* constructions deviations visualizations

international conference university of porto, 2010 24 march: school of fine arts 25 march: rectorate

NOMADIC.0910

meetings between art and science //nomadic.up.pt



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NOMADIC.0910 University of Porto

Curators: Maria Strecht and Heitor Alvelos Production Director: Alexandra Araújo Photography: Luís Barbosa Art Direction: Heitor Alvelos Production Assistants: Marco Gabriel Rita Falcão Monteiro Ruben Rodrigues Ebony Jackson

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SCHEDULE

24 MARCH School of Fine Arts

10:00 AM Registration

10:30 AM Opening Session

Welcome Address. Jorge Gonçalves, Vice-Rector, University of Porto Manuel Heitor, Secretary of State for Science, Technology and Higher Education

Introducing the Conference. Heitor Alvelos

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11:00 AM Keynote Lecture 1 Chair: Maria Strecht

From What You "See" to Robust Knowledge. Alexandre Quintanilha

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11:45 AM Keynote Lecture 2 Chair: Heitor Alvelos

Cultural Criminology: Nomadic Tendencies. Jeff Ferrell

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12:30 PM Lunch break

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2:30 PM Session 1: Constructions Chair: Gabriela Vaz Pinheiro

Artificial Creativity. Leonel Moura

blindspot.org – Portraying the Invisible. Herwig Turk and Paulo Pereira

On "Laboratório das Artes". Luís Ribeiro and Jorge Fernandes

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4:15 PM Coffee-break

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4:30 PM Session 2: Deviations Chair: Jeff Ferrell

Criminological Theories in Dostoievsky's Crime and Punishment. Rita Faria

Towards a Metaphysics of the Virus: Viral Discourse in the Visual Arts.

Chris Horrocks

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8:00 PM Conference Dinner Faculty of Dental Medicine

9:00 PM Concert Faculty of Dental Medicine

25 MARCH Rectorate

2:30 PM Session 3: Visualizations Chair: Armando Vilas Boas

VOICINGS: A Methodology for Unlearning. Laura Malacart

Beauty and Bacteria. Julie Sommerlund

Imagining Data - An Exploratory Visual Approach to Abstraction. João Cruz

Intertextuality of Art Images in Advertising. Eduardo Cintra Torres

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4:45 PM Coffee-break

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5:00 PM Keynote Lecture 3 Chairs: Maria Strecht and Heitor Alvelos

Science and Art – Variations upon a Common Ground. Olga Pombo

5:45 PM Closing Session

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6:30 PM Exhibition Opening boilingpoint: a nomadic retrospective Galeria dos Leões

FOREWORD

THE CONFERENCE

At the closing of Nomadic.0910, meetings between Art and Science, we find it appropriate to identify new beginnings. As attested throughout the roughly thirty actions that made up this multidisciplinary cycle, the intersections between Art and Science are ultimately inexhaustible: therefore, there is a pressing need to open up paths of continuity, so that Nomadic.0910 extends itself beyond its temporal circumscription.

Nomadic.0910 accepted and fostered the challenge of a live brainstorm: a considerable amount of initiatives were conceived under uncertain premises. We actually found this to be essential, under the belief that human knowledge and practice need risk, confrontation and unpredictability in order to evolve. It is our hope that, first and foremost, Nomadic.0910 acted as an active promoter of these processes, which may unravel further from now on.

Heitor Alvelos Maria Strecht

curators, Nomadic.0910

The three main sessions comprising the conference address issues that have emerged throughout the cycle that now comes to an end. They propose an exploration of the outer limits of Art and Science, and envision testing grounds for the possibility of having their crossroads become functional and consequent devices, rather than simple exotic territories. **Constructions** is dedicated to a series of presentations by experts whose activity, besides breaking down traditional relations between Art and Science, are contributing significantly to the establishment of long-term paradigms.

Deviations explores how different disciplines address concepts of fringe activity. From the "pure" area of criminology to the ways in which global aesthetic languages are transformed locally, to the ways in which scientific concepts are relocated into domains of knowledge beyond their scope.

Visualizations presents a series of talks by researchers whose activity is largely based on visual systems. It will address the role of the creative image in the production and communication of knowledge, as well as the validation of the scientific image beyond its strict, functional parameters.

