

Ars Electronica Festival 2013:

TOTAL RECALL Symposium

Brucknerhaus / September 6 and 8

(Linz, August 6, 2013) The centerpiece of this year's Ars Electronica conference program is the TOTAL RECALL theme symposium. The three sessions will be held on Friday, September 6th and Sunday, September 8th in the Brucknerhaus. On Friday, the focus will first be on human recollection and on nature's capacity to remember. Attendees will then consider the future of memory. Atop Sunday's agenda is cultural & technological history.

TOTAL RECALL Symposium Session 1 / Friday morning

Following opening remarks by *Gerfried Stocker* (artistic director of *Ars Electronica*), psychologist and neuroscientist *John-Dylan Haynes* (Bernstein Center for Computational Neuroscience at Charité Berlin) will provide an introduction to the latest research on cognition and the brain. He'll screen selected scenes from some classic science-fiction films—including "Total Recall" with Arnold Schwarzenegger, of course—to portray the current state of research in neuroscience and future prospects in this field. *Aleida Assmann* (University of Konstanz), a scholar in the fields of literary studies and English, will deal with forms of forgetting. Her point of departure is the tense interrelationship between the selective character of memories and the omnipresence of the past, which, thanks to new media and virtually unlimited data storage capabilities, can be accessed anytime, anywhere. Mapping the network of nerves in the human brain will be the subject of a speech by neuroscientist *Alfred Anwander* (Max Planck Institute for Human Cognitive and Brain Sciences). He'll report on diffusion tensor imaging and connectome research, methods scientists are now using to better understand human memory. Neuroscientist *Arno Villringer* (Max Planck Institute for Human Cognitive and Brain Sciences) will then discuss the loss of memory and go into dementia from neurological and clinical perspectives. His elaborations will lead into remarks by *Helga Rohra*, a woman suffering from Lewy Body Dementia. She'll give an account of daily life with this condition.

TOTAL RECALL Symposium Session 2 / Friday afternoon

To kick off the second session, molecular biologist *Barbara Hohn* (Friedrich Miescher Institute) will elaborate on how plants pass on what they remember despite their lack of neuronal memory via genetic and epigenetic mechanisms. Then, mathematician and zoologist *Nick Goldman* (European Bioinformatics Institute) will report on the first successful attempt to convert an MP3 file into DNA sequences, store them to memory, and send them in this form to a recipient able, in turn, to decode this material and play it back without error. From this point of departure, Nick Goldman will consider the future of data storage and, together with

With queries, please contact

Christopher Sonnleitner
Tel: +43.732.7272-38
christopher.sonnleitner@aec.at
www.aec.at/press

artist and filmmaker *Charlotte Jarvis*, present an artistic-scientific joint research project in which a specially composed piece of music in the form of DNA sequences has been stored to memory. It will be impossible to be played back until the decoding procedure necessary to do so is available to the general public. The future of memory will also be the subject of the next speeches. In a live remote broadcast, computer scientist *Dharmendra S Modha (IBM Cognitive Computing Center)* will talk about the challenges that have to be overcome in order to depict human memory on the computer. A rather more skeptical view of this mammoth undertaking will then be taken by *Hans-Ulrich Dodt (Vienna University of Technology)*, an expert in medicine, physics and bio-electronics. To conclude this session, physicist and mathematician *Rodrigo Quijan Quiroga (head of the University of Leicester's NeuroEngineering Lab)* will talk about his research on so-called concept cells, which the media often refers to as Jennifer Aniston neurons.

TOTAL RECALL Symposium Session 3 / Sunday afternoon

The third session of this year's symposium is set for Sunday afternoon. The focal-point theme: cultural & technological history. *Claudia Schmölders (Humboldt Universität zu Berlin)*, a philosopher and scholar of German language & literature, will report on the almost total absence of female voices in archived sound recordings. Then, media philosopher *Frank Hartmann (Bauhaus-Universität Weimar)* will take us back to the early history of Information Society—to Paul Otlet and his ground-breaking prototype of a universal library that's often called the first forerunner of the internet. *Michael Buckland (UC Berkeley, professor emeritus)*, a historian and scholar in the field of library science, will introduce another pioneer of modern information processing, Emanuel Goldberg. Catapulting us back into the present will be *Hiroshi Ishiguro (Osaka University)*, the star of Japanese robotics research. He'll discuss the androids he aims to use to preserve the memory of outstanding individuals.

Total Recall – The Evolution of Memory

This year's Ars Electronica Festival is set for September 5-9 in Linz. The 2013 theme is TOTAL RECALL – The Evolution of Memory. The festival program includes, as always, a diversified lineup of symposia, exhibitions, performances, interventions and concerts. Details will be posted over the coming weeks to <http://www.aec.at/totalrecall/en/>. Plus, thought-provoking background info and interviews with participating artists and scientists will be made available on the festival blog at <http://www.aec.at/aeblog/en/>.

Ars Electronica Festival 2013: <http://www.aec.at/totalrecall/en/>

Ars Electronica Festival Blog: <http://www.aec.at/aeblog/en/category/festival/total-recall/>

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The TOTAL RECALL Symposium:

FRYDAY, September 6, 2013 (morning)	
10:00 – 10:20	Gerfried Stocker
10:20 – 11:00	John-Dylan Haynes
11:00 – 11:30	Aleida Assmann
11:30 – 11:55	Alfred Anwander
12:25 – 12:50	Arno Villringer
12:50 – 13:15	Helga Rohra

FRYDAY, September 6, 2013 (afternoon)	
14:30 – 15:00	Barbara Hohn
15:00 – 15:25	Nick Goldman
15:25 – 15:50	Charlotte Jarvis
16:20 – 16:40	Dharmendra Modha (Tele-Talk)
16:40 – 17:10	Hans-Ulrich Dodt
17:10 – 17:40	Rodrigo Quian Quiroga

SUNDAY, September 8, 2013 (afternoon)	
14:30 – 15:00	Claudia Schmölders
15:00 – 15:30	Frank Hartmann
15:45 – 16:15	Michael Buckland
16:15 – 16:45	Hiroshi Ishiguro

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