Dmitrijewitsch**, Russian economist, *4.3.1892, †1938 [?];

Founder and 1920-28 director of the institute of economic cycles in Moscow; known a.o. because of the discovery of long-term economic cycles, later by J.A. Schumpeter called Kondratieff-Cycles.

Kondratjew, opposed against the complete collectivisation of the agriculture and the disproportional development of the industry and agriculture became sentenced to 8 years prison 1931 and to death 1938.
Kondratjew cycles

1. Kondratieff
   - steam engine
   - textile industry
   - clothing

2. Kondratieff
   - railways
   - steel industry
   - transport

3. Kondratieff
   - electronics
   - chemicals
   - mass consumption

4. Kondratieff
   - automotive industry
   - petrochemicals
   - individual mobility

5. Kondratieff
   - information technology
   - globalisation
   - communication

6. Kondratieff
   - psychosocial
   - health
   - use
   - wellness

1800  1880  1910  1950  1980  2010
meta-trend development

- ideological mass-production
- materialistic mass-consumption
- immaterial individual use
the designers role

Designers always played a significant role in helping to exploit the meta trend. It is now our task to identify, visualise and show the new trend.
media revolution
There is no reason why anyone could want to have a computer in his home. I don’t think we want our personal life run by computer.

Ken Olsen, President of DEC about the use of computers in the future in 1977.
A media revolution does not start with an idea or the marketing of a new medium but with the capability to understand and use it. (Media literacy).
It took several hundred years until Gutenberg’s revolution was fruitful. There was a simple reason for it: In those days, less than 5% of the population was literate and able to read or write.

As the first printed items imitated the hand written book, we still copy 25 years after DTP and 10 years after internet Gutenberg’s paper age.

We are facing the fourth media revolution in the history of mankind. It will happen faster than the predecessors.
media revolution

1. The image: 15,000 BC
2. The script: 3,000 BC
3. Industrialisation of media: 1,450 AD
4. Digitalising of media: 200 AD
Sustainability
Unlimited growth on our limited earth is not possible.

We will reach our limits soon.
We have to do something about it.
And we can do something about it.

Club of Rome 1972 Limits of Growth
Thus the biggest art/science/assiduity and establishment of our countries shall depend on / ... /that there shall be a continuous lasting and sustainable use / because it is an indispensable matter / without it the land will not remain in its being.

Hanns Carl von Carlowitz
(P. 105-106 in the „Sylvicultura Oeconomica” 1713).
crisis of resources, of energy, of ecology

Typical for the leaving trend of material mass consumption was a careless treatment of the global resources. Especially those areas depending on petrol are facing increasing problems.

We are forced to look for new and sustainable concepts to avoid a upcoming catastrophic development.

A positive side effect could be the solution of ecologic issues.
the ecologic footprint

the world we have

the world we needed

the world Europe needs
The ecologic footprint

The globally available area to supply the human needs is exceeded 23% in total.

We require worldwide at present consumption 2.2 ha per person, but we only have 1.8 ha available.

Europe requires 4.7 ha per person but can only supply 2.3 ha.
This means an overstraining of the European bio-capacity for more than 100%.
The ecologic footprint is the equivalent area of productive land and aquatic eco-systems needed to produce the necessary resources and deposit the related waste, consumed by a defined population with a defined material life standard, wherever this land may be.
### The World Reserves on Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Static Index with Existing Reserves Until</th>
<th>Increase p.y. approx.</th>
<th>Exponential Index with Existing Reserves Until</th>
<th>Exp. End with Estimated 5x Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molybdenum</td>
<td>2051</td>
<td>4.5 %</td>
<td>2006</td>
<td>2037</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>2010</td>
<td>4.7 %</td>
<td>1994</td>
<td>2021</td>
</tr>
<tr>
<td>Nickel</td>
<td>2122</td>
<td>3.4 %</td>
<td>2025</td>
<td>2068</td>
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<tr>
<td>Crude Oil</td>
<td>2003</td>
<td>3.9 %</td>
<td>1992</td>
<td>2022</td>
</tr>
<tr>
<td>Platinum Group</td>
<td>2102</td>
<td>3.8 %</td>
<td>2019</td>
<td>2057</td>
</tr>
<tr>
<td>Silver</td>
<td>1988</td>
<td>2.7 %</td>
<td>1985</td>
<td>2014</td>
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<tr>
<td>Tin</td>
<td>1989</td>
<td>1.1 %</td>
<td>1987</td>
<td>2033</td>
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<tr>
<td>Wolfram</td>
<td>2012</td>
<td>2.5 %</td>
<td>2000</td>
<td>2044</td>
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<tr>
<td>Zinc</td>
<td>1995</td>
<td>2.9 %</td>
<td>1990</td>
<td>2022</td>
</tr>
</tbody>
</table>

Source: Club of Rome 1972
Oil peak

Oil prospecting, reserves
- known
- estimated

Oil production

Gb/y

Crude oil price
Sustainability can be achieved through simultaneous and equal application of ecologic, social and economic aims. These three dimensions can be valued differently.
Design and sustainability

Design has played and still plays a responsible role in heating up the careless mass consumption.

