CREATIVE INCUBATORS FOR A COMMON CULTURE

Jill Scott
Founder: Swiss Artists-in Labs Program
Vice Director of Z-node PHD Program
Prof. em Institute for
Cultural Studies in the Arts
Zurich University of the Arts

Wearing three hats-artist, context provider, theorist

Lets hope the embryos are listening

SPECTRA Adelaide

INTRODUCTION CULTURE

ART SCIENCE AND CULTURE: combining approaches in reation to experiment building, teamwork and the public

1.Non-material -interlectual achievement regarded collectively: arts-philosophy-science

-the cultivation of attitudes, behaviours, ideas and problems to share with society

-Social attitudes, customs and behaviour of a particular group

-Attitudes toward the material (or the need for it) or way of life

-the cultivation of attitudes, behaviours, ideas and problems to share with society

2. Material culture-to create, use, and assign meaning to material culture

-Biological cultivation-tissue, cells, agriculture, agronomy

-Ôbjects, installations, spaces

-Cultivation, growing, farming Agriculture, husbanry, agronomy

INTRODUCTION CREATIVE INCUBATORS

What is a creative incubator –a System With Its Own Logic?
A warm physical space and a psychological environment conductive to a growing collaboration based on creative endeavours between art and science practitioners and theorists.

CREATIVITY
Construction-bottom up approach, experiment building, experiential, educational and playful in nature.

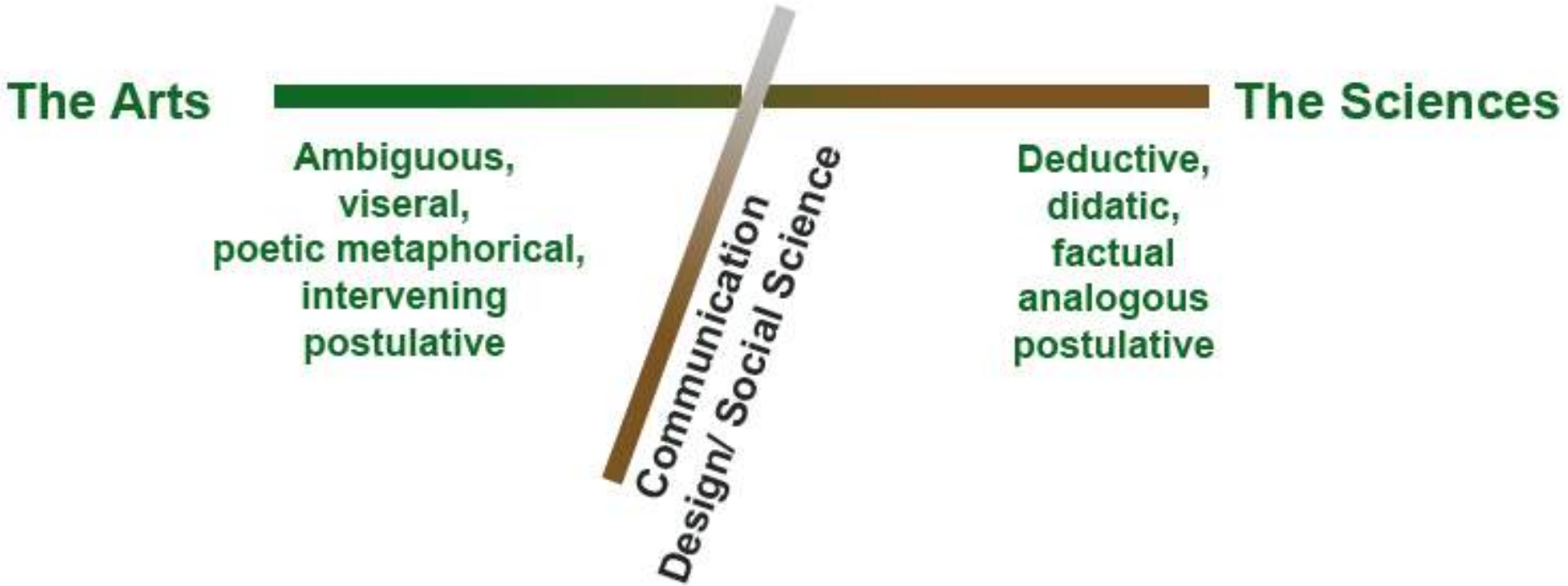
THE INCUBATION PROCESS OF CONTEXT PROVIDERS
Facilitators offer a safe place to fan the flame of creativity where life takes meaning and then takes wings. They treat art and science as social entitities –where hands on knowledge inside labs of cultural significience- time consuming labour, intensive activities.

The Act of maintaining controlled environmental conditions for the purpose of favoring growth or development of “cultures” and to maintain optimal conditions for reaction.
Against CP Snows 2 culture dualist senario.

INTRODUCTION- CPSnows 2 culture theory 1959

THE LINE ANALOGY

Where does one place oneself or ones team
along this line of creativity?
How are aesthetics transfered along this line?
Where are the strategies of communication most valued?



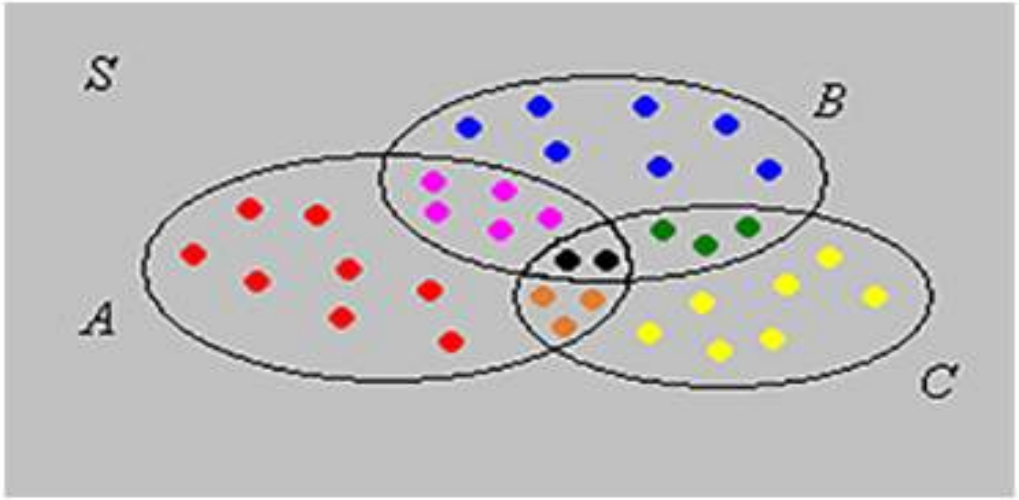
INTRODUCTION-FACILITATING A COMMON CULTURE

AN INCLUSION/EXCLUSION THEOREM FOR 3 CREATIVE DISCIPLINES ?

How can we build VALUABLE experiments together?
How can we learn more about each others processes?
How can the creation of new interspatial zones of experimentation engage with the public?

s=INTERSPATIAL ZONES

Ambiguous,
viseral,
poetics metaphors,
intervening
postulative
critical thinking
Deductive,
didatic,
factual
analogous
postulative
lateral thinking



A Artists
B Social Scientists/Designers
C Scientists

INTRODUCTION Interspatial Zones.

Creative Incubators- an interspatial zone to generate of knowledge, based on **situated, tacit, lateral and critical engagement.**

Encourages-the sharing of findings with experts and on-expert interaction, often disciplinary-specific technology combined with an increase in intuitive unspoken methods.

(Medicine) An interval between the ribs or the fibers or lobules of a tissue or organ. (architecture) An air space. (Physics) An interval of space or time.

INTRODUCTION COMMON CULTURES

What is a Common Culture: People are more important that disciplines.
A space where experts meet with non-experts to share ideas abput impacts for the common good. A space where where rights are jointly owned by its members. A space that addresses- the use and manipulation by mass media

COMMON CULTURAL ACTORS: actors interconnect here with actions and discourses that externalize their mental states (for instance, their motivations, emotional and need-disposition) with the help of symbols in order to grant their co-actors the opportunity to do the same.
Talcott Parsons
Common Culture of art and Science can create:
As a System With Its Own Logic
A Code
A feeling of Social Integration
An Energetic Subsystem

The **tragedy of the commons** –independent actions-based on self interest motivations (Social Science) ENNSER

ARTISTSINLABS- My Context provision Incubator

The AIL is a cultural studies program. It focuses on the current debates
and discourses in order to promote a closer understanding between artists and scientists

Science Disciplines:
life sciences, physics, engineering and computing
Art Disciplines:
art researchers-film, video, new media, sound art, sculpture, architecture, theatre and dance.

