

Curriculum Vitae

DOUGLAS M. JOHNSTON

Professor Landscape Architecture

Professor and Interim Director, Community and Regional Planning

Interim Associate Dean for Research and Graduate Programs

College of Design

Iowa State University of Science and Technology

A. Educational Background

- 1979 B.S. in Environmental Studies (Magna Cum Laude), State University of New York College of Environmental Science and Forestry
- 1980 Bachelor of Landscape Architecture (Magna Cum Laude), State University of New York College of Environmental Science and Forestry
- 1982 Master of Landscape Architecture, Harvard University, Graduate School of Design
- 1986 Ph.D., Civil and Environmental Engineering, University of Washington, College of Engineering

B. List of Academic Positions since Final Degree

- 1986 – 1991 Assistant Professor, Department of Landscape Architecture, College of Fine and Applied Arts, University of Illinois at Urbana-Champaign
- 1990 – 2001 Director, Geographic Modeling Systems Laboratory, University of Illinois at Urbana-Champaign
- 1991 – 2007 Associate Professor, Department of Landscape Architecture, College of Fine and Applied Arts, University of Illinois at Urbana-Champaign
- 1992 – 2007 Affiliate, Department of Urban and Regional Planning, College of Fine and Applied Arts, University of Illinois at Urbana-Champaign
- 1994 – 2007 Affiliate, Associate Professor, Department of Geography, College of Liberal Arts and Sciences, University of Illinois at Urbana-Champaign
- 1994 – 2007 Senior Research Scientist, National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign
- 2007 Professor, Department of Landscape Architecture, College of Fine and Applied Arts, University of Illinois at Urbana-Champaign
- 2007 – 2010 Professor and Chair, Department of Community and Regional Planning, Department of Landscape Architecture, College of Design, Iowa State University.

C. Other Professional Employment

- 1993-1994: Visiting Associate Professor, U.S. Army Construction Engineering Research Labs, Environmental Laboratory. *Full year half time sabbatical appointment working on geographic information system interfaces based on ongoing work with Corps of Engineers. Founded the UI Geographic Modeling Systems lab, an inter-departmental, inter-college facility for geographic information science.*
- 2001 – Visiting Research Scientist. CEMAGREF, Hydrology and Hydraulics Unit, Lyon, France. *Invited by CEMAGREF (French Ministry of Environment, Agricultural and Environmental Research Center) director to spend sabbatical with researchers on interface standards for GIS/flood management systems.*

D. Honors, Recognitions, and Outstanding Achievements Since 1990

- 1994 Director's Award for Distinguished Public Service. U.S. Army Construction Engineering Research Lab.
- 1994 Director's Award for Distinguished Partnering in Public Service (Departments of Landscape Architecture, Anthropology, Geography, and Urban and Regional Planning) U. S. Army Construction Engineering Research Lab.
- 1994 Design Honor Award for "The Worker's Garden" (D.M. Johnston and T. Harkness). American Society of Landscape Architects, Illinois Chapter.
- 1994 The Arnold O. Beckman Research Award for "Nature Reconstructed: Ecology, Context, Design, and its Interpretation" (D.M. Johnston and T. Harkness). University of Illinois at Urbana-Champaign.
- 1999 National ASLA Merit Award for "EcoRevelatory Design Exhibition and Catalog" (B. Brown, T. Harkness, and D.M. Johnston, Co-Investigators). American Society of Landscape Architects.

