**CHRISTOPHER D. ELLIS, PH.D**
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## EDUCATION

UNIVERSITY OF ILLINOIS - Ph.D. in Regional Planning, 1998.
CORNELL UNIVERSITY - Master of Landscape Architecture, 1993.
UNIVERSITY OF MASSACHUSETTS - BS in Environmental Design, 1988.

## ACADEMIC AND PROFESSIONAL WORK EXPERIENCE

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| September 2007—Present | **Associate Professor and Chair**<br>Landscape Architecture Program<br>School of Natural Resources and Environment<br>University of Michigan, Ann Arbor, Michigan |
| September 2004—August 2007 | **Associate Professor**<br>Department of Landscape Architecture and Urban Planning, College of Architecture<br>Texas A&M University, College Station, Texas |
| January 1998—August 2004 | **Assistant Professor**<br>Department of Landscape Architecture and Urban Planning, College of Architecture<br>Texas A&M University, College Station, Texas |

## RESEARCH AREAS AND INTERESTS

- Planning and design for sustainable land development
- Geographic modeling and analysis of built and natural systems
- Information technology for planning and design

## PUBLICATIONS

### A. Refereed Journal Articles

Kweon, B., C.D. Ellis, P.I. Leiva, and G.O. Rogers. (in revew). “Land Content, Land Use, and Neighborhood Satisfaction.” in Landscape and Urban Planning.

Lee, S.W., C.D. Ellis, B. Kweon, and Hong, S. (2008). “Relationship between Landscape Structure and Neighborhood Satisfaction in Urbanized Areas” in Landscape and Urban Planning 85(1): 60-70.

Kweon, B., C.D. Ellis, S.W. Lee, and G.O. Rogers. (2006). “Large-Scale Environmental Perception: Investigating the Relationship Between Perceived and Objectively Measured Physical Environments.” in Environment & Behavior 38: 72-91.

Ellis, C.D., S.W. Lee, and B.S. Kweon. 2006. “Retail Land Use, Neighborhood Satisfaction, and the Urban Forest: An Investigation into the Moderation and Mediation Effects of Trees.” in Landscape and Urban Planning 74(1): 70-78.

Woo, J.H., M.J. Clayton, R.E. Johnson, B.E. Flores, and C.D. Ellis. 2004. “Dynamic Knowledge Map: Reusing Expert’s Tacit Knowledge in the AEC Industry”. in Automation in Construction 13(2): 203-207.

Ellis, C.D., C. Quiroga, S.Y. Shin, and R.J. Pina. 2003. “GIS and Human-Centered Design: Using Ethnographic Data Collection and Analysis Methods to Design a Utility Permitting Support System”. in Urban and Regional Information Systems Association (URISA) Journal 15(2): 5-22.

Quiroga, C., C.D. Ellis, and S.Y. Shin. 2001. “Integrated Platform for Managing Utilities Along Highway Corridors.” in Transportation Research Record 1768, Paper No. 01-2677, Transportation Research Board, National Research Council, Washington, DC, pp. 233-241

**Naderi, J. R., B. S. Kweon, C. D. Ellis, and Enrique Serna. 2001. “Transportation + Street Trees: Effect of the Urban Design Industry’s Roadside Landscape Improvement Standards on Driver and Pedestrian Performance.” in Architectural Research Centers Consortium Journal 22-28.

Schneider, D.W., C.D. Ellis and K.S. Cummings. 1998. “A transportation model assessment of the risk to native mussel communities from zebra mussel spread.” in Conservation Biology 12(4): 788-800.

**B. Refereed Articles in Proceedings**

Ellis, C.D. 2002. “Understanding Site through Electronic Data Collection: Total Stations and GPS Make Digital Design and Reality”. Council of Educators in Landscape Architecture (CELA) 2002 Proceedings. September 25-29 (7 pages)

Quiroga, C., R. Pina, and C. D. Ellis. 2002. “Data Model and Web Mapping Tool to Locate Utility Installations Along Highway Corridors”. International Conference on Applications of Advanced Technology in Transportation, American Society of Civil Engineers (ASCE), Cambridge, MA, August 5-7 (8 pages).

