# SPECTRAL CHARACTERI SATION AND MODELLING IN CAAD

Friday, December 2, 2016, 12:00 – Saturday, December 3, 2016, 02:00

Google Calendar · ICS

This research tries to sketch an alternative to the structural paradigm of CAAD, by learning from theories and technologies that have enabled Internet to become the infrastructure for communication. To do so, it engages with a broad body of knowledge, ranging from abstract algebra to glossematics and machine learning. We believe that the prerequisite for establishing such a communicational model in architecture is the ability to establish coexistence between symbolic domains that are different in nature. As an experiment, an architectural problem of similarities/differences between spaces is transformed into an equivalent problem in a conjugate symbolic domain. There, problems of similarity and difference are investigated from the linguistic perspective, and the results projected back into the architectural domain.

Nikola Marinčić is a researcher at the Chair of Computeraided architectural design (CAAD) at ETH Zurich, where he is currently writing his PhD thesis. He was a guest researcher at the Future Cities Laboratory, interdisciplinary research programme of the Singapore ETH Centre for Global Environmental Sustainability (SEC). He has designed and taught a number of elective courses for bachelor and master students at the Department of Architecture of ETH Zürich (D-ARCH), as well as a number of modules for postgraduate students. His work is driven by his interest in the elusive relationship between logics, mathematics, language and digital code. His overarching ambition is establishing the notion of computational literacy in architecture, which would serve as a generic ground for developing a new kind of architectural mastership.

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# A PLAY OF BOOKS -COMPUTATI ONAL OBJECTS IN A WORLD OF DATA

Friday, December 9, 2016 12:00 – 13:30

Google Calendar · ICS

### This talk was given in the ATTP Lunch Talk series.

Events in this series are irregular, and they take place in the department's library at Wiedner Hauptstrasse 7, 1040 Vienna.

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A PLAY OF BOOKS - COMPUTATIONAL OBJECTS IN A WORLD OF DATA.

WHAT IF BOOKS HAD FACES? HOW WOULD THEY BEHAVE?

We are beyond representation; our abstract objects are symbolic; figures, fugues, faces, masks, atoms, elements, characters, avatars, indexes. It is about infusing, narrating, doping, context, information and masterful articulations. Concepts become spectrums; they live like the memory or traces of things that have been; they are not documents they are animate. They don't have individual faces — they define zones of probability. It is a multiplicity of ciphering that makes them possible in every sense and direction. Examples can be found all around our world. Brands inhabit symbolical spaces of myths; simulacra are expressing a different environment populated by differences which are not copies of a model. They don't merely represent, they have lives of their own. Mathematics, especially algebra, does not emphasize representation but rather the symbolization of abstract concepts. It is not natural, but a part of a specific nature. Programing languages show us a nature different from natural languages.

This novel language is a language of noise and entropy. It has left the archive and dwells on the Internet. The question is not anymore how to classify the archive, but how to articulate the generic notion of the web. Noise and entropy are not peripheral any more, they are the generic ground. We have once again inverted the world. Instead of trying to find the basic laws of nature, we are on a quest to discover pockets of life in the entropic, that is, how to articulate out of the white noise when it is observed to have a flat spectrum over the range of probabilities relevant to the

context.

We are not comparing or deconstructing in the entropic, since everything is on its way towards achieving a balance. In a world where everything is connected, in which each actor has many roles and can be rendered in many ways, we are left with the question how to find stability... how to make masterful articulations?

This is going to be a computational drama, a comedy, a noisy play without a random function. Like a drama of sounds at the sea. A vessel for exploring this new plateau is composed out of text and images. There are certainly other vessels available (mathematics, music...), but this play has already started, and vessel is on its way. Both text and images are old and abstract formats; they have seen the ancient Greece, made friends with Gutenberg, witnessed the industrial serialization and are the main protagonists of the digital. But how has the digitized environment changed them? What are figures and faces of images and books in the world of data, not seen as data visualization, but as an articulation that challenges mimetic representation and goes beyond it. What is their character, how do they behave and what are they made of? This drama is going to be a play of books in a world of data.

MIRO ROMAN is an architect, a researcher, an artist, a designer, and none from the stated. His main focus is at the overlap of information technologies and architectural articulations.