But design could be a distinguished tool to develop sustainable concepts, provided we understand design as process oriented societal function.

Design is the key to sustainable thinking. Design for life instead design for business.

Process precedes product.
Think global, act local.
Visual Communication Design visualises culture.
We are witnessing a transformation of which new forms of politics and economy will arise. There will be no longer national products and technologies, no national companies, no national industries.

It will be the end of national economics.

Robert B. Reich, former US-minister for labour
Globalisation is not primarily an economic or logistic task. 

Globalisation is a cultural challenge.
Globalisation

Scenario 1

Domination of one culture

Several attempts during history:

Rome  failure after collapse
England  failure after collapse
Germany  failure after defeat
USA

Superiority complex of one culture, mainly due to lack of knowledge and lack of respect for others.
Globalisation

Scenario 2  Clash of cultures

e.g.

9-11
Mohammed cartoons

Happens due to lack of global concept and disrespecting other points of view.
Globalisation

Scenario 3      Merge of cultures

Grafitti
Hip hop
Esperanto

Needs agreement about one global culture.
Globalisation

Scenario 4  Synergy of cultures

Cooperation of cultures.
Exchange of values.
Cultural pride in harmony with mutual respect.

Needs an active global communication concept.
Orientation guides on the way into the future
Orientation

Orientation is a primary instinct and inherent necessity, comparable and in relation to the necessity of safety and order.

Without orientation it is impossible to survive:

Risks cannot be recognised
Aims cannot be reached
Ways can mislead.
Orientation

[lat], *Physiology*:

Capability of organisms (human being, animal, plant) to get used to somewhere or find its way, to keep a certain position in space or change the position **mapped out**;

basing on several outer appeals, but also on memorising and learning processes
Orientation

Orientation is not an objective fact but an individually perceived event.

Although we are convinced that orientation happens outside — it only happens inside of us.

Orientation is a cognitive achievement of perception and communication depending on knowledge and experience.

Perception and communication is the result out of understanding and interpretation of signs.
Signs serve to orientate. To design signs is the task of communication designers. Consequently orientation is the key benefit of communication design.
Omnia instrumenta quibus ad cognoscendum et loquendum utimur, signa sunt.  
All instruments we use for recognition and communication are signs.

Jean Poinsot (alias Johannes a Sancto Thoma) 1632
Ceci n’est pas une pipe.
Semiotics is the science of signs [Greek σημεῖον »sign«] (scientia de signo)

The emphasis of semiotic research lies in philosophy and linguistics;
in general semiotics is subdivided in

- syntactic (the relation of the signs)
- semantics (the relation between the significant and the sign)
- pragmatics (the relation between the significant, the sign and the user)

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Visual Communication Design is applied semiotics.

Visual communication is declared field of activity of the science of semiotics.
Past-Signs

All we know about the history of the world and mankind we have been told through signs.
Presence-Signs

All actions are reactions on signs or signs aiming to evoke reaction.

What is the meaning of the signs we send?
What is the meaning and the effect of the signs we receive?
Future-Signs

There are signs indicating the development of the future.

Which signs?
What do these signs mean?
How to react accordingly to these signs?
Designer identify and create signs.

In the view of the apparent changes it is the task of the designer to identify the signs of time, to interpret them, visualise them and make them available as orientation guides for the future development.
Visual Communication Design –

*Science or art?*
Effective visualising is a science and an art.

Matt Woolman Digital information graphics, 2002
Aesthetics is the **science** of the sensual perception.

Alexander Gottlieb Baumgarten 1750

Aesthetics from the Greek *aisthesthai* 'to perceive.'
The branch of **philosophy** dealing with the principles of beauty and artistic taste.

Thesaurus 2005
“The Germans are the only ones which use the word aesthetics to describe what others call the critics of taste.

It is basing on the false hope [...] to bring the critical evaluation of beauty under rational criteria and lifting them up to become a science.

But yet this attempt is in vain [...].”

Kant, Kritik der reinen Vernunft §1.70.B36 1781
“All one wants to know is if the pure imagining of an object goes along with delight, no matter how uninterested I am about the existence of the object of my imagination”

Kant, Kritik der Urteilskraft 1790 §2. 117. B/A6
The polysemantic use of the word aesthetics makes it a passepartout word which fits everywhere because it does not mean anything.

