

# Geospatial Modeling & Visualization

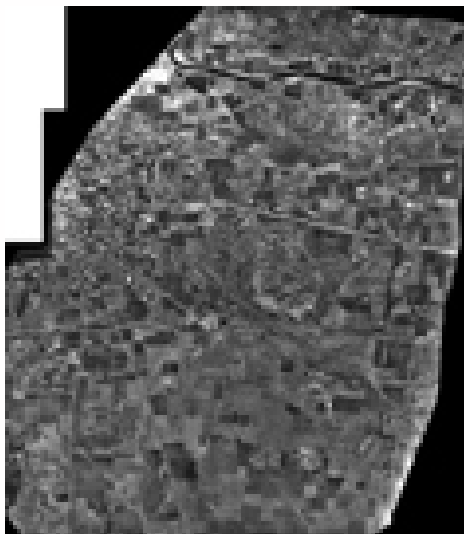
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## Tiwanaku, Bolivia – Ortho Image (1972)

The Center has been involved in a multi-year project in collaboration with Dr. Alexei Vranich at the University of Pennsylvania to scan and document the Pre-Incan site of Tiwanaku, Bolivia. Read a short synopsis of the project at [Tiwanaku Project Details](#) and for full details on the entire survey, refer to [Geophysics and Geomatics at Tiwanaku](#).

For the .jpg, .tif, or .img photogrammetry formats, we recommend the free viewer [ArcGIS Explorer Desktop](#). This free GIS application provides ways to explore and share GIS data.



[ortho\\_1972.tif](#) (File size – 745 mb)

Photogrammetric processing was performed on 10 historic vertical aerial photographs from 1972 to produce this ortho mosaic covering the monumental core and surrounding areas of Tiwanaku.

Ground sample distance – 6.5-cm

Coverage – 360-ha

Coordinate system – Arbitrary, based on local coordinate system used by archaeologists.

	Average Scale	Average Flying Height (m)	Ground Coverage per Pixel (cm)
1972 Photos	1:5 150	782	6.5

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**Credit:** [Museum of Archeology and Anthropology, General Robotics, Automation, Sensing and Perception \(GRASP\) Lab](#) (University of Pennsylvania) and [Center for Advanced Spatial Technologies](#), (University of Arkansas)

**Longer version:** Data acquired, processed and distributed by the Center for Advanced Spatial Technologies staff and University of Pennsylvania.



You are reading the series: [Tiwanaku Data](#)  
Tiwanaku, Bolivia – Ortho Image (1972)  
[Tiwanaku, Bolivia – Ortho Image \(1992\)](#)

Please cite this document as: Stevens, Caitlin. 2011. Tiwanaku, Bolivia – Ortho Image (1972).CAST Technical Publications Series. Number 7371. <http://gmvc.cast.uark.edu/scanning/tiwanaku-bolivia-photogrammetry-of-area-in-1972-2/>. [Date accessed: 27 April 2013]. [Last Updated: 9 May 2012]. *Disclaimer: All logos and trademarks remain the property of their respective owners.*

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