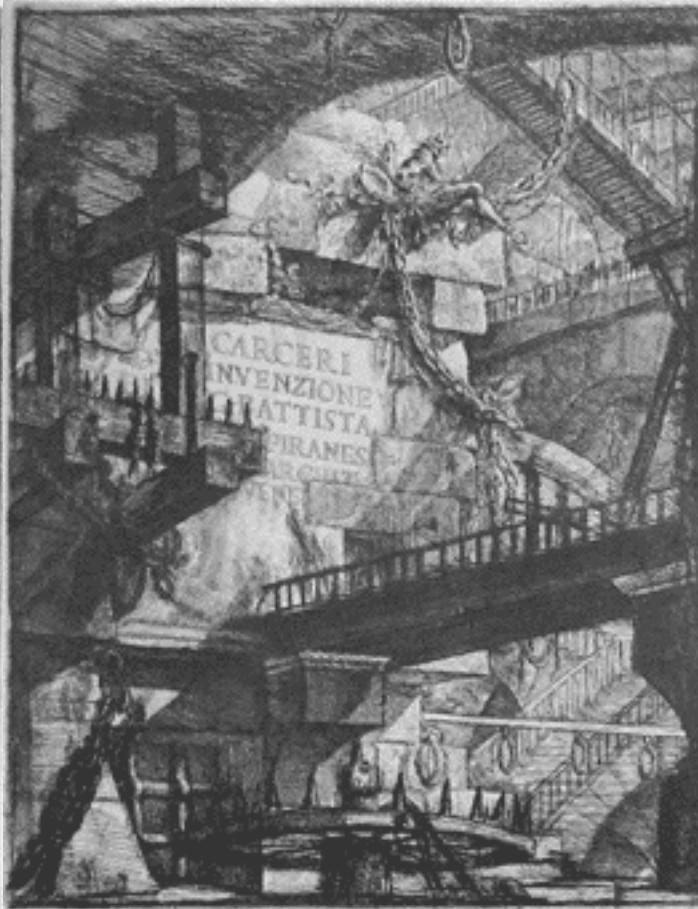
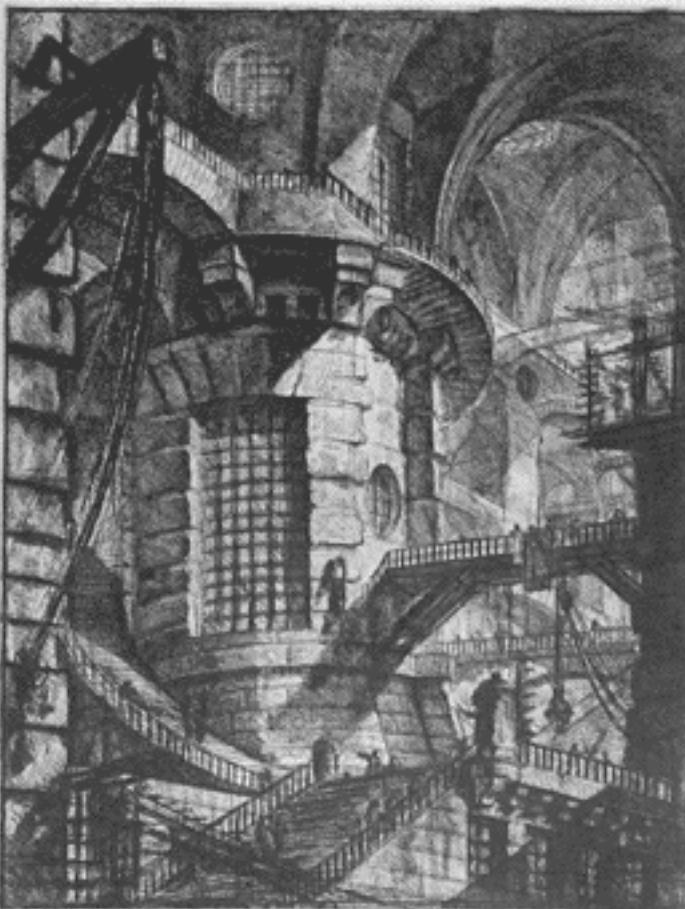




