## PRELIMINARY PROGRAM OF THE CONFERENCE



# «Virtual Archaeology -2012» The State Hermitage Museum, Saint-Petersburg (Russian Federation)

4<sup>th</sup> June (Monday)
The Hermitage Theater

Opening of the conference Salutatory word from the Direction of the State Hermitage Museum

#### Virtual Archaeology: Theory and Practice

Chairman – Andrei ALEKSEEV

- 1. Wolfgang NEUBAUER (LBI ArchPro & VIAS-University of Vienna, Austria) Virtual archaeology – state of the art and up-today definition of the discipline
- 2. David COWLEY (RCAHMS, UK)
  - In with the new, out with the old? Integrating new technologies and traditional archaeological skills in the world of virtual archaeology
- 3. Dmitry KOROBOV (Institute of Archaeology of Russian Academy of Science, Russian Federation)

  Applied site catchments analysis by the archaeological and soil science pedological data
- 4. Sergei GORBOTENKO (ICOMOS Saint-Petersburg, Russian Federation)

  Graphic and three-dimensional modeling alternative to a real reconstruction of the lost objects of a cultural heritage
- 5. Julia LIKHTER (Interregional public organization «Heritage», Россия)

  Verbal model of a material source based on the principles of the seminar «Morphology of antiquities»

#### Poster section:

- 6. Tatyana KOZLOVA (Novosibirsk State Architecture and Development University (Sibstrin), Russian Federation)

  Information modeling as a method of monitoring of the state of immovable cultural objects
- 7. Marina DARAGAN (Institute of archaeology of Ukrainian National Academy of Science, Ukraine) Kurgans of a steppe zone of Ukraine: the spatial analysis and visualization using GIS-based methods
- 8. Susanne KATHAGE (Allied Associates Geophysical Ltd., Germany) Latest Instrument Developments in Archaeological Prospection
- 9. Jörg FAßBINDER, Roland LINCK (BLfD & LMU, Germany), Sabine REINHOLD (DAI, Germany), Andrej BELINSKIJ (Unitary Government Enterprise "Heritage", Russian Federation)

  Neolithic ring monuments in the Northern Caucasus The easternmost prehistoric rondels in Europe?

Lunch time.

# • Advanced Methods of Archaeological Prospecting

Chairman – Armin SCHMIDT

- 10. Viktor KURLYANDSKIY (Moscow University of Government Management, Russian Federation) The historical connection between geometry and astronomy in ancient cultures
- 11. Immo TRINKS, Klaus LÖCKER, Wolfgang NEUBAUER (LBI ArchPro, Austria), Sirri SEREN, Alois HINTERLEITNER (ZAMG Archeo Prospections®)

  Large scale high-resolution geophysical prospection in archaeology
- 12. Jörg FAßBINDER, Tomasz GORKA (BLfD & LMU, Germany), Anatoli NAGLER (DAI, Germany), Marina CHEMYAKINA<sup>†</sup>, Vyacheslav MOLODIN (Institute of Archeology and Ethnography of Siberian Branch of Russian Academy of Science, Russian Federation)
  - Prospecting of Kurgans by magnetometry: case studies from Kazakhstan Siberia and North-Caucasus
- 13. Mikhail ZHUKOVSKIJ (Moscow State Uviversity, Russian Federation)

  Application of a complex computer technique for field prospection and reconstruction of the barrow "Bojur-mountain" from the Fanagoria necropolis
- 14. Pavel ORLOV (Omsk State University, Russian Federation), Larisa TATAUROVA (Omsk Affiliate of the Institute of Archeology and Ethnography of Siberian Branch of Russian Academy of Science, Russian Federation), Maxim LASHEV (Omsk State Agricultural University, Russian Federation)

  Pilotless vehicle and high-precision satellite positioning system use for the construction of 3D landscape models of archaeological monuments

#### Poster section:

- 15. Julia KOCH, Lena KÜHNE, Roland LINCK, Jörg FAßBINDER (BLfD & LMU, Germany) 3D-Reconstruction of Roman sites in Bavaria based on geophysical results
- 16. Leonid MARSADOLOV (The State Hermitage Museum, Russian Federation) Complex approach to the studying of the Big Salbyk kurgan and its environment
- 17. Georg ZOTTI, Wolfgang NEUBAUER (VIAS-University of Vienna, Austria) Virtual reality in archaeo-astronomical research

## • Data Processing and Modeling in Archaeology

Chairman – Dmitry KOROBOV

- 18. Martin FERA, Wolfgang NEUBAUER, Michael DONEUS (VIAS-University of Vienna, Austria) 3D documentation and visualization of stratigraphic excavations
- 19. Michael NEIß (Institut für UFG der Christian-Albrechts-Universität zu Kiel, Germany), Sabrina SHOLTS (Berkeley University, USA), Sebastian WÄRMLÄNDER (Stockholm University, Sweden) 3D laser scanning as a tool for Viking Age studying
- 20. Daria HOOKK (State Hermitage Museum, Russian Federation), Jörg FAßBINDER (BLfD & LMU, Germany) Soil prospection of the archaeological site: susceptibility and magnetism
- 21. Armin SCHMIDT (GeodataWIZ, UK), Jodi TURNBULL, Susan LAWRENCE, Tim MURRAY (La Trobe University, Australia)

  Finding their rubbish: geophysical evaluations and map analysis to identify suburban remains in Melbourne, Australia
- 22. Chisako MIYAMAE (Digital Heritage Development Department in TOPPAN, Japan)

