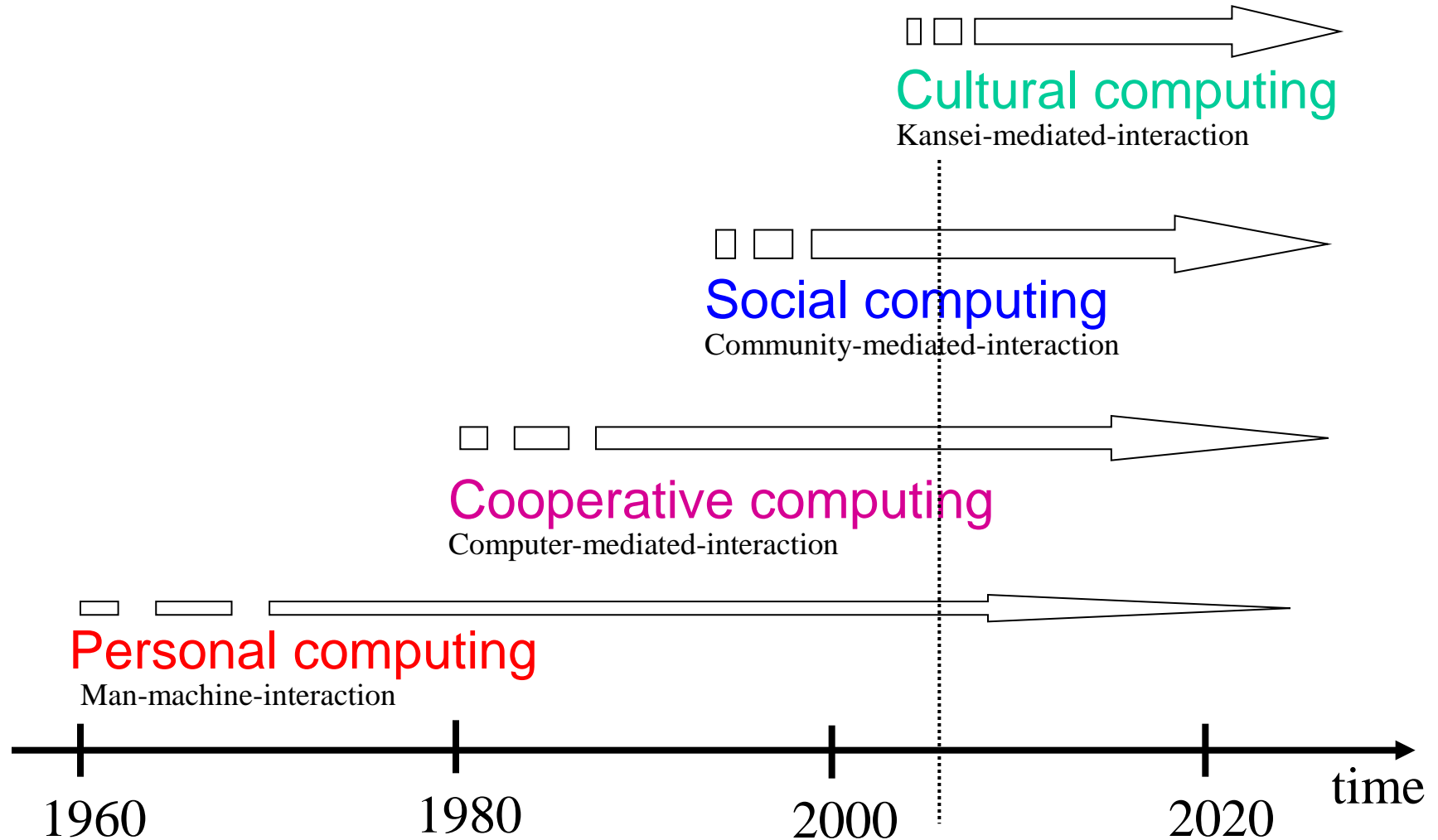


Ambient Culture: A future of entertainment computing

Matthias Rauterberg
Eindhoven University of Technology
The Netherlands

Interaction Paradigms in Computing



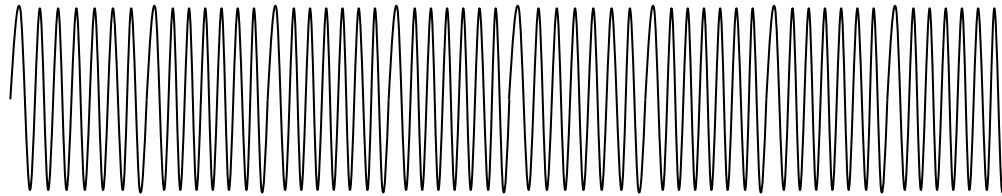
What is Culture?

