

2nd International Interdisciplinary Scientific Symposium
CroArtScia2013 – Asymmetry: Art & Science & Education
 Wednesday, May 8 - Saturday, May 11, 2013, Zagreb, Croatia

Locations: Matrix Croatica, Matica hrvatske 2, Strossmayerov trg 4
 Technical Museum, Savska 18
 The Museum of Contemporary Art - The Vjenceslav Richter and Nada Kareš
 Richter Collection, Vrhovec 38
 Museums of Hrvatsko Zagorje - Veliki Tabor Castle, Desinić

Under the auspices of The Department of Mathematical, Physical and Chemical Sciences,
 The Croatian Academy of Sciences and Arts, Zagreb

Organizers: The Ruđer Bošković Institute
 Matrix Croatica
 Museum of Contemporary Art and - The Vjenceslav Richter and Nada Kareš
 Richter Collection
 Society of Culture and Art Ivan Filipović
 Technical Museum
 Museums of Hrvatsko Zagorje - Veliki Tabor Castle, Desinić
 Croatian Chemical Society

Partner Institutions: The Klovićevi Dvori Gallery, Zagreb
 Croatian Natural History Museum, Zagreb

Organizing Committee:

Sonja Nikolić, Chair, The Ruđer Bošković Institute, Zagreb, Croatia
Vesna Meštrić, Co-chair, The Museum of Contemporary Art, Zagreb, Croatia
Igor Peteh, Co-chair, University of Zagreb, Croatia

International Program Committee

The members of the Organizing Committee
 Nenad Trinajstić, The Croatian Academy of Sciences and Arts, Zagreb, Croatia
 Igor Zidić, The Matrix Croatica, Zagreb, Croatia
 Snježana Pintarić, The Museum of Contemporary Art, Zagreb, Croatia
 Markita Franulić, The Technical Museum, Zagreb, Croatia
 Goranka Horjan, Museums of Hrvatsko Zagorje, Gornja Stubica, Croatia
 Nadica Jagarčec, Museums of Hrvatsko Zagorje – Veliki Tabor Castle, Desinić, Croatia
 Stanko Popović, The Croatian Academy of Sciences and Arts, Zagreb, Croatia
 Sibe Mardešić, The Croatian Academy of Sciences and Arts, Zagreb, Croatia
 Vito Šunjić, The Croatian Academy of Sciences and Arts, Zagreb, Croatia
 Dirk Huylebrouck, University of Brussels, Belgium
 Werner Schulze, University of Music and Performing Arts Vienna, Austria
 Oleg Bodnar, University of L'viv, Ukraine
 Lemont B. Kier, Virginia Commonwealth University, Richmond, VA, USA
 Patrick W. Fowler, University of Sheffield, United Kingdom
 Paul Mezey, University of Newfoundland, NL, Canada
 Cherif Matta, Mount Saint Vincent University, Dalhousie University, Halifax, NS, Canada
 Tihomir Marjanac, University of Zagreb, Croatia
 Vesna Rastija, University of Osijek, Croatia
 Tarzan Legović, The Ruđer Bošković Institute, Zagreb, Croatia
 Neven Cukrov, The Ruđer Bošković Institute, Zagreb, Croatia
 Tin Klanjšček, The Ruđer Bošković Institute, Zagreb, Croatia
 Katja Ivanišin Kordum, Dubrovnik Natural Science Museum, Croatia
 Boris - Marko Kukovec, University of Zagreb, Croatia
 Ljerka Marjanac, Zavod za paleontologiju i geologiju kvartara, HAZU, Zagreb, Croatia
 Marko Gregurić, University of Zagreb, Croatia
 Ivana Žiljak Stanimirović, University of Zagreb, Croatia

**Matrix Croatica**

Matice hrvatske 2 - Strossmayerov trg 4

16:00 - 17:00 **Registration**17:00 - 17:30 **Opening of the Symposium**

Chair: Dr. sc. Sonja Nikolić

Chair of the Organizing Committee *CroArtScia2013*

Prof. Igor Zidić

President of the Matrix Croatica, Zagreb

Zvonko Kusić, F.C.A.

President of the Croatian Academy of Sciences and Arts, Zagreb

Vitimir Šunjić, F.C.A.