From What You "See" to Robust Knowledge Alexandre Ouintanilha

Biologists spent most of their time trying to describe the huge diversity of living forms, the different types of cells present in our world, what are they made of, how these building blocks are organized and what is their function. All of this in order to help explain the complexity of life as we know it. Sophisticated tools are used to visualise the structure and function of living systems. And yet most of what we "see" still depends on the questions that we ask and often needs to be extensively interpreted.

Alexandre Quintanilha is Professor of Biophysics at the Institute of Biomedical Sciences Abel Salazar of the University of Porto and, until very recently, director of both the Institute of Molecular and Cell Biology and the Institute of Biomedical Engineering, University of Porto. He now chairs the committee responsible for implementing a newly formed I3S consortium of the three major biomedical research institutions in Porto. He is a member of the Academia Europaea, of the World Academy of Arts and Science, and of the Council for Research and Exploration of the National Geographic Society. Over the years he has chaired various committees at the European Science Foundation, the European Commission, the Organization for Economic Cooperation and Development and several other national and international research organizations. He currently chairs the Council of Associated Laboratories of the Ministry of Science in Portugal. He has published well over one hundred peer-reviewed scientific articles and six books and has always been involved in science policy. His current interests are in the areas of biological stress, risk perception and public understanding of science.

Cultural Criminology: Nomadic Tendencies Jeff Ferrell

Recently cultural criminology has emerged as a highly visible alternative to orthodox criminology. Significantly, cultural criminology challenges criminological orthodoxy in the domains of both subject matter and analysis. Cultural criminologists argue that the subject matter of criminology must today include not only 'crime' or 'iustice' as such, but the aesthetic appeal of transgression, the symbolic discourse surrounding legal campaigns, and the stylistic codes that animate illicit subcultures. Given this, forms of traditional 'social scientific' analysis in criminology are insufficient; they must be integrated with – at times superseded by – analytic approaches that draw on cultural studies, aesthetics, epistemology, and literature. Put simply, if criminology is to engage with issues of crime and justice in a contemporary world of image and representation, criminology must become as much art as science and criminologists must embrace drifting, nomadic ways of knowing that transcend traditional disciplinary boundaries.

Jeff Ferrell is Professor of Sociology at the Texas Christian University (USA) and Visiting Professor of Criminology at the University of Kent (UK). He is the author of the books Crimes of Style, Tearing Down the Streets, and Empire of Scrounge, and co-author of Cultural Criminology, winner of the ASC Division of International Criminology's 2009 Distinguished Book Award. He is also the founding editor of the New York University Press book series Alternative Criminology, and one of the founding editors of the journal Crime, Media, Culture, winner of the 2006 ALPSP Award for Best New Journal.

Artificial Creativity Leonel Moura

I have been working on the possibility of generating an 'Artificial Creativity' (AC), along the lines of what is known as 'Artificial Intelligence' (AI). AI is commonly seen as the ability of some machines to solve problems. However, intelligence human, animal or artificial –, is more than problem solving. For example, to perceive an environment and to react to it in a way that, by that action, the environment is 'meaningfully' changed is also an act of intelligence which falls into the creativity realm. AC can thus be viewed as the specific branch of AI that intends to make machines able to maneuver on the environment in order to change it.

I will demonstrate that this can be done in autonomous robots by combining positive feedback loops with emergent behavior and stigmergy, resulting in a product that is independent from the human that triggers the process.

Leonel Moura works with AI and robotics. In 2003 he created the first swarm of 'Painting Robots'; in 2006 RAP (Robotic Action Painter) entered the collection of the American Museum of Natural History in New York; also in 2006 ISU, published the first book of poems written by a robot; in 2007 the Robotarium, a zoo dedicated to robots and artificial life, opened in Alverca. He has been appointed European Ambassador for Creativity and Innovation, 2009.

theblindspot.org – Portraying the Invisible Herwig Turk and Paulo Pereira

BLINDSPOT was initiated in 2004 by Herwig Turk and Paulo Pereira. It creates art objects and devices that seek to confront the symbolic value of perception both as contaminant and as part of the construction process of scientific knowledge.

