**ART-BASED FUTURES**

GERALD

Art-based futures is our topic.

And we want to give you an impression what we mean by a future being based on the arts.

I know what you think now: The president of an Art University is massively exaggerating the importance and relevance of the arts. And I say: No! I’m not exaggerating at all. On contrary:

Those who argue that only science and technology are really crucial for the future of our societies do not know anything about the nature of human evolution and civilization. And those who see the arts only as something to make the world prettier are underestimating the power of the arts.

The true beauty of art lies in its ability to move us emotionally and intellectually, to motivate us following new paths, to shape awareness, and to evoke imaginations.

FILM FREEZE-THAW

CORNELIA

CORNELIA

Foto Hallstatt

The Performance you saw took place in the Natural History Museum Vienna.

Several Artists were invited to reflect on findings of the salt caves in Hallstatt.

Lade-Wissenschafter

The scientists showed us their world. The way they store their treasures were inspiring for me.

To understand their language, their musts and don’ts took a long time and raise a lot of questions in me.

Zeichnung 1

What does it mean to find something (and in a next step refer it and rate it)? It comes to a valuation which is very marked by the circumstances of the find, the person dealing with the find and their world view. In the beginning some scientists say it could be like this "it is a model", but mostly this part of information sink into oblivion.

Zeichnung2

When this models are visualized we believe this is reality.

An evaluation and classification carried out is of temporary validity.

Depending on which new knowledge or findings are gained, they must be changed or revised.

So what I did was to assemble personal findings,

left overs and new parts to 10 "body wraps"

every collection has his own name like

*Tracking* or *Bruce*.

Laden

In the exhibition the scientists and the artists did in the same room, each collection found place in its special drawer.

In the Performance you saw, each performer found a treasure.

Komplette Körperumhüllung

Every one of them had to evaluate and classificate each pice and decide where to put it on his body.

It happens automatically that the viewer starts to think "What is this?" and maybe also

"Where would I place this object?"

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Artistic Research

If we talk about the future, we have to talk about knowledge production. Research is the way, how knowledge is produced. But how about the arts? Can art produce knowledge: Is there something like art-based research: There are two dominant approaches of art-based research: In the first approach the research is an investigation into the arts themselves in search for new aesthetic dimensions. In the second one the arts are used as tools to increase or stimulate knowledge production outside the system of the arts. Maybe in social, political or scientific issues. This approach follows the concept of infiltrating and thus enriching research, like some decades ago quantitative methods infiltrated research in economics, history or even psychology. Like physics infiltrated and enriched Medicine by radiography or magnetic resonance.

MARCUSE

Herbert Marcuse once said: The truth of art lies in its power to break the monopoly of the established reality to define what is real. The world of art is that of another Reality Principle, - of alienation. And only as alienation does art fulfill a cognitive function.

“Art communicates truths, not communicable in any other language.”

Almost one century after Werner Heisenberg formulated the uncertainty principle, and his theory of quantum mechanics has broken the paradigms of physics and even philosophy, we are still accustomed to arguing and acting largely along linear causality patterns within insulated boxes of fragmented sciences.

SINGER

“In a scientific theory, even before it is proved, you know that it is correct because it is aesthetically satisfying. One uses criteria that go far beyond what is called logical deduction.“

These are not the words of some obscure esoteric.

SINGER 2

No. It was Wolf Singer, the former director of the Max Planck Institute of Brain Research in Berlin who wrote this.

The mission both of art and science is to explain the world, not just to scale or to picture it. And the world in its large and small dimensions only can be understood in a multidimensional, non-linear way of thinking and perceiving.

However. In our current system, academic careers are built along the lines of a single scientific discipline or even sub-discipline.

At the same time we know about the increasing complexity of our societies. And ironically enough - neural networks today are a major topic in research.

Reality is a construction, we are told by philosophers. – in any case reality is the result of description and interpretation.

As a matter of fact art-based research has the capacity to enrich the conversation about interpretations and meanings by providing sensitivity for non-linear, extra-mural perceptions beyond the limits of disciplines.

Einstein

Einstein said: Imagination is more important than knowledge.

Susa

This was built in Susa more than 3.000 years ago.

Maus mit Ohr

And this was a scientific experiment a few years ago.

Who had the imagination to realize flying to the moon?

No it was not John F. Kennedy, and it was not the NASA.

Jules VERNE

It was Jules Verne, 100 years before, with his book “De la Terre a la Lune”.

ZENTRALPERSPEKTIVE

The breakthrough from the geocentric to the heliocentric model came along with the invention of the central perspective in renaissance painting, which was somehow necessary for finding this way of viewing at the world from a fixed central point outside the globe.

POINTILISM:

George-Pierre Seurat, 1890

The paintings of Seurat can also be seen as pixelled pictures, a technique or technology that would be used some 60 years later for television.

