

Sjoerd van Tuinen

embodiment

Antoine Picon

Arie Graafland

design

Christian Girard

N. Katherine Hayles

Kas Oosterhuis

Frans C. T. van der Helm

Jenny Dankelman

technology

Rachel Prentice

care

Keith Evan Green

# Critical and Clinical Cartographies

Two-day International Conference, 13-14 November 2014

Legermuseum, Delft / Berlagezaal, Faculty of Architecture, Delft

<http://www.tudelft-architecture.nl/chairs/architecture-theory>

*The critical [...] and the clinical [...] may be destined to enter into a new relationship of mutual learning. [...] In place of a dialectic which all too readily perceives the link between opposites, we should aim for a critical and clinical appraisal able to reveal the truly differential mechanisms as well as the artistic originalities. (Deleuze, 1967)*

# **Critical and Clinical Cartographies**

Two-day Conference TU Delft  
13-14 November 2014

# ((( **General Information**

## **Host**

Theory Section and Hyperbody, Department of Architecture,  
Faculty of Architecture and the Built Environment,  
TU Delft, The Netherlands

## **Organising Committee**

Heidi Sohn, Henriette Bier, Andrej Radman, Stavros Kousoulas and  
Jasper Schaap.

## **Admission Free**

## **Location**

Day One: Legermuseum, Korte Geer 1, Delft.

Day Two: Berlagezaal, Faculty of Architecture and the Built  
Environment, Julianalaan 134, Delft.

(Please see the map of Delft on page 7)

## **Scientific Committee**

Heidi Sohn, Henriette Bier, Andrej Radman, Patrick Healy and Stavros  
Kousoulas

## **Publication**

Eds. Andrej Radman and Heidi Sohn, 010 Publishers, Rotterdam

## **Speakers**

Jenny Dankelman, Christian Girard, Arie Graafland, Keith Evan Green,  
N. Katherine Hayles, Frans C. T. van der Helm, Kas Oosterhuis,  
Antoine Picon, Rachel Prentice, Sjoerd van Tuinen.

## ((( Outline

The conference on Embodiment and Technology and Care and Design is organised by the Theory Section and Hyperbody of the TU Delft Architecture Department, in cooperation with Industrial Design Designing Health Research programme, and the Bio Mechatronics and Bio Robotics Section of the Department of Bio Mechanical Engineering, TU Delft.

What we will be exploring is the relation between the human body as an organism and the machine technologies used in medical care. In other words we will engage in the practice of cartography in order to map the ever-shifting thresholds between the organic and the inorganic, the innate and the acquired. In short, a condition “that is no wider than what it conditions, that changes itself with the conditioned and determines itself in each case along with what it determines.” This is the cornerstone of the Deleuzian concept of plasticity.

Medical knowledge has advanced rapidly over the past century and it continues to progress at an unprecedented speed. The developments in the medical sciences relate to the more theoretical discourses on ‘man and nature’ in the (new) humanities at large. The two terms are not as innocent as they might seem and we propose to approach them both critically and clinically. The encounter comes under the aspects of symptomatology or the study of signs, etiology or the search for causes, and therapy or the development and application of treatment.

While etiology and therapeutics are integral parts of medicine, symptomatology could be said to belong as much to design as it does to medicine. The task of the designer is to produce ‘pre-medical’ variation on the one hand and to select and synthesize ‘sub-medical’ variants on the other so that she may participate in the construction of new possibilities of life. A new mode of existence entails making life something more than personal and liberating it from what imprisons it. This is the question of health.

The four panels during the two days will provide for different points of entry to the problem of the body and its milieu.