Wolfgang Welsch, Grenzgänge der Ästhetik, 1996
design as art

form

shape
colour
texture
zeitgeist
meaning
...

tools

aesthetics
styling
decoration

Based on Prof. John Heskett
design as complex societal task

<table>
<thead>
<tr>
<th>form</th>
<th>function</th>
<th>production</th>
<th>application</th>
</tr>
</thead>
<tbody>
<tr>
<td>shape</td>
<td>use</td>
<td>materials</td>
<td>price</td>
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<tr>
<td>colour</td>
<td>purpose</td>
<td>processes</td>
<td>usability</td>
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<tr>
<td>texture</td>
<td>ergonomics</td>
<td>technology</td>
<td>positioning</td>
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<td>zeitgeist</td>
<td>environment</td>
<td>durability</td>
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<td>meaning</td>
<td>life style</td>
<td>reliability</td>
<td>competition</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

tools

- aesthetics
- styling
- decoration
- interaction
- ergonomics
- semiotics
- engineering
- economy
- sustainability
- strategic design
- systems
- cultural factors

Based on Prof. John Heskett
Aesthetic sense

“Our basic aesthetic sense [...] resides in the inherited ability to recognise the diversity of organic forms.

[...]

It is the same organic form recognition program which now provides us with our aesthetic sense of visual organisation and composition”

Peter D. Stebbing Cumulus Conference Utrecht
Recognition program for organic forms

- not organic
- organic
- no proportion
- proportion
- no balance
- balance
- no rhythm
- rhythm
- no contrast
- contrast
- stimulus

Perception level

Peter D. Stebbing Cumulus Conference Utrecht
Is there a grammar of the visual language?
Viskom Module System

By arranging mode, dimension and function of a sign or a sign system following logic criteria you receive a grammatical system.

This system can function as guideline for research, development and application.
message mode
message function

dimension

interactive
dynamic
static

image mode

script

function

inspiration
information
orientation
Viskom cube

- Interactive
- Dynamic
- Static

- Image
- Script
- Mode

- Inspiration
- Information
- Orientation

- Function
Viskom cube

- Interactive
- Dynamic
- Static

- Image
- Script
- Mode

- Inspiration
- Information
- Orientation

- Function
Viskom module system

dimension

interactive

dynamic

static

image

script

mode

function

inspiration

information

orientation
The changing role of the visual communication designer
no principal changes of the process

1450
movable letter
high printing

1970
photo setting
offset printing

1990
digital setting
computer to plate
offset printing

2000
desk top publishing
computer to print
laser printing
internet

520 years
20 years
10 years
? years
changes in processing

Graphic Design

Visual Communication Design

message

Disposition

Transport

Transport

Transport
The new role of the communication designer

<table>
<thead>
<tr>
<th>Function</th>
<th>traditional</th>
<th>new thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>operational service provider</td>
<td>strategic planner</td>
</tr>
<tr>
<td>Task</td>
<td>form giving of a product</td>
<td>form giving of processes</td>
</tr>
<tr>
<td>Method</td>
<td>from present to future</td>
<td>from future to present</td>
</tr>
<tr>
<td>Knowledge</td>
<td>printing technology</td>
<td>semiotics</td>
</tr>
<tr>
<td>Skills</td>
<td>artistic technical</td>
<td>cultural scientific</td>
</tr>
<tr>
<td>Benefit</td>
<td>aesthetic product</td>
<td>societal functioning processes</td>
</tr>
</tbody>
</table>
professional pyramid

Strategic designer
Analysing and developing conceptual platforms for major design projects or design policies.

Planning designer
Planning, finalising and executing design projects.

Operating designer
Finalising and executing design products.
new work structure
new work structure

The graphic-designer in a centralised system was an independent or employed individualist, depending on central customers.
new work structure

Graphic-designers in a decentralised system joined in design groups or companies, acting on the market as service enterprises, first mono-disciplinary, later as multidisciplinary groups.
Visual communication designers work as individual experts in project related (virtual) networks.
new designers needed

Design for needs instead of design for business.
Process precedes product.
Handle the media revolution.
Help to find sustainable solutions.
Contribute to a better understanding between cultures.

Give orientation.
Set the right signs.
The best method to predict the future is to invent it yourself.

Allan Kay
The line it is drawn, the curse it is cast
The slow one now will later be fast
As the present now will later be past
The order is rapidly fading
And the first one now will later be last
For the times they are a-changing.

Bob Dylan 1963