Sunday, October 12th *(optional)*

6:00 – 7:00 p.m.   "Traces of the Past" Remote Sensing Exhibit Opening
Smith Warehouse Bay 10-11, Second Floor

Monday, October 13th

8:00 – 9:00 a.m.   **Breakfast and Registration** *Schiciano Lobby*

9:00 – 9:15 a.m.   **Welcome** *Schiciano A*
Sally Kornbluth, Provost, Duke University
Mary T. Boatwright, Chair, Department of Classical Studies, Duke University
Tom Katsouleas, Dean, Pratt School of Engineering, Duke University
Maurizio Forte, Conference Chair

9:15 – 10:00 a.m.   **Keynote** *Schiciano A*
"From a radiography of the past to a new archaeological diagnosis of sites and landscapes" *Frank Vermeulen, University of Ghent*

10:00 – 1:00 p.m.   **Morning Paper Sessions**
Session 1: Remote Sensing I (7 papers) *Schiciano A*
  Chair: David Cowley

- 10:00   "Large Scale Geomagnetic Surveys in Archaeology." *Rainer Komp, German Archaeological Institute*

- 10:20   "CASTLE3D - A Computer aided system for labeling archaeological excavations in 3D." *Hamidreza Houshiar, Jacobs University*

- 10:40   "Integration of Multiproxy Landscape and Climate Data with Hyper- and Multi-Spectral Satellite Imagery for the Analysis of Landscape Change." *William Middleton, Rochester Institute of Technology*

- 11:00   "Is the Relationship between Surface and subsurface temperate is a key for Archeological studies?" *Seyed Kazem Alavipanah, University of Tehran*

- 11:20   "A Non-Destructive Remote Sensing Project Testing of Geoarchaeology Radar In South Texas." *Rolando Silva, University of Texas- Rio Grande Valley*

- 11:40   "Tracing the Traditional Water Systems known as Karez in Southern Afghanistan." *Phillip Stinson, University of Kansas*

- 12:00   "A Collaborative Multi - Sensor Approach to Interpreting the Landscape at House in the Horseshoe, Sanford, North Carolina." *Jacob Turner, University of North Carolina at Greensboro*

Session 2: Integrated Technologies I (8 papers) *Schiciano B*
                    Chair: Stefano Campana

- 10:00   "Viewshed Analysis at Multiple Scales: GIS Methods on the Medieval Iberian Frontier Landscape and 3D Intervisibility at a Reconstructed Fortress-Monastery." *Edward Triplett, University of Virginia*

- 10:20   "Terrestrial Laser Scanning at Çatalhöyük: New Methodologies, Results, and Research Perspectives." *Nicola Lercari, Duke University*

- 10:40   "Using Orthophotography and photogrammetry in Preventive Archaeology, methods and limits. The case of Quincieux Grange Rouge site near Lyon (France)." *Bertrand Moulin, INRAP*

- 11:00   "Terrestrial Laser Scanning and Unmanned Aerial Systems to Investigate Historical Rice Cultivation at Wormsloe Historic Site." *Alessandro Pasqua, University of Georgia*

- 11:20   "The Simbolic Landscape of Archaeological Zone of El Tajín, Veracruz; México." *Patricia Castillo, Insituto Nacional de Antropología e Historia*

- 11:40   "Bosutswe Landscapes: Defining Early African Towns through Spatial Archaeometry." *Eileen Ernenwein, East Tennessee State University*

- 12:00   "Getting Closer to Iron Age through Remote Sensing--Investigations in eastern Austrian pre-Alpine landscapes." *Martin Fera, University of Vienna*

- 12:20   "Archaeology in the Age of Supercomputing." *Devin White, Oak Ridge National Laboratory*

10:00 – 12:00   **Workshop 1** *Teer 115*
                    Archaeological Applications of Airborne Laserscanning with *Rachel Opitz, University of Arkansas*

                    *a/v projector with power for independent computers

1:00 – 2:00   **Lunch and Demos** *Fitzpatrick Center Atrium*

2:00 – 2:45   **Keynote** *Schiciano A*
                    "Prospects for Immersive Virtual Reality and Telepresence for Archaeology" Henry Fuchs, University of North Carolina at Chapel Hill

3:00 – 6:00   **Afternoon Paper Sessions** *Schiciano A*

                    Session 1: Remote Sensing II (5 papers) *(Schiciano Auditorium A)*
                         Chair: David Cowley

- 3:00 "Remote Sensing Amerindian archaeology in the Caribbean – Methods and Practice." *Till Sonnemann, Leiden University*