E. Invited Lectures and Invited Conference Presentations Since 1990 (Selected)

- 1991 "When Is a Number Not a Number? and Other Mysteries of Environmental Planning". **Alumni Lecture**. SUNY College of Environmental Science and Forestry, Syracuse, NY.
- 1992 "Development of a Decision Support System for Training Land Management." **First International Symposium on Advances in Forest Research**. Kangweon National University, Korea.
- 1993 "Modeling Dynamic Landscapes: GIS Applications." **National Computer Graphics Association**; Philadelphia, PA.
- 1995 "Initiatives in Community Based Spatial Information Systems." **32nd Annual Conference on Technology in Library and Information Science**. Champaign, IL.
- 1995 "Spatial Decision Support Systems." **Expert working group on collaborative spatial decision support systems**. National Center for Geographic Information and Analysis; Santa Barbara, CA.
- 1995 Invited to participate in expert working group. **Workshop on Computational Sciences for Ecological Modeling; San Diego Supercomputing Center**, University of California at San Diego. La Jolla, CA,
- 1996 "Geospatial visualization and environmental simulation in the CAVE and Immersadesk." **2nd International Information Agriculture Conference/ Agriculture Technical Leaders Forum**, Champaign, IL
- 1996 "2 and 3D Visualization for Situational Awareness." **U.S. Army Research Lab**; Ft. Huachuca, AZ.
- 1996 "Federated Natural Resources Databases." **Department of the Interior, U.S. Forest Service, U.S. Fish and Wildlife Service, U.S. Natural Resources Conservation Service**. Wash. D.C.
- 1996 Invited speaker and participant in **Workshop on Internet use for participation in environmental impact assessment**. State University of New York College of Environmental Sciences and Forestry, Syracuse NY.
- 1996 Invited participant in workshop between industry leaders, ASLA leadership, and selected experts. **American Society of Landscape Architects National Conference - Special Meeting on GIS**. Los Angeles, CA.
- 1997 Presentation on research in geospatial modeling. **Iowa State University - Dr. Stanley Johnson, Vice Provost for Extension, Director, Center for Agricultural and Rural Development**. *Iowa Landscape Systems Project Steering Committee to examine proposal for a program in large-scale landscape management*.
- 1997 Presentation to Deputy Chiefs of NRCS on "Internet Access to Federated Natural Resources Databases." **USDA-Natural Resources Conservation Service and USDI-Fish and Wildlife Service**; Washington D.C.
- 1997 "Information Technology for Natural Resource Management: Present and Future." Plenary Presentation, **Governor's Conference on the Illinois River**; Peoria, IL.
- 1997 "Visualization of Geographic Data Using the CAVE." Panel Presenter: "Future Directions for Geographic Visualization." **Data Visualization '97**; St. Louis, MO.
- 1998 "Internet-based Options for Sharing Tagging Record Data." **National Marine Fisheries Service Tagging Meeting**, U.S. Department of Commerce, NOAA.; Annapolis, MD.
- 1998 "Internet Applications for Database Access." Plenary Presentation. **National Freshwater Fisheries Database Summit**. Research Demonstration: MARIS. San Diego, CA.
- 1998 "A Computational Framework for Interdisciplinary Science: The Environmental Hydrology Applications Team." **Alliance '98: The National Computational Science Alliance**. University of Illinois at Urbana-Champaign, Champaign, IL.
- 1999 "Simulation and Visualization of Landscape Processes", **NASA CESDIS (Center for Excellence in Space Data and Information Systems**, Goddard Space Flight Research Center, Greenbelt, MD.
- 1999 "Hydrologic and Erosion/Deposition Modeling in Geographic Information Systems" **CEMAGREF Scientific Committee**, Paris, France.
- 1999 "High Performance Computing for Geographic Information Systems". **ORAP (Organisation Associative du Parallelisme)**, Paris, France.
- 1999 GeoView: A High-Performance Geospatial Visualizer. **U.S. Census Bureau**, Washington, DC.
- 1999 "A Framework for Distributed Geospatial Data Services." **FedWeb'99 Workshop**. Bethesda, MD.
- 1999 "When Apples Become Supercomputers: The Emerging Environment for Information." Plenary presentation. **4th Computer Applications in Fish and Wildlife Management Conference**. Lake Tahoe, CA.
- 1999 "GRID Based Computation for Geospatial Modeling and Decision Making." **Office of the Vice Chancellor of Research and the College of Design**, Arizona State University, Tempe, AZ.
- 2000 "Database Management Issues". **National Science Foundation Workshop on Distributed Databases for Biodiversity Information**. Ft. Collins Colorado.
- 2000 "Computing and Communications". **Federal Workshop on Decision Support Systems for Place-Based**

- Decision Making.** Denver, Colorado.
- 2000 “Putting Technology and Partnerships to Use: A University Perspective.” Plenary Session. **International Association of Fish and Wildlife Agencies Conference.** Indianapolis, Indiana. September, 2000
- 2000 “GIS Information Integration – Prototype Environments.” **Federal Crisis Management Consortium.** Washington D.C.
- 2001 “Recent Work.” **GIS Research Colloquium- INRA/CEMAGREF.** , Montpellier, France.
- 2001 “Environmental Modeling: GIS as an Integrating Tool and Prospective Software Environment.” **Ecole Centrale de Lyon.** Lyon, France.
- 2003 “Strategic Restoration of Large Floodplain Rivers.” **Harvard University,** Cambridge MA.
- 2005 “Green Landscapes: Exogenous Economic Benefits of Environmental Improvement” **Places of Power: Economic and Political Driving Forces of Landscape Change.** Chicago, IL. Johnston, D., and J. Braden.
- 2008