Our Role is to analyze the shared potentials:
Of discovery, of systematic methods of critical analysis,
of human behaviour, of empirical observations,
of criticism of science / technology, of ethical discourses and public understanding

We do this through : ADD Residencies list
Interviews and reports
Conferences and exhibitions in Art contexts as well as Science contexts
Publications of the analysis

COMPARING CREATIVITY

AIL was designed to bring our awareness to what was previously hidden in this exchange and point to new ways of thinking about it.

It required Tacit knowledge-
knowledge that cannot be adequately articulated by verbal means, including skills, ideas and experiences that people have but are not codified and may not necessarily be easily expressed. Effective transfer of tacit knowledge generally requires extensive personal contact, regular interaction and trust. *Michael Polanyi 1958 The Tacit Dimension*

And an understanding of the way creativity is employed in Experiment Building

Science: Here **creativity** requires motivation, an access to a body of systematic knowledge, an ability to correctly formulate research problems and to define a comprehensive problem space or search space. Requires patience and stamina.
Art/Design/ Architecture Experiment Building
Here **creativity** is linked to the process of bringing something new into being. Methods like assembly, reduction or play require physical skills, passion, commitment and bravery.

INTRODUCTION

Main Focus: educational and experiential in nature Since 2002. Housed at the ZhDK

Immersion:

in order to develop artists interpretations and inspire their content. Including “hands on” access to scientific tools

Know-how transfer:

attend lectures and conferences held by the scientists themselves. Give lectures to scientists about contemporary art, aesthetic development and the semiotics of communication. Exchange of research methods and methodologies.

Collaboration:

extend potentials by the creation of friendships, sharing of discourses, observation of each others processes

INTRODUCTION

OTHER ESTABLISHED CREATIVE INCUBATORS-OR FACILITATORS
SYMBIOTICA
SYNAPSE

What other methodologies could be invented to deepen the art and science exchange? What Proof will we Accept as Valid Knowledge in the ARTS?

Are artist who work in science re-defining the “communication of knowledge” ?

What does it take to encourage more collaborative interest from the science side? Can focused Themes help, like Global Warming help?

How can activist strategies be shared? Roles of Artists and Scientists in the public realm? To provoke or to raise awareness?

INTRODUCTION- INCUBATORS+ news ways of thinking

Can new ways of thinking become lateral and critical compared to deductive and inductive?

•Any lab in design, art or science is a space that requires deductive or inductive thinking often starting with the question: “What would happen if?”

•Most labs require a self-directed, self-disciplined, self-monitored and self-corrective way of thinking

•But lateral, critical thinking includes:
making associations from unrelated fields,
questioning common wisdom,
observing behaviour and new ways of doing things,
networking for different ideas and perspectives

LATERAL THINKING

“The solving of problems through an indirect and creative approach, using reasoning that is not immediately obvious and involves ideas that may not be obtainable by using only traditional step-by-step logic”.

Lateral Thinking: 1967 Edward de Bono

•This can spill into thinking about communication in new ways that traverse the spatial realm of peer to peer justification in both the tangible and non-tangible art, communication and science fields.

•Teaching people how to think in about the future of knowledge, by sharing more process from mobilization to stabilization and destabilization (Latour)

•Tacit art knowledge and experimental approaches to material and immateriality can inspire those with new levels of hybrid creativity

INTRODUCTION

MY METHOD:
Standpoint theory is a social science theory for analyzing inter-subjective discourses. "intersubjectivity" only happens between people if they agree on a given set of meanings or a definition of the situation.

MY QUESTIONS:
Why are artists and scientists motivated to work together and what are the questions and processes they have in common?

How do different points of view expand ways of thinking in the Arts and the Sciences and in the public understanding of these fields of practice?

ARTWORK EXAMPLES-Focus on the Life Sciences Sharing common themes-to create a common culture

THE CREATIVE INCUBATOR

Creative Incubators for: Here knowledge transfer is a cumulative experience that artists have developed from their own field of practice and, as well, those "truths" abstracted or appropriated from science.

1. The Growth of Life and the study of Behaviour
Biologists and bio-artists –Neuroscientists and Neuromedia artists

2. The understanding Matter and Energy, Physicists and Artists

3. The monitoring Air Pollution, Ocean Quality and Animal welfare
Environmental Scientists and Artists

4. The promotion of community engagement, access to technology or design-to- context. Social Science and Citizen science.

THE CREATIVE INCUBATOR

Traditional Incubators

1. Growth Life and Behaviour
A temperature regulator, air circulation, oxygen levels and humidity; controlling the conditions that can help a premature life to grow, change or survive. In-vito fertilization -the womb is called an incubator (surrogacy-patriarchy)

2. Matter and Energy,
In theoretical physics, a research factory of talents, one that contributes every day to advance knowledge on matter and energy.

3. Air Pollution, Ocean Quality and Animal welfare
In environmental science the whole planet is giant incubator, one in which the humans are doing the warming! (Latour 2012).

4. Community engagement, access to technology or design-to- context. Social Science and Citizen science.
Discourses between art, science and society.

Creative Incubators for
The growth of life and the study of behaviour

”Oncomouse”: *“Like other family members in Western biocultural taxonomic systems, these sister mammals are both us and not-us; that is why we employ them.” Donna Harraway (1994)*

The body is our general medium for having a world. Maurice Merleau Ponty 1955

.

•**BIOLOGY/bioart NEUROSCIENCE/Neuromedia**

CONTEXT PROVISION-ARTISTSINLABS:

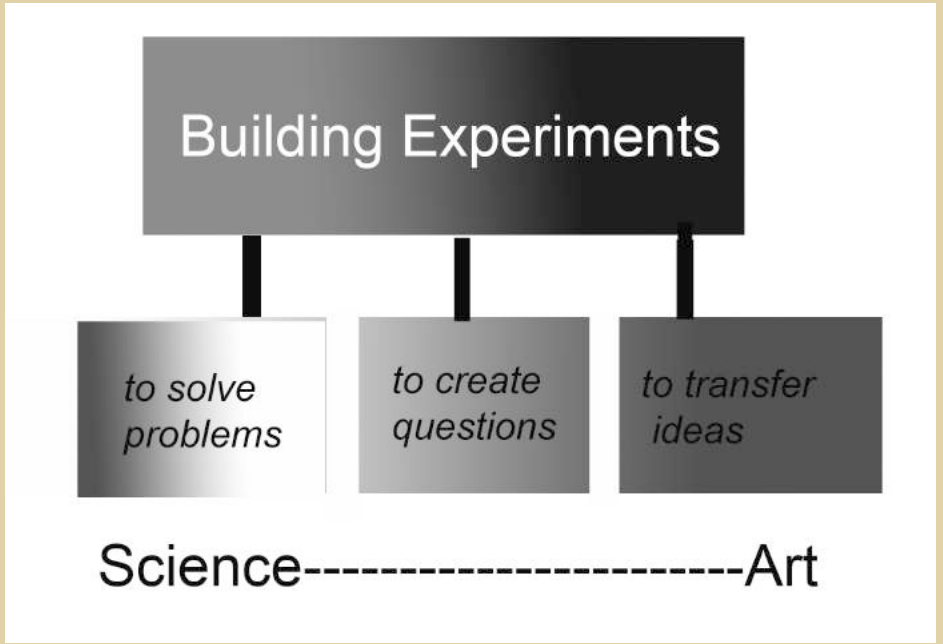
Our Research:

-How “hands on” experience might provoke unorthodox responses to experiment building-

-How deeper insights and understandings might emerge from lateral and critical thinking

-How motivations, processes and practices can lead us all to more teamwork

-How Interspatial zones affect the roles and how they are changing



GROWTH LIFE AND BEHAVIOUR

- **FOR GROWTH, LIFE AND THE STUDY OF BEHAVIOUR**

- **BIOLOGY-BIOART**
- **NEUROSCIENCE-NEUROMEDIA**
- In neurobiology-temperature regulator, air circulation, oxygen levels and humidity; controlling the conditions that can help a premature life to grow, change or survive

- **TRADITIONAL INCUBATORS IN BOTH DISCIPLINES**
- **1.** to provide proper conditions for growth and development of bacterial or tissue cultures.
- **2.** to foster disease from time of the entrance of the pathogen to the
- appearance of clinical symptoms.
- **3.** to develop of the embryo in the egg or in–vivo

