

GIS Applications in Archaeology

Selected Bibliography

Compiled by Isaac Ullah, September, 2009

Useful GIS Books:

- Conolly, J., and M. Lake. 2006. *Geographical information systems in archaeology*. Cambridge Univ Pr.
- Neteler, M., and H. Mitasova. 2007. *Open Source GIS: A GRASS GIS Approach*. The International Series in Engineering and Computer Science: Volume 773. *New York*.
- Wheatley, D., and M. Gillings. 2002. *Spatial technology and archaeology: the archaeological applications of GIS*. CRC.

Topical Articles:

* *Indicates the more important readings*

Landscape Reconstruction

- * Arrowsmith, R., E. DiMaggio, C. M. Barton, H. S. Sarjoughian, P. Fall, S. E. Falconer, and I. I. Ullah. 2006. Geomorphic mapping and paleoterrain generation for use in modeling Holocene (8,000-1,500 yr) agropastoral landuse and landscape interactions in southeast Spain. *Am Geophys Union, San Francisco, CA*.
- Bolten, A., O. Bubenzer, and F. Darius. 2006. A digital elevation model as a base for the reconstruction of Holocene land-use potential in arid regions. *Geoarchaeology* 21, no. 7.
- * Contreras, Daniel A. 2009. Reconstructing landscape at Chavín de Huántar, Perú: A GIS-based approach. *Journal of Archaeological Science* 36, no. 4 (April): 1006-1017. doi:10.1016/j.jas.2008.11.025.

Interpolation

- * Cebecauer, T., J. Hofierka, and M. Suri. 2002. Processing digital terrain models by regularized spline with tension: tuning interpolation parameters for different input datasets. In *Proc. Open Source GIS-GRASS Users Conf*.
- Mitášová, H., and L. Mitáš. 1993. Interpolation by regularized spline with tension: I. Theory and implementation. *Mathematical Geology* 25, no. 6: 641–655.
- Mitášová, H., and J. Hofierka. 1993. Interpolation by regularized spline with tension: II. Application to terrain modeling and surface geometry analysis. *Mathematical Geology* 25, no. 6: 657–669.

Human Landuse and Landscape Degradaton

- * Barton, C Michael, Isaac I Ullah, and Helena Mitasova. (n.d). Computational modeling and Neolithic socioecological dynamics: A case study from Southwest Asia. *American Antiquity*. In Press.
- Ullah, Isaac I T. (n.d). Goats and green pastures: the pastoral footprint of Late Neolithic Wadi Ziqlab. *American Antiquity*. Submitted.
- Simpson, Ian A., Andrew J. Dugmore, Amanda Thomson, and Orri Vésteinsson. 2001. Crossing the thresholds: human ecology and historical patterns of landscape degradation. *CATENA* 42, no. 2-4 (January 20): 175-192. doi:10.1016/S0341-8162(00)00137-5.

Spatial Analysis

- * Ullah, Isaac I T. (n.d.) Particles from the Past: A Diachronic Study of the Spatial Patterning of Microrefuse from Room Floors at Late Neolithic Tabaqat al-Bûma, Northern Jordan. In *Household Archaeology: New Perspectives from the Near East and Beyond*. Winona Lake: Eisenbrauns, In Press.