Culture is the **integration pattern** of human behavior that includes

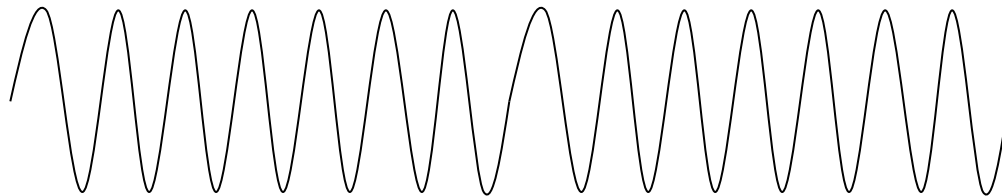
- attitudes,
- norms,
- values,
- beliefs,
- actions,
- communications and
- institutions of a race, ethnic, religious and/or social group.

The word culture comes from the Latin root *colere* (to inhabit, to cultivate, or to honor). In general, it refers to human *activity*; different definitions of culture reflect different theories for understanding, or criteria for valuing, human activity. Anthropologists use the term to refer to the universal human capacity to classify experiences, and to encode and communicate them symbolically. They regard this capacity as a defining feature of the genus Homo.

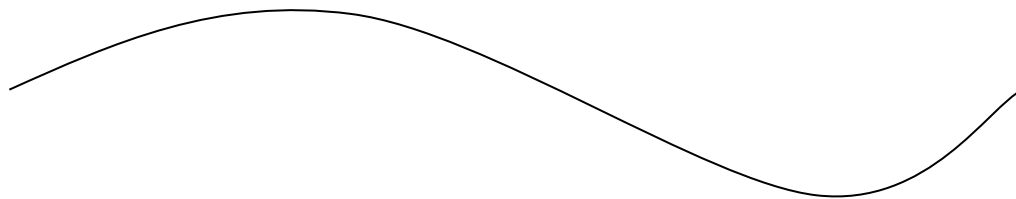
Culture on different layers



Year-layer



Century-layer

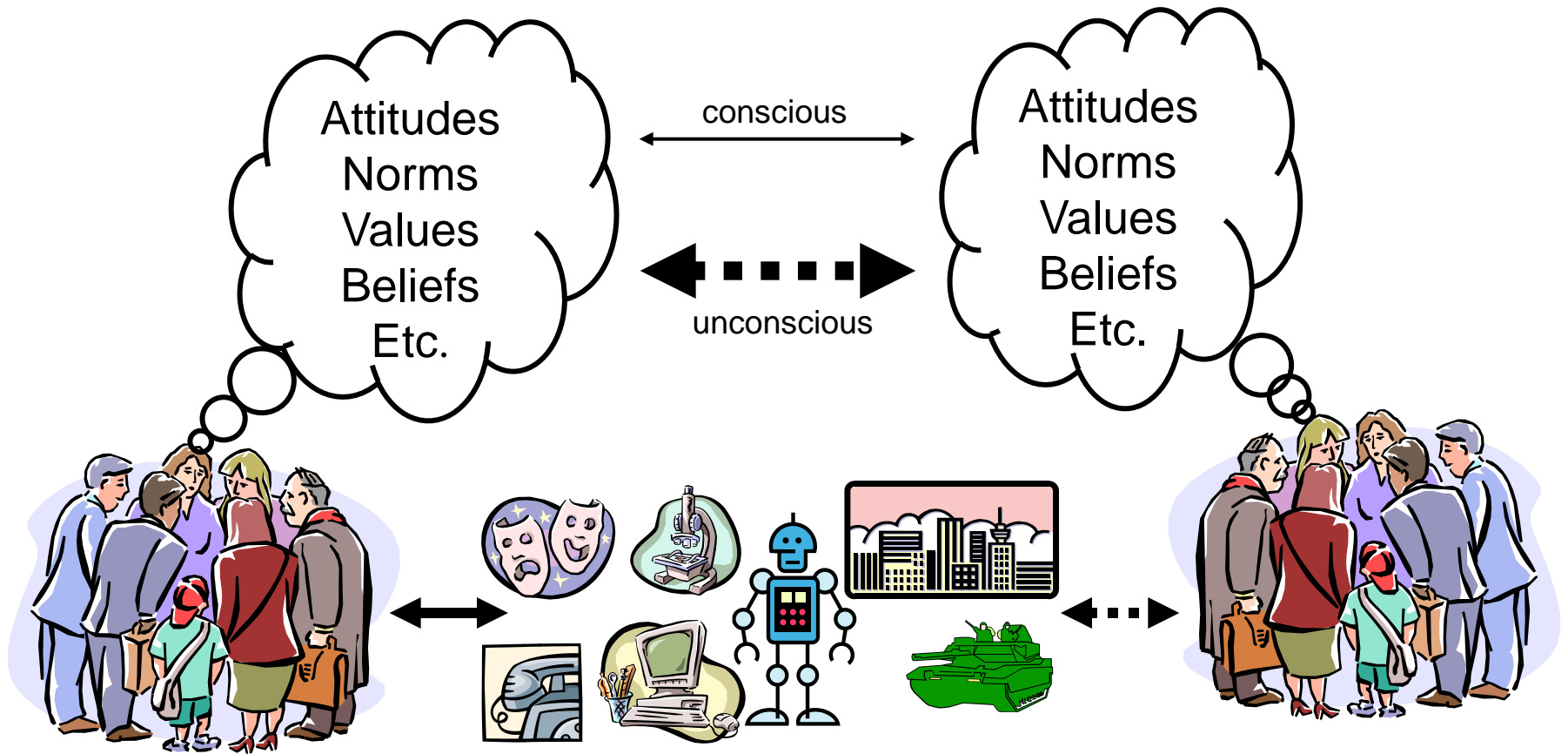


Millennium-layer



Universal-layer

Cultural Computing: Kansei mediation