President of the Croatian Chemical Society and on behalf of Nenad Trinajstić, F.C.A. the Secretary of the Department of Mathematical, Physical, and Chemical Sciences, The Croatian Academy of Sciences and Arts, Zagreb

Dr. sc. Tome Antičić

Director of the Ruđer Bošković Institute, Zagreb, Croatia

M.A. Snježana Pintarić

Director of the Museum of Contemporary Art, Zagreb

M.A. Markita Franulić

Director of the Technical Museum, Zagreb

M.A. Goranka Horjan

Director of the Museums of Croatian Zagorje, Gornja Stubica, Croatia

Prof. Dr. Tatjana Vlahović

Director of the Croatian Natural History Museum, Zagreb

Prof. Borna Baletić

Dean of The Academy of Dramatic Art, University of Zagreb, Croatia

Prof. Mladen Janjanin

Dean of The Academy of Music, University of Zagreb, Croatia

Prof. Peruško Bogdanić

Dean of The Academy of Fine Arts, University of Zagreb, Croatia

17:30 - 17:50

Sonja Nikolić – The Ruđer Bošković Institute, Zagreb, Croatia
SCIENCE & ART

17:50 - 18:10

Tomislav Šola – Faculty of Humanities and Social Sciences, University of Zagreb
CREATING THE 8TH ART

18:10 - 18:30

Ferenc Darvas – Florida International University, Miami, FL, USA; ThalesNanom Inc.,
Budapest, Hungary
*SCIENCE, ART AND INNOVATION: IN SEARCHING THE COMMON ROOTS*18:30 - 19:30 **CONCERT***BAROQUE BALLADS* - Saša Nestorović, saxophone and Igor Peteh, piano



20:00 – 21:30

RECEPTION by the Mayor of the City Zagreb, Milan Bandić
The Palace Dverce, Katarinin trg 6



Technical Museum

Savska cesta 18

MORNING SESSION

9:00 - 9:30 **Registration**

Chair: Vlatko Čerić

9:30 - 10:00

Tihomir Marjanac - Faculty of Science, University of Zagreb, Croatia

WHAT CAN WE LEARN ABOUT THE EARTH IN THE INVISIBLE LIGHT

10:00 - 10:30

Vlatko Čerić - University of Zagreb, Croatia

ALGORITHMS IN VISUAL ART

10:30 - 11:00

Dirk Huylebrouck - LUCA, Leuven University College of Arts, Brussels, Belgium

HYPERBOLIC POLYHEDRA

11:00 - 11:20

Marija Znika - Institute of Croatian Language and Linguistics, Zagreb, Croatia*

*ASYMMETRY IN THE CROATIAN LANGUAGE **

11:20 - 11:50 **Coffee Break**

Chair: Maya Gerasimova

11:50 - 12:20

Katarina Ivanišin Kardum - Dubrovnik Natural History Museum, Croatia

MUSEUM EDUCATION: DUBROVNIK NATURAL HISTORY MUSEUM IN COLLABORATION WITH LUKA SORKOČEVIĆ SECONDARY ART SCHOOL

12:20 - 12:50

Giovanni Rubino - University of Udine, Italy

AGAINST THE ASYMMETRY: ART AND SCIENCE IN THE HUMAN ENVIRONMENT

12:50 - 13:20

Rene Medvešek - The Academy of Dramatic Art, University of Zagreb, Croatia

EGO & ECHO - STAGE PRESENCE

13:20 - 13:50

Guidance for participants - Technical Museum, Zagreb

EXPERIMENTS FROM THE CABINET NIKOLA TESLA

13:50 - 14:30

Valery Vermeulen - Ghent, Belgium

WORKSHOP EMO- SYNTH, AN INTERACTIVE MUSIC GENERATOR DRIVEN BY HUMAN EMOTION

14:30 - 15:30 **Lunch break**

* Lecture in Croatian language

AFTERNOON SESSION



The Croatian Natural HISTORY Museum
Demetrova 1

Chair: Dragan Bukovec

15:45 – 16:45

Dragan Bukovec, Darko Tibljaš and Biserka Gužvica – The Croatian Natural History Museum, Zagreb

ASYMMETRY IN THE WORLD IN CRYSTALS



The Klovićevi Dvori Gallery
Jezuitski trg 4

Chair: Liljana Velkovski

16:55 – 17:55

Ivona Biočić Mandić – PhD student of Academy of Fine Arts, Zagreb, Croatia
EXHIBITION - A FINE ART IN PERCEPTION OF BLIND PERSONS