The approach isolates and highlights aspects, usually invisible and peripheral, which are part of the process of scientific production. The project aims at giving the contingencies, the determinisms and the circumstances that affect the formation /construction of an observation /representation a dramaturgical protagonism by, exploring, in artistic terms, the epistemological foundations of science including the principle of falsification (Popper), the uncertainty (Heisenberg) or the incompleteness (Gödel).

Moreover, it proposes a reflection on the social representation of scientific knowledge and on the imagination that science serves. BLINDSPOT focuses on the ideological implications, the conceptual and philosophical notions such as truth or objectivity, often associated with scientific practice. Finally, the project promotes an integrated and constructive art and science liaison as activities that share methods, procedures and a determination to find new ways of representing reality. **Herwig Turk** is an artist in the field of new technology from Austria, he is currently based in Lisbon, Portugal. In the last years, beside his own successful body of work, which has been presented at venues like Georg Kargl Fine Arts Vienna, Neues Museum Weserburg Bremen, TESLA Laboratory for Media Art Berlin, Museum of Applied Arts / Contemporary Art Vienna, Transmediale Berlin or Bienale for New Media Seoul, he is working on another major project on the verge of art and science, blindspot (http://www.theblindspot.org), together with the Portuguese Scientist Paulo Pereira. http://www.herwigturk.net

Paulo de Carvalho Pereira graduated in Biochemistry in 1990 from the University of Coimbra and received his PhD in Cell Biology in 1996 and the Title of "Agregado" in 2007. Paulo Pereira worked at the Division of Clinical Toxicology, University College of London, during his PhD training. Paulo subsequently worked as an Assistant Professor/Visiting Scientist at Human Nutrition Research Centre on Ageing at Tufts University, Boston. Paulo Pereira is currently Vice-Director of the Faculty of Medicine University of Coimbra, Director of the Centre of Ophthalmology and Vision Sciences - Faculty of Medicine University of Coimbra. Paulo is also the Director of the Laboratory for Electron Microscopy at the Faculty of Medicine - University of Coimbra, which is part of the National Network of Electron Microscopy.

Paulo is interested and actively participates in projects to increase public awareness of sciences, including Bio-aesthetics and Sci-art projects. Over the last five years Paulo was the Principal Investigator on 6 externally funded (FCT) Research Grants and was author of 14 papers published in international peer-reviewed journals.

On "Laboratório das Artes" Luís Ribeiro and Jorae Fernandes

Laboratório das Artes was born in 2001 in Guimarães, as an informal group of artists: José Emílio Barbosa, Jorge Fernandes, Luís Ribeiro and Nuno Florêncio. It dedicates itself to organizing Contemporary Art Projects in uninhabited buildings. Teleférico (2006), Fábrica (2007), and InFormal (2008) are examples of projects organized with the support of the Portuguese Ministry of Culture – DGArtes. Presently, the group develops art activities at an historical building located in downtown Guimarães.

Luís Ribeiro was born in Guimarães. He is a visual artist and holds a Master in Contemporary Artistic Practices by FBAUP. Graduated in Drawing at ESAP, Luís has developed several exhibitions since 2003. He is art director of the Laboratory of Arts since 2001, and was responsible for "Espaço Transportável", at Notícias de Guimarães between 2005 and 2007. He was curator of the project "Sala de Espera – Arte Contemporânea", in 2006, and has been responsible for organizing several exhibitions of contemporary art in the city of Guimarães from 2001 onwards.

Jorge Fernandes was born in Guimarães, and graduated in Drawing at ESAP – Guimarães. As a visual artist, Jorge has developed several exhibitions since 1995. He is founder and coordinator of the Espaço Provisório - Arte Contemporânea. He is art director of the Laboratory of Arts since 2001, and was a member of Tekksound inc, musical events producer, as well as being responsible for organizing several exhibitions of contemporary art in the city of Guimarães from 2001 onwards.

Criminological Theories in Dostoievsky's Crime and Punishment *Rita Faria*

In 19th century Moscow, where poverty and vice abound, Raskolnikoff develops ambiguous feelings towards the crimes he just committed: were these acts of justice or acts of doom?

Dostoievsky's *Crime and Punishment* (1866) seems to embody some important theories of its time about crime and the criminal. In this book we can find traces of scientific works on crime statistic and the poorer class as dangerous class (Quételet, 1835), but also to anticipate some reasoning that will underlie the future development of Criminology (Lombroso, 1876) and the ways of thinking the criminal and social reaction to crime.