Nakatsu R., Rauterberg M., Salem B. (2006). Forms and theories of communication: from multimedia to Kansei mediation. *Multimedia Systems*, 11(3), 304-312

First Dogma Attack: discovery of the *hidden part of mind*



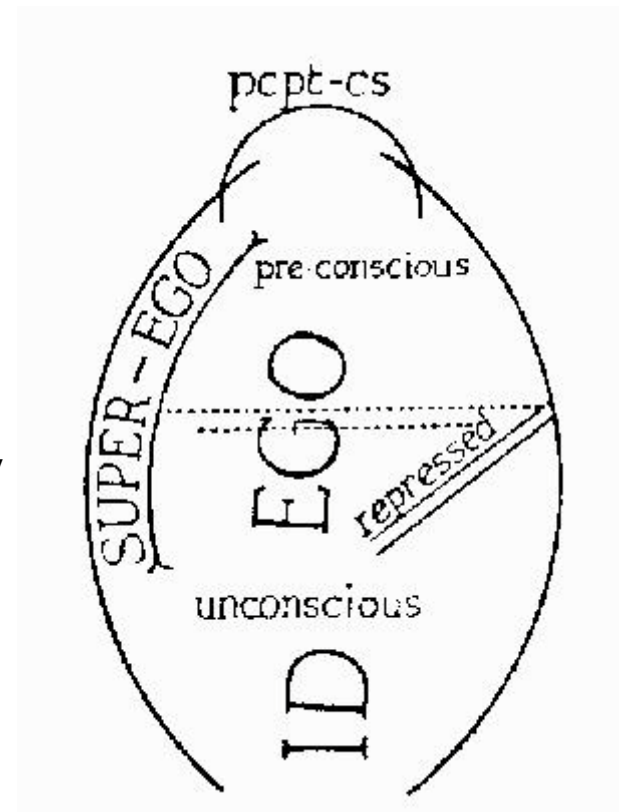
(1856-1939)

In 1932 the discoveries of **Sigmund Freud**

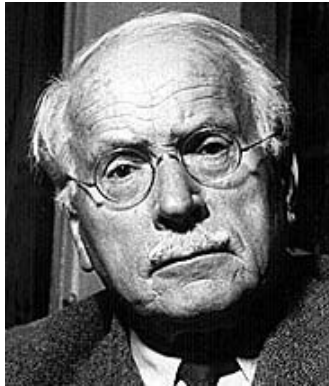
about the unconscious in particular were revolutionary.

His treatment of neuroses allowed inspection of a “hidden” part of the mind. Freud divided the mind into two parts: the preconscious (ideas and memories capable of becoming conscious), and the unconscious (desires, impulses, and wishes of a mostly sexual and sometimes destructive nature).

All human thought is partly a conflict between the preconscious and unconscious, and partly a compromise to pursue pleasure whilst avoiding danger and dealing with the realities of life.



Second Dogma Attack: discovery of the *collective unconscious*

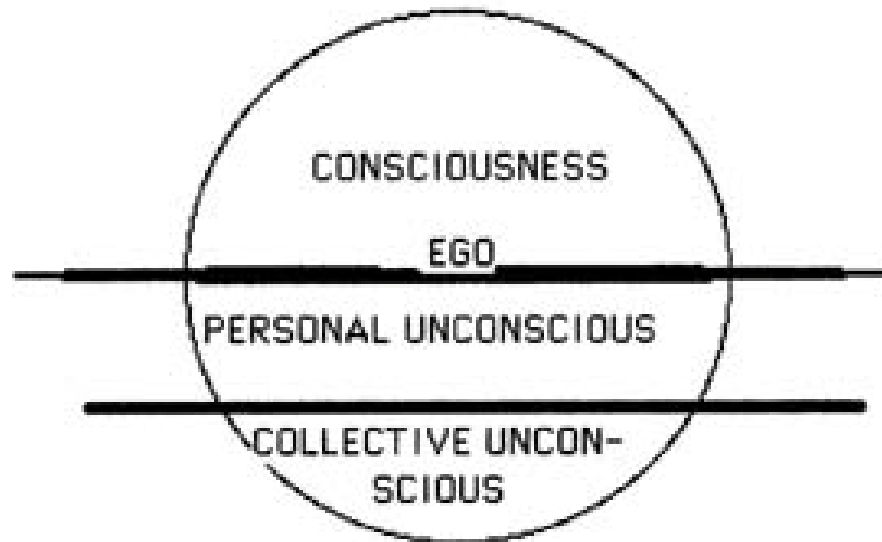


(1875-1961)