F. Offices Held in Professional Societies

- 1991-1993 Regional Director: Council of Educators in Landscape Architecture.
- 1998-2005 Delegate, University Consortium for Geographic Information Science
Chair, Nominations Committee 1999
Member, Research Committee 1998

G. Editorships of Journals or Other Learned Publications

- 1998 “Eco-Revelatory Design: Nature Constructed/Nature Revealed.” **Landscape Journal,** Guest Editors: Brenda Brown, Terry Harkness and D. Johnston. University of Wisconsin Press.

H. Selected Grants and Contracts Received Since Last 1990

• **Landscape Modeling and Visualization**

- 1990- L.D. Hopkins, and D.M. Johnston. “Development of a Prototype Decision Support
1994 System for Land Use Allocation for Army Training Lands.” U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. (1990 -\$40,000, 1991 \$72,000, 1992 – \$89,264, 1993 – \$89,000, 1994 - \$46,000)
- 1991- Johnston, D.M. “Prototype Geographic Regulatory Information Program Development.” 1992 Illinois Environmental Protection Agency. 1991-\$48,200; 1992-\$46,361.
- 1992 Johnston, D.M. “Develop a Decision Support System for Cultural Resource Management.” U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. \$59,577.
- 1993 Knapp, G. and D.M. Johnston. “Impacts of Environmental Trends Facing TRADOC Installations.” U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. \$89,000.
- 1994 Johnston, D.M. “Development of a GIS Interface to the Great Lakes Water Control Data System.” U.S. Army Corps of Engineers, Detroit District, in conjunction with the U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. \$50,000.
- 1995- Hopkins, L.D. and D.M. Johnston. “Assessing the Effects of Ecosystem Disturbance on Biodiversity in the
1996 Arid and Semi-arid Environments of the American Southwest.” Army Research Office and U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. 1995 - \$165,387. 1996 - \$107,394
- 1995- Johnston, D.M. and H. Mitasova. “Development of GIS Tools for Erosion/Deposition
1999 Modeling and Multi-Dimensional Visualization.” Strategic Environmental Research and Development Program, and U.S. Army Corps of Engineers (CERL). (1995 - \$198,062, 1996 - \$77,882, 1997 - \$171,657, 1998 - \$169,989, 1999 - \$290,250.
- 1996- Huang, T. and G. McConkie, Principal Investigators. “Advanced Displays and Interactive 1999 Displays Federated Laboratory” U.S. Army Research Lab and UIUC Beckman Institute. Johnston, D.M. Co-investigator: “Spatial Query and Reasoning” \$105,756 (total)
- 1997 Johnston, D.M., “Integration of Geographic Data Models and Visualization Software for Radar Clutter Modeling”. DEMACO, Inc. STTR with U.S. D.O.D. Jan. 1, - Aug. 30, 1997. \$33,383.
- 1998 Smarr, L., P.I., “National Computational Science Alliance”. National Science Foundation. D.M. Johnston, Co-Investigator: “Environmental Hydrosience Applications Team.”. Approx. \$750,000 per year (with partners from U. of Iowa, U. of Wisconsin, U. of Maryland, Old Dominion University, and NCSA).
- 1998 Sandore, B., D.M. Johnston and J. Johnson. “History from a Bird's Eye: An Aerial Photograph Digital Image Database and Archive.” Office of the Secretary of State, Illinois State Library. \$32,364.
- 1999 Johnston, D.M. and H. Mitasova. “Landuse Impacts on Pilot Watershed Runoff and Erosion Processes.”

- State of Illinois Department of Natural Resources. \$26,000
- 1999 Johnston, D.M. and D. Timlin. “Risks to Military Landuses Due to Exogenous Effects.” U.S. Army Corps of Engineers, Construction Engineering Research Lab. \$25,000.
- 1999-2003 Johnston, D.M. and Curtis, D. “The Mississippi RiverWeb Museum Consortium.” National Science Foundation, Informal Science Education Program. (UIUC Principal Investigator since 2000.) \$672,272 (UIUC)
- 2005-2008 Hamilton, P. Science Museum of Minnesota (PI), D.M. Johnston (co-PI). “Water Planet.” National Science Foundation.