As we enter the 21st century these are still objects of scientific interest (for instance, the criminal underclass: Feeley e Simon, 1992). To read Dostoievsky again is to question once more older realities: deviance, justice and sanctioning.

Rita Faria is Lecturer in Introduction to Criminology, Sciences of Deviant Behaviour and History of Criminology at the Faculty of Law of the University of Porto. She is BA in Law and and MA in Sociology. Her main areas of research are white-collar crime, corruption, deviance in science and Higher Education.

Towards a Metaphysics of the Virus: Viral Discourse in the Visual Arts Chris Horrocks

The metaphor of the virus unites science and culture under the rubric of information, biology and technology, and in the relatively recent integration of art and computer science. This paper addresses critically the problematic definition and representation of the viral metaphor with reference to recent art in order to show how 'viral rhetoric' borrows from the science of virology, the languages of computer science and the aesthetic practices of the visual arts. It will briefly present recent examples in which, arguably, the language of the virus (the 'virologos') itself has become viral: an adaptive language able to duplicate and mutate in order to maintain itself as a discourse by any means necessary so as to guarantee its survival in relation to its 'host body' (artist, art institution, corporation, etc.) and beyond it. I wish to suggest that at the heart of this discourse lies something amounting to a metaphysics of the virus.

Chris Horrocks is Principal Lecturer in Art History at the Faculty of Art, Design and Architecture (Kingston University, London). He has published widely in the field of cultural theory and art. His publications include Baudrillard and the Millennium, Marshall McLuhan and Virtuality, Tokyo Glamrock, and Foucault: A Graphic Guide. He is currrently editing a book entitled Cultures of Colour -Visual, Material, Textual (Berghahn Books, forthcoming).

VOICINGS: A Methodology for Unlearning Laura Malacart

VOICINGS is a multi-channel video installation that addresses the insidious potential of language to be used to oppress people. In the instance of a lingua franca such as English the potential is even more exacerbated and responsibilities lay both at politicoinstitutional as well as at individual levels. Starting from a notion from linguistics that distinguishes 'the speaking subject' from 'the subject of speech', VOICINGS focuses on the gap between the two, in order to 'audio-visualise' the alienation inherent in language. The performers become the locus of the privileged subject, subjected to unlearning their own language as the 'text' has been contaminated by a viral 'foreign' presence.

Laura Malacart is visual artist based in London where she lectures in art theory, media theory and practices (UCL, UEL). She is on her final year of a PhD at the Slade School of Fine Art focusing on power and agency in voice/sound representation. Her work uses the metaphor of ventriloquism to mobilize the artifice of audiovisual representation.

Beauty and Bacteria Julie Sommerlund

The talk will present an old scientific dream: the dream of representing reality without human mediation. The dream is especially characteristic for the natural sciences, but lives in many representational practices.

The talk takes its starting point in phenomena that are too small, too far away or too dangerous to be observed by the human eye. Visualizations of such phenomena demonstrate how representations can never be un-mediated and do not come "after" the phenomena, but are constitutive to the exploration of the phenomena. Representations are thus constitutive to science – not in opposition to science.

As an empirical example of visualizations of invisible phenomena the talk will present a study of an experiment with biofilm – communities of bacteria. The purpose of the experiment was to make researchers able to distinguish between different strands of bacteria that live together. This was done using genetic coding, activity markers, and laser photography producing beautiful visualizations. However, the beauty of the pictures was not unproblematic...

Julie Sommerlund holds an M.A. in Modern Culture and Cultural Communication from the University of Copenhagen and a PhD from Copenhagen Business School. She is an Associate Professor and heads the Department of Fashion and Textile at The Danish Design School. Julie Sommerlund is particularly interested in convergences between aesthetics, sociality and representations, and has studied these phenomena in a number of fields, including the natural science, and – most recently – fashion. Imagining Data – An Exploratory Visual Approach to Abstraction João Cruz

Part of the beauty of science lies in the way it is imagined, and certainly also in the way it imagines and makes itself tangible before our eves through wonderful and compelling images. Some of those images are overtly poetic, others are strictly objective translations obtained through technological probing, but almost all of them bear witness not only to a will to illustrate or portrav specific concepts but specially a will to enquire and explore. In a way, visualization images are an attempt to escape the deep complexity of their origin in massive raw data, the manner in which data becomes information in order to be better understood is deeply rooted in the way reality is abstracted and disembodied through different codification technologies. The process of turning those abstractions into visual understanding is a recoding back to some sort of tangible reality.