After 1910 the discoveries of

Carl Gustav Jung

about the *collective unconscious* and the related *archetypes* were challenging. Jung dreamt a great deal about the dead, the land of the dead, and the rising of the dead. These represented the unconscious itself -- not the "little" personal unconscious that Freud made such a big deal out of, but a new *collective unconscious* of humanity itself, an unconscious that could contain all the dead, not just our personal ghosts. Jung began to see the mentally ill as people who are haunted by these ghosts, in an age where no-one is supposed to even believe in them. If we could only recapture our mythologies, we would understand these ghosts, become comfortable with the dead, and heal our mental illnesses.



Third Dogma Attack: *fields* beyond energy and matter



Most notably, the theory about morphogenetic fields of **Rupert Sheldrake**

in 1981 reveal a substantial change in the way how we should look at reality. He developed the idea of *morphogenetic fields*, and has researched and written on topics such as animal and plant development and behavior, telepathy, perception and metaphysics. For example, Sheldrake began working in the 1990s on the alleged telepathic powers of animals, which he thinks could be explained by *morphic resonance* between two brains.

(1942--)



(video, 4:03)



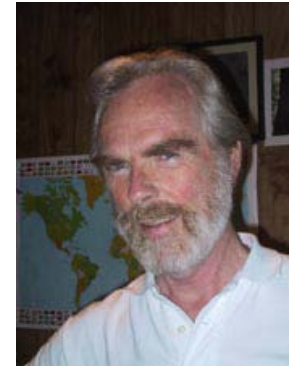
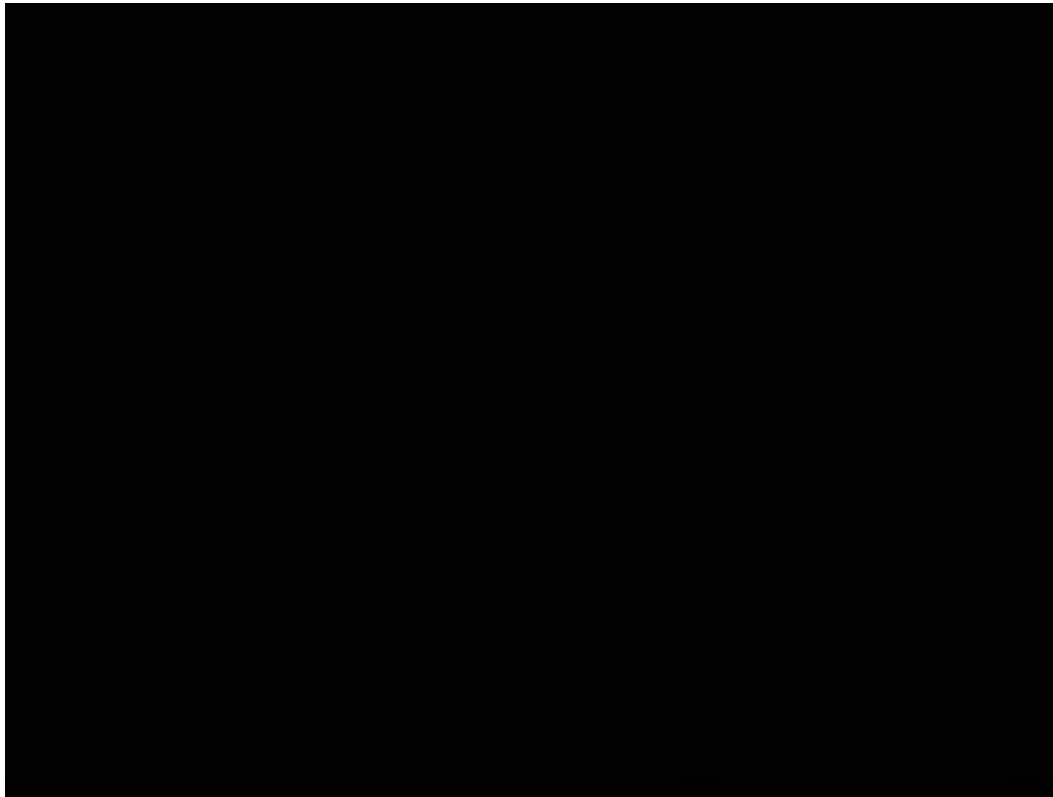
Reference:

Sheldrake, R. (1981). *A New Science of Life: The Hypothesis of Formative Causation*.