- 3:20 "A Long Walk in the Italian Countryside: Large-scale geophysical prospection in rural and urban contexts in central Italy." *Stefano Campana, University of Cambridge*

- 3:40 "Investigating Late Bronze Age urban landscapes on Cyprus using terrestrial and aerial remote sensing." *Kevin Fisher, University of British Columbia*

4:00 – 4:30 Coffee Break - *Schiciano Lobby*

- 4:30 "Remote Sensing as a Method of Promoting Group Identity: Rediscovering Edinburg's African-American Cemetery." *Rolando Silva, University of Texas- Rio Grande Valley*

- 4:50 "Container and contents: analogies and senses of the past in the museum." *Alicia Jiménez, Duke University*
- 5:10 "Remote Sensing and Mapping for Spiro Mounds: Landscape Analyses at Multiple Scales." *Jami Lockhart, Arkansas Archaeological Survey*

Session 2: Integrated Technologies II (8 papers) *(Schiciano B)*
Chair: Stefano Campana

- 3:00 "Combining Multispectral Satellite Imagery and LiDAR in Archaeological Site Prospection: A Case Study in Honduras." *Daniel Thompson, Archaeological Modeling International*

- 3:20 "New Approaches to the Polysensing Environment." *Bill Seaman, Duke University*

- 3:40 "A Dynamic Study of Multi-scale Space Monitoring on the Great Wall and Surrounding Environment." *Chuansheng Liu, Institute of Remote sensing and Digital Earth, Chinese Academy of Sciences*

4:00 – 4:30 Coffee Break – *Schiciano Lobby*

- 4:30 "Documenting the past: the use of digital technologies for intra-site archaeological documentation." *Nicolo Dell'Unto, Lund University*

- 4:50 "From the Field to the Classroom: Developing Pedagogy in Digital Humanities." *Chad Keller, Savannah College of Art and Design*

- 5:10 "Spatial Study of 'Chandhore' in India's western Ghats -- Using Ethno-historic study and Sculptural details as complimentary factors to spatial techniques."

Pallavee Gokhale, Symantec

- 5:30 "From Data to Experience: Integrating Multiple Datasets to Create an Immersive Representation of Ancient Tiwanaku." *James Wesolowski, University of Arkansas*

- 5:50 "The Computational Research on the Ancient Near East (CRANE) Project: Large-scale Data Integration, Analysis, and Modeling in the Orontes Watershed." *Stephen Batiuk, University of Toronto*

3:00 – 5:00 **ECAI Workshop** *Teer 203*
Place: Context, Analytics, Imaging *Lewis Lancaster, University of California at Berkeley, ECAI*

3:00 – 6:00 **NASA Workshop** *Teer 115*
Archaeology as Earth Science: A NASA Perspective *Ronald Blom, Douglas Comer, Will Megarry, Till Sonnemann, Bryce Davenport*

6:30 – 7:00 p.m. **Transportation to Nasher Museum for Reception** *Science Drive Circle*

7:00 – 8:30 **Welcome Reception**—Nasher Museum of Art
Duke Jazz Band

8:30 p.m. Transportation to the Hilton Garden Inn & Bryan Center at Duke

Tuesday, October 14th

8:30 – 9:15 **Breakfast** *Schiciano Lobby*

9:15 – 10:00 **Keynote** *Schiciano A*
"Prospecting Archaeological Landscapes – State-of-the-art in remote sensing and geophysical prospection" *Wolfgang Neubauer, University of Vienna*

10:00 – 1:00 **Morning Paper Sessions**

Session 1: Virtual Reality and 3D Modeling I (5 papers) *Schiciano A*
Chair: Alonzo Addison

- 10:00 "A methodological approach for the 3D reconstruction of the medium Tiber Valley landscape in the Orientalizing period." *Eva Pietroni, CNR*

- 10:20 "Reshaping Remote Sensing and Virtual Reality at Çatalhöyük." *Maurizio Forte, Duke University*

- 10:40 "Integrated Approaches: Combining SFM and scene-level modeling for data exploration, interpretation and publication of the excavations at Gabii (Italy)." *Rachel Opitz, University of Arkansas*

- 11:00 "DigUB: using 4D modeling to address archaeological questions in a prehistoric open-air archaeological site. 'Ubeidiya, Israel, as a case study." *Miriam Belmaker, University of Tulsa*

- 11:20 "The ancient salt marsh landscape of the Venice lagoon." *Sophia Sennett, Duke University*

Session 2: GIS and Sensing (7 papers) *Schiciano B*
Chair: Heather Richards-Rissetto

- 10:00 "Graeco-Roman Astro-Architecture?: The Temples of Pompeii." *Vance Tiede, Astro-Archaeology Surveys*

