### **BIOGRAPHICAL SKETCH**

## KEITH C. CLARKE

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#### **Professional Preparation**

- 1977 B.A. Honours in Geography and Economics, Middlesex Polytechnic, London, England.
- 1979 M.A. in Geography, The University of Michigan, Ann Arbor, MI
- 1982 Ph. D. in Geography (Analytical Cartography), The University of Michigan, Ann Arbor, MI.

### **Appointments**

- 2006- Member, Board on Earth Science and Resources, National Academy of Sciences
- 2006- Member, Committee on Research and Exploration, National Geographic Society
- 2006-10 Chair, Mapping Science Committee, National Academy of Sciences
- 2004-6 Member, Mapping Science Committee, National Academy of Sciences
- 2001-6 Chair, Department of Geography, University of California, Santa Barbara
- 1998- Director (Santa Barbara) National Center for Geographic Information and Analysis
- 1996- Professor, University of California, Santa Barbara.
- 1994-6 Chair, Department of Geology & Geography, Hunter College.
- Research Physical Scientist, Office of Research, National Mapping Division, USGS.
- 1991-96 Professor, Hunter College and the CUNY Graduate School and University Center.
- 1987-91 Associate Professor, City University of New York Graduate School and Univ. Center.
- 1986-91 Associate Professor, Hunter College
- 1982-86 Assistant Professor, Hunter College.
- 1980-82 Instructor, The University of Michigan.
- 1980-82 Director of Computing, Center for Research on Social Organization, U. Michigan.

#### Synergistic Activities

- Recipient, John Wesley Powell Award. (USGS highest civil honor) 2005
- ♦ Chair, Communications Committee, American Congress on Surveying and Mapping. 2002-2005
- President, Cartography and Geographic Information Society 2000-1
- North American Editor, International Journal of Geographical Information Systems. (1992-97)
- Educator of the Year Award 2003, University Consortium on GIS.

# Selected Publications (Last 3 years)

- Clarke, K. C, Gazulis, N, Dietzel, C. K. and Goldstein, N. C. (2007) A decade of SLEUTHing: Lessons learned from applications of a cellular automaton land use change model. Chapter 16 in Fisher, P. (ed) *Classics from IJGIS. Twenty Years of the International Journal of Geographical Information Systems and Science*. CRC Press. Boca Raton, FL. pp. 413-425.
- Dillemuth, J., Goldsberry, K. and Keith C. Clarke. (2007) Choosing the Scale and Extent of Maps for Navigation with Mobile Computing Systems. *Journal of Location Based Services*. vol 1., no. 1, pp. 46-61.
- Slingsby, A., Dykes, J., Wood, J. and Clarke, K. C. (2007) Interactive Tag Maps and Tag Clouds for the Multiscale Exploration of Large Spatio-temporal Datasets *International Symposium on GeoVisualization and Information Visualization, gIV07* (IEEE), pp. 497-504.
- Wood, J., Dykes, J., Slingsby, A. and Clarke, K. C. (2007) Interactive visual exploration of a large spatio-temporal data set: reflections on a geovisualization mashup. *IEEE Transactions on Visual Computing and Graphics.*. 13, 6, pp. 1176-83.
- Grossner, K. E., Goodchild, M. F. and Clarke, K. C. (2008) Defining a digital earth system. *Transactions in GIS*. Vol.12, no.1, pp. 145-160.
- Clarke K. C. (2009). Geospatial Intelligence. in Kitchin R, Thrift N (eds) *International Encyclopedia of Human Geography*, Vol. 4, pp. 466–467. Oxford: Elsevier.
- Ford, A, Clarke, K. C. and Raines, G. (2009) Modeling Settlement Patterns of the Late Classic Maya Civilization with Bayesian Methods and Geographic Information Systems. *Annals of the Association of American Geographers*, vol. 99, no. 3, pp. 1–25.
- Beekhuizen, J. and Clarke, K. C. (2010) Toward accountable land use mapping: Using geocomputation to improve classification accuracy and reveal uncertainty *Int. Journal of Applied Earth Observation and Geoinformation*, vol. 12, no. 3, pp. 127-137.
- Guan, Qingfeng and Clarke, Keith C.(2010) A general-purpose parallel raster processing programming library test application using a geographic cellular automata model. *Int. Journal of Geographical Information Science*, vol. 24, no. 5, pp. 695-722. Nie, Qinghua and Keith C. Clarke (2010) *Environmental Statistics with MATLAB* Beijing: Higher Education Press.
- Clarke, K. C. (2011) Getting Started with Geographic Information Systems. 5th edition. Pearson-Prentice Hall. Prentice Hall Series in Geographic Information Science.
- Ren, L., Clarke, K. C., Zhou, C., Ding, L. and Li, G. (2010) Geometric Rectification of Satellite Imagery with Minimal Ground Control Using Space Oblique Mercator Projection Theory. *Cartography and Geographic Information Science*. Accepted (October issue).