Global Consciousness Project

Princeton, New Jersey, USA

(video, 2:30)

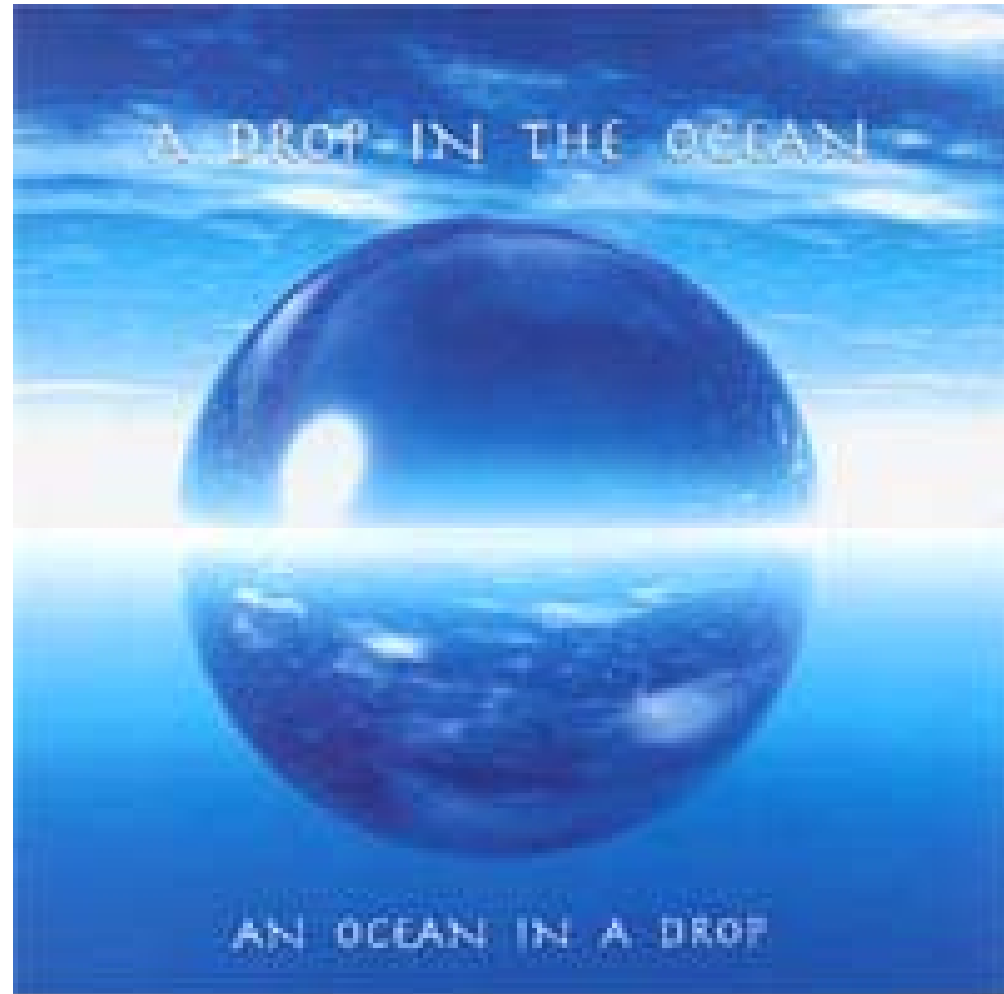
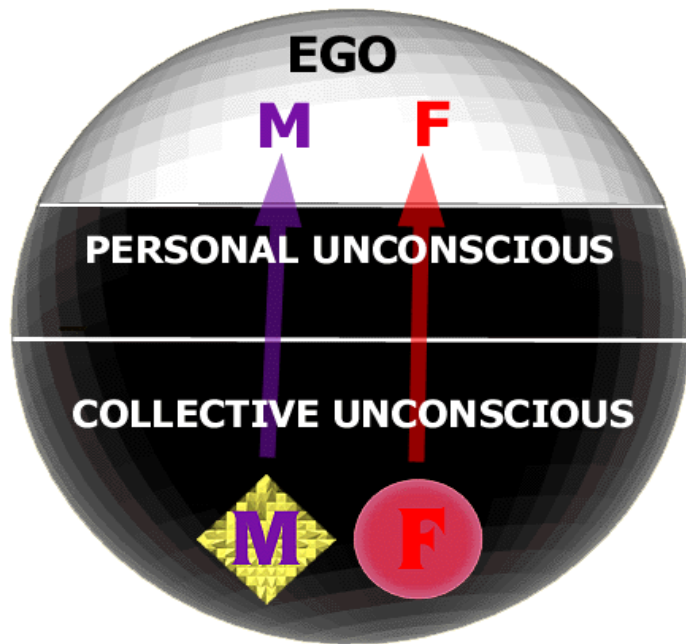