Piero della Francesca, Città ideale, 1480



Piranesi, Imaginary Prisons, 1749-1750



Boullee, 1728-1799

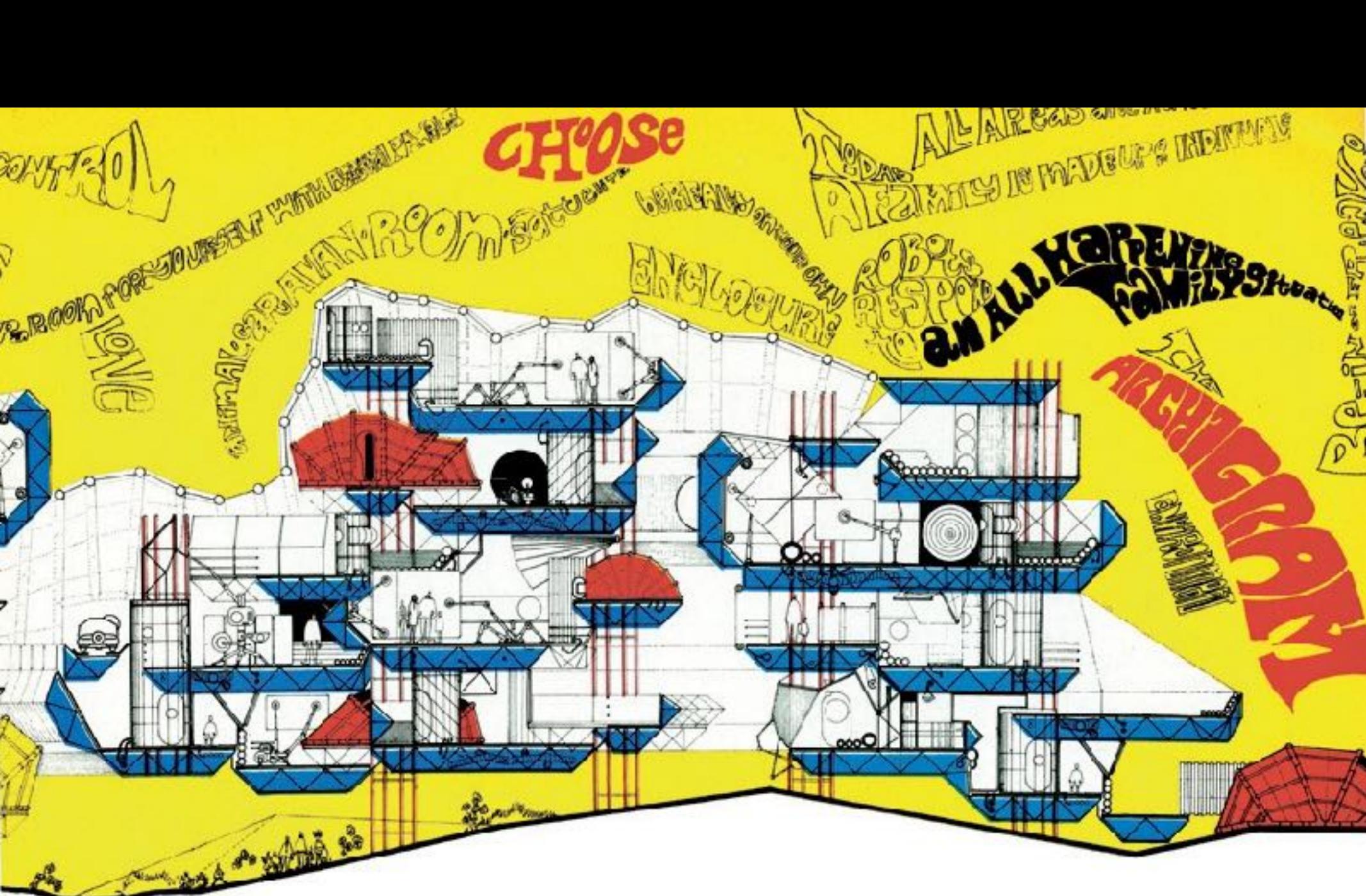


LA DISSOLUTION DES IDEES ANCIENNES VA DE PAIR AVEC LA DISSOLUTION DES ANCIENNES CONDITIONS D'EXISTENCE :

**INTERNATIONALE  
SITUATIONNISTE**

The future cities we envisage will offer an original variety of sensations ... and unforeseen games will become possible through the inventive use of material conditions, like the conditioning of air, sound and light.

Constant, *Another City for Another Life*, 1959

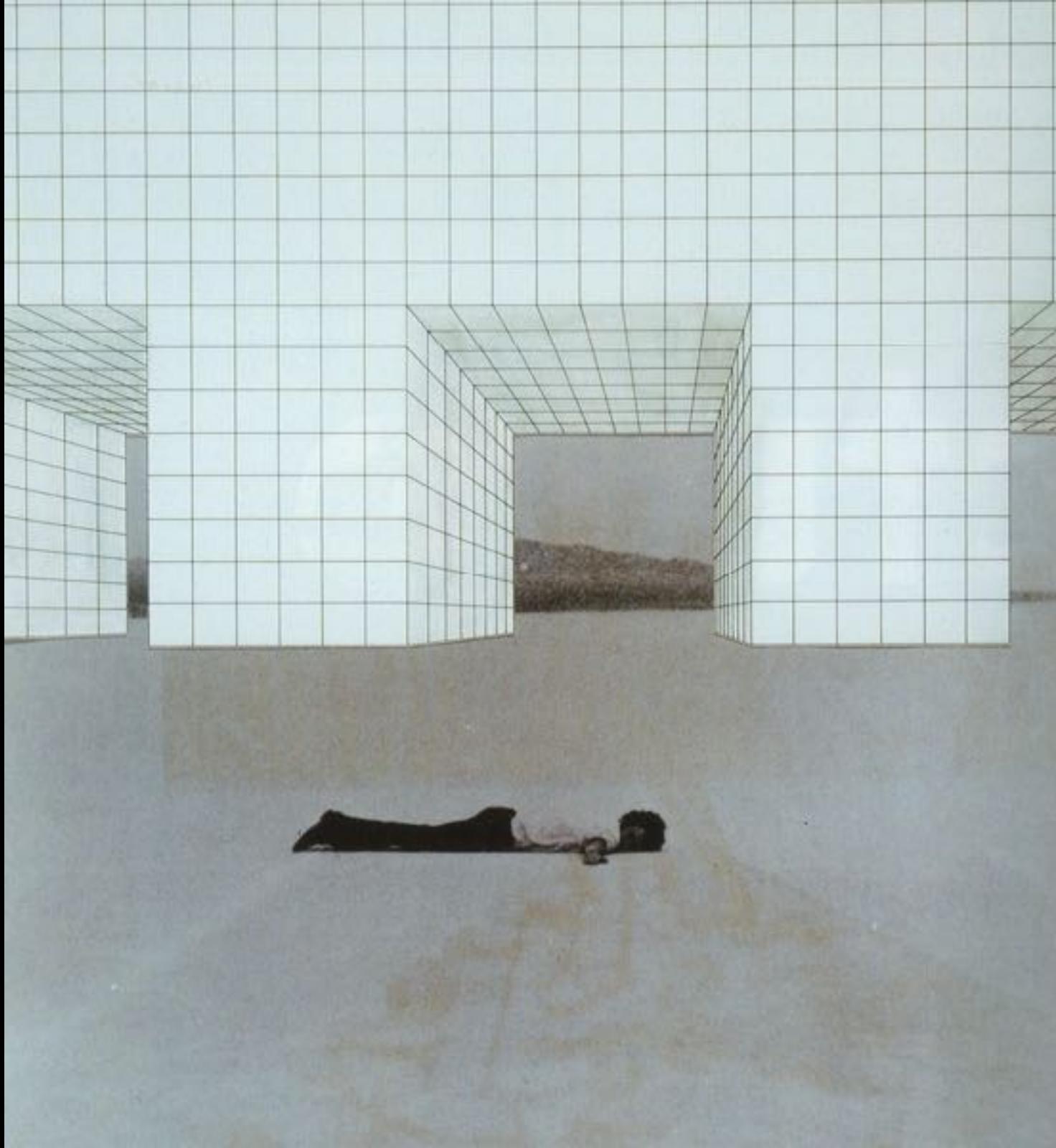




Roboforum, 1964.

EACH WALKING UNIT HOUSES NOT ONLY A KEY ELEMENT OF THE CAPITAL, BUT ALSO A LARGE POPULATION OF WORLD TRAVELLER-WORKERS.