- **Geographic Information Systems and Development**

- 1991 Johnston, D.M. Utilize TIGER Files for Use in Emergency Management Response Systems. U.S. Army Corps of Engineers, Construction Engineering Research Lab. \$10,700.
- 1991 Johnston, D.M. “Data Development Efforts for Army Installations”. U.S. Army Corps of Engineers, Construction Engineering Research Lab. \$36,000.
- 1991 Johnston, D.M. “GRASS GIS Program Upgrades and Documentation”. U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. \$67,246.
- 1992 Johnston, D.M. “Development of Electronic Distribution Center for GRASS GIS Documents”. U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. \$36,000.
- 1995 Johnston, D.M., D. Schneider, and D. Szafoni. “Development of GIS for Natural Resources and Recreational Facilities.” Illinois Department of Natural Resources. \$80,000.
- 1995 Johnston, D.M. and Z. Budic. “Creating Local Nodes on the National Spatial Data Infrastructure.” U.S.G.S. National Spatial Data Infrastructure Competitive Cooperative Agreement Program. \$29,307.
- 1995 Johnston, D.M. “GIS Support Services”. U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. \$19,080.
- 1995-2006 Johnston, D.M. “Internet Access to the Multistate Aquatic Resources Information System”. U.S. Department of Interior, U.S. Department of Agriculture, U.S. Fish and Wildlife Service, and Illinois Department of Natural Resources. 1995 - \$85,520, 1997 - \$29,996, 1998 – \$15,000, 1999 - \$20,000, 2001-2006 \$25,000 per year.
- 1996-1998 Johnston, D.M., and D. Szafoni. “Development of Geographic Information System Applications for Natural Resources and Recreational Facilities.” Illinois Department of Natural Resources. (1996-\$85,000, 1997-\$65,000, 1998-\$60,000).
- 1997-2000 Johnston, D.M., P.I., “Indefinite Delivery Contract to the Geographic Modeling Systems Lab, University of Illinois at Urbana-Champaign to Provide Research Services in the Area of Army Training Land and Natural Resources Characterization, Risk Assessment, and Management.” U.S. Army Corps of Engineers, Construction Engineering Research Lab. Not-to-exceed \$2,000,000.
- 1997 Johnston, D.M., “Provide GRASS GIS Programmer Training”. CADLAND, Inc. Seoul, Korea. \$20,037.
- 1998 Johnston, D.M. “Network Data Serving for Enterprise Installation Management.” U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. \$71,483.
- 1998 Johnston, D.M. “Development of C-Based Raster GIS Function Library.” US Army Corps of Engineers, Construction Engineering Research Lab. \$24,659
- 1998 Johnston, D.M. “Quality Assurance/Quality Control Procedures on Fort Hood Integrated Training Area Management GIS Data Layers.” US Army Corps of Engineers, Construction Engineering Research Lab. \$239,876.
- 1999 Johnston, D.M. and J. Westervelt. “Research for Web-Based Interface Environment to Build New Modules and Connect Modules of the Land Management System (LMS).” U.S. Army Corps of Engineers Engineering Research and Development Center. \$150,000.
- 1999 Johnston, D.M. “Develop Methods and Guidelines for Multiple Use of Historic Data.” U.S. Army Corps of Engineers, Engineering Research and Development Center. \$130,000.
- 1999 Johnston, D.M. “Neural Network Applications in Support of Erosion and Carrying Capacity Modeling Efforts.” U.S. Army Corps of Engineers, Engineering Research and Development Center. \$35,000.
- 2000-2003 Johnston, D.M. (P.I.) “Indefinite Delivery Contract to Provide Research and Development Services for Land Management Systems.” U.S. Army Corps of Engineers, Engineering Research and Development Center. UIUC prime contractor with Environmental Systems Research Institute (ESRI), Inc, Menzie-Cura and Associates, and Environmental Resource Services, Inc as sub-contractors. Not-to-exceed \$4.8million.
- 2000 Johnston, D.M. “Review of Scenario-Based Regional Planning Technologies Recommendations, and