GROWTH LIFE AND BEHAVIOUR

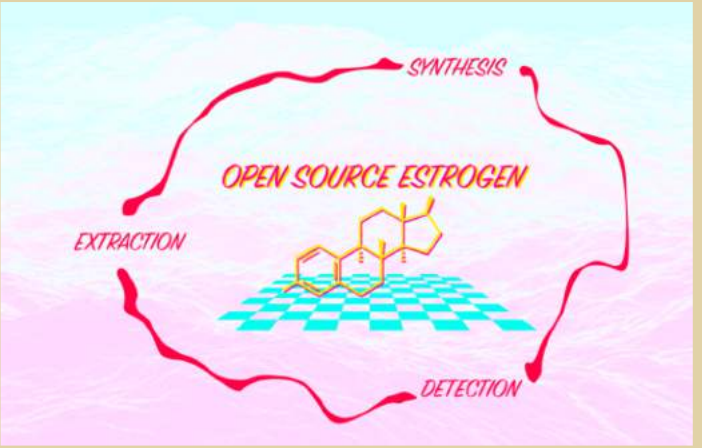
Open Source Hormone -**Estrogen**
Mary Majic

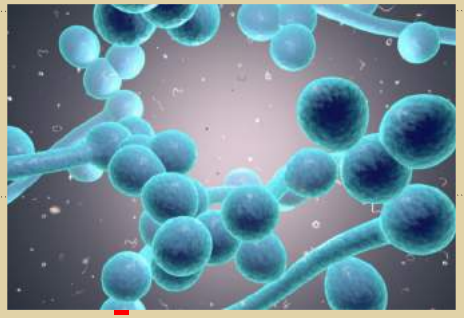
-develop DIY/DIWO protocols for the emancipation of the estrogen biomolecule.

-To give citizens the ability to measure hormones in the environment?

-To share the knowledge of biotechnology that are required to carry out such a process?

IMAGE OF
LAB TECH
MEASUREMENTS





GROWTH LIFE AND BEHAVIOUR

Tash Bates
The Tangled Field:

Barbara McClintock's 1931 discovery of the controlling elements of genetic regulation –

She proved that genes can be mobile and "jump" around to change their positions on chromosomes and that there genes are responsible for turning physical characteristics on and off.

Candida albicans are omnisexual and polymorphic, able to switch between asexual and sexual reproductive strategies and several morphological states

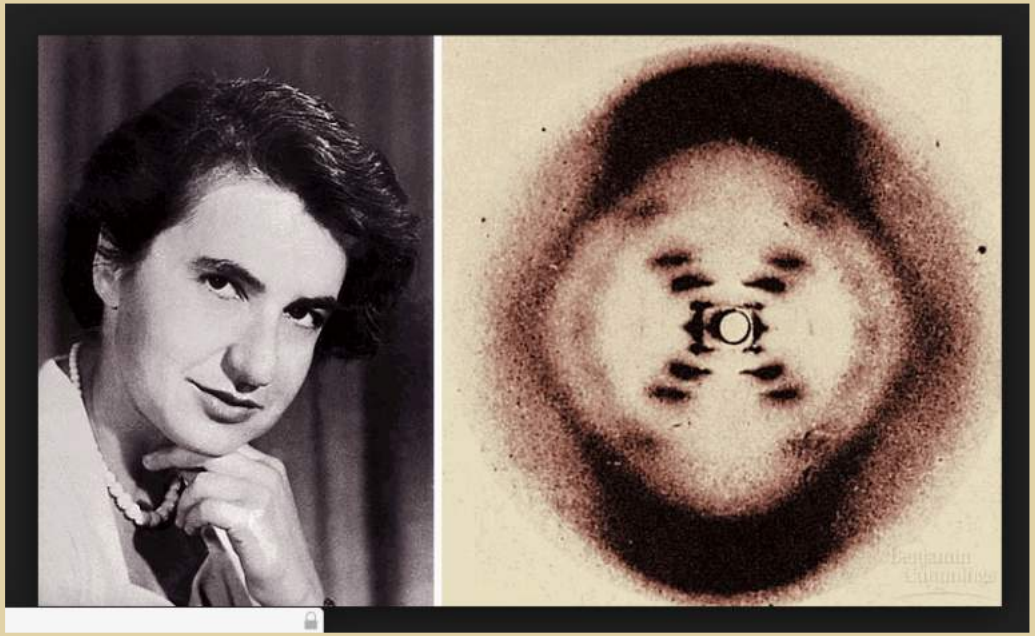
GROWTH LIFE AND BEHAVIOUR

Scientific cinema is part of a broader tendency in society toward the technological surveillance, management and physical transformation of the individual body and the social body.
Lisa Cartwright (1996)

Medicines Visual Culture

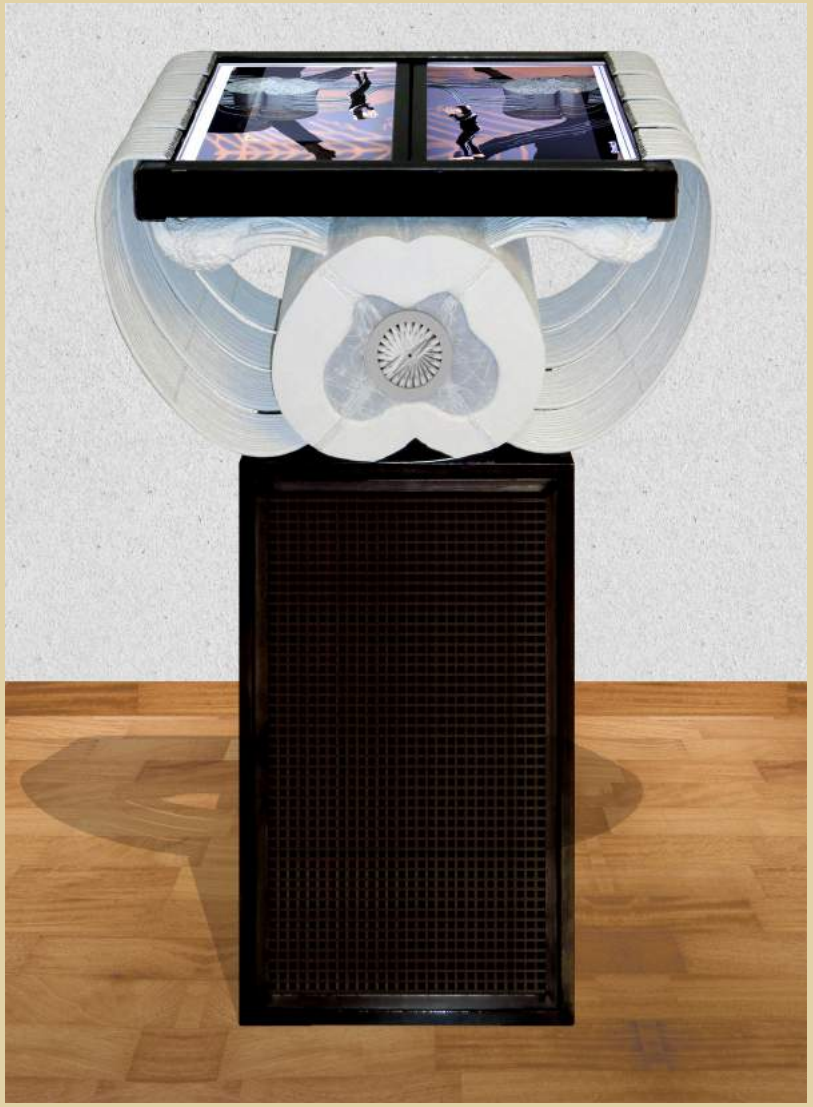
Molecular images of the body are a kind of “self-portraiture”

- Blurring the boundaries of the interior and the exterior of the body
- Images that provide us with microscopic windows that question our own behavior.