- 10:20 "Analysis of Sasanian Settlement Pattern in the Intermontane Plain and Valleys of Farsan, Iran." *Hossein Habibi, Bu-Ali Sina University*

- 10:40 "Remote Archaeological Survey at Polygon of Protection of "El Tajín", Veracruz, México." *Guadalupe Zetina-Gutierrez, Insituto Nacional de Antropología e Historia*

- 11:00 "Community, Land, and Water: A Critical Look at 3,500 Years of Human Settlement in the Basin of Mexico." *John Millhauser, North Carolina State University*

- 11:20 "Testing predictive models for paleontological site location in the Eocene of Wyoming." *Robert Anemone, University of North Carolina at Greensboro*

- 11:40 "Identifying Use of Lands, Territories and Movements in Maya Signoury of Palenque, Chiapas; México." *Guadalupe Zetina-Gutierrez, Insituto Nacional de Antropología e Historia*

- 12:00 "3D-GIS in Pompeii: an exploratory approach to the study of insula V 1." *Nicolo Dell'Unto, Lund University*

10:00 – 1:00 **Workshop 1** *Teer 203*
Hands on Open Source GIS *Scott Madry, University of North Carolina at Chapel Hill*

10:00 – 12:00 **Workshop 2** *Teer 115*

GIS and Data Integration for Archaeological Surveying Data   *Axel Posluschny, ARCLAND*

1:00 – 2:00   **Lunch and Demos** *Fitzpatrick Center Atrium*

2:00 – 2:45   **Keynote**: *Schiciano A*
                            "Measuring the Face of the Past and Facing its Measurement" *William (Fred) Limp, University of Arkansas*

3:00 – 6:30   **Afternoon Paper Sessions**

                            Session 1: Virtual Reality and 3D Modeling II (6 papers) *Schiciano A*
                                Chair: Alonzo Addison/Maurizio Forte

- 3:00   "Remembering and forgetting: the addition and subtraction of object context by using 3D printing." *Peter Brugger, University of Southampton*

- 3:20   "The Livia's Villa Reloaded project." *Eva Pietroni, CNR*

- 3:40   "A Head of Our Times: Re-Imagining the Heads of the Brummer Collection with Real-Time 3D Face Scanning." *Chris Tralie and Amanda Lazarus, Duke University*

4:00 – 4:30 Coffee Break – *Schiciano Lobby*

- 4:30   "The Regium@Lepidi 2200th Project." *Nevio Danelon, Duke University*

- 4:50   "Techniques and Applications for a virtual Simulation of the agora of Segesta." *Riccardo Olivito, Scuola Normale Superiore*

- 5:10   "Visualizing Socio-Environmental Landscape Dynamics: A Case Study from Copan, Honduras." *Heather Richards-Rissetto, University of Nebraska- Lincoln*

                            Session 2: Lidar Applications (9 papers) *Schiciano B*
                                Chair: Rachel Opitz

- 3:00   "New Perspectives on Purepecha Urbanism Through the Use of LiDAR." *Christopher Fisher, Colorado State University*

- 3:20   "LiDAR at Angamuco, moving beyond visual interpretation in the use of LiDAR." *Stephen Leisz, Colorado State University*

- 3:40   "Modeling Archaeological Landscapes in Peru with Ground based LiDAR." *Patrick Williams, The Field Museum and University of Illinois*

4:00 – 4:30 Coffee Break

- 4:30   "A methodology for using ALS data for reconstruction of historic road networks." *Willem Vletter, University of Vienna*

- 4:50   "Robot Meets History" *Dorit Borrmann, University of Würzburg*

- 5:10   "Integrating terrestrial and airborne lidar with structure from motion photogrammetry for documenting industrial heritage landscapes in the Central Appalachians." *Charles Yuill, West Virginia University*

- 5:30   "Application of LIDAR ground-surface surveying technology to surface survey of topographically complex urban settlements: Tell es-Safi/Gath, Israel" *Deland Wing, University of Manitoba*

- 5:50   "Terrestrial Lidar and GPR investigations into the Third Line of Battle at Guilford Courthouse National Military Park, Guilford County, North Carolina." *Stacy Curry, University of North Carolina at Greensboro*

- 6:10   "La Aplicación de Nueva tecnología como LiDAR y Fotografía Aérea como una Línea de Barrido en el Sito Arqueológico de El Tajín, Veracruz, México." *Krassimir Iankov, Sistemas Avanzados y Proyectos*

- 6:30   "The Use of LiDAR to Detect New Settlements in the Mosquitia, Honduras" *Christopher Fisher, Colorado State University*