- Application to Army Example”, U.S. Army Engineering Research and Development Center. \$17,268.
- 2000 Johnston, D.M and Donaghy, K. . U.S. Army Engineering Research and Development Center. Risk to Military Installations from Exogenous Urban Development, \$23,500
- 2000 Johnston, D.M. U.S. Army Engineering Research and Development Center. Dynamic Integrated Natural Resource Management Plans (DINRMP) 2000-2001, \$153,000.
- 2009 Borich, T., F. Owusu, D. Johnston, D. Swenson, C. Basmajian. Iowa Housing Needs Assessment. Iowa Finance Authority.
- 2009 Wagner, Mimi, D. Johnston, and C. Rogers. Iowa Water Trails Plan. Iowa Department of Natural Resources.
- 2009 Johnston, D., M. Haddad, C. Basmajian. Iowa Economic Research and Analysis System. Iowa Department of Economic Development.

- **Ecological Design**

- 1994 Johnston, D.M. and T. Harkness. “Nature Reconstructed: Ecology, Context, Design and its Interpretation.” University of Illinois Research Board. 1994-95. \$5,472. Arnold Beckman Research Award recipient.
- 2000- Sparks, R., J. Braden, M. Demissie, A. Isserman, D. Johnston Z. Nedovik-Budic, D.
- 2003 Schneider , D. White. “Strategic Renewal of Large Floodplain Rivers.” National Science Foundation and U.S. Environmental Protection Agency. \$819,560.
- 2002 Braden, J., and D. Johnston. “The Downstream Economic Benefits of Stormwater Retention.” Sub-contract from Conservation Research Institute from the U.S. Environmental Protection Agency. EPA Award: \$55,000.
- 2005 Wilson, K. Living Laboratories on the Wabash. Purdue University. 2006. (Project Collaborator).
- 2005 Johnston, D.M. and M. Calkins. “Cross-National Comparison of Sustainable Design Practices.” \$14,900. Wadsworth Fund, University of Illinois.
- 2005 Johnston, D.M. “Scaling Effects of Conservation Design Best Management Practices.” University of Illinois Research Board. \$6,292.

I. Review Panels

- 1996 United States Environmental Protection Agency. Corvallis Environmental Research Laboratory. Proposal Review.
- 1997 Data Visualization '97. GIS World, Inc., and Resource Technology, Inc., Steering Committee.
1998. United States Department of Energy, Office of Basic Energy Sciences. Proposal Review.
- 1999 National Aeronautics and Space Administration, Mission to Planet Earth, Prototype Earth Science Information Partnerships In Support Of Earth System Science. Proposal Panelist.
- 2000 University Consortium for Geographic Information Science. Research Committee.
- 2004 Cooperative Institute for Coastal and Estuarine Environmental Technology. Environmental Technology Development Program. Proposal Reviewer.
- 2005 National Research Council of the National Academies. Report Review: “Water Resources Planning for the Upper Mississippi River and Illinois River Waterway.”
- 2005 National Science Foundation, Directorate for Computer and Information Science and Engineering. Proposal Panelist for Digital Government Grant Program.

II. Publications and Creative Works

A. Doctoral thesis title

Multiobjective Decision Making Under Uncertainty: An Application of Fuzzy Set Theory. University of Washington, Seattle, WA. 1986.

B. Books Authored or Co-Authored – n.a.

C. Books Edited or Co-Edited

1. J.L. Wescoat Jr. and D.M. Johnston, ed. 2007. Places of Power: Economic and Political Driving Forces of Landscape Change, under contract with Springer Publishing (Neth.) for 2007.

D. Chapters in Books

1. Poole, K., S. Galatowitsch, R. Grese, D. Johnston, J.T. Keller, D. Richey, L. Skabelund, C. Steinitz, and J. Woodward. 2001 "Building Ecological Understandings in Design Studio: A Repertoire for a Well-Crafted Learning Experience." In Ecology and Design: Frameworks for Learning. Edited by Bart Johnson and Kristina Hill. Island Press.
2. D.M. Johnston and J.B. Braden. 2007. "Green Greens: Economic Impacts of Environmental Improvement." In J.L. Wescoat Jr. and D.M. Johnston, ed. Places of Power: Economic and Political Driving Forces of Landscape Change, Springer Publishing.
3. D.M. Johnston and J.L. Wescoat, Jr. 2007. "Implications for Future Landscape Inquiry, Planning, and Design." In J.L. Wescoat Jr. and D.M. Johnston, ed. Places of Power: Economic and Political Driving Forces of Landscape Change, Springer Publishing.
4. D.M. Johnston. 2009. "Watershed Based Flood Management" In Cornelia Mutel, ed. A Watershed Year: Anatomy of the Iowa Floods of 2008.