## A WALKING CITY

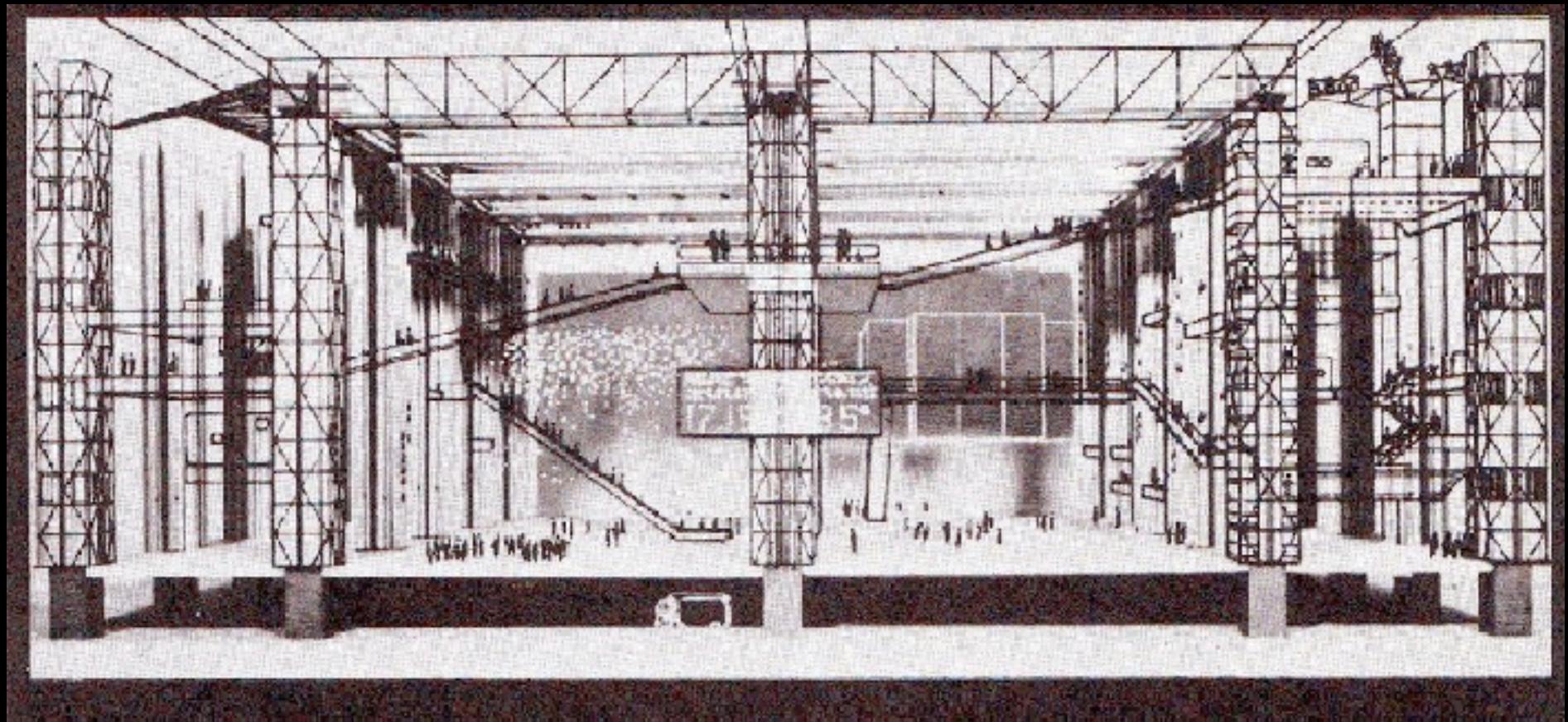












Fun Palace (Littlewood, Price, Pask 1968)

# DESIGNING RESPONSIVE ENVIRONMENTS

COMPOSITION OF

MATERIAL/MEDIA

+

FEEDBACK

short

medium

long term

# RESPONSIVE ENVIRONMENTS METAPHORES

INSTRUMENT (VNS)

ROBOT (Ada, robot inside out)

PHENOMENA (Gravicells)

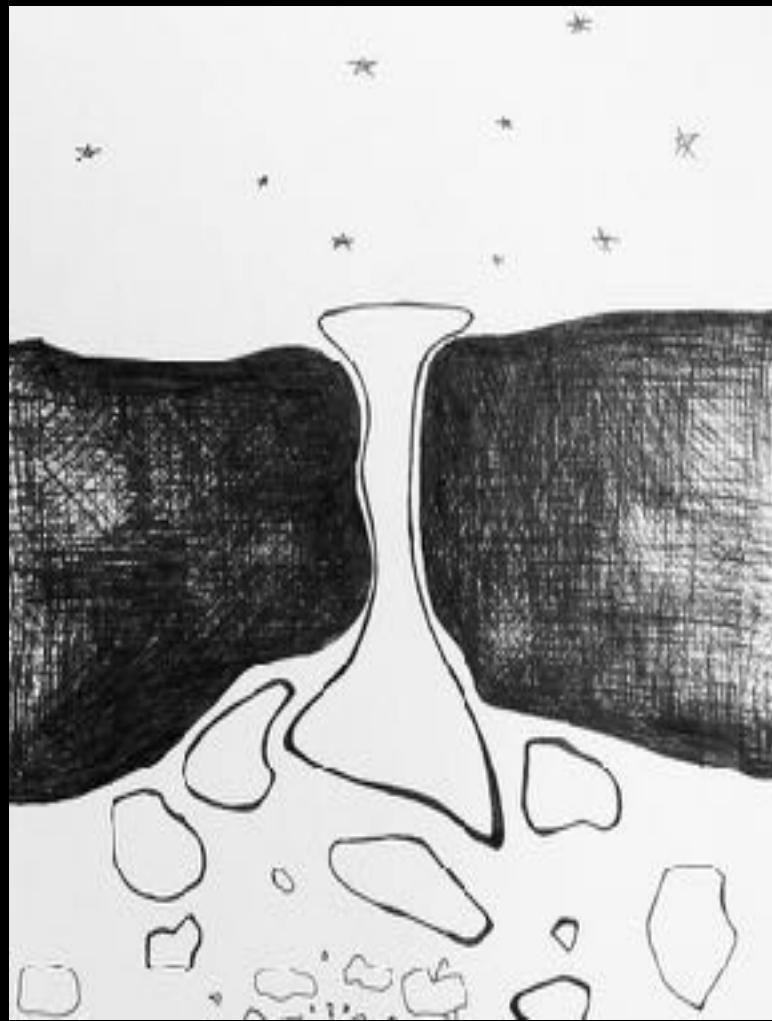
ANOTHER ENVIRONMENT (TXOOM, foam)

PLAYGROUND (Sensory Circus, TimesUp)

ANIMAL...