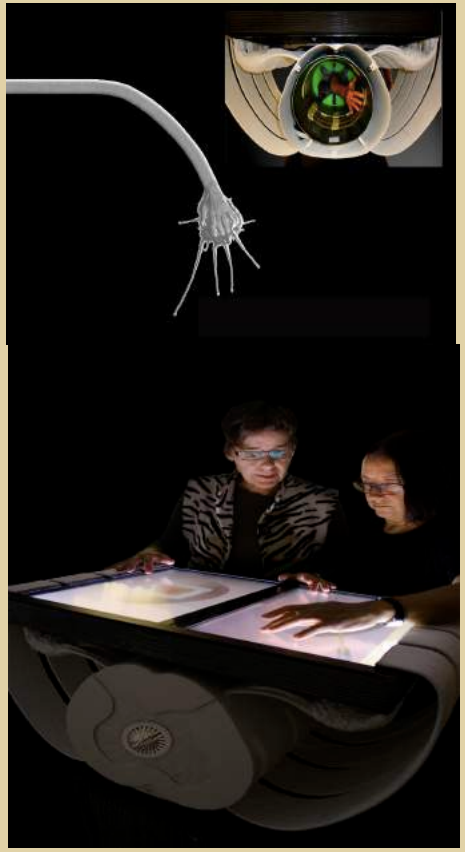


Roslyn Franklin 1945
DNA X-ray crystallography

GROWTH LIFE AND BEHAVIOUR



SOMABOOK Video of the chicken embryo (Somabook)



Somatic Cortex:

5 overlapping representational maps help us to function/be embodied in our environment:

Texture, Shape and Size, Stretch, Translation and Correlation

GROWTH LIFE AND BEHAVIOUR

THE SCENT OF SYDNEY (2016 Cat Jones)ADD
NAME OF SYNAPSE SCIENTIST LAB

GROWTH LIFE AND BEHAVIOUR

AIMS

To use tactile feedback in order to access neuroscience research

To shift the artist's role toward a communicator of more scientifically robust research about neural impairment -raising public awareness

To learn more about molecular and neural research in a novel way

Interaction:
showed resultant loss of functions of molecular activity (tactile hand-axon)

interpreted growth patterns, movement and coordination through movement (dancer)

used the viewers' tactile perception to compare inappropriate connections of axons

CELLULAR METAPHORES

What can we learn from cellular life?

We need to look past the admiration of the surface of nature, go deeper and understand the co-evolutionary behaviour inside our environment.

The cilia is a metaphor for our own behaviour and has many aspects of mediation to learn from: cleansing, moving, sticking, absorbing, transducting, transmitting, etc.

We are cellular life! Inter-dependant teamwork is essential for all survival.

mediators - team-workers

act as intervening agents
facilitate indirect/direct causation, connection and relationships to occur

mediators - researchers

cellular biologist
(co-evolution, development, mutation, completion of cells)
media artist
(perception, communication and cultural difference using
visual metaphors as the method)

Both study behaviour by using technology for interaction and teamwork so: Technology has also become a mediator!

CELLULAR METAPHORES

Do mediators exist in cellular life?
Cilia or Flagella are cellular mediators!

My Focus:
Not aesthetic beauty - (other theorists)
But the new ideologies that may come from the observation of behavioural beauty and environmental affect.

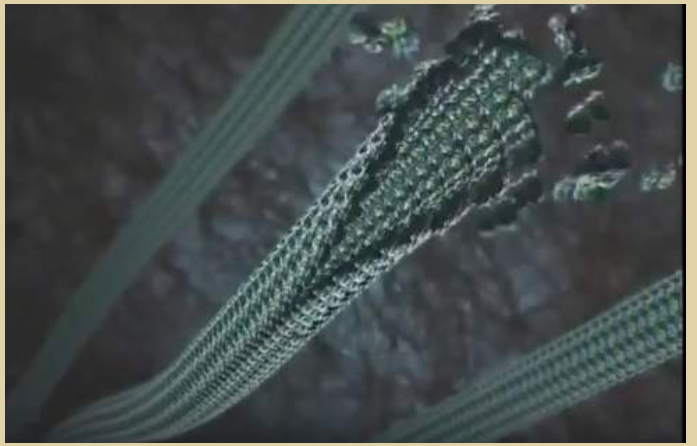
What are Cilia?
Microtubule structures that act together as locomotors, filtering systems or transduction systems.

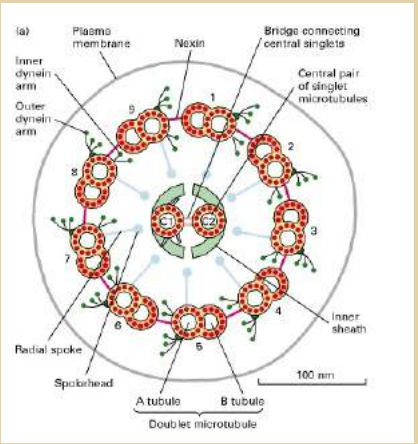
All work in teams to support cellular life!

Sensory perception

Ciliated cells are essential for the mediation of chemical and temperature related agents that cause bodily perception.

Cilia and flagella are often Microtubule Structures

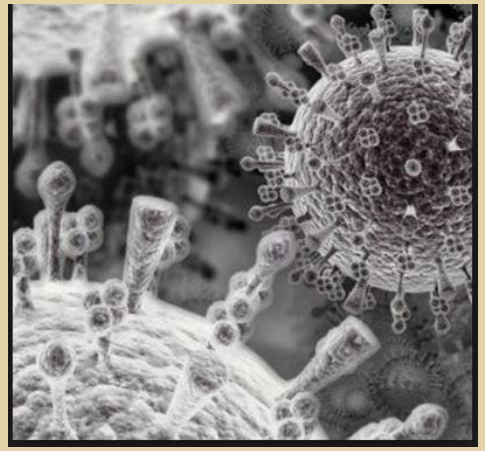




CELLULAR METAPHORES

Cleansing:
cilia that sit on the mucus membranes in your throat and beat together to clear your airways of unwanted particles

Sticking:
Cilia on the Lympjoid Leukosis virus



Moving:cilia aid the Salmonella Bacteria to move

Absorbing:
Mycelium, the cilia of fungi,
suck nutrients from the
environment

- ***RESULTS***

Hybrids of artistic interpretation, computation and neuroscience research about how our sensory
perception might be stimulated
Collaborative attempts to demystify the complexity of perception and brain plasticity
Artworks with interactive technologies combining the viewers own perceptive modalities and behaviour
with scientific research in the same subject
Combinations of self-reflection and scientific objectivity
.

\

CONCLUSION_ GROWTH AND The STUDY OF BEHAVIOUR

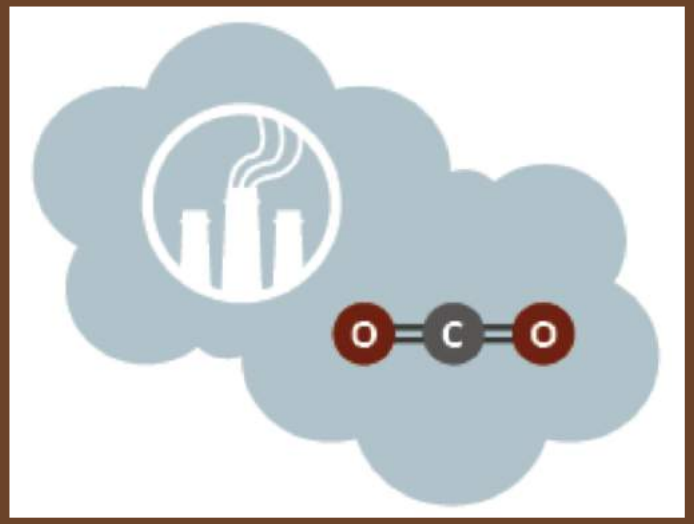
VALUE FOR ARTISTS AND SCIENTISTS

Growth-Metaphor for post reflection- lateral thinking
explore methodologies in science through hands-on-access to “wet-lab” and “live” cellular and molecular
representations. Use these materials as potential art materials
think about interaction that embodies the users in neural feedback loops in relation to their environment
-investigate bio-mimicry analogies between animal and human subjects

Behavioural Metaphores
-explore the fields of ability, disability or impairment
-encourage know-how transfer about our own molecular and cellular structures from robust scientific inspiration

Creative Incubators for MATTER AND ENERGY

Energy is liberated matter,
matter is energy waiting to happen
Bill Bryson 2003



PHYSICS AND ART INCUBATORS

MATTER AND ENERGY

•PHYSICS AND ART INCUBATORS

•MATTER AND ENERGY

•In theoretical physics, a research factory of talents, one that contributes every day to advance knowledge on matter and energy. **Because-**one big experiment about matter can house a multitude of smaller experiments - in order to understand phenomena and look for existence

•More invisible and complex- more speculation

•ASTROPHYSICS –sonfiying data

•PLASMA PHYSICS-expanding physics into art.

“Most of the time science is not very critical at all” Research develops in a pattern of alternating phases based on the starting point of a paradigm-ie theories, concepts and methods that science takes for granted.”