PICASSO

Picasso disintegrated in his paintings the visual and intellectual interrelation between material, form, time and space. A person is falling apart or we can look at a person from different points at the same time.

This happened a few years before Einstein wrote his theory of relativity and Heisenberg defined the uncertainty principle.

No doubt. Innovation, based on science and technology will be dominating future developments even more and even faster

than in the past.

But more than ever, science and technology will need the arts to make the big leaps rather than the small steps towards the future of our civilization.

CORNELIA

CORNELIA

Feel Dementia

Feel Dementia

By Cornelia Bast/ Antonia Eggeling

An art-based Research on the Preconditions for Social Inclusion of People living with Dementia.

The project aims to influence public awareness about dementia to enabling people living with dementia to take part in social life for as long as possible.

10 Million people in Europe are living with dementia. This number will double until the year 2050.

I am social designer and artist. You may ask yourself why an artist is interested in this theme – my roots are biochemistry and midwifery so I do have a close relation to medicine and I am used to work with people. My colleague Antonia Eggeling is a Designer. She now has her focus in the field of professional sport, that`s why I step by step change from we to I.

Slide Tageszentrum

We went to shared flats for people living with dementia,

day-care centers and shared flats for senior-citizens.

We found out that some of the main problems, people living with dementia do have, are

Slide Punkte

* Feeling unsecure
* Having problems with orientation
* Sensual overload and
* Feeling ashamed (Fear of stigmatization)

This reminded me of an art object I already created in 2011.

What if we offered people in the streets the possibility to experience these special situations, people living with dementia have to deal with in the early stage of this disease?

We came out with two objects, one mainly visual and the other mainly auditive.

Audio am Kopf

The audio I developed asks you to fulfill several tasks while you here various noises.

Some of the tasks had to be fulfilled at the same time. To stay focused in this situation is really difficult.

What one can experience with a headset and mp3-player is sensual overload.

It is produced by noises we hear in everyday life in a city, but mixed in an extreme way. People in the early stage of dementia often say that the constant stream of music, commercials and lots of other noises are exhausting for them. That’s why it´s harder for them to stay focused in this kind of environment.

With this object one can experience shame and overstimulation.

Fokung Arte Laguna

The visual object you can see on the screen is called FOKUNG WIRKUS.

Yesterday the participants of a workshop had the possibility to experiment with a reduced variation of the object with only one lens.

It shows the surrounding fragmented, upside down and left to right reversed. Additionally you see the world around you in an unusual distance. Each lens on this object has its own characteristics.

Antonia Fokung

Before people put on the object we asked them to **choose a goal** they want to reach – not too far away. Than they start to walk with the object on their head.

Elisabeth Fokung

It is very different how people behave in this situation, but all of them need some time to orientate and

to figure out which moves bring them closer to the spot they want to reach.

With this object one can experience uncertainty, disorientation and maybe shame.

Begleitung

The theme of guidance also pops up during the intervention.

Verschiedene Orte

I offered the intervention on several places in the city.

Interviews

Subsequently I made interviews and

Karten ausfüllen

asked the person to fill out feedback cards.

Every time it is so interesting to notice how the intervention brings people into the theme. What happens, is a real reflection on sensory overload, how insecurity affects their behavior and much more. This experience gives them an idea of being confused and disoriented.

Now they can talk about the loss of orientation, about shame and they can start to think about what it means for them to need help, to ask for help or to accept help and guidance.

The main reason why I like these interventions so much is, that I can feel the shift from the difficult issue dementia that is related with a lot of fear and dark emotions to something that has a playful character by taking the effects from the early stage dementia serious.

Based on the collected feedback, a **Communication Tool** was produced.

"What if ..."

Tool geschlossen

It provides the chance to enter the complex issue of dementia with the means of tactile, visual and auditory perception for a larger number of people, regardless of the intervention. All what you can read and hear are quotes from people having participated in the interventions Feel Dementia.

Tool offen

The special construction and the content of the tool also focus on disorientation, uncertainty and overstimulation.

Based on this work, and after an international review process, the Austrian National Science Fund granted an art-based research project within the frame of the artistic research program.

Bubble Slide 1

We – this is a group of artists and designers led by Prof. Ruth Mateus-Berr – we started the project in March 2016, it will last for three years and is located at the University of Applied Arts Vienna.

The title of the research project is

**D.A.S. Dementia. Arts. Society.**

**“Artistic Research on Patterns of Perception and Action in the Context of an Aging Society**”

The principle hypothesis of this research project is, that specifically created art and design interventions can change the societal approach to dementia and improve the individual situation of people with dementia and their caring persons.

That means:

Slide 2 Hauptthemen

* Giving people with dementia new perspectives on their abilities and social environment
* Raising and positively influencing public awareness of the situation of people living with dementia

Our first step was to do the interventions **Feel Dementia** in collaboration with institutions.

