

# Art and Science in Film - Classic: POWERS OF 10

-The *Powers of Ten* ( 1977)

<https://vimeo.com/1066547>

adapted from the book

*Cosmic View* (1957) by Dutch science educator and  
astrophysicist -Kees Boeke

Designers: Charles and Ray Eames

"culturally, scientific and historically and aesthetically  
significant"

# STORYBOARDING SCIENCE 2000-2016

Prof. Dr. Jill Scott



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artists in labs.ch

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hdk

Zürcher Hochschule der Künste  
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Cultural  
Studies



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Eidgenössisches Departement des Innern EDI  
Bundesamt für Kultur BAK

# ARTISTS AND SCIENTISTS COLLABORATE ON STORIES

- Today, artists are also researchers of discovery, of systematic methods of critical analysis, of human behaviour, of empirical observations, of science / technology, of ethical discourses and public understanding
- The current scientific and societal debates are so enormous that they need to be shared
- By combining stories, our debates will become richer and have more impact.
- Young artists and scientist already share popular culture and media criticism

## AIMS: Educational and experiential in nature

- to give artists the opportunity to be immersed inside the culture of scientific research in order to develop their interpretations and inspire their content.
- to allow the artists to have an actual “hands on” access to the solid raw materials, pertinent debates and scientific tools
- to encourage unique potentials and allow them to attend relevant lectures and conferences held by the scientists themselves.
- help scientists gain some insight into the world of contemporary art, aesthetic development and the semiotics of communication that are used by artists in order to reach the general public.
- to encourage further collaboration between both parties including an extension of discourse and an exchange of research practices and methodologies.

# List of Artists artist-in-labs Program

Artist	Discipline	Nationality
Thomas Isler	Documentary Filmmaker	Switzerland
N.S. Harsha	Conceptual Painting	India
Adrianne Wortzel	Robotic Theatre	USA
Margarete Jahrmann/ Max Moswitzer	Interactive Media	Switzerland/Austria
Shirley Sho	Sculpture	Singapore
Margaret Tan	Wearable Computer	Singapore
Tiffany Holmes	Interactive Media	USA
Dominik Bastianello	Architecture	Switzerland
Nigel Helyer	Media Art	UK/Australia
Axel Vogelsang	Design	UK
Andrew Quinn	Design / 3D-Animation	Italy/Austria
Clea T. Waite	Editor / Conceptual Filmmaker	Germany/USA
Isabel Rohner	Sculpture	Switzerland
Pe Lang	Sound	Switzerland
Roman Keller	Photography / Media Art	Switzerland
Hina Struever / Mätti Wüthrich	Performance / Sculpture	Switzerland
Pablo Ventura	Choreographer / Dancer	Switzerland
Sylvia Hostettler	Installation / Media Art	Switzerland
Ping Qiu	Performance / Landart	Switzerland
Chandra Sekhar Ramakrishnan	Media Art	Switzerland
Monika Codourey	Architecture / Media Art	Switzerland



# Example of Hostings

- Example- Now 32

- 1. The Swiss Federal Institute for Forest, Snow and Landscape Research WSL, Bellinzona.
- 2. The Brain Mind Institute, EPFL University of Lausanne.
- 3. Istituto Dalle Molle di studi. Artificial Intelligence Lab, University of Lugano
- 4. The Physics Department, University of Geneva (in corporation with CERN).
- 5. The Artificial Intelligence Lab, University of Zurich
- 6. The Computational Laboratory, ETH Zurich:
- 7. The Swiss Center for Microelectronics, CSEM. Alpnach
- 8. The Institute of Information SYSTEMS, ETH, Zürich
- 9. The Paul Scherrer Institute, Villigen
- 10 The Planetarium, Museum of Transport Luzern
- 11. Center for Biosafety and sustainability (BATS), Basel
- 12. Center for Microscopy(ZMB), University Basel
- 13 Computer Run-time Systems Institute, ETH Zurich
- 14 The Aquatic Research Centre, EAWAG, Dubendorf
- 15 Institute for Psychology, University of Basel
- 16 Centre for Integrative Genomics (GIG) University of Lausanne
- 17. The Neurobiology Lab at the Institute of Zoology, University of Zurich
- 18. The Center for Integrative Biology. ETHZ

What value have these scientist got out of collaboration with these artists?