Roger Nelson



Mindsong MicroREG

Cultural Computing: the collective unconscious



Culture: the East



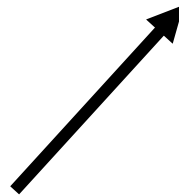
Lao-Tse
c.604 - c.521 BC



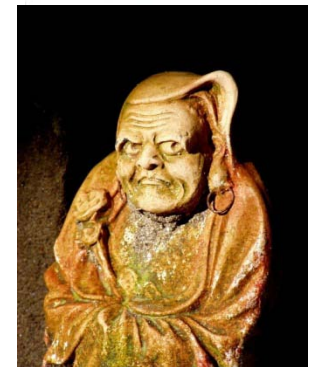
Siddharta Gautama
563 – c.480 BC



Enlightenment



Zen



Bodhidharma
470-543 AC

Cultural Computing

ZENetic computer (2003)



Naoko Tosa




Seigo Matsuoka

ACM SIGGRAPH 2004 Emerging Technology 選出作品

ZENetic Computer

コンピュータによる山水禅
インタラクティブ・インスタレーション

石山 旅 木 老 雲



展示日程
平成16年 5月10日(土)～6月6日(木)
高台寺 北書院 入場料 5拝観料のみ

関連講座
平成16年 5月13日(木) 18:30～20:00 松岡正剛 ソロトーク
「電子と山水」
平成16年 5月28日(金) 18:30～20:00 対談 太田省吾×土佐尚子
「劇的なものとデジタルストーリー」

両日共に開場は18:00から。
高台寺 方丈 受講料2,000円、予約制、定員200名

主催：デジタル・コンピュータ・高台寺委員会
共催：高台寺
企画・構成：土佐尚子、松岡正剛
音楽：日職寺
制作：ミホプロジェクト
協力：フランス・デジタル・メディア・MIT Japan プログラム
科学技術振興機構と提携し、七転、八倒正調事務所、www.yugality

高台寺は、女性の方の滞留を応援しています。

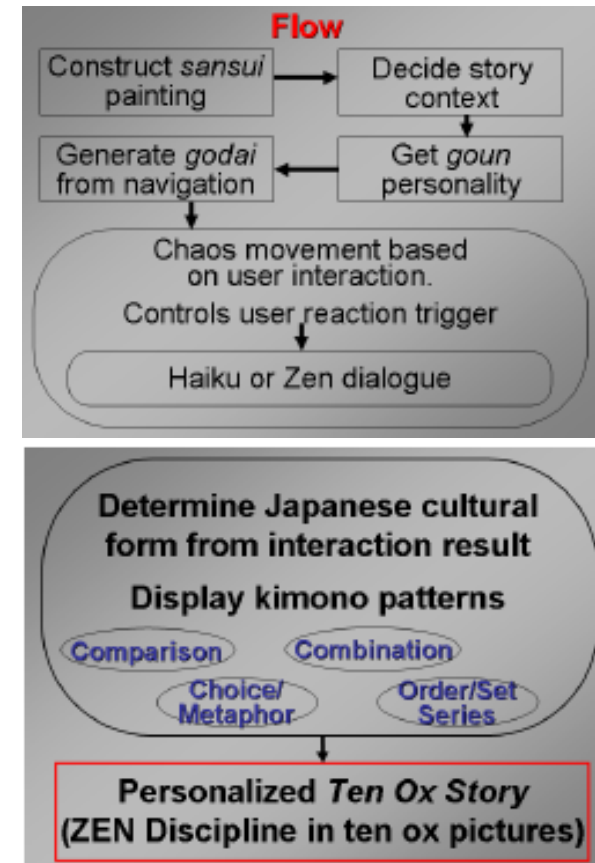
写真：MIT Museumでの展示風景

ミホプロジェクト
tel. 075-212-4456 fax. 075-253-2252
e-mail yu+hi@mhps.yugioh-net.jp

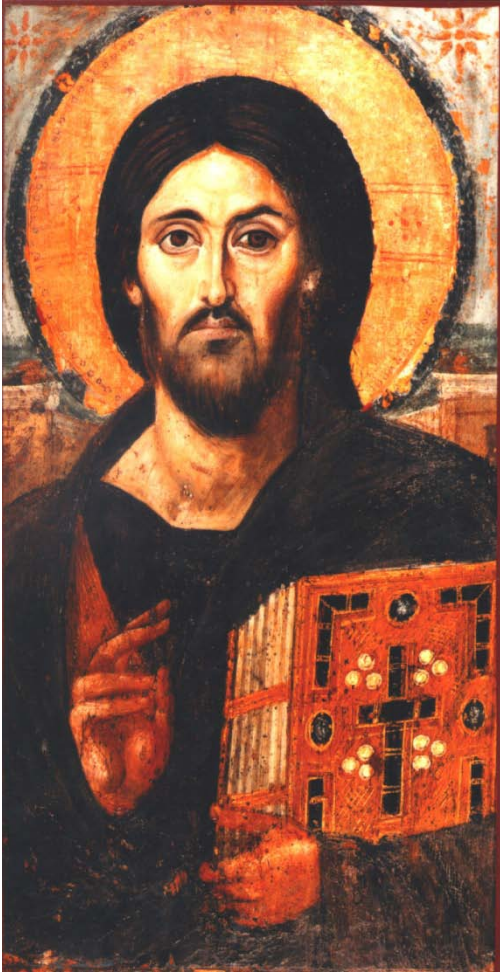


Cultural Computing

ZENetic computer (video, 3:43)