Ellis, C. D., D. W. Schneider, 2000. “Predicting the Spread of Zebra Mussels (Dreissena polymorpha) in Illinois Lakes and Streams.” 4th International Conference on Integrating GIS and Environmental Modeling Conference Proceedings (6 pages). Available online at: http://www.colorado.edu/research/cires/banff/pubpapers/237/

Ellis, C. D., D. M. Johnston. 1999. “Qualitative Spatial Information for Situational Awareness and Spatial Decision Making.” In Lecture Notes in Computer Science, Conference on Spatial Information Theory (COSIT) ’99, (eds.) Christian Freska And David M. Mark, 449-460, Springer.

Ellis, C. D., D. M. Johnston, and L. D. Hopkins. 1996. "Ethnographic Assessment of Ecological Modelers for Design of a Collaborative Geographical Modeling System." GIS/LIS ‘96 Conference Proceedings. Denver, Colorado. pp.488-500.

Ellis, C. D., D. W. Schneider, and D. M. Johnston. 1996. "Landscape Process Models, GIS Representation, and Process Support Interfaces as Agents for Collaborative Landscape Planning." Council of Educators in Landscape Architecture (CELA) 1996 Conference Proceedings. pp.101-112.

**C. Articles in Proceedings and Compendiums**

Ellis, C.D. 2005. “Major Shortcomings in US Immigration Policy: Get Tough or Get Real?”, World Federation of Scientists International Seminars on Planetary Emergencies, August 19-24, Erice, Italy. (Forthcoming)

Ellis, C.D. 2004. “Impacts of Immigration on Megacities in the United States”, World Federation of Scientists International Seminars on Planetary Emergencies, August 19-24, Erice, Italy. 403-409, World Scientific.

Ellis, C.D. 2003. “Limits of Development: Urban Mobility Issues in the U.S.” World Federation of Scientists International Seminars on Planetary Emergencies, August 19-24, Erice, Italy. 351-358, World Scientific.

Ellis, C.D. 2002. “Solid Waste Management in the Texas Urban Triangle” World Federation of Scientists International Seminars on Planetary Emergencies, August 19-24, Erice, Italy. (16 pages)

Quiroga, C., S.Y. Shin, R. Pina, C.D. Ellis, 2002. “Online Approach for Utility Permit Management in Transportation Agencies” Chapter in GIS in Public Works, a compendium published by the Urban and Regional Information Systems Association, (22 pages)

Quiroga, C., C. D. Ellis, 2001. “Utility Permit Management Using GPS and Internet Technologies” Technology in Public Works Conference, Rosemont, Illinois, May 6-8, 2001 pp. 133-142

Rogers. G. O., C. D. Ellis. 2000. “Water Resource Management in the Texas Megacity: A Prima Facie Case for Comprehensive Resource Management” World Federation of Scientists International Seminars on Planetary Emergencies August 19-24, Erice, Italy (16 pages).

Johnston, D. M., C. D. Ellis. 1999. “The Effectiveness of Qualitative Spatial Information in Supporting Spatial Awareness and Decision Making.” In Proceedings: Advanced Displays and Interactive Displays Federated Laboratory First Annual Symposium. Washington, D.C (5 pages).

Johnston, D. M., C. D. Ellis. 1997. “Representation and Computation of Spatial Relations in the Context of Situational Awareness”. In Proceedings: Advanced Displays and Interactive Displays Federated Laboratory First Annual Symposium. Washington, D.C.

**D. Published Projects and Reports**

Landphair, H., C.D. Ellis, J. Overman, C. Estakahri. (2005). Natural Resource Utilization in the Construction of Transportation Facilities TxDOT Project 0-4248. A technical report to the Texas Department of Transportation, Austin, Texas.