"Working alongside a artist allowed us access to different approaches and points of view about our own research and how to bring it to the public"

"They gave us the ability to see an experiment or problem from another perspective and to think about building our own differently"

"We gained a lot of training in answering all those great "why" questions from the artists"

"The Know how transfer of science is easier than we thought to non-scientist artists or filmmakers"

"It was interesting for us to watch the interpretative process unfold- from conception to production and presentation of the art work"

"We realized that art could be a catalyst for the opening up of more discourses about science in the future"

# The artists-in-labs Program Story

## **Immersion:**

- Interpretations and stories need “hands on” access to scientific tools and visa versa. Exchange of research methods and methodologies.

## **Know-how transfer:**

- Artists need to attend lectures and conferences held by the scientists but also tell the scientists about contemporary art, aesthetic development and the semiotics of communication.

## **Collaboration:**

- Need to extend friendships, the sharing of discourses and stories, the observation of each others processes



- **1. Ecology and climate change problems**  
(specifically biodiversity, invasive species, behaviour of species, agriculture and food production)
- **2. Medicine: Exploring the Health impacts**  
(specifically cancer, brain function, HIV, human trials, stem cells)
- **3. Complexity: The transfer of complex cellular and molecular ideas in science**  
(specifically neuroscience perception, sexuality and hormones, the behaviour of bacteria)
- **4. Education of target communities**  
(specifically farmers, young children, African communities)
- **5. Imaging Techniques**  
(generally micro and macro worlds and how to combine them)

# THEMES: STORYBOARDING SCIENCE

## THEMES FOR NEW STORIES

**1. Ecology and climate change problems** (specifically biodiversity, invasive species, behaviour of species, agriculture and food production)

*'you are variations'*

*Christina Della Giustina*

*and*

*Andreas Ringling*

*Story of how changes in climatic conditions modify the water cycle and water availability of trees*



## THEMES FOR NEW STORIES

**2. Medicine: Exploring the Health impacts** (specifically cancer, brain function, HIV, human trials, stem cells, heart function)

*Signs of Life:  
Steffen Schmidt and  
Prof. Segesser  
CHUV Lauzanne*

*Story of how heart rhythms  
are indicators of  
Both love and life.*

*Montreux Jazz Festival  
2013*



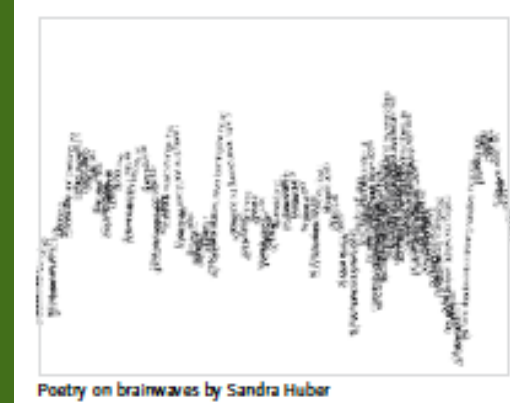
## THEMES FOR NEW STORIES\_ PRODUCTION GROUPS

**3. Complexity:** The transfer of complex cellular and molecular ideas in science (specifically neuroscience perception, sexuality and hormones, the behaviour of bacteria)

*Assembling the Morrow*  
**Sandra Huber and Paul Franklin**

*The story of a 3 D Poem*

*Sleep Lab. GIG Research*  
*University of Lauzanne*



## THEMES FOR NEW STORIES\_ PRODUCTION GROUPS

### 4. Education of target communities (specifically farmers, young children, African communities)-

providing platforms for others to tell stories. Socially engaged art- Creative commons

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*Eugenio Tisselli  
and Angelika Hillbeck*