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Logo Feel Dementia

In comparison to the interventions at public we now provide them to special groups to get clearer results.

Collage Feeldementia

So we started in schools with youngsters at the age of 12, 15, then offered it in primary schools working with children at the age of 8 to 10 years.

We also did the interventions with mainly people at the age of 50+ and advanced age at adult education centers.

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Bubble Sensory WS

The next step were **sensory workshops** for people living with dementia in early stage.

We offered different objects and materials to people living with dementia in early stage. We asked them questions like:

* What makes up your personality?
* What are your passions?
* They should answer this question with selecting their very special object or materials.

Video Sensory WS

Bubbles Überblick

Out of these basic workshops we developed several projects, you can see on this overview.

Here you also can see that we recently were part of *Vienna Design Week* and we organized

a multi-disciplinary symposium with experts from all over the world.

Two of my developments I present here.

It became so clear to me, how often people with dementia are defined by their deficits.

Zeichnung Baum der Potentiale

That`s why the idea for the *tree of potentials* came into my mind.

I asked myself the question:

How is it possible to make the interests, the passions, generally spoken the resources of a person visible

to this very person and also to his or her environment?

Prototyp2

From the testing of the first prototype to the present form, I worked together with people with and without dementia.

Foto Promenz

I conducted the workshops in private households, in day-care-centers, in the self-help group *Promenz*, led by the people with dementia, in caring homes

Foto HDB

and most recently in the public space.

Schüler

The object and even more the choreography of the workshop changed due to the experience of working with so many different people.

Kirchenvorplatz

Now the workshop has four phases:

Phase 1: What are my interests? What do I like to do? The answers **are** written with or without help on a piece of paper and placed on the tree.

Rollstühle

Phase 2: Which wishes and needs do I have?

Phase 3: Mutual presentation of the identified interests and needs. Where are similarities, which answers are of interest for others?

Phase 4: Is there something you can do or enjoy together and how can this be organized?

How to keep in touch?

Bubbles 1

It is always fascinating and touching, which interests and desires can be found on the notes. So I would like to give you a little insight.

But what really matters are the overlapping results on the notes,

Bubbles 2

how they are written - the wording, telling about the mood and the recent condition of the participants.

Antwortkette

The change from the very concentrated own thinking and working to the exchange of results in the workshop mostly needs only little guidance.

As a workshop leader, I advise the direction and act as a joker for all those situations that need special attention.

The composition of the participants is very different and has proved to be useful in every constellation.

The participants must be able to communicate verbally for this workshop, at least with few words.

The workshop offers the opportunity to get to know each other from a new side,

often things come to light which have not been said so far.

New contacts are made possible.

It is all about creating art-based communication.

Directly for people living with dementia, their care givers, relatives, interested people and passers-by.

The *Tree of Potentials* was about the strengthening of the self-consciousness of the people with dementia and through shared experience to new connecting points of people with and without dementia.

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GERALD

GO-SPIEL

GO is a game where you have many possible positions. A ONE with 171 ZEROS. That’s more than the number of atoms in the universe.

In March 2016, the Super Computer Alpha-GO, designed by the Google company Deep Mind, won a five-game series against the GO-world Champion Lee Sedol: 4-1.

“Artificial Intelligence defeated human intelligence in the most challenging game on earth!”, we could read in all newspapers.

In China, where the game was invented nearly 3.000 years ago, GO was considered as one of the four essential arts – aside music, calligraphy and painting. And it still is seen as an artistic rather than a cognitive experience. A game where intuition is equally important as logics.

The Super Computer’s intelligence is based on millions of Go-positions and moves from human-played games.

Interesting is, what observers detected when analyzing the game series.

The GO-champion lost, because he tended to act in the data-based logics of the computer, and not in the tradition of a GO-master, in an art-based intuitive way.

If our thinking, our education, our culture is narrowed to a mechanistic complexity, relying on the activating and recombination of the existing –

* 1/0,
* Yes/No,
* Right/Wrong ,
* Black/White ,
* foreigner/inhabitant -

then we give space to machines, dominating the future , dominating humans.

Machines cannot create what did not exist yet. They can create new combinations out of existing parts – sometimes in even surprising combinations. But they cannot create anything, which did not exist before.

They do not have emotions, they can RECOGNIZE emotions, and they can IMITATE emotions, based on millions of patterns of emotions, which were stored earlier.

This is a lot. And it will change the world.

In times of Artificial Intelligence, robotics and genetic engineering the way we live and work will change dramatically.

Up to 50 % oft he now existing jobs will disappear in 20 years time. The top 10 jobs that will be in demand in 20 years don’t yet exist.