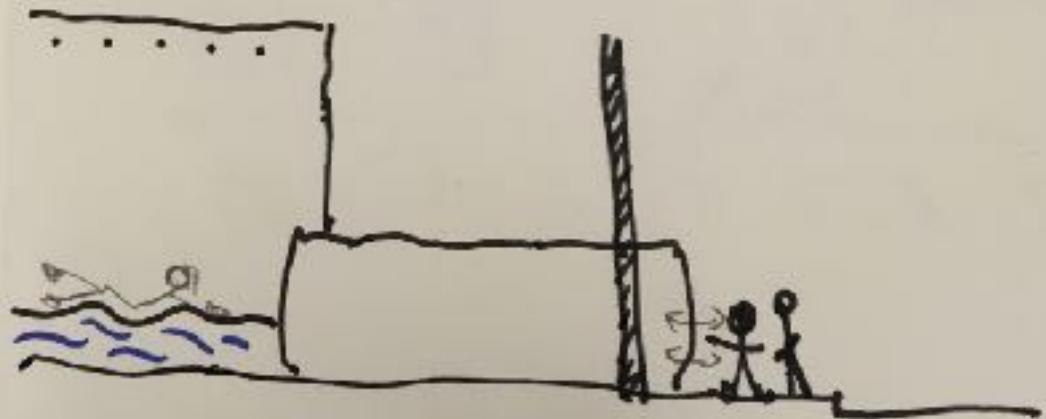
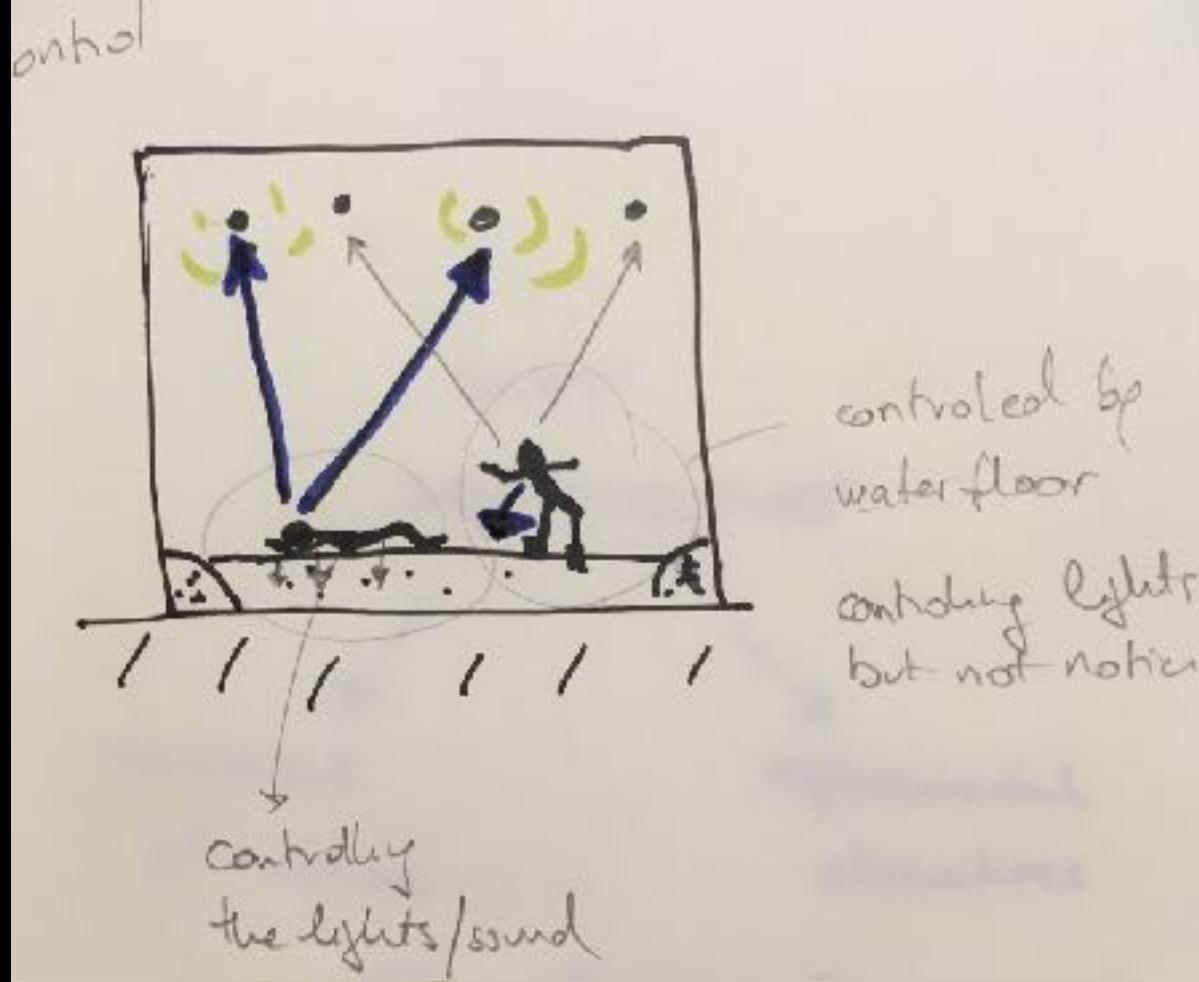
# Composition through Materiality



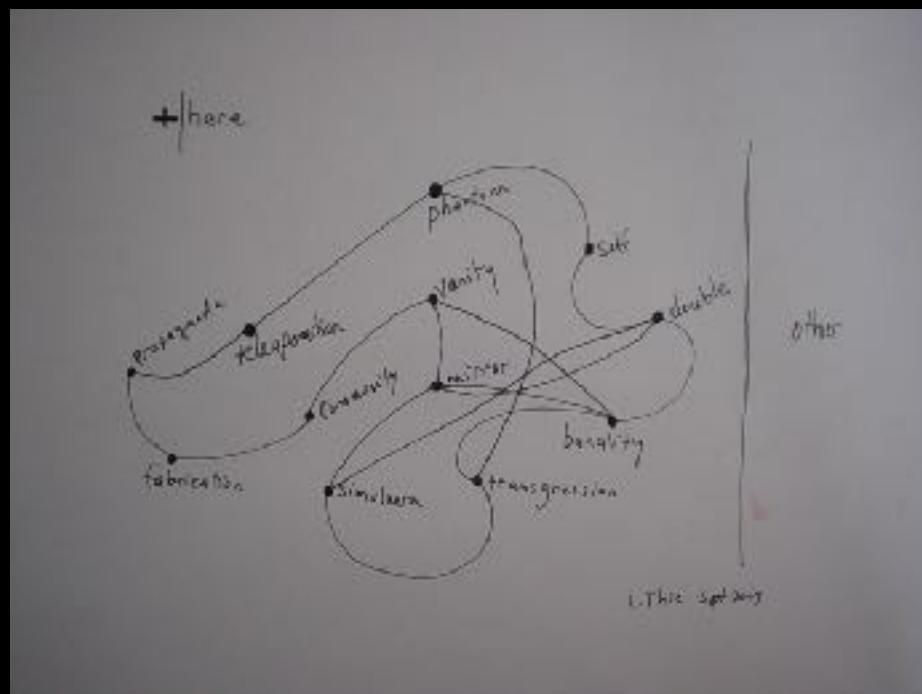


Syncoptic Structure, 2003

more info <https://web.archive.org/web/20081123085930/http://www.zero-th.org/SyncopticKarmen.html>

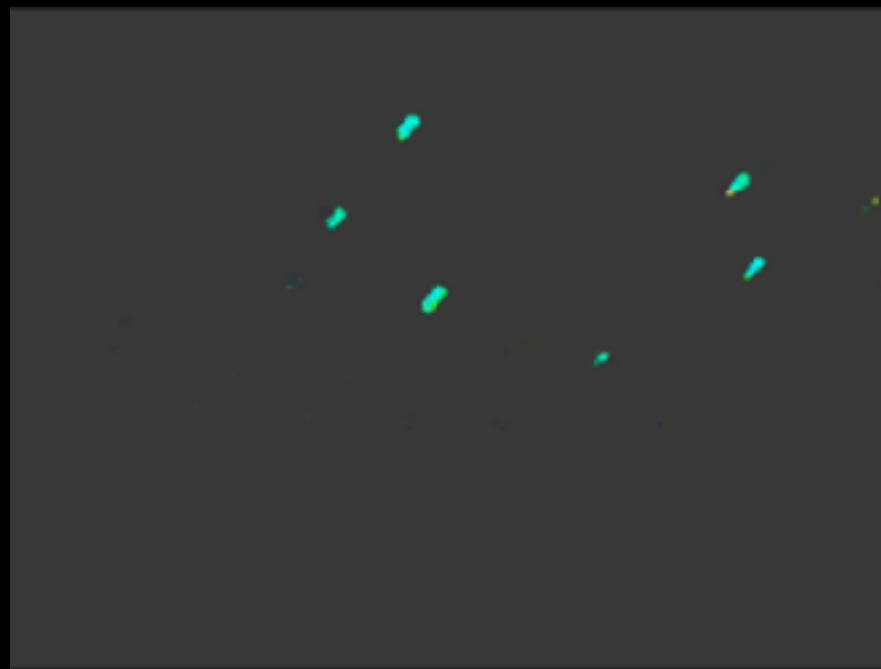


# Syncoptic responsive environment













# Levels of Interactivity



Hinge Dimension, 2007

<https://web.archive.org/web/20160318180228/http://www.zero-th.org/ProjectsKarmen.html>