Thomas Kuhn or use Heisenbergs Principal here

Readapting experiments from the past

Artists: Roman Keller: - scientists feedback and co-construction

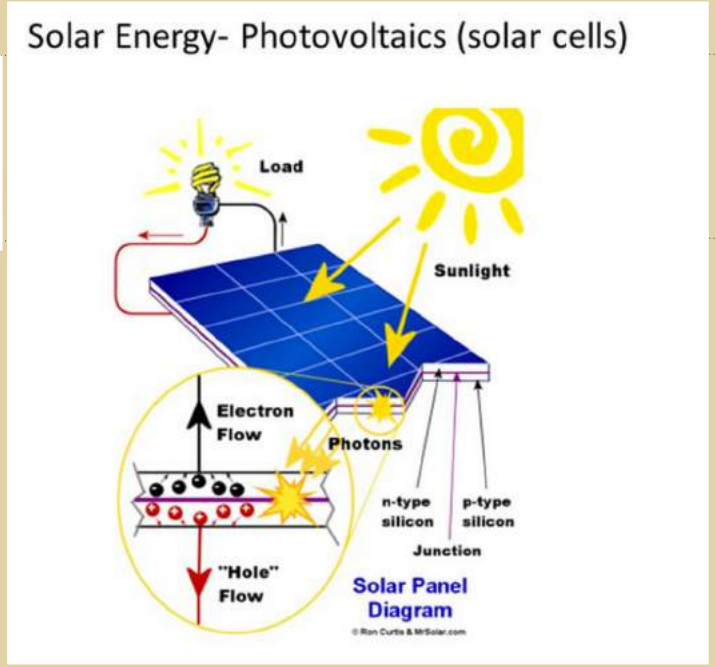
*Rocket for the rest of us (*Paul Scherer Institute) 2010

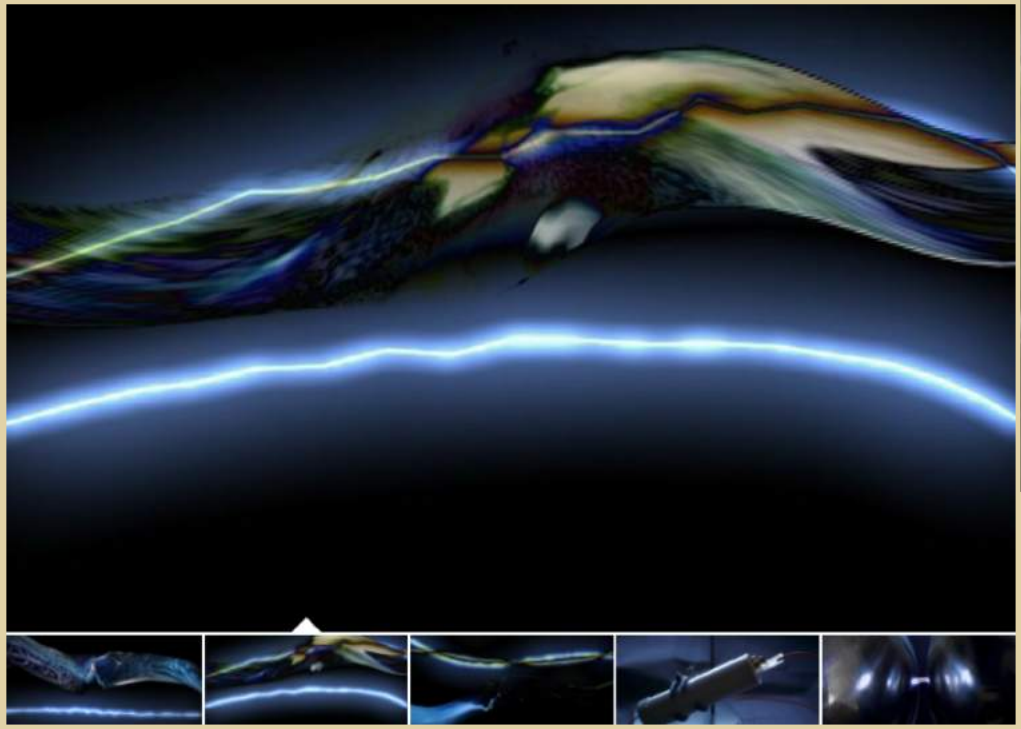
Roman Keller, "The Rocket for the Rest of Us" (still), 2010.

-Used the archives to
find experiments by scientists
that demonstrated
Steam Power-
Based on original
experiments from 1939-re-rebuild
Rocket using modern Technology Results:viable
fuel- abandoned
too soon

Photo: Luftwaffe Schweiz

MATTER AND ENERGY





JOYCE HINTERDING- PLASMA STUDIES AND SCIENTIST Rob Largent

Yunchul Kim
Triaxial Pillars II and Argos by (KR)
Collaboration between COLLIDE
residency at
Cerna and FACT
(Foundation for Art and Creative Technology

Creates uncanny experiences, which at times
seem beyond belief, and challenge our
understanding of the world as both
analytic and embodied.
the artistic potential of fluid dynamics,
metamaterials (photonic crystals) and especia
on the context of magnetohydrodynamics.

Particle Falls (*2015 Andrea Polli*) Pollution

Andrea Polli https://vimeo.com/159202543

Physics proves that taking averages is no any real index of what is really going on. Instead the challenge is to try to understand complexity. Behaviours that arise from situated interaction are much more important than analysis of individual atomic behaviour. Research is not only about knowing its about believing in the value of error, and being in the world and contextualizing your research.

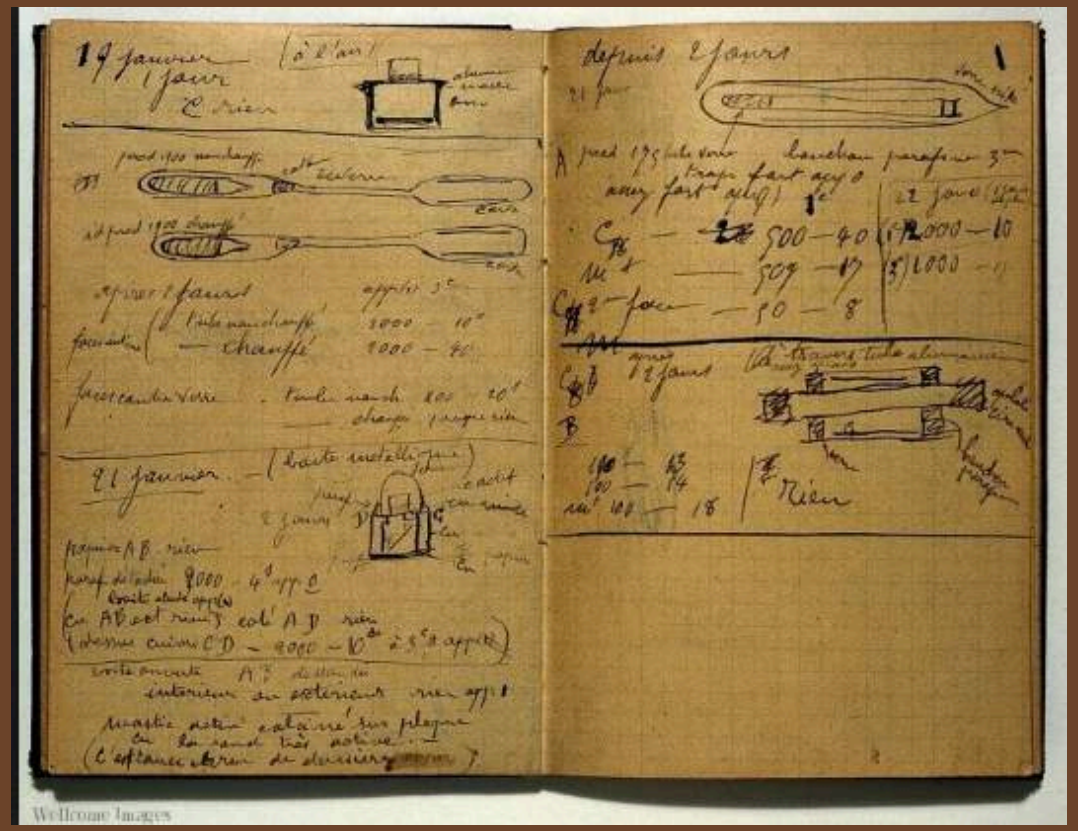
Complexity: SPECULATION, COMPLEXITY, MATTER AND ENERGY

Artist,

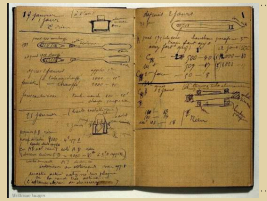
Engagement.
What can these artists bring to the understanding of complexity? Arthur woods greater earth. Sonification to understand.
Jayanne English-visualization help

AIR POLLLUTION, OCEAN QUALITY, ANIMALS WELFARE

“**Evolution** is no linear family tree, but change in the single multidimensional being that has grown to cover the entire surface of Earth.” Lynn Margulis



ENVIRONMENTAL SCIENCE AND ART



ENVIRONMENTAL SCIENCE AND ART

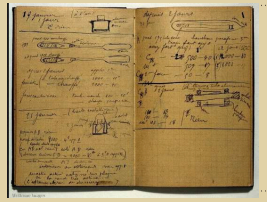
In environmental science the whole earth is giant incubator, one in which the humans are doing the warming! (BRUNO LATOUR 2012).