# ((( Programme

## DAY ONE 13 November 2014

< Legermuseum, Korte Geer 1, Delft >

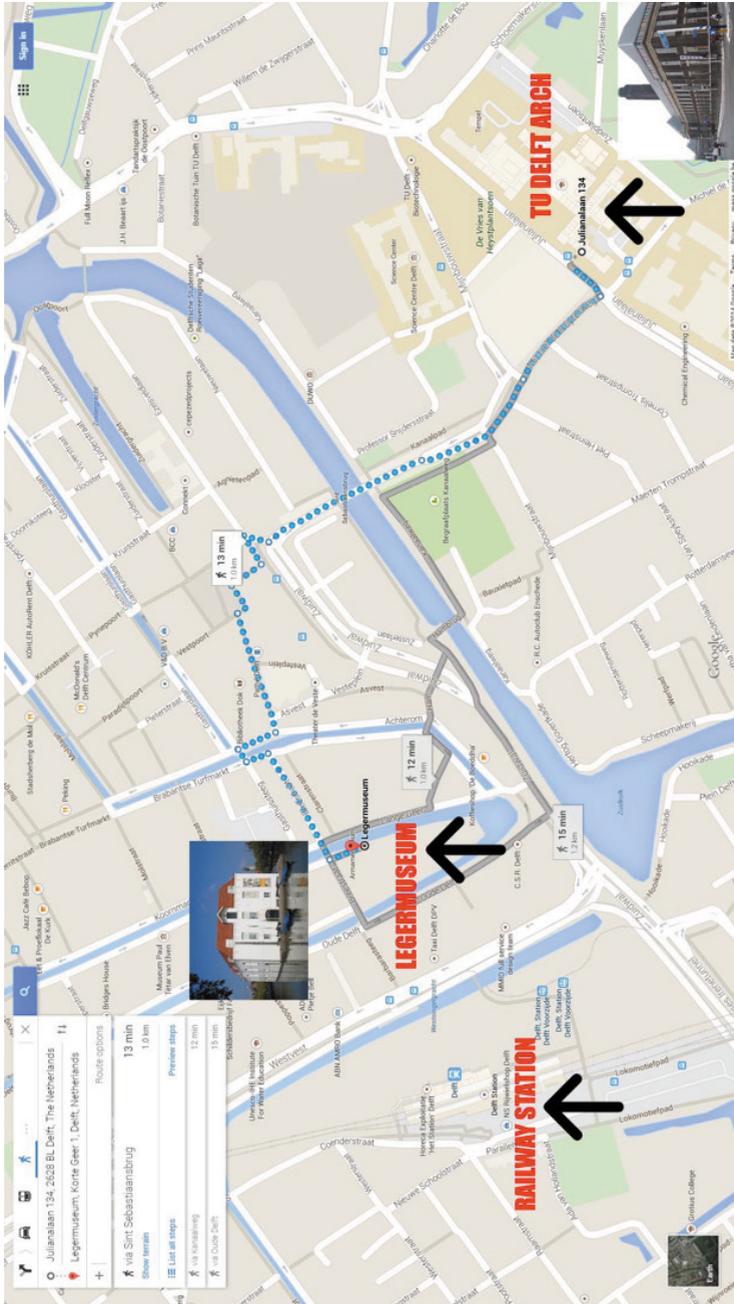
|             |   |
|-------------|---|
| 09:30       | Coffee  |
| 10:00-10:10 | Opening <b>Heidi Sohn</b> (TU Delft)  |
| 10:10-10:20 | Opening <b>Alfred Jacoby</b> (Anhalt University of Applied Sciences)  |
| 10:20-10:30 | Opening <b>Henriette Bier</b> (Hyperbody, TUDelft)  |
| 10:30-11:00 | Introduction <b>Arie Graafland</b> (HK University & Anhalt)   |
| 11:00       | Panel One<br><b>EMBODIMENT / TECHNOLOGY</b><br>Chair Andrej Radman (TU Delft)<br><45 + 15 min Q&A>  |
| 11:00-12:00 | <b>Antoine Picon</b> (Harvard)  |
| 12:00-13:00 | <b>Christian Girard</b> (École Nationale Supérieure d'Architecture Paris Malaquais)   |
| 13:00       | Lunch   |
| 14:00       | <u>Panel Two</u><br><b>TECHNOLOGY / CARE</b><br><br><b>Chair Arie Graafland</b><br><b>Rachel Prentice</b> (Cornell University)<br><b>Jenny Dankelman</b> (TU Delft) |
| 14:00-15:00 |   |
| 15:00-16:00 |   |
| 16:00       | Coffee Break<br><br>Chair <b>Henriette Bier</b>   |
| 16:30-17:00 | <b>Kas Oosterhuis</b> (TU Delft)  |
| 17:00-17:30 | <b>Keith Evan Green</b> (Clemson University)  |
| 17:30-18:00 | Debate  |