STATE: waiting to be activated



STATE: moving, few clusters



# Levels of Interactivity



Recycled Soundscapes, 2004

more info <https://web.archive.org/web/20151117074835/http://www.zero-th.org/RecycledSound.html>

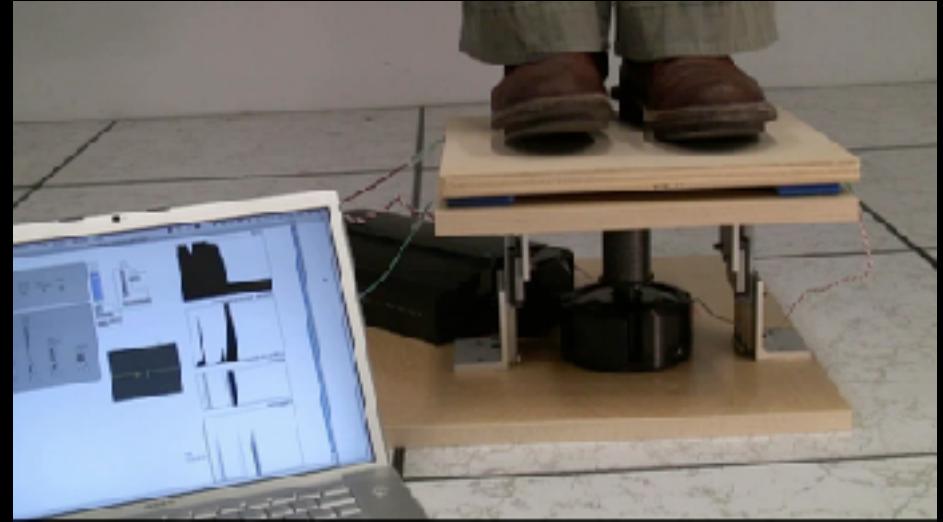
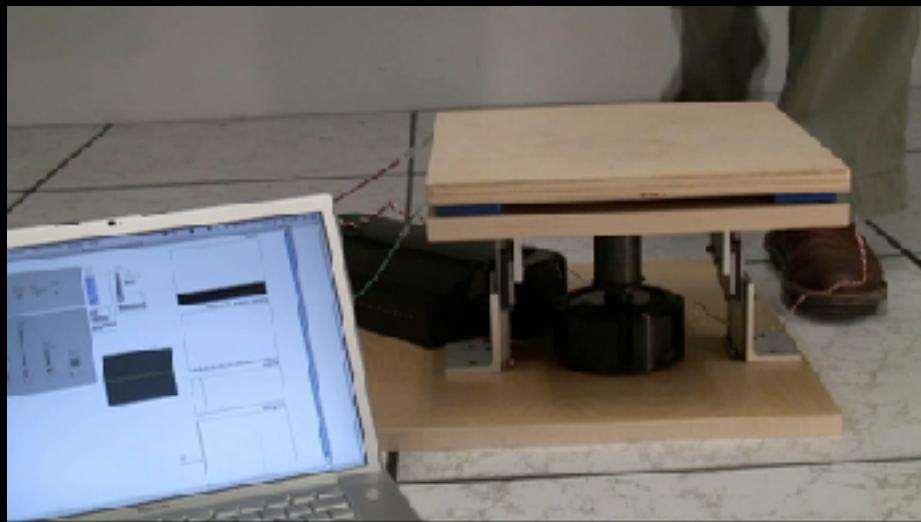
GESTURES are triggered/coupled to material world  
(environments or objects)



GESTURES are triggered by social behaviour



# GESTURES are triggered by feedback



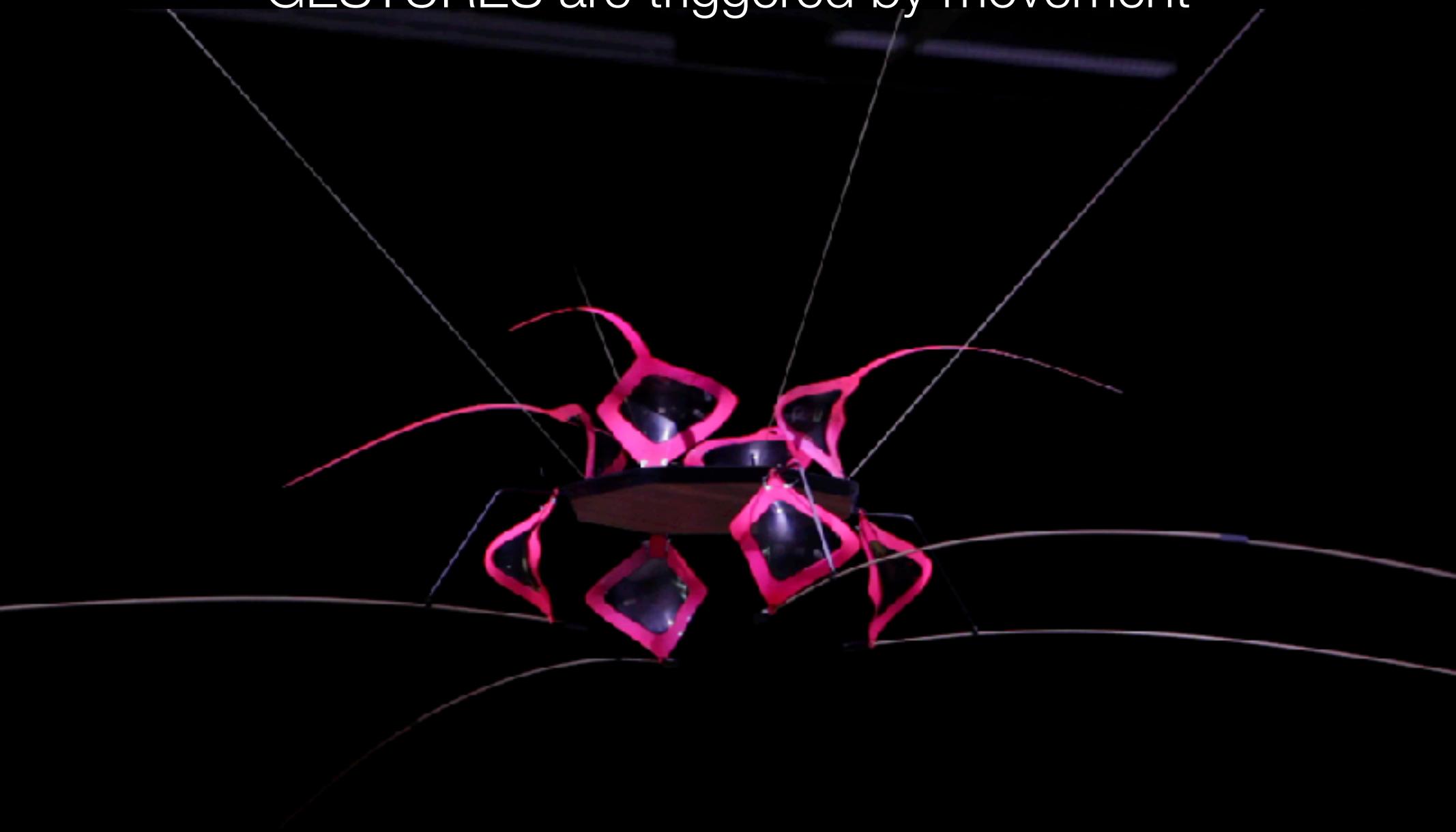
Haptic Tiles, 2005-2015  
more info <http://www.zero-th.org>