AIR POLLUTION, OCEAN QUALITY, ANIMAL WELFARE

Field Trips for artists, create tacit knowledge and social interactions in a given spatial environment where explicit knowledge is prioritized.

Example of Lateral thinking

Darwins note books
notes from others, comments, ideas, not only science notes



BIOLOGY AND BIOART

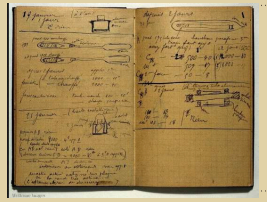
- eukaryotic cells, invaded by protobacteria and cyanobacteria evolved to become essential powerhouse components of any cell: the chloroplasts and mitochondria.

Margulis in 2005

”Science is an international activity: One has to think sideways. There are no female role Models. In fact, science produces chauvinist dichotomies.”

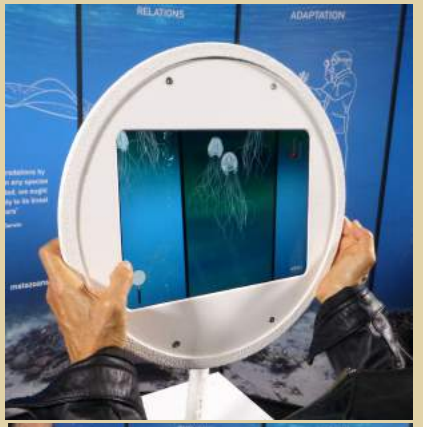
Lynn Margulis (1982)

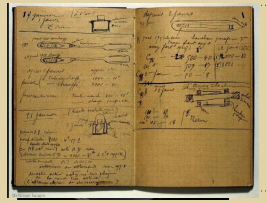
She debated with James Lovelock (ev. biologist). She married Carl Sagen, (physicist) and she socialized with social science writers



ENVIRONMENTAL SCIENCE AND ART

SCOTT -JELLYEYES





PHYSICS AND ART

•Sonification

•*Under the Icecap"*

•*An Art & Science collaboration*

•*Dr Nigel Helyer*

•*SonicObjects; Sonic Architecture*

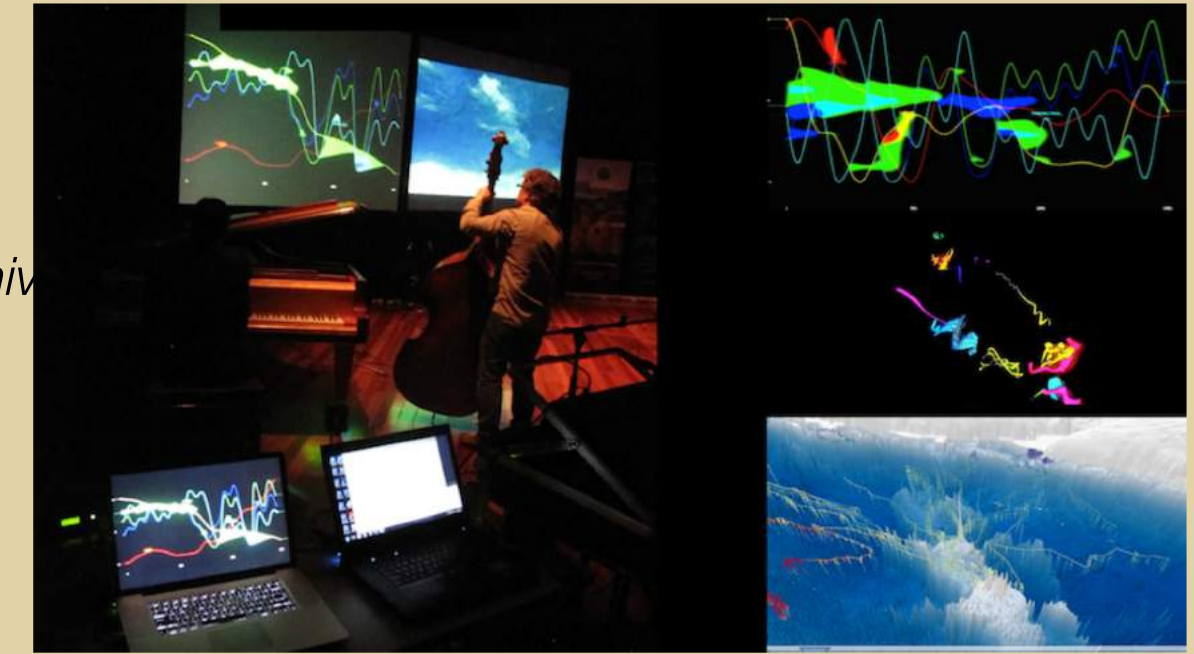
•*&*

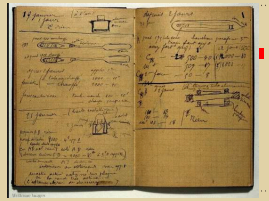
•*Dr Mary-Anne Lea*

•*Ecology and Biodiversity Centre at the*

• *Institute for Marine & Antarctic Studies at the Univ*

Tasmania2011 ~ current Musicians





SOCIAL SCIENCE AND ART Teamwork

Artist Brandon Ballengee: Searches for Deformities in Amphibians
Participatory biology citizen science in the Yorkshire Project with Urban under-privileged groups
A collaboration with Environmental Scientist-Stanley K Sessions - Hartwick College USA.

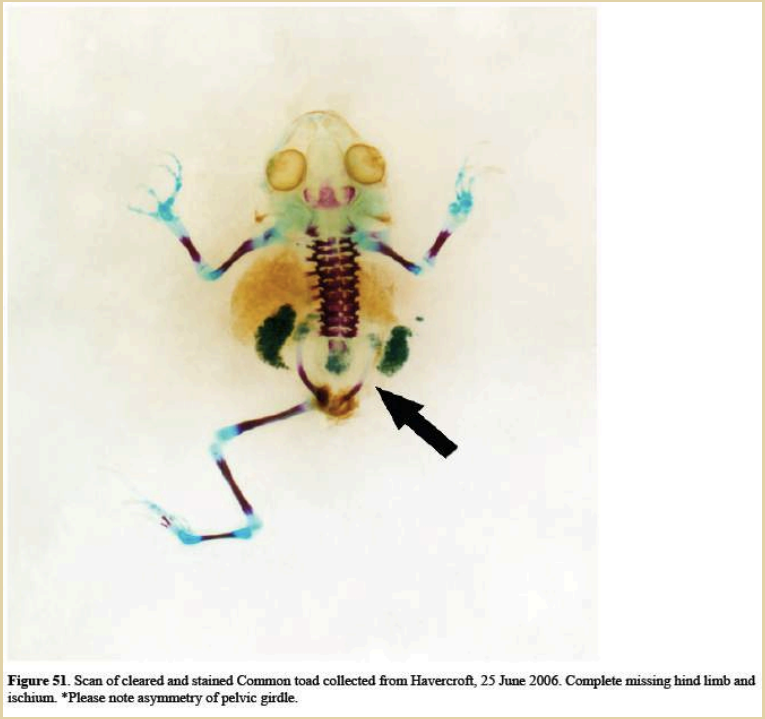
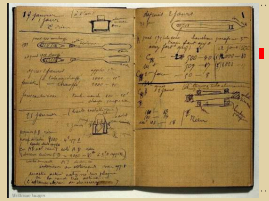


Figure 51. Scan of cleared and stained Common toad collected from Havercroft, 25 June 2006. Complete missing hind limb and ischium. *Please note asymmetry of pelvic girdle.

Figure 4. Piedmont, Italy *Eco-Action* from 2010 Malamp IT studies. Photograph 2010 by Orietta Brombin.



SOCIAL SCIENCE AND ART

Teamwork

Ecomedia
Ecoart Respond to the world around, percieving environments as natural,social or politized.