The Vjenceslav Richter and Nada Kareš Richter Collection
Vrhovec 38



EVENING SESSION

Chair: Vesna Meštrić

18:30 - 19:00

Werner Schulze - University of Music and Performing Arts Vienna, Austria
symphonon · symmetron · rhythmós · harmonía.
PLATO AND THE TRIANGLE "MUSIC & MATHEMATICS & ARCHITECTURE"
Tribute to Plato (I): The 2400th Anniversary of the Foundation of Plato's Academy

19:00 - 19:30

Javier Party - University of Music and Performing Arts Vienna, Austria
EPISTEMIC ARTISTRY
Art | Science | Research | Epistemology

19:30 - 21:00

Veljko Đorđević - School of Medicine, University of Zagreb, Croatia
Marijana Braš - School of Medicine, University of Zagreb, Croatia
Mladen Janjanin - The Academy of Music, University of Zagreb, Croatia
Peruško Bogdanić - The Academy of Fine Arts, University of Zagreb, Croatia
Borna Baletić - The Academy of Dramatic Art, University of Zagreb, Croatia
Robert Šimrak - The Academy of Dramatic Art, University of Zagreb, Croatia
COMMUNICATION AGAINST PAIN and ACTING - ART PERFORMANCE

21:00 – 22:00 **Bowling Tournament Scientists vs. Artists**
and
Garden discussions



Veliki Tabor Castle
Košnički Hum 1, Desinić

8:00 - 8:30 **Registration**
The Hotel Laguna, Kranjčevićeva street 29, Zagreb

8:30 - 10:00 **Bus transport to Desinić**
Departure in front of the Hotel Laguna, Kranjčevićeva street 29, Zagreb

10:00 - 10:15 **Welcome refreshments**

MORNING SESSION

Chair: Jure Zupan

10:15 - 10:45

Robert Firmhofer - Copernicus Science Centre, Warszawa, Poland
CREATOR AND EXPERIMENTER. ON RELATIONSHIP BETWEEN SCIENTISTS AND ARTISTS

10:45 - 11:15

Maya Gerasimova - Institute of Oriental Studies Russian Academy of Sciences, Moscow, Russia
INTERACTION OF ART, SCIENCE, NEW TECHNOLOGIES AND EDUCATION IN JAPAN

11:15 - 11:45

Marjan Vračko - National Institute of chemistry, Ljubljana, Slovenia
SYMMETRY IN CHEMISTRY

11:45 - 12:15

Patrick Fowler - University of Sheffield, United Kingdom
SYMMETRY AND ORBITAL DEGENERACY: SEEING IS BELIEVING

12:15 - 12:45 **Coffee Break**

Chair: Maya Gerasimova and Marjan Vračko

12:45 - 13:15

Michael Ramek – Graz University of Technology, Graz, Austria
COLOUR VISION, COLOUR BLINDNESS, AND COMPUTER-GENERATED IMAGES

13:15 - 13:45

Jure Zupan - National Institute of Chemistry, Ljubljana, Slovenia
MATHEMATICAL METHODS FOR APPLICATION IN COMPARATIVE LINGUISTICS

13:45 - 14:15

Mahnaz Shah - Cardiff Metropolitan University, Cardiff, United Kingdom
ASYMMETRICAL READINGS: FROM THE DRAWING TO THE DIAGRAM - THE CASE OF LE CORBUSIER'S POTATO BUILDING TYPOLOGY 1962 - 1965

14:15 - 14:45

Beatriz Tomšič Čerkez – Faculty of Education, University of Ljubljana, Slovenia
COMMUNICATION SYSTEMS BETWEEN ART AND SCIENCE: THE INCA'S QUIPU AND TOCAPU

14:45 - 15:15

Lech P. Schulz – Adam Mickiewicz University, Poznan, Poland
GOLDEN MEAN - A DOCTRINE OR REAL BEAUTY?