# GESTURES are triggered by feedback



K. Franinović, "Vibrant Ground: Floor as an Active Stage Player" in *Staging Space: The Architecture of Performance in the 21st Century*, Eds. J. Huang, A. Rey and S. von Fischer, Park Books, 2018.

GESTURES are triggered by movement



# Voice(Body) Gestures

Video Documentation of  
Blendie (2004)

## Basic Interaction Design > Forms, Feedbacks, Gestures



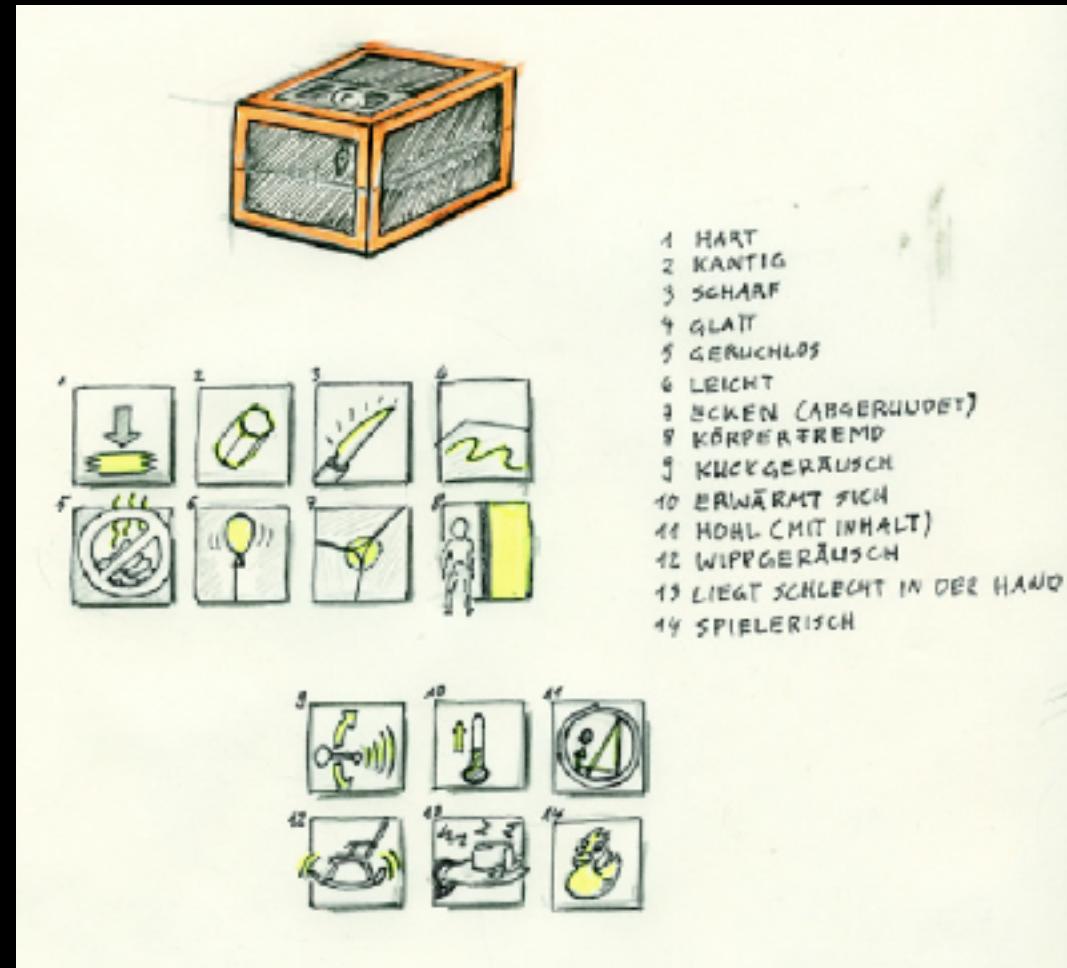
Closing the Loop of Sound Evaluation and Design, 2006-2009  
more info: <http://closed.ircam.fr>

## Basic Interaction Design > Social Interaction



Flops interactive glasses, Zero-Th, 2007

## Basic Interaction Design > Multisensory Methods



## Bodystorming > Thinking with Body, Space, Objects



Sonic Interaction Design, COST action, 2007-2011  
more info: <https://mitpress.mit.edu/books/sonic-interaction-design>