WOMANS ECO ARTS DIALOGUE
https://directory.weadartists.org/results

Raising awareness in the USA- appalling pull out of the COP21 Agreements

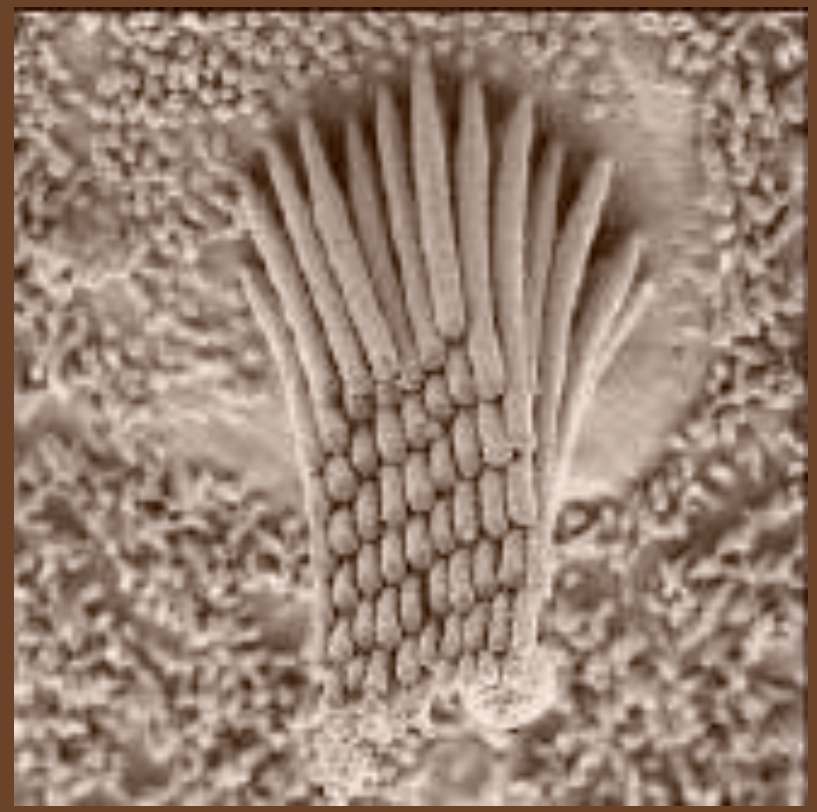
http://ecoartspace.blogspot.com

Forming Groups
.

- “

<<<<<<<<<

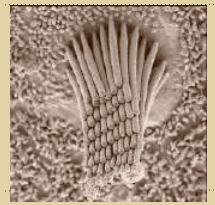
GROUP INCUBATORS TO PROMOTE COMMUNITY, TECHNOLOGY and DESIGN TO CONTEXT



SOCIAL SCIENCE and CITIZEN SCIENCE

Knowledge is situated. Women must infiltrate patriarchal domains, where social groups and boys clubs contribute to a distorted and partial account of nature's regularities and underlying causal tendencies Harding (2004) The Science Question in Feminism

Teamwork -Incubation rather than innovation



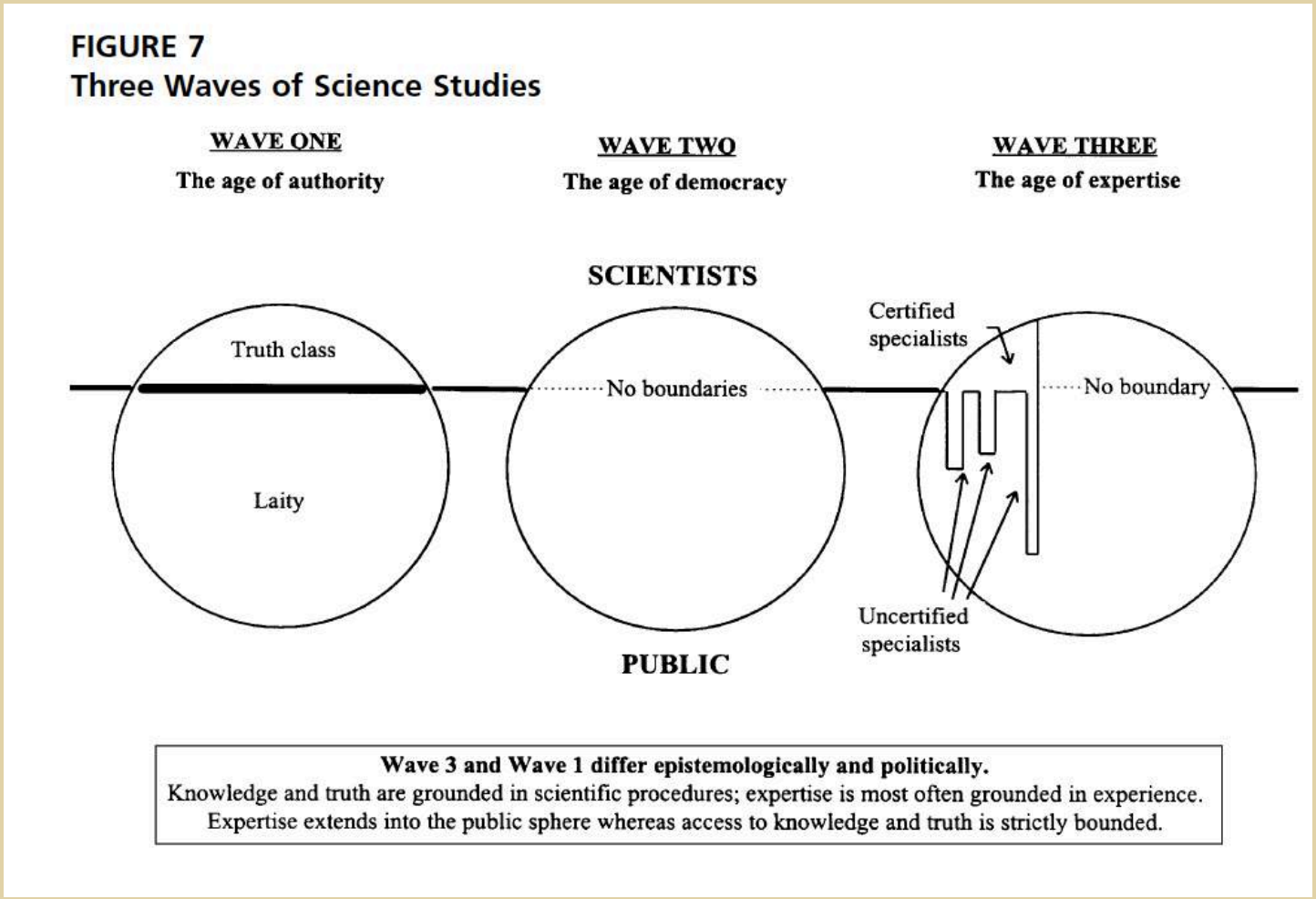
COMMUNITY, TECHNOLOGY and DESIGN TO CONTEXT

3. Incubator for the cultural commons: GROUP INCUBATORS

Knowledge for the community and special interest groups.

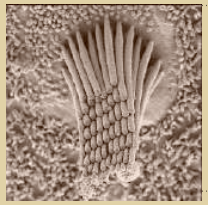
1, DIY-Hacking groups-Democratizing technology for community use.
2. Social Media- inititiaves for knowhow transfer.
3. Expanding Educational Initiatives

SOCIAL SCIENCE AND ART



IS THIS WHY CITIZEN SCIENCE HAS GAINED MOMENTUM?

Fig 1. Collins and Evens. The Third Wave of Science Studies. Studies of Expertise and Experience, 2015



AWARENESS, VISUALIZATION, SCALE CONCLUSION

ARTS: Quote from WEAD.

SCIENCES:
We should always ask.. whose knowledge is being produced and for which peoples benefits and who is going to bear the costs and monitor which research is more important that other research? Sandra Harding

The **tragedy of the commons** is a term used in social science to describe a situation in a shared-resource system where individual users acting independently according to their own self-interest behave contrary to the common good of all users by depleting or spoiling that resource throug collective action

•SOCIAL MEDIA PLATFORMS

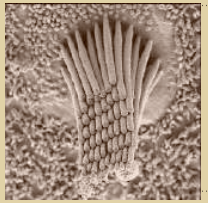
Enabling Reciprocal Voice:

Eugenio Tisselli-

Angelika Hillbeck

- To create media art for farmers
- The community records, interacts and learns how to write into their own web platform-
- communication potentials 20 to 6,000 Users

- “Sauti ya wakulim“: in Tanzanian farming communities. http://sautiyawakulima.net/bagamoyo/about.php?l=1



SOCIAL SCIENCE AND ART

- **Collaborators: Department of Environmental Systems Science**
- Professor Maria Rey. The Transdisciplinarity Lab (USYS TdLab)
- Juanita Schläpfer-Miller –*art as a* non-conventional approaches focused on emotion

Climate Hope Garden – Traces of the future

Cyanotypes, shadow images formed by UV light on photosensitive paper, Grounded Visions: ETHZ 2016. *Climate Garden 2085 was also on display in the swissnex Gallery, San Francisco*

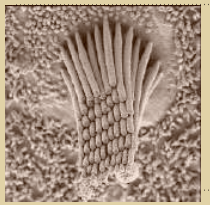
ALSO citizen science projects to increase the genetic diversity of wild plants in the city.