Ellis, C.D.*, H. Schubert, J.M., Borthagaray, G.G. Serra, K.C. Sivaramakrishnan, A. Gonzales-Pozo, N. Harris, and S.Y. Lau. 2004. (Ed.) C.D. Ellis, Limits of Development Permanent Monitoring Panel Report on Urban Mobility, Annual Report to the World Federation of Scientist. Geneva, Switzerland.
* Authors share equal credit for the content in this report.

Ellis, C.D.*, H. Schubert, J.M., Borthagaray, G.G. Serra, K.C. Sivaramakrishnan, A. Gonzales-Pozo, and J. Fengjun. 2003. (Ed.) C.D. Ellis, Limits of Development Permanent Monitoring Panel Report on Urban Mobility, Annual Report to the World Federation of Scientist. Geneva, Switzerland.
* Authors share equal credit for the content in this report.

Quiroga, C., C.D. Ellis, S. Shin, and R. Pina, 2002. A Data Platform for Managing Utilities Within the Right-of-Way. TxDOT Project 0-2110. A technical report to the Texas Department of Transportation, Austin, Texas.

Hopkins, L. D., D. M. Johnston, T. Berger-Wolf, C. D. Ellis, and L. Henne. 1997. Dynamic spatial ecological modeling. In Assessing the Effects of Ecosystem Disturbance on Bio-diversity in the Arid and Semi-arid Environments of the American Southwest, A technical report to the U. S. Army Corps of Engineers and U. S. Army Research Office.

*Christopher D. Ellis, Ph.D.*

The physical, chemical, and biological features of an area supply the food, water, shelter and space necessary for species to exist. The relationship between living organisms, their environment, and other living species—their ecology—determines a species vulnerability to extinction. These properties and relationships can be modified significantly by changes in climate. Two mass extinctions identified in the fossil record have been associated with sustained and significant global warming. Species that were unable to adapt to changing conditions were eliminated.

The last global warming event happened about 130,000 years before the present (BP). The earliest modern humans—Archaic *Homo sapiens*—date back to 200,000 years BP suggesting that we have the ability to survive significant climate change. However, since the arrival of modern behavior and cultural universals (50,000 BP) including language, art, religion and cooking, humans have experienced only one warming event, and it is happening right now.

Tremendous evolution has taken place in *Homo sapiens* over the past 50,000 years including the development of agriculture (12,000 BP), states (6,000 BP), writing (5,000 BP), coinage (2,500 BP), and the printing press (500 BP). Today we have permanent outposts in the coldest, hottest, wettest, and driest parts of the planet. We can see through space and time to view some of the earliest galaxies in the universe, and we can photograph the atom. But in our drive to test our abilities—to improve our collective well-being—we seem to have lost our sense of connectedness to the physical, chemical, and biological features of the earth that supply the food, water, shelter, and space necessary for our existence. We have built cities, infrastructure, reservoirs, and farms to support our own habitat but at the expense of other species habitat both on the ground and in the water. Our consumption of the land, contamination of the air and water, and production of greenhouse gases are significantly altering the planetary systems that support life.

New technologies and new ways of thinking about integrating human habitat and wildlife habitat show promise in repairing ecological connections that have been damaged or lost. Low impact development, best management practices, sustainable building practices, and bioengineering can reduce hazards and maintenance costs while improving water quality and protecting wildlife habitat. Daylighting, recycling, energy optimization, green power, and responsible material specification can significantly reduce greenhouse gases and solid waste generation. But will this be enough to mitigate the changes? The Intergovernmental Panel on Climate Change is concerned about fresh water, ecosystems, food, coastal areas, human settlements, and health. Will our current efforts be enough to soften or reverse these negative impacts? Do our governments have the political will to implement the necessary policies? Will the carrying capacity of the earth be sufficient to support our standard of living for a projected population of 6 to 9 billion people? These questions and others will be explored in the context of human ecology and adaptation to climate change.