Spatial Technologies for Cultural Astronomy Workshop
School of Earth and Space Exploration
Arizona State University - Tempe
November 9 – 12, 2017

Schedule of Events

Thursday Nov. 9th

5:00p – 7:00p Registration and informal reception Moxy Hotel lobby
1333 South Rural Road, Tempe AZ 85281

Friday Nov. 10th

8:30a  Meet at Moxy Hotel lobby Check in.  Coffee, snacks, lock up gear

9:30a  Leave for field site (Note: Transportation will be organized to share
       personal vehicles)

12:00p Return from field site.  Lunch on your own.

Workshop Session - Photogrammetry.

1:00p  Introductions, Goals of the workshop.

1:20p  Working session ISTB4:  Agisoft PhotoScan session
      3D model building from morning session images.  Practical techniques in
      photogrammetry.  Introduction to photogrammetry and initial model
      building.

2:30p  Guest speaker:
       Ralf Reulke, Professor of Computer Vision, Humboldt - Universität zu
       Berlin - “Low Cost Hard- and Software for 3D Reconstruction of Real
       World Scenes"

3:20p  short break

3:40p  More photogrammetry:  MeshLab and SketchUp
      Refining 3D models, GeoRegistration, Coordinate Orientation, and
      exporting models.
4:45p  Day end closing remarks

5:00p  Technical support available for ~1 hour
      - load and debug QGIS to tomorrow sessions
      - continue working with 3D models

6:00p  Social time at Mill Ave bar/restaurant  (optional)

Saturday Nov. 11th, 2017  GIS DAY

9:00a  Overview of the day.  What we are trying to accomplish.


9:40a  Hands on Introduction to QGIS  (Cindy Zhang)

10:15a  10 minute Break

10:25a  More hands on QGIS tutorials

11:15a  South Mountain Archaeology,  (Aaron Wright)

12:00n  Lunch - Provided

12:50p  tDAR: An Introduction.  (Frank McManamon)

1:30p  GIS in Archaeology Project descriptions
      ASU Archaeologist

2:30p  10 minute break

2:40p  GIS in Archaeology Project descriptions
      ASU Archaeologists  Emily Fioccopril
                        Matt Peeples
                        Katherine Dungan
                        Caitlin Wichlacz

3:30p  Hands on location projects.  Bring your own research geography to GIS

4:15p  Object files in GIS.  Bird Rock in GIS.

4:45p  Wrap up the day.

5:00p  Done with Saturday workshop

7:00p  SCAAS 2017 Workshop Dinner
Sunday, Nov. 12th

ASTRONOMY DAY

9:00a  Starting in Marston Theater (Ric Alling)
      Archaeoastronomy demo
      Coordinate systems demo

9:30a  Move to Room 296.

9:40a  Overview of the day. What we are trying to accomplish.
      Key Themes

9:45a  Astronomy for the Cultural Astronomer
      How does the sky work?
      How we observe and predict phenomena.
      Introduction to useful formulas.

10:05a Hands on introduction to Stellarium.
      Hands on introduction to Cartes du Ciel.
      Hands on Star chart project(s).

10:30a 10 minute break

10:40a Image processing a Horizon
      Hands on create and locate a site-specific horizon
      Include geo reference
      Include upload to planetarium software
      Alternative … Alt, AZ coordinate upload

12:00n Lunch - Provided

12:50p Modeling Sun Shadow effects  (Chris Dombrowski)

1:20p  More hands on work Spatial modeling in Planetarium Software
      Create your own model for upload.

1:55p  Short Break  10 minutes

2:05p  Wrap up discussions about the workshop, site documentation and
      resources for further development.

3:00p  Adjourn