## DAY TWO 14 November 2014

< Berlagezaal, TU-Delft Faculty of Architecture >

|             |  |
|-------------|--|
| 09:30       | Coffee   |
| 10:00       | <u>Panel Three</u><br><b>CARE / DESIGN</b> (PhD Open Call)<br><br>Chair <b>Stavros Kousoulas</b> (TU Delft)<br><20 + 10 min Q&A> |
| 10:00-10:30 | Presentation 1   |
| 10:30-11:00 | Presentation 2   |
| 11:00-11:30 | Presentation 3   |
| 11:30       | Coffee Break<br><br>Chair <b>Henriette Bier</b> (TUDelft)<br><20 + 10 min Q&A>   |
| 12:00-12:30 | Presentation 4   |
| 12:30-13:00 | Presentation 5   |
| 13:00-13:30 | Presentation 6   |
| 13:30       | Lunch  |
| 14:30       | <u>Panel Four</u><br><b>DESIGN / EMBODIMENT</b><br>Chair <b>Heidi Sohn</b> (TU Delft)<br><45 + 15 min Q&A>                       |
| 14:30-15:30 | <b>Sjoerd van Tuinen</b> (Erasmus University Rotterdam)  |
| 15:30-16:30 | <b>Frans C. T. van der Helm</b> (TU Delft)   |
| 16:30       | Coffee Break   |
| 17:00-18:15 | Closing Lecture<br>N. Katherine Hayles (Duke University)   |

# ((( Map of Venues



## ((( Speakers



**N. Katherine Hayles**, Professor in the Literature Program at Duke University, she holds advanced degrees in both chemistry and English. Her interests include digital humanities; electronic literature, science and technology, and critical theory. (Author and Director) teaches and writes on the relations of literature, science and technology in the 20th and 21st centuries. Her print book, *How We Think: Digital Media and Contemporary*

*Technogenesis*, was published by the University of Chicago Press in spring 2012. Her other books include *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics*, which won the Rene Wellek Prize for the Best Book in Literary Theory for 1998-99, and *Writing Machines*, which won the Suzanne Langer Award for Outstanding Scholarship. She is Professor and Director of Graduate Studies in the Program in Literature at Duke University, and Distinguished Professor Emerita at the University of California, Los Angeles



Employing advanced information technologies, particularly robotics, **Keith Evan Green** investigates how architecture can behave more like living things in response to human needs and opportunities. Supported by the National Science Foundation, Green's cross-College, trans-disciplinary teams develop, prototype and evaluate "intelligent environments" for an increasingly digital society. Green is cross-appointed as Professor of Architecture and Electrical & Computer Engineering, and serves as Director of the Clemson University Institute for Intelligent Materials,

Systems & Environments [iMSE] ([www.CU-iMSE.org](http://www.CU-iMSE.org)), a novel research unit partnering Architecture, Materials Science & Engineering, and Electrical & Computer Engineering.



**Antoine Picon** is the G. Ware Travelstead Professor of the History of Architecture and Technology and Co-Director of Doctoral Programs (PhD & DDes) at the GSD. He teaches courses in the history and theory of architecture and technology. Trained as an engineer, architect, and historian, Picon works on the history of architectural and urban technologies from the eighteenth century to the present. His French Architects and Engineers in the Age of Enlightenment (1988; English translation, 1992) is a synthetic study of the disciplinary

“deep structures” of architecture, garden design, and engineering in the eighteenth century, and their transformations as new issues of territorial management and infrastructure-systems planning were confronted. Whereas Claude Perrault (1613-1688) *ou la Curiosité d’un classique* (1988) traces the origin of these changes at the end of the seventeenth century, *L’Invention de l’Ingénieur Moderne, L’Ecole des Ponts et Chaussées 1747-1851* (1992) envisages their full development from the mid-eighteenth century to the 1850s. Picon has also worked on the relations between society, technology and utopia. This is in particular the theme of *Les Saint-Simoniens: Raison, Imaginaire, et Utopie* (2002), a detailed study of the Saint-Simonian movement that played a seminal role in the emergence of industrial modernity. Picon’s most recent book, *Digital Culture in Architecture: An Introduction for the Design Profession* (2010) offers a comprehensive overview and discussion of the changes brought by the computer to the theory and practice of architecture.



**Christian Girard** is an architect and theoretician practising in Paris. He received his Doctorate in philosophy from the Université Paris I Sorbonne in 1983. Girard was Professeur d’Architecture at École d’Architecture Paris-Villemin (1993-1999) and served as Chair from 1996 to 1998. He is a founding member of the École Nationale Supérieure d’Architecture Paris Malaquais, which opened in 2000, where he is Professor and head of the Digital Knowledge Department. He holds an Habilitation à Diriger des Recherches from Université Paris 8, Philosophy (2012). Works and projects from Atelier d’Architecture Christian

Girard have been exhibited in different museums and galleries. Both his practice projects and his critical writings have been published in Europe and worldwide.