João Cruz teaches Design at the University of Porto and is currently PhD researcher under the UTAustin-Portugal Program (thesis working title: Exploratory Strategies in Database-related Practices). He holds a Degree in Communication Design and Master in Multimedia Art, University of Porto. His main research areas are digital culture, design and database-exploration. [Blogs about data-driven projects at http:// cruz.at/blog.]

Intertextuality of Art Images in Advertising Eduardo Cintra Torres

Intertextuality has become an essential feature of postmodernist society. Ouotes of works of art as part of the imagery apparatus of advertising symbolise the marriage of perpetual referencing in "cult" and "popular" cultures with the character of perpetual change of capitalism as in fashion and industries in general. In my presentation I will look for the intertextuality of works of art in advertising; I will try to identify the functions they exert in ads; the distance between the work quoted an the new image created by the advertisers; and I will try to reflect on the cultural consequences of this practice.

Eduardo Cintra Torres holds an MPhil in Communication, Culture and Information Technologies (ISCTE, Lisbon, 2003), and is currently a PhD candidate in Sociology, at the Institute of Social Sciences, University of Lisbon (ICS/UL). He has been a teacher of Television Studies and Advertising Analysis at Universidade Católica Portuguesa since 2004. He is a television and media critic in the daily newspaper Público (1996-), and advertising critic at Jornal de Negócios (2003-); he works as a journalist since 1983. Eduardo is the author of ten articles in peer reviewed publications, the latest being: "Debates Presidenciais na Televisão: à Procura de Interesse, Avaliação e Efeitos" (2009, ICS/UL): "Quando a Multidão e o Amor se Encontram na Literatura", Sociologia - Problemas e Práticas (nº58, 2009). He is also the author of eleven books, the latest being "Mais Anúncios à Lupa", Lisboa, Bizâncio, 2008, "Anúncios à Lupa. Ler publicidade", Lisboa, Bizâncio, 2006, and "A Tragédia Televisiva. Um Género Dramático da Informação Audiovisual", Lisboa, ICS, 2006.

Science and Art – Variations upon a Common Ground Olga Pombo

Signalising interactions, proximities and decisive distances between science and art. Questioning, cross-examining and endangering those relations and distinctions. Thinking out Science and Art as variations upon a common ground.

Olga Pombo is Professor of History and Philosophy of Science at the Faculty of Sciences of the University of Lisbon, currently teaching courses on Science and Art. She is President of the Research Center "Centro de Filosofia das Ciências da Universidade de Lisboa" (since 2003), and Coordinator of the "Secção Autónoma de História e Filosofia da Ciência da Faculdade de Ciências da Universidade de Lisboa" (since 2007). Over the years she has been researcher in various national and international research projects; presently, she is the coordinator of the FCT funded Research Project, "A Imagem na Ciência e na Arte".

SESSION CHAIRS

Gabriela Vaz Pinheiro

Holds a PhD by Project with Chelsea College, currently University of the Arts London, with Thesis: «Art from Place: the expression of cultural memory in the urban environment and in place-specific art interventions». Sculpture Degree with FBA, Universidade do Porto. Has a continuous editorial activity, publishing regularly in international art and art research magazines and organising and participating in interdisciplinary seminars. Exhibits since 1985 both in Portugal and abroad, with some Awards and Mentions. Funded by Fundação Calouste Gulbenkian, Secretaria de Estado da Cultura, Contemporary Art Society, The London Institute, Direcção Geral das Artes.

Armando J.G. Vilas Boas

Professor of Visual Culture and Visual Design at IADE, Institute of Visual Arts, Design and Marketing (Lisbon, Portugal) and a member of UNIDCOMIADE research center. He holds a PhD by the University of Porto. Armando's research focuses on visual culture, graphic design and photography. Published two books on visual culture and the soon to be released "What's Visual Culture?" For 23 years he has been a professional graphic designer and photographer.