## Situating > Everyday Gestures and Habits



Flops interactive glasses, Zero-Th, 2007

## Exercise:

1. Find everyday gestures in different contexts
2. Change their feedback and make a video, upload to Miro board





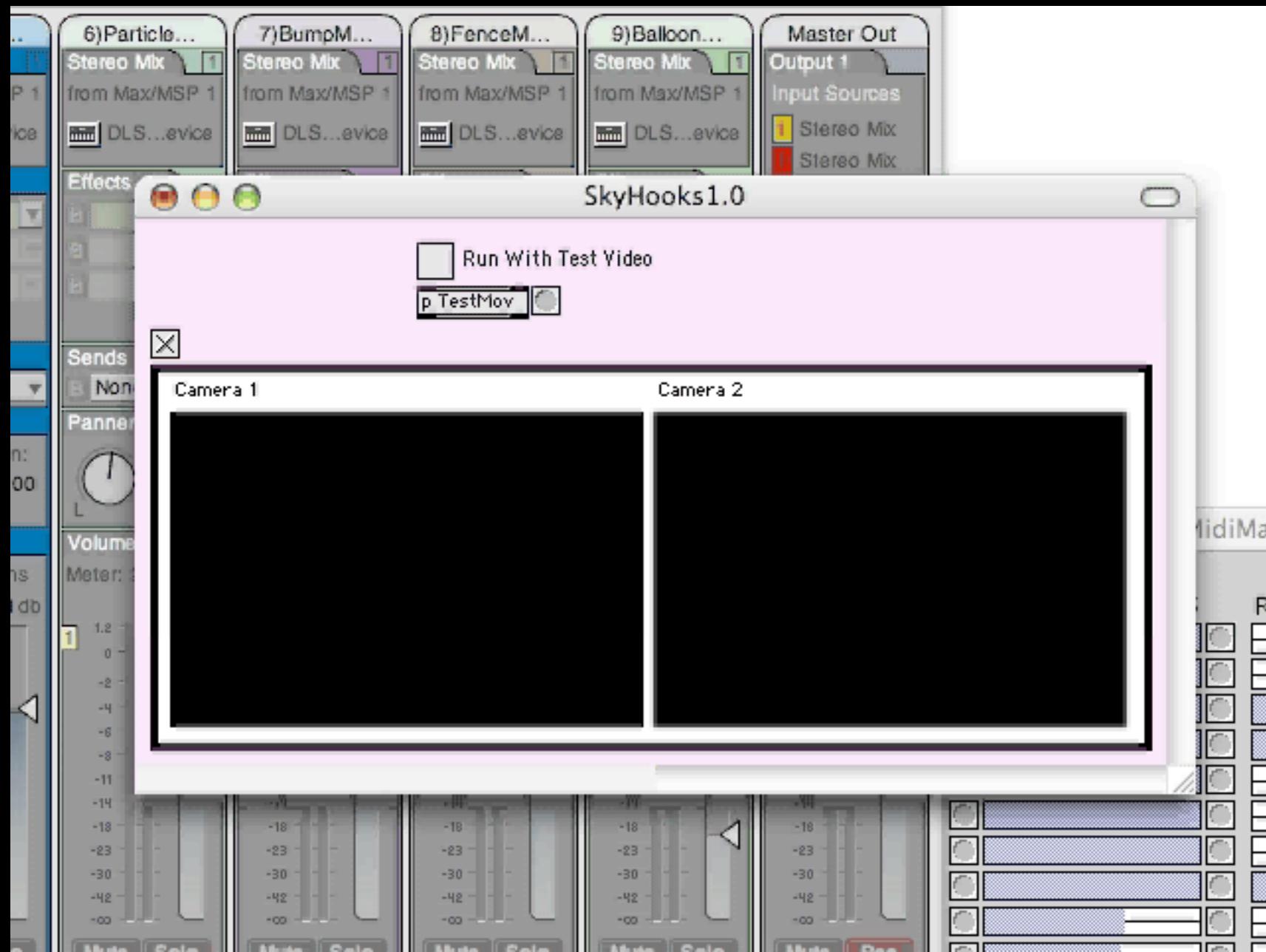






Feedback triggers Gestures