Culture: the West



René Descartes
1596-1650

res cogitans - mind

res extensa - body, matter, etc



Immanuel Kant
1724-1804

synthetic
a priori knowledge:

- **time**
- **space**

both *pure forms of intuition*
and *pure intuitions*.

Culture in East and West

Cross-cultural psychologist's juxtapose
Eastern *holistic* and Western *analytic* reasoning.

Eastern reasoning embraces contradictions among objects in a yin–yang field of constant change.

Western reasoning tends to focus on objects and categories, and is driven by *formal logic*.

Nisbett RE., Peng K., Choi I. & Norenzayan A. (2001). Culture and Systems of Thought: Holistic versus Analytic Cognition. *Psychological Review*, 108(2), 291-310 .

What would be a Western equivalence to ZENetic Computer?

Possible Answer:

- an interactive experience based on the story of **Alice in Wonderland**



Charles Lutwidge Dodgson
1832-1898

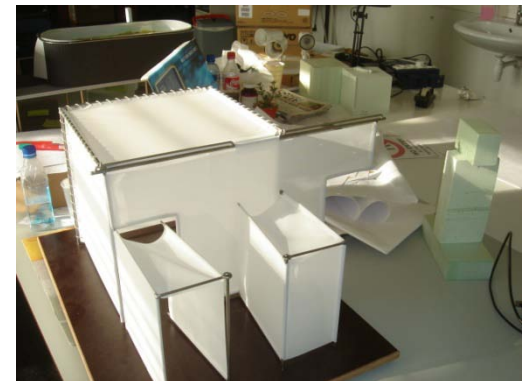
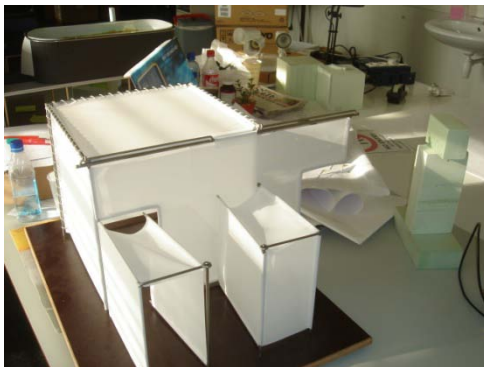
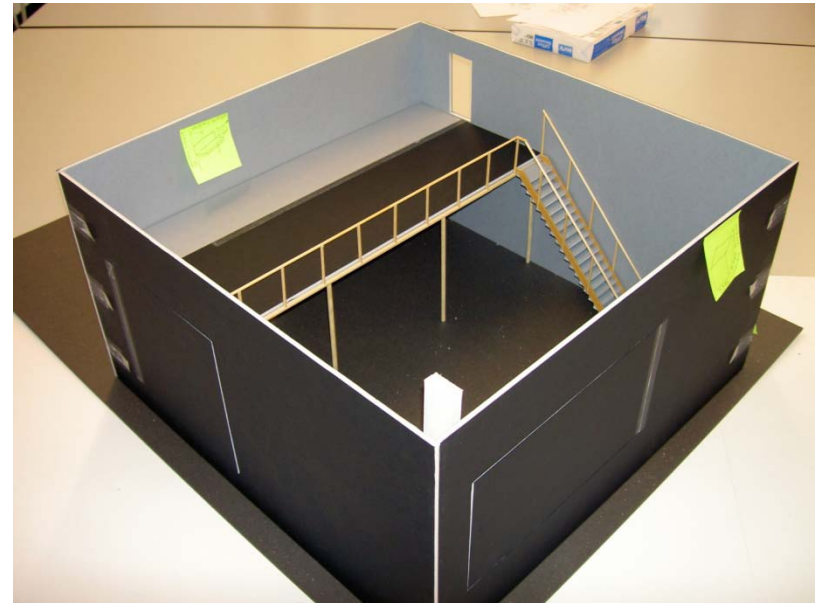
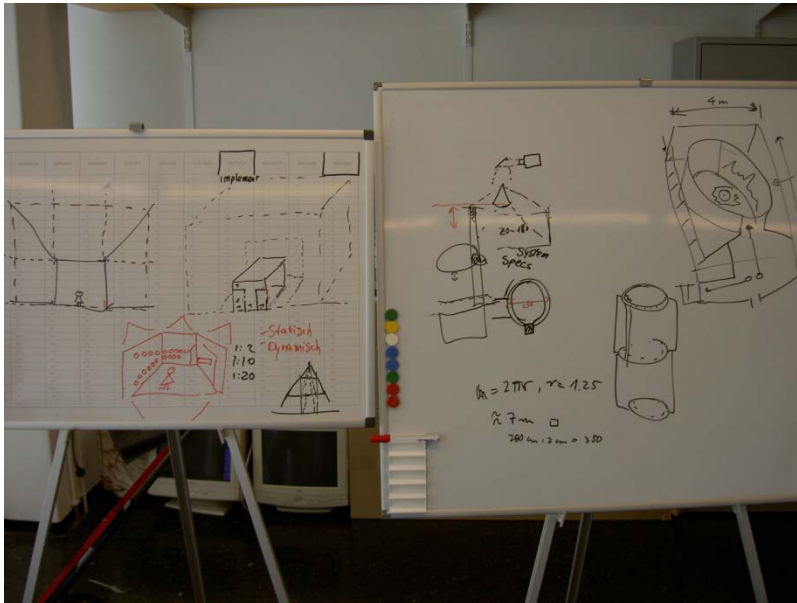