ABOUT THE CURATORS

Heitor Alvelos

PhD in media culture, Royal College of Art (London), and Master in Visual Communication, School of the Art Institute of Chicago. Heitor is Professor of Design at the University of Porto, post-doctorate research fellow at INESC Porto, and Associate Director of ID+: Institute of Research in Design, Media and Culture. He is a member of the coordination team of the UTAustin-Portugal program in Digital Media, and curator of the Future Places digital media festival.

Maria Strecht

Teaches at the Abel Salazar Institute of Biomedical Sciences, University of Porto. Having a background in biochemistry, her current research interests are in the field of science studies. She is completing a PhD in Sociology (Sociology of Culture, Knowledge and Communication) at the University of Coimbra focusing on the dynamics of knowledge production within the life sciences and biomedicine, particularly on the role of experimental systems, using biomedical research on erythrocyte aging as case study.

AFTERWORD

Nomadic.0910 - Meetings between Art and Science is the outcome of a long journey that involved all Schools of the University of Porto. As previously described, the cycle, which was developed throughout the geography of University of Porto, exploring its physical territories and taking advantage of their conceptual and operative contexts and assets, was an open invitation to a nomadic experiment, a stroll through places of knowledge. It aimed at exploring the many possibilities offered by crossroads of knowledge, offered by various University resources by means of so-called Local Interventions, including visual and performance arts, the natural sciences and the humanities, exploring the dynamics of knowledge production and sorting out the ways in which art and science foster each other's development.

This cycle, cosmopolitan and contemporary, was also an opportunity to open the University to the city by creating partnerships with local cultural entities, contributing to capture new audiences and to strengthen the University of Porto's presence in networks for the dissemination of culture and knowledge in the Region.

The curators Heitor Alvelos (FBAUP) and Maria Strecht (ICBAS) – researchers interested in transdiciplinary issues – were ultimately responsible for the success of the initiative. I am thankful for their commitment to this project, and I extend my gratitude to the Deans of Schools and Local Coordinators for responding with enthusiasm, professionalism and involvement to this challenge issued by the Rectorate of the University of Porto.

Manuel Janeira

Pro-Rector for Culture, Sports and Leisure, University of Porto

NOMADIC.0910 events in chronological order

Stories of Art and Science conference

Design4Science *exhibition curated by Shirley Wheeler, University of Sunderland, UK*

Opitói-Rac [@ FFUP] *installation*

Drawing Movement *lecture by Morgan O'Hara*

Macrovisões three informal talks on Design4Science

Scientific Research and the Ethical Constraint [@ IPATIMUP] conference

Multiplicity and Contrasts: Measures between Bars [@ FDUP] performance

Immunology, Views, Places, Objects and More [@ ICBAS] Action 1 colloquium Action 2 exhibition and informal talk

I Am Science [@ INESC Porto in cooperation with MDI/FBAUP] residency and exhibition

HumAnSTech - The Humanities, The Arts, Sciences & Technologies: Utopian Vision of the Complete Human Being [@ FLUP] colloquium and performance homemvirus [@ Maus Hábitos via FBAUP]
#1. cirurgiaacusticoplástica
#2. operapostoperatoria
#3. restaurador
#5. kitschenkaraoke
participatory multimedia sessions

Yuriy Pogorelov: a retrospective *exhibition informal talk* + *guided tour*

screenlabs: science in film (*5 sessions) *film cycle*

Perturbations [@ MNSR via IBMC] video installation round table: Emotions, Perturbations and Art

Artistas do Jogo [@ FADEUP] *photography exhibition*

Methamorphose by Rinus Roelofs [@ FAUP] conference workshop

Magnificent Molecules: Experiencing Art in Science [@ FCUP] exhibition

Oro-Facial Identities [@ FMDUP] *photography exhibition*

Constructions, Deviations, Visualizations *conference*

Concert at Faculty of Dental Medicine *music performance*

boilingpoint: a nomadic retrospective *exhibition*

Local event coordinators

Artur Pimenta Alves Carlos Oliveira Elsa Bronze da Rocha Filomena Vasconcelos João Pedro Xavier Júlio Borlido Santos Luís Calafate Luísa Garcia Fernandes Manuel Vilanova Maria João Ramos Maria Manuel Araújo Jorge Miguel Pais Clemente Rita Faria Rui Mota Cardoso Sónia Martins Teresa Lacerda

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