15:15 - 16:15 **Lunch break**



Veliki Tabor Castle

AFTERNOON SESSION

Chair: Nadica Jagarčec

16:15 - 17:00

Guidance for participants

PERMANENT COLLECTION OF VELIKI TABOR CASTLE

17:00 - 17:30

Iva Kovač, Javier Party, Werner Schulze - University of Music and Performing Arts Vienna, Austria

PERFORMANCE – THE PARABLE OF THE CAVE

Tribute to Plato (II): The 2400th Anniversary of the Foundation of Plato's Academy

Iva Kovač, Javier Party - University of Music and Performing Arts Vienna, Austria

THRÊNOSKAÏCHORÓS FOR GRAND-POLYCHORD & FLUTE - COMPOSED FOR CROARTSCIA2013

Javier Party: composition and grand-polychord, Iva Kova: flute



Chapel Sv. Ivan John the Baptist

Desinić

EVENING SESSION

Chair: Nadica Jagarčec

18:00 - 18:30

Ivan Srša - Croatian Conservation Institute, Zagreb, Croatia

QUADRIVIUM IN ARCHITECTURE OF THE ST. JOHN CHAPEL IN IVANIĆ MILJANSKI

18:30 - 18:50 **Concert in a Chapel Sv. Ivan John the Baptist**

A MUSIC OF OLD EUROPE, Ensemble *Otium*

19:15 - 21:15 **Dinner at Restaurant Ratkay, Desinić**

21:15 - 22:45 **Bus transport to Zagreb**

Departure in front of the Restaurant Ratkay



The Croatian Academy of Sciences and Arts - Library

Strossmayerov trg 14

MORNING SESSION

9:00 - 9:30 **Registration**

Chair: Vedrana Jurčić

09:30 - 10:00

Vedrana Jurčić and Kristijan Crnković - The Croatian Academy of Sciences and Arts - Library, Zagreb, Croatia and ArhivPro d.o.o., Zagreb, Croatia

WORKSHOP - DIGITAL COLLECTION OF THE CROATIAN ACADEMY OF SCIENCES AND ARTS AND ITS SCIENTIFIC AND EDUCATIONAL PURPOSES

10:00 - 10:30

Mario Essert, Kristina Štrkalj Despot *et al.* - Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia

WORKSHOP - DOCMARK & TEIMARK - NEW VISUAL WEB ANNOTATION TOOLS FOR IMAGES & DOCUMENTS

10:30 - 11:00

Ivana Žiljak Stanimirović, Vilko Žiljak - The Faculty of Graphic Arts, University of Zagreb, Croatia

WORKSHOP - INFRARED DESIGN AND ART INVENTION FOR EXPANDED VISUAL / INFRARED REALITY



Matrix Croatica

Matice hrvatske 2 - Strossmayerov trg 4

11:00 - 11:30 **Coffee Break**

Chair: Vesna Klarić

11:30 - 12:00

Irena Paulus - Art School Franjo Lučić, Velika Gorica, Croatia

IMPERFECTION FOR CREDIBILITY: UNEVEN METERS IN FILM SCORES

12:00 - 12:30

Ivan Ladislav Galeta - Medijsko sveučilište, Koprivnica, Croatia

ANALYSIS OF THE LEONARDO'S LAST SUPPER

12:30 - 13:00

Miljenko Lapaine - Faculty of Geodesy, University of Zagreb, Croatia

ART AND CARTOGRAPHY - SYMMETRY AND ASYMMETRY IN MAP PROJECTIONS

13:00 - 13:30

Veljko Glodić - Academy of Music, University of Zagreb, Croatia

ASYMMETRICAL FORMS IN JAZZ

13:30 - 14:00

Boris Klarić - Music College Elly Bašić, Zagreb, Croatia

ASYMMETRY IN THE MUSICAL STRUCTURE OF THE EARLY BAROQUE MONODIC MADRIGAL

CLOSING OF THE SYMPOSIUM

Chair: Sonja Nikolić

14:00 - 14:20

Patrick Fowler - University of Sheffield, United Kingdom
CLOSING WORDS

15:00 - 16:30 **Lunch at the Restaurant Frankopan, Frankopanska 8 (optional)**

16:30 - 17:30

Afternoon bicycling and guiding Zagreb by NGO "My Bike"
and optional
guided tour in Museum of Contemporary Art through the permanent exhibition *Collection in Motion* for participants of CroArtScia2013.

The Organizers reserve the right to modify the program.

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Partner institutions **The Klovičevi Dvori Gallery, Zagreb**, Croatian Natural History Museum, Zagreb, NGO My Bike.
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