Miro holds a Master of Advanced Studies degree in Computer Aided Architectural Design from ETH Zurich, and a Master in Architecture degree from the University of Zagreb. Since 2004 he is collaborating with Luka Vlahović on project romanvlahovic. From 2013 to 2015 he was a part of the Future Cities Laboratory, interdisciplinary research programme of the Singapore ETH Centre for Global Environmental Sustainability (SEC). Currently he is a PHD researcher at the Chair of CAAD at ETH Zürich.

# MODELING WITH BIG DATA AND MACHINE LEARNING

Friday, March 17, 2017 17:00 – 19:00

ATTP Library/Seminar Room Wiedner Hauptstraβe 7/2, Wien, Wien, 1040, Austria (map)

Google Calendar · ICS

# THE NUMBER OF SEATS IS LIMITED, PLEASE DROP US A LINE IF ATTENDING (SEKRETARIAT@ATTP.TUWIEN.AC.AT)

Welcome!

### Abstract

Machine Learning and Big Data together offer a universal way of looking at the world phenomena, which is radically different than the classical expert based disciplinary research. However, in order to fully grasp this new potentiality, we need a new set of viewpoints, skills and technologies as a new form of literacy. We believe that this "coding literacy" will turn the classical notion of expertise from "having the answers to the known questions" to "learning to ask good questions", where the answers can be found with an appropriate level of coding skills.

In this talk I briefly discuss the developments of computational modeling approaches over the last decades. Further I will focus on main approaches of "object representation" and "structure of machine learning models" in an abstract level. Finally, I would like to show the results of some of our ongoing projects in different fields such as city form studies and real estate market.

Vahid Moosavi, Postdoc researcher at CAAD, D-Arch, ETH Zurich

Previously trained and practiced as a systems engineer, from 2011 to 2015 I did my PhD research under the supervision of Ludger Hovestadt at the chair for Computer Aided Architectural Design (CAAD) at ETH Zurich. At the same time, from November 2011 till end of April 2015 I was involved at Future Cities Laboratory of Singapore-ETH Centre in Singapore as a researcher in simulation platform. From May 2015 I am a Post-doc researcher, based in Zurich.

In my PhD I was focused on theories of computational urban modeling and issues of "representation" and "idealization" in scientific modeling. Parallel to theoretical research, I have been always interested in applied projects in different application domains such as manufacturing systems, urban traffic dynamics, urban design, air pollution modeling, networked economy and systemic risk, natural language processing, geo-visualization, real estate analysis and recently on data driven water flow simulation.

For further information about my recent works, please visit my webpage at www.vahidmoosavi.com
For my other codes and slides on data driven modeling, please visit my GitHub

Repository: https://github.com/sevamoo/data\_driven\_mode ling

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Earlier Event: February 10

SPACETIMELIFE - A SPECULATIVE REPORT

Later Event: May 3

Towards a Quantum Literacy: Spectral Sovereignty, Citizenship, and Personhood in a Digital World

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# GUEST LECTURE: "FOOD IS THE NEW INTERNET -?"

Thursday, July 13, 2017 16:00 – 18:00

Google Calendar · ICS

Am Donnerstag 13. Juli 2017, 4 pm at ATTP

TRANSFORMATIVE TECHNOLOGIEN IN DER LEBENSMITTELPRODUKTION PROZESSE UND PRODUKTE FÜR DIE LEBENSMITTELMÄRKTE IN DER NEUEN GEGENWART

- . Organisationsentwicklung als Voraussetzung für technologische Innovation
- . Mehr vom Guten durch kontinuierliche Prozesstechnik und Direktverarbeitung auf dem Feld
- . Transparenz in der Wertschöpfungskette damit Vertrauen entstehen kann
- . Transformative Führung zwischen einer anderen und der besten Praxis

### Prof. Dr. Tilo Hühn

ZHAW Life Sciences und Facility Management, Wädenschwil Schweiz https:

Dozent im Studiengang Lebensmitteltechnologie: Lehrveranstaltungen: Getränke (Modulleitung), Getränkeherstellung, Getränkerohstoffe, Lebensmittelmarketing, Marketingplanspiel, Personalführung