**Jenny Dankelman**, professor at TU Delft, She obtained her degree in Mathematics, with a specialisation in System and Control Engineering at the University of Groningen. Her PhD degree on the dynamics of the coronary circulation was obtained at the Man-Machine Systems Group, Delft University of Technology (DUT). This work was performed in close co-operation with the department of Medical Physics of the Academic

Medical Centre Amsterdam. She continued her research at the Man-Machine Systems group and in 2001 she became professor in Minimally Invasive Technology. In 2007 she became head of the Minimally Invasive Surgery and Interventional Techniques (MISIT) group. Since 2010 she is head of the Department of BioMechanical Engineering of the Faculty of Mechanical, Maritime and Materials Engineering (3mE) of the DUT.



**Rachel Prentice** is an anthropologist of medicine, technology, and the body. Her interests focus on opening up the assumptions and contradictions contained in 21st century North American biomedicine. Her recently completed project is an ethnographic examination of anatomy and surgery teaching and the rise of simulators and other technologies for teaching and practice. Professor Prentice documents how physicians in training come to embody biomedical techniques, perceptions, judgments, and ethics, learning deeply held medical values while learning to practice medicine.



**Kas Oosterhuis** is professor at the Faculty of Architecture, Delft University of Technology, as well as director of Hyperbody and the Protospace Laboratory for Collaborative Design and Engineering. His teaching and research is in the areas of interactive architecture, real time behaviour of buildings and environments, living building concepts, collaborative design, file to

factory production and parametric design. Born in 1951 in Amersfoort, Kas Oosterhuis studied architecture at the Delft University of Technology. Afterwards, he taught as unit master at the AA in London. From there, he worked and lived one year in the former studio of Theo van Doesburg in Paris, together with visual artist Ilona Lenard. In 1989, he founded Kas Oosterhuis Architekten in Rotterdam (renamed to Oosterhuis Lénárd, or ONL, in 2004). Since 2000, Oosterhuis has been professor of digital design methods at the Delft University of Technology.



**Sjoerd van Tuinen**, is Assistant Professor of Philosophy of Man and Culture at the Faculty of Philosophy. Van Tuinen obtained his first Master's degree in Sociology (2002), with a specialization in the Sociology of Culture, and his second Master's degree in Philosophy (cum laude, 2003), with a specialization in Philosophical Anthropology. In 2009 he received a PhD in Philosophy from Ghent University for his dissertation entitled 'Mannerism in Philosophy: A Study of Deleuze's Development of Monadology into Nomadology, of Leibnizian Approaches to the Problem of Constitution,

and of Deleuze's Concept of Mannerism'. In 2008/2009 he worked as a Lecturer in Philosophy at the Faculty of Arts and Social Sciences of Maastricht University. His research interests are in speculative philosophy, aesthetics and social and political theory. He has authored Sloterdijk. Binnenstebuiten denken (Kampen: Klement, 2004) and edited several books, including Deleuze Compendium (Amsterdam: Boom, 2009), Die Vermessung des Ungeheuren. Philosophie nach Peter Sloterdijk (Muenchen: Fink, 2009), Deleuze and The Fold. A Critical Reader (Basingstoke: Palgrave Macmillan, 2010) and De nieuwe Franse filosofie. Denkers en thema's voor de 21e eeuw (Amsterdam: Boom, 2011).



**Frans C. T. van der Helm** is professor in Biomechanics and Bio-robotics, Delft University of Technology, and also adjunct-professor at the University of Twente, university Leiden, Northwestern University (Chicago) and Case Western Reserve University (Cleveland). He has a MSc in Human Movement Sciences (Vrije Universiteit Amsterdam, 1985), and a PhD

in Mechanical Engineering (Delft University of Technology, 1991). He was member of the board of the International Society of Biomechanics (2005-2009), and participated in the board of the Technical Group of Computer Simulation (TGCS) and the International Shoulder Group (ISG). He is one of programme leaders in the Medical Delta, the collaboration between Leiden University Medical Center (LUMC), Erasmus Medical Center Rotterdam and TU Delft. He is Principal Investigator in the TREND research consortium (2004-2011), investigating Complex Regional Pain Syndrome as a neurological disorder, the NeuroSIPE (System Identification and Parameter Estimation in Neurophysiological systems) program and H-Haptics (Human centered Haptics) program, sponsored by the Dutch National Science Foundation. In 2012 he received an ERC grant for a research project '4D EEG', improving temporal and spatial resolution of EEG source localization. He has published over 150 papers in international journals on topics as biomechanics of the upper and lower extremity, neuromuscular control, eye biomechanics, pelvic floor biomechanics, human motion control, posture stability, etc.