Session 3: Geophysics (8 papers) *Teer 203*
Chair: Wolfgang Neubauer

- 3:00   "Ground-Penetrating Radar, Magnetometry, and Excavations at the Mississippian Pile Mound Site, Upper Cumberland Plateau, Tennessee, USA." *Jeremy Menzer, East Tennessee State University*

- 3:20   "Applications of acoustic, magnetometric and topographic submarines devices for an underwater archaeological method research in preventive archaeology." *Philippe Pelgas, INRAP*

- 3:40   "Archaeological Compounds at the Southern Brazilian Coast" *Tiago Attorre, University of São Paulo*

4:00 Coffee Break

- 4:30   "Large-Area Magnetic Gradient Survey at Native American Earthwork Sites in Ohio, USA." *Jarrod Burks, Ohio Valley Archaeology, Inc.*

- 4:50   "Alcatraz in 3D: Terrestrial laser scanning and subsurface ground-penetrating radar reconstruction of the prison and Civil War era historic fortifications

at "The Rock"." *Timothy de Smet, Texas A&M University*

- 5:10 "Using Ground-Penetrating Radar to Study Sites in the American Southwest: New Approaches to An Old Method." *Jennie Sturm, University of New Mexico*

- 5:30 "An integrated archaeological prospection and excavation approach at the Neolithic circular ditch system in Hornsburg, Austria." *Jakob Kainz, University of Vienna*

- 5:50 "Ground Penetrating Radar prospections at complex archaeological sites: good practice for the 3D archaeological documentation of the subsurface features." *Valeria Poscetti, University of Vienna*

6:30 – 7:00 p.m. **Transportation to Sarah P. Duke Gardens for Dinner** *Science Drive Circle*

7:00 – 9:00 **Social Dinner at Sarah P. Duke Gardens**

Wednesday, October 15th

8:30 – 9:30 **Breakfast and "Traces of the Past" Remote Sensing Exhibit** *Smith Bay 10*

9:30 – 12:30 **Morning Paper Sessions** *The Garage*

Session 1: Cultural Resource Management (4 papers) *Smith Bay 10* **Chair: Maurizio Forte**

- 9:30 "Magnetometry and its use in the Bakken Oilfield." *Timothy Dodson, KLJ*

- 9:50 "Where the Shovel Can't Go: Using Near Surface Geophysics for Section 106 and Section 110 Compliance at Large, Complex Archaeological Sites." *Shawn Patch, New South Associates, Inc.*

- 10:10 "Ethics for Archaeologists Using Remotely Sensed Imagery in War-Torn Landscapes: A Case Study in Southern Afghanistan." *Anna Wieser, University of Kansas*

- 10:30 "Multi-granular method for retrieving digital Tangkha images" *Chuansheng Liu, Institute of Remote sensing and Digital Earth, Chinese Academy of Sciences*

Session 2: Aerial Photography and Drones (8 papers) *The Garage*
Chair: Axel Posluschny

- 9:30   "The Aerial Bombing of Pointe du Hoc, Normandy, France: A re-analysis based on contemporary aerial reconnaissance photography and field surveys." *Richard Burt, Auburn University*

- 9:50   "The CRO Flies On: Locations and Landscapes in American History and Prehistory." *Tommy Hailey, Northwestern State University of Louisiana*

- 10:10   "3D Recording in the Documentation of Archaeological Excavations." *Stefano Campana, University of Cambridge*

- 10:50   "Methods and Techniques of UAV Based Cliff Painting Investigation In Complex Terrains——Using the Zuo Jiang Cliff Painting as An Example." *Li Zhe, Tianjin University*

- 11:10   "Visualization of Archaeological Sites and Landscapes along the Missouri River Using Historical Aerial Photographs and Digital Photogrammetry" *Adam Wiewel, University of Arkansas*

- 11:30   "UAV-based aerial thermography and archaeological geophysics at the Collins Mound site, Arkansas." *Stephanie Sullivan, University of Arkansas*

- 11:50   "Pre- and proto-historic anthropogenic landscape modifications in Siem Reap province (Cambodia) as seen through satellite imagery." *Kasper Hanus, University of Sydney*

9:30 – 12:00   **Workshop 1** *Robertson Scholars Board Room*
Survey and Measurement on Excavation - New Perspectives on Traditional Metrics, *Rachel Opitz, University of Arkansas*

11:00 – 12:30   **Workshop 2** *FHI Conference Room*
The Digital Heritage Federation - The needs and requirements of a new professional association in this cross-disciplinary domain, plus planning for DH2015

12:30   **Lunch and "Traces of the Past" Remote Sensing Exhibit** *The Garage*

End of Conference