

## **Using Open-Access Imagery and ArcGIS Online to Study Intensive Agriculture**

Around the world, systems of intensive agriculture that are independent of external inputs and markets present alternatives to industrial agriculture. Some agricultural landscapes and practices are connected to long term histories of controlled burning, field construction, water control, and agroforestry, which can be studied through archaeological techniques. High quality, publicly available satellite imagery makes these landscapes visible. Through digitizing and the analysis tools available in ArcGIS Online, agricultural practices in the Bolivian Amazon can be “reverse engineered.” Recent studies are presented, which include evidence for the integration of water control and intensive agriculture, and implications for future land use in the Amazon.

### **Bio:**

I am an archaeologist studying agriculture and social organization over the past 4000 years in cooperation with local stakeholders in Santa Ana del Yacuma, Beni, Bolivia. I teach anthropology at UCF and help administer our interdisciplinary graduate certificate in GIS, which currently has about 30 students from every college at the University, including PhD, MA, and certificate students. I have been teaching introductory GIS since 2006, and I have worked in the Amazon since 1992.

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