Eskin for the visually Impiared. Durban

Zulus call Earth Mother Nomkhubulwane She is part human-parts animal. She can choose the physical state of any animal or human.

STAGE FOUR: Eskin 4 the Visually Impaired

- Help to not only regain these physical spaces of the unplanned, but to regain those urban spaces in the mind where Urban Ecology needs to be re-thought



DIY HACKING ACCESS

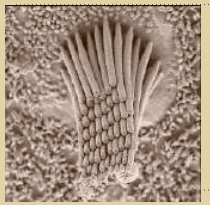
Bring your DIY mindset to our technology but update your credit card first!

http://makezine.com

Seeing is believing, and often the best way to learn how to do something is face to face.

Supports Sales- Arduino, Raspberry Pi, Beaglebone

-make a lot of cool nifty things with electronics



DIY HACKING ACCESS

Quit being a consumer-become a maker!
Learn for change

Fighting inequality by being tech saavy.

Repair our own broken stuff
empower women

What is good software without a good community Context.

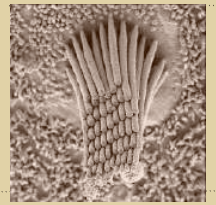
DIY HACKING ACCESS FOR GROUPS-

•democratize technology-Let others be creative:

•Recycle and re-adapt old technologies for other uses

•Raise community awareness about ethical problems we now face, by offering a service

•Mz* Baltazar's Lab
•VIENNA
•ELECTRONICS AND COM SCIENCE EXPERTS and NONEXPERTS

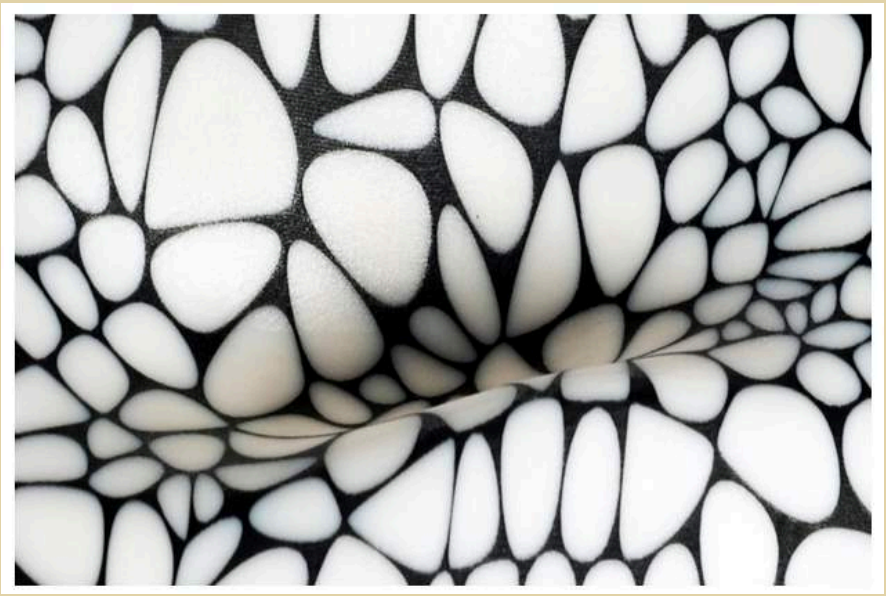


DESIGN TO CONTEXT EDUCATION

Designing for a eco process rather than a product – like bottom up design in alignment with nature (bio-inspired design-DNA informed design)

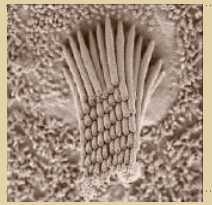
DESIGN –Material Masters Program at Central St. Martins. Grad Student won a SPECS EU Prize
EXAMPLE: Giulia Tomasello: Future Flora
Projects that aim to explore alternative sustainable futures informed by permaculture or synthetic biology.

Design MIT MEDIA LAB
•Build products that can be adapted to various environments
•Create new materials and uses for them
•imbed materials with circuit software
•EXAMPLE-Material Ecology - *Neri Oxmen-*
•Monocoque: a technique that supports structural load with object's external skin



CONCLUSION

Creative Incubators for a common Culture



SHARING PARTICULAR THEMES LIKE THESE IN
THE CREATIVE INCUBATOR with
COMMONIZES THE CULTURE-

.

Democratizes the complexity
Is necessary for our survival

To turning art and science into common culture requires imagination. We are sick of the dualisms- lets incubate the real issues not the disciplines and open up the discourses with experts and non experts to the public.

CONCLUSION

New deffinitions for Creative Incubators for these
Sharing common themes creates a common culture.

THEMES

1. The Growth of Life and the study of Behaviour
Examples from Biologists and bio-artists –Neuroscientists and Neuromedia artists

2. The Understanding Matter and Energy, Physicists and Artists

3. The monitoring Air Pollution, Ocean Quality and Animal welfare
Environmental Scientists and Artists

4. The promotion of community engagement, access to technology or design-to-context. Social Science and Citizen science-

CONCLUSION TEAMWORK

The creative incubator
a space of mutual understanding for discussion and practice of not just new inventions and discoveries, but those matters which are unformed and in-process, difficult to describe even in the language of one's "home" discipline.

Encouraging the art/sci community: join a "commons network" where we can re-design representations of the "artificial" and collaborate on new "wet" experiments that explore how our sensory processes can cope with this complexity

For artists the challenge is to find poetic metaphors, analogies or other resonant imageries that can be abstracted from scientific evidence and applied to pressing social issues. Cultural constructivists assert that knowledge and reality are products of cultural contexts and change accordingly, but I argue for the potential of art research to become "useful": In other words, to become more scientific. Both artists and scientists are likely to emerge stronger from it!

CONCLUSION

CRITICAL AND LATERERAL PROCESSES OF THINKING ARE FOSTERED BY THEMATIC DISCOURSES WITH TRANDISCIPLINARY TEAMS

Many contemporary artists of the past quarter century collaborate with others and contextualize their research with the hands-on experience and input of varied publics and researchers from diverse disciplines.

•Conclusion: These are new roles for artists, who want to work directly with scientists or social scientists to formulate new approaches and hybrid methodologies.

• I believe that art-science incubators can provide an ideal environment for expanding the boundaries and discourses of the traditional disciplines.

•ART PROCESS: Changes in art production tend to be catalysed by artists but scientist should join the creative commons too

COMMON CULTURAL INCUBATION

THEMATIC DISCOURSES :Salotto Cafe
LASERZURICH SALON: 2016-18 www.laserzurich.com

Reclaiming Urban Ecology
Transfer or Interpretation- Climate Change Research
Space Time Art
IT Agroecology: sharing knowledge
Times of waste: How to deal with the leftovers?
IoT and Urban Technologies
Biofeedback in virtual space visualization
Science as Game - Art as Play
Complexity: from particle physics to musical interfaces
Mental Imagery and Embodiment in the Sonic Arts
GMOs: Threats, impacts and sustainable futures
Biohacking or Ecohacking?
The Afterlife of Minerals
Artistic Inspirations: Robotics and Artificial Life

Sharing Experiments- Inter-spatial Zones

CONCLUSION

The value of sharing experiments.

To build up our relationship with the natural world

share the processes of exhibit building with the public, would help the public to understand other fields of practice besides our own

Build experiments that have the potential to be immersive experiences with different layers of meaning

Bring our processes, aesthetics and content to “outsiders”, for their feedback

Generate unique outcomes and new approaches to the material culture

Co-publish our processes and outcomes of creativity-that feature the value of lateral and critical thinking

THANK YOU

KEYWORDS : TEAMWORK,
TRANSDISCIPLINARY RESEARCH
LATERAL AND CRITICAL THINKING
OPEN MINDED LABS FOR EXPERIMENTATION

More Information:
www.jillscott.org

(1975- Artworks, installations about the body, body politics, ethics and cellular research)
www.artistsinlabs.ch

(2003-Placing Artists, designers etc, into Science Labs)
www.z-node.net

(2003-2016) The PhD Program- ZHdK and the University of Plymouth UK)