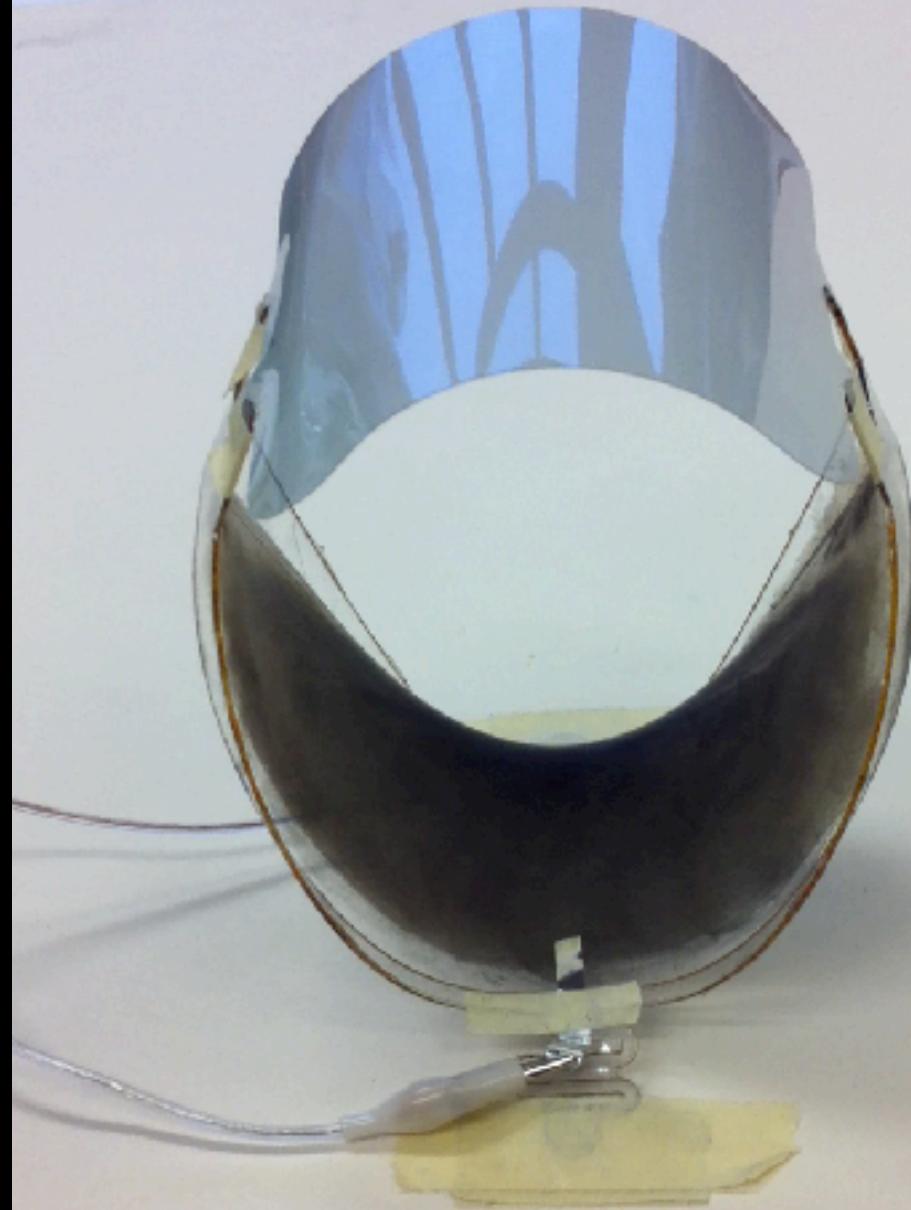






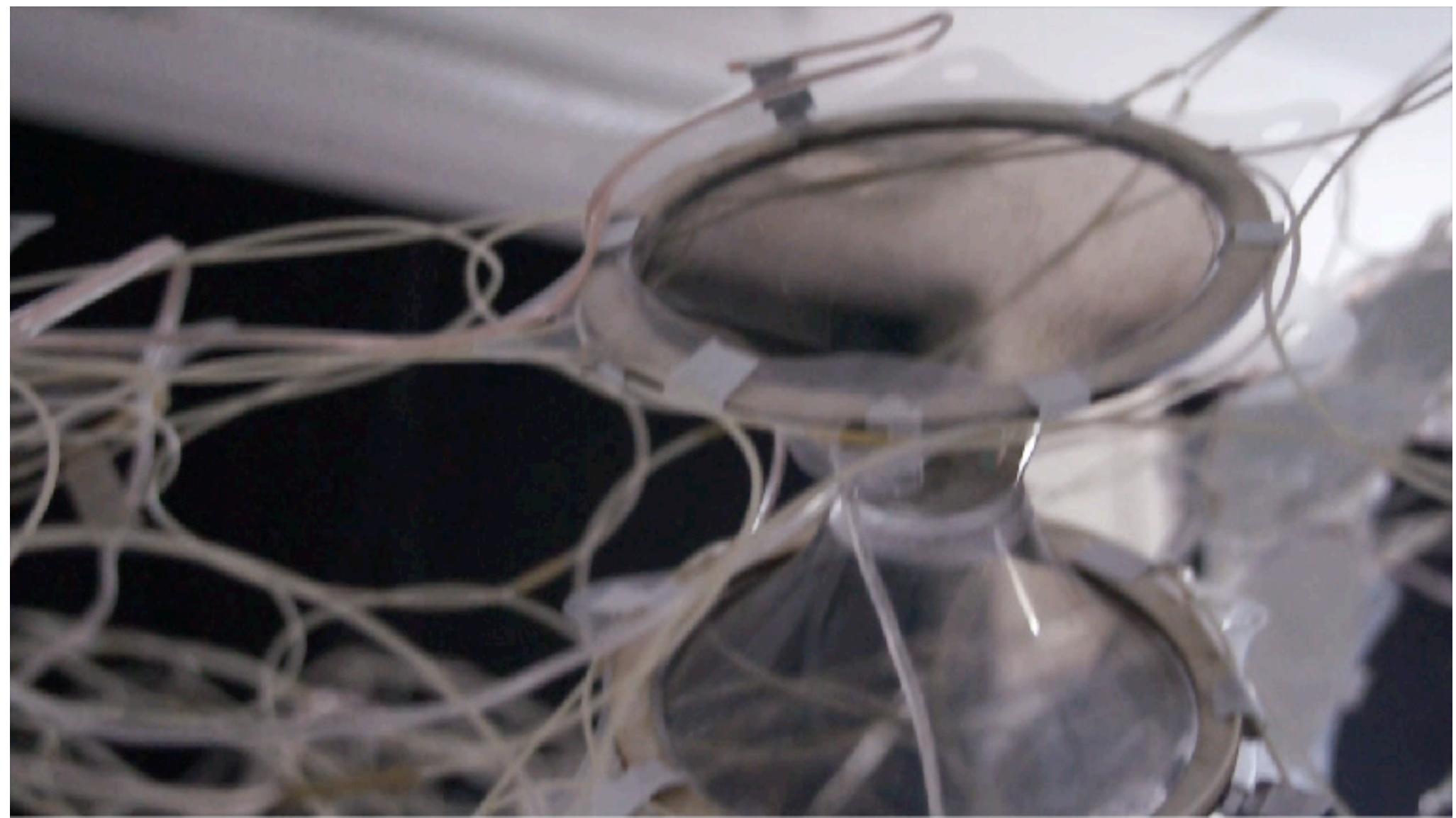
# Alive Spaces Workshop

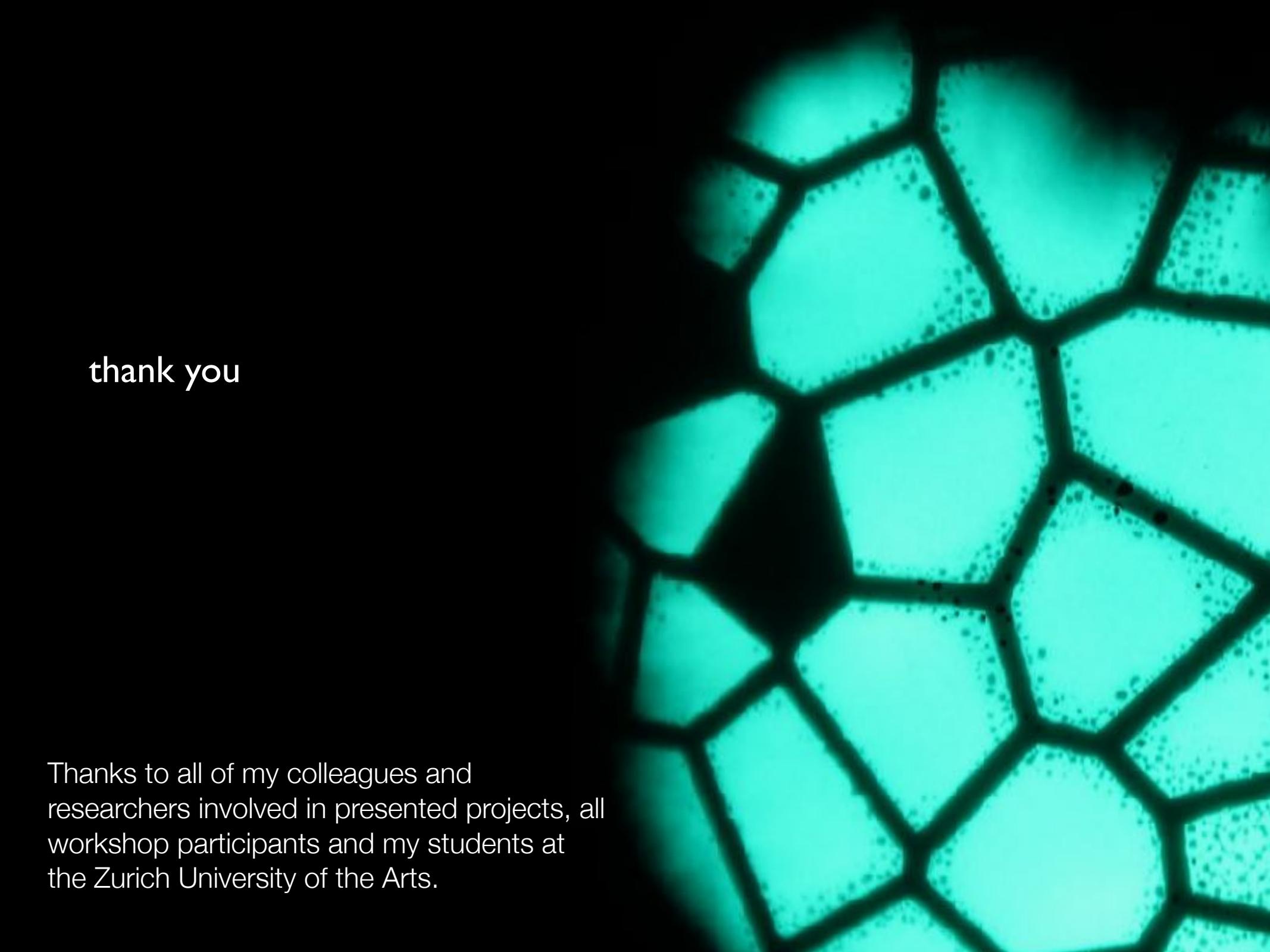












thank you

Thanks to all of my colleagues and researchers involved in presented projects, all workshop participants and my students at the Zurich University of the Arts.