*Sauti ya wakulima  
Expanding the “voices “ of small scale  
farmers- Tanzania*

*Institute for Integrated Biology. ETHZ*

*sauti ya wakulima net*

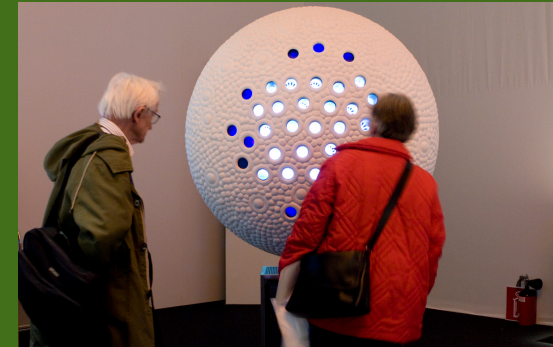
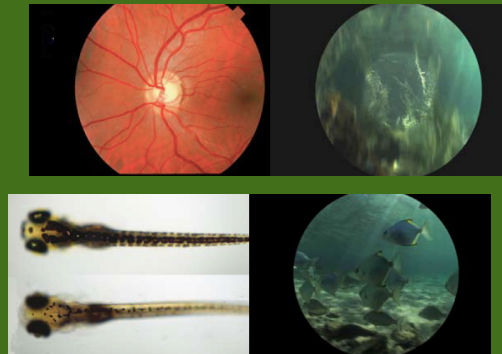
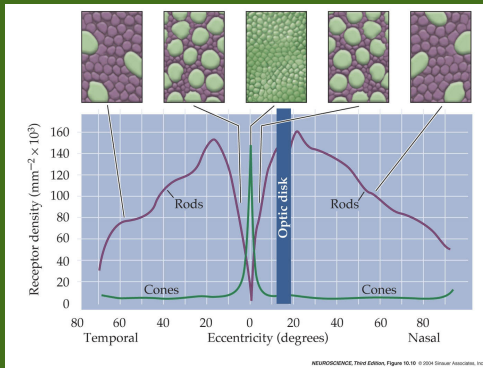


Figure 24. Mr. Haeshi Shabani interviews Mrs. Renalda Msaki during a training session at the Chambezi Agricultural Station. Photo by Juanita Schlaepfer-Miller, Chambezi, Tanzania, 2011.



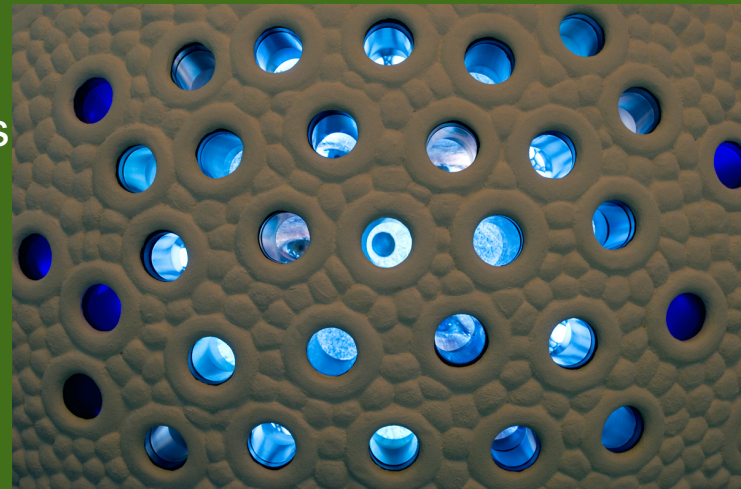
## THEMES FOR NEW STORIES\_ PRODUCTION GROUPS

**5. Imaging Techniques** (generally micro and macro worlds and how to combine them and how let people discover and make up their own stories)



Jill Scott and Stephan Neuhauss-  
Institute of Molecular Life Sciences

Objective-subjective  
Stories about the visual system  
With the POV of a zebra fish-





## THEMES FOR NEW STORIES

5x Board to sign up for groups under these headings

1. Ecology and climate change problems
2. Medicine: Exploring the Health impacts
3. Complexity: The transfer of complex cellular and molecular ideas in science
4. Education of target communities
5. Imaging Techniques and metaphors

*Groups may change their titles through the groups focus on one theme. 3 minute film.*