Human Labor will have to be re-defined in times of increasing automation. The need for people to link skills and competencies in a creative way and to survey problems in a broad spectrum, will increase massively. The shift of paradigms in industry and society will be accompanied by a shift of paradigms in education. We still will need highly specialized education and research but even more the 21st-centuries societies will need a population with general education and experts in interrelating specialized knowledge to meet complex challenges.

A new, holistic way of thinking is required as technological answers alone are not the end-solution to a given problem. Science and research have to look at the systemic effect of any action rather than merely the localized gain. We need to develop better tools to predict trends, to supply evidence for decisions. We need to train a broadly educated citizen, better able to participate in public debate on the benefits and risks of research and technology. (EU Research board).

And in this context art schools will get a new mission – in addition to the existing one: Anyone who deals with art, learns to deal with uncertainty, ambiguity, abstraction, intuition, re-combination and contextualization. These are the very skills most needed in fields outside the system of the arts in order to analyze and solve complex tasks. And these are the skills artists use all the time. Art is about complexity and you get used to handle complexity if you are in contact with art.

At the beginning I talked about infiltrating and enriching existing systems by the arts.

This is what we at the university of Applied Arts Vienna began in the last years. We did it in the field of research as well as in the field of teaching. We introduced art-based research as a main element of our strategic profile. And we developed new study programmes on bachelor and master level:

“Cross-Disciplinary Strategies – Applied Studies in Art, Science, Philosophy and Global Challenges” is the newest step in this development. We started this bachelor program in October and it provides combines artistic methods like abstraction, dealing with ambiguity, uncertainty, intuition and innovative contextualization.

The Master Program “Social Design – Arts as Urban Innovation“ applies Fine Arts, Performance Art and Design as strategic instruments for social development mainly in urban bit not only in urban environments. The Master Program “Social Design” uses the term Design in a broad sense. Social Design means, that we can shape the presence and the future of living by using the power of art, performance and design.

The difference between “Cross-disciplinary Strategies” and “Social Design” is the dimension of multi- and trans-disciplinarity. With “Cross-Disciplinary Strategies” we consciously bridge the gap to those fields of science and technology which influence our life dramatically. Not only because we do not want to leave the power of defining, what is progress and what is future, to the people from science and technology – we think that science and technology need to be enriched by the meaning and the methods of art in order to be more effective to provide progress to the benefit of all people. We do not want to educate people who will be able to work as scientists, but we provide the possibility of doing research on the potentials of Science and technology for changing our lives , by using methods like Thinking in alternatives and looking for unusual connections and contexts.  
“Social Design” is mainly working with the logics of art- and design-methods. Like “Cross-Disciplinary Strategies” “Sociel Design” focuses on some of the Global Challenges, like Urbanization and Aging Societies, but Social Design does not provide knowledge in the principles of paradigmatic science- and technology fields.

In both cases - Cross-disciplinary Strategies” as well as “Social Design” - graduates will be enabled to lead and stimulate in a cooperative way decision processes and strategic developments in complex matters such as politics, administration, business and research.

We strongly believe, that education – on all levels – will have to change significantly in the direction of providing cross-disciplinary competence.

And if schools and universities, run by the state, won’t do it soon, private institutions will do it – but they will do it based on their own, private interests.

The challenges we have to meet within the next 25 years are located on a cultural, a technological and a social level at the same time. And the borders between these levels are becoming blurred.

The questions, deriving from these challenges, only will be answered by cross-disciplinary research methods.

FRAGEN1

How much will the effects of global warming and global migration change physical as well as social landscapes?

FRAGEN2

Will we succeed in redefining and creating new forms of human work, when up to 50% of the now existing jobs will break away, due to robotics and Artificial Intelligence.

FRAGEN 3

Which social fabric is needed in an urbanized and aging society?

FRAGEN 4

What is the mission of mankind in a world of Artificial Intelligence, Machine Learning, and the bio-technological merge of man and machine?

For the first time in human history, machines do not just replace human muscle-power - machines are replacing human brain-power. This is a question of philosophical dimensions leading to the future of civilization and of mankind itself.

At the end of 20th century, the classical canon of cultural skills — speaking, reading, writing, and arithmetic — was extended to include the ability to communicate and articulate oneself digitally.

In the 21st century, this canon of cultural skills must be extended again. Creative abilities will be some of the most important skills for managing life. These include:

* Handling multiple meanings and uncertainty;
* Imaginative and associative abilities;
* Intuitive ability;
* Thinking in the form of alternatives;
* Questioning existing structures and appearances;
* Establishing unconventional contexts;
* Questioning the status quo;
* Seeking new perspectives; and
* Recognizing that there are forms of communication other than verbal.

FOKUNG1

Art cannot change society.

But art can change people.

And people do change societies.

FOKUNG2

And Yes!

The future will be art-based!