Dozent im Masterstudiengang Life Sciences: Vertiefung Food & Beverage Innovation Lehrveranstaltungen: Innovation (Modulleitung), Product and Process Design, Mentoring Program

http:

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# PROF. GREGG LAMBERT: REFLECTION S ON A SILURIAN LAKE: LUCRETIUS, MEILLASSO UX, AND LYOTARD

Wednesday, November 1, 2017 16:00 – 18:00

### **ATTP**

7 Wiedner Hauptstraβe, Wien, Wien, 1040, Austria (map)

Google Calendar · ICS

### **Prof. Gregg Lambert**

Syracuse University, New York USA, The Humanities Center, Founding Director 2008-2014

Wednesday, November 1st 2017 4 - 6 pm, ATTP Main Space followed by snacks and drinks



watch online

## REFLECTIONS ON A SILURIAN LAKE: LUCRETIUS, MEILLASSOUX, AND LYOTARD

At this point, let us return a few millennia to our Epoch of his majesty the Ego called the Anthropocene, which many humanists have taken up as a critical perspective in order to "de-center" the anthropocentric presence of the Subject in its opening to the material universe. This de-centering operation usually involves a supplanting of the Subject by absence, which often assumes the form of a speculative thesis involving time on a planetary or even paleontological scale, as in the case of Quentin Meillassoux's arche-fossil (Meillassoux, *After Finitude*, 2008). Thus, absence is no longer determined in relation to "consciousness of," as in

phenomenology, but rather in terms of the "not yet, or the no longer" of the Subject.

The question that concerns us is "what," or rather, "where is time," or more specifically, whether the theme of time and temporality could even be possible.

To illustrate this perspective, rather than turning to Meillassoux's duration of an ancestral past demonstrated in the facticity of the arche-fossil, I will return to Lyotard, who in the mid-1980's in a series of reflections on the inhuman (Lyotard, *The Inhuman: Reflections on Time*, 1991), speculated on the absence that occurs 4.5 billion years in the future – when the sun has exploded and the earth and all of its inhabitants no longer exist.

### **GREGG LAMBERT**

After completing his Ph.D, under the direction of late French philosopher Jacques Derrida, Professor Lambert joined the Department of English at Syracuse University in 1996, and was later appointed to Full Professor and Chair of English in 2005. In 2008, he was appointed as the Founding Director of the Humanities Center, where he currently holds a distinguished research appointment as Dean's Professor of Humanities in the College of Arts and Sciences.

Since 2008, Professor Lambert has also served as Principal Investigator and Director of the Central New York Humanities Corridor, a regional collaborative research network between Syracuse University, Cornell University, the University of Rochester, and the NY6 Liberal Arts Consortium which has been generously supported by three consecutive awards from the Andrew W. Mellon Foundation.

In addition to the Humanities Corridor, he has also directed several other major multi-institutional research and interdisciplinary initiatives, including the Society for the Study of Biopolitical Futures (with Cary Wolfe, Rice University), the Trans-Disciplinary Media Studio (with SU School of Architecture) and The Perpetual Peace Project, a multi-lateral curatorial initiative partnered with Slought Foundation (Philadelphia), the European Union National Institutes of Culture, the International Peace Institute, and

the United Nations University, Utrecht University Centre for Humanities, and the Treaty of Utrecht Foundation (the Netherlands). In 2013, he was elected as a member of the International Advisory Board of the Consortium of Humanities Centers and Institutes.

Author of eleven books, critical editions, and more than a hundred articles in journals and critical editions, Professor Lambert is internationally renowned for his scholarly writings on critical theory, philosophy, the role of the Humanities in the contemporary university, and; especially for his work on the French philosophers Gilles Deleuze and Jacques Derrida.

### Recent Publications:

Return Statements (Edinburgh University Press, 2016)

Philosophy After Friendship (University of Minnesota Press, 2017)

Tagged gregg lambert

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Earlier Event: July 13

Guest Lecture: "Food is the New Internet - ?"

Later Event: December 7

Conference: SOPHISTICATION: RHETORICAL, GEOMETRICAL, AND COMPUTATIONAL

"ARTICULATION"

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