ALICE-Lab:

Microsoft
Research



Planning and Modeling



Stage-1: In the Park



Stage-2: Down the Rabbit Hole



(video, 1:03)



Flow stair lift



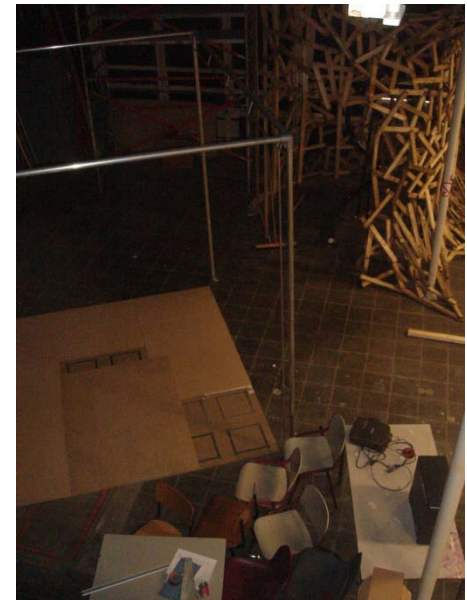
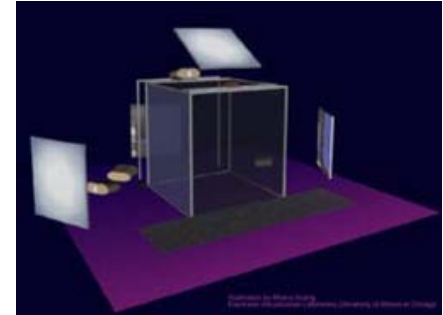
Stage-3: Drink me – Eat me



(video, 1:25)



Five sides Cave



Stage-5: The Caterpillar



'Who are YOU?' said the Caterpillar.

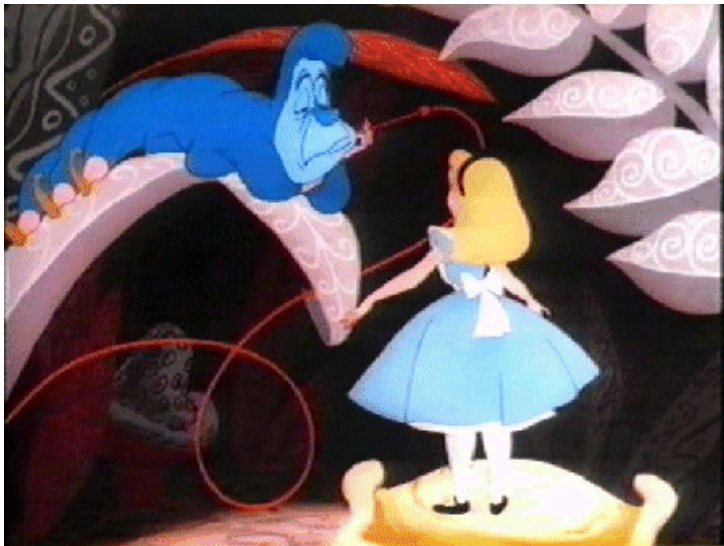
This was not an encouraging opening for a conversation. Alice replied, rather shyly, 'I—I hardly know, sir, just at present— at least I know who I WAS when I got up this morning, but I think I must have been changed several times since then.'

'What do you mean by that?' said the Caterpillar sternly. 'Explain yourself!'

'I can't explain MYSELF, I'm afraid, sir' said Alice, 'because I'm not myself, you see.'

'I don't see,' said the Caterpillar.

(video, 2:18)



Let's get aware about our
connections to the collective unconscious...

Thank you for your attention.