  Multi-class production framework based on 3D scanning data for archaeological artifacts the digitalization of Dogū

#### Poster section:

- 23. Valeria POSCETTI, Immo TRINKS, Wolfgang NEUBAUER (LBI ArchPro, Austria) 3D archaeological interpretation of ground penetrating radar data
- 24. Michael DONEUS, Geert VERHOEVEN, Michael PREGESBAUER, Christian BRIESE, Immo TRINKS (LBI ArchPro, Austria), Mario RATHMANNER (Airborne Technologies, Austria) Advanced archaeological airborne remote sensing
- 25. Matthias KUCERA, Erich NAU, Karolin KASTOWSKY (LBI ArchPro, Austria), Petra SCHNEIDHOFER, Martin FERA (VIAS-University of Vienna, Austria) Terrestrial 3D laser scanning in archaeology
- 26. Petr SOROKIN (Institute of the Material Culture History of Russian Academy of Science, Russian Federation)

  Monuments of the Okhta cape. Real and virtual archaeology
- 27. Irina GREVTSOVA (University of Barcelona, Spain) 3D interpretation and interactive methods of presentation of the archaeological heritage
- 28. Timur SADYKOV (Institute of the Material Culture History of Russian Academy of Science), Anna KOSTYLEVA (Saint-Petersburg State University, Russian Federation)

  Technological and psychological aspects underwater orthophotography in the conditions of a strong current and bad light exposure

Lunch time. Visit to the Treasure Gallery.

## • Another reality: Reconstructions & Visualization

Chairman - Wolfgang NEUBAUER

- 29. Ichiroh KANAYA (Osaka University, Japan), Yukinori KAWAE (Nagoya University, Japan), Kosuke SATO (Osaka University, Japan), Hiroyuki KAMEI (Tokyo Institute of Technology, Japan) Digitizing egiptian heritages
- 30. Georg ZOTTI (VIAS-University of Vienna, Austria) Virtual reality reconstruction and astronomical simulation of Neolithic monuments in Austria
- 31. Marina SELYANINA (Surgut Regional Museum, Russian Federation) Use of virtual reconstruction of archaeological objects: experience and prospects
- 32. Ekaterina DOLBUNOVA (The State Hermitage Museum, Russian Federation), Jörg FAßBINDER (BLfD & LMU, Germany), Marianna KULKOVA (The Herzen State Pedagogical University of Russia, Russian Federation), Maria POLKOVNIKOVA, Andrei MAZURKEVICH (The State Hermitage Museum, Russian Federation) Visualization of the results of the interdisciplinary prospection of Stone Age monuments in the Northwest of Russia
- 33. Daniele FERDANI (CNR ITABC, Acmé, Italy), Francescamaria MALARAGGIA (Acmé, Italy), Filippo OLARI (Acmé, Italy) Fundamenta Laude. A multimedia journey to discover the origins of Lodi

#### Poster section:

- 34. Wolfgang NEUBAUER, Erich NAU, Immo TRINKS (LBI ArchPro, Austria), Sirri SEREN, Klaus LÖCKER (ZAMG Archeo Prospections®), Michael KLEIN (7reasons, Austria) The school of gladiators at Carnuntum virtual reconstruction based on archaeological prospection data
- 35. Felix MARCU (The National Museum of Transylvania's History, Romania) Forts of the province Dacia (Romania)
- 36. Ksenia BONDAR (Taras Shevchenko National University of Kiev, Ukraine), Marina DARAGAN (Institute of archaeology of Ukrainian National Academy of Science, Ukraine) Development of the geoinformation model of historical and archaeological object mountain Champagne (Inkerman galleries)
- 37. Anastasia GRIGORIEVA (Cheboksary Art College, Russian Federation), Vitalij PAVLOV (Academy of Computer Design, Russian Federation), Igor KUGURAKOV (The State Humanitarian Institute in Chuvashia, Russian Federation) Virtual Cheboksary of the XVIII century
- 38. Petr SKOBLIKOV, Konstantin ČUGUNOV (The State Hermitage Museum, Russian Federation) Virtual view of an archaeological monument: the complex Arzhan-2 as a site for funeral rites
- 39. Konstantin KUNAVIN (Tambov State University, Russian Federation) Virtual reconstruction of historical monuments of Russian railways: Imperial trains of Alexander III and Nikolai II

#### 6th June (Wednesday)

Restoration and Storage Centre "Staraya Derevnya"

## Workshops

Daniël PLETINCKX ((Visual Dimension byba, Belgium)

Communication processes for digital archaeology

Sofia PESCARIN (VHLab, CNR-ITABC, Italy)

Exchanging and re-using digital heritage, a V-MusT.net case study

Wim HUPPERETZ (Allard Pierson Museum Amsterdam, Netherlands)

Evaluation of the Etruscanning VR application in two museums

Selma RIZVIC (University of Sarajevo, Bosnia and Herzegovina)

Story guided virtual museums

Sorin HERMON (STARC, Cyprus Institute, Cyprus)

From archaeological research to public outreach, the 3D reconstructions contribution

Pilar RIVERO (Universidad de Zaragoza, Spain), Victoria LÓPEZ (Universidad de Barcelona, Spain) Virtual archaeology as an instructional tool

Anna TERENTIEVA (The State Hermitage Museum, Russian Federation) "Touching the past": another reality

Lunch time.

- Excursion in the Restoration and Storage Centre "Staraya Derevnya"
- Final discussion