E. Monographs – n.a.

F. Articles in Journals (* Peer Reviewed, #Derived from Thesis, + Invited)

1. *Johnston, D.M. and L.D. Hopkins. 1987. "Uncertainty in Expert Systems for Planning Analysis." Town Planning Review 58(3), pp. 342-346.
2. *Geselbracht, J.J., and D.M. Johnston. 1988. "Issues in Rule Base Development," Journal of the Water Resources Planning and Management Division, ASCE. 114(4), pp. 457-468.
3. #*Johnston, D.M., and R.M. Palmer. 1988. "Application of Fuzzy Decision Making: An Evaluation." Civil Engineering Systems. 5(2), pp. 87-92.
4. *Stuebe, M., and D.M. Johnston. 1990. "Runoff Volume Estimation Using GIS Techniques." Water Resources Bulletin. 26(4), pp. 611-620.
5. +Johnson, J. and D.M. Johnston. 1993 "Nature Constructed: Ecological Design and Public Understanding." Orion, Winter 1993, pp16-27.
6. *Mattingly, R., E. Herricks, and D.M. Johnston. 1993. "Channelization and Levee Construction In Illinois - Review And Implications For Management". Environmental Management, v17, n6, p781-795.
7. +Brown, B., Harkness, T, and Johnston, D.M. 1998. "Eco-Revelatory Design: Nature Constructed/Nature Revealed." Landscape Journal, 144pp. Special Issue.
8. +Johnston, D.M. 1998. "TRACES: Revealing Nature Through Models of Landscape Dynamics." Landscape Journal, p 4-5. Special Issue.
9. *Choi, Song-Hyun, and D. Johnston. 1999. "Natural Environmental Assessment and Management Using Geographic Information Systems. Korean Journal of Environment and Ecology. 13(2).
10. *Ellis, Christopher and D.M. Johnston. 1999. "Qualitative Spatial Representation for Situational Awareness and Spatial Decision Support". Lecture Notes in Computer Science. 1661: 449-460. 1999.
11. *Braden, John B., and Douglas M. Johnston. 2004. "The Downstream Economic Benefits From Stormwater Management." Journal of Water Resources Planning and Management, American Society of Civil Engineers, v 130, n 6:498-505.
12. *Sparks, R., C. Ahn, M. Demissie, A. Isserman, D. Johnston, Y. Lian, Z. Nedovic-Budic, & D. White. 2005. "Linking hydrodynamics, conservation biology, and economics in choosing naturalization alternatives for the Illinois River, USA" Archiv für Hydrobiologie Supplement 155/1-4:521-538. Large Rivers Volume 15, No. 1-4.

13. *Johnston, D.M., J.B. Braden, and T.H. Price. 2006. "Downstream Economic Benefits of Conservation Development." Journal of Water Resources Planning and Management, American Society of Civil Engineers, v 132, n 1, p 35-43
14. *Ahn, C, D.M. Johnston, R.E. Sparks, D.C. White. 2006. "Analysis of naturalization alternatives for the recovery of moist-soil plants in the floodplain of the Illinois River". Hydrobiologia / Developments in Hydrobiology The International Journal on Limnology and Marine Sciences. v 565, n 1, pp. 217-228.
15. *Kan, R., Z. Budic, D. Johnston, R. Sparks, and D. White. 2006. Estimating the Local Impacts of Recreational Use and Lodging Facility Siting in a Naturalized Floodplain. Journal of Urban Planning and Development, American Society of Civil Engineers. J. Urban Plng. and Devel. 132, 201 (2006), DOI:10.1061/(ASCE)0733-9488(2006)132:4(201).
16. Sarah Taylor Lovell, Douglas M Johnston. 2009. Creating multifunctional landscapes: how can the field of ecology inform the design of the landscape? Frontiers in Ecology and the Environment: Vol. 7, No. 4, pp. 212-220.
17. Lovell, S. Taylor and D. M. Johnston. 2009. Designing Landscapes for Performance Based on Emerging Principles in Landscape Ecology. Ecology and Society 14 (1): 44. [online] URL: <http://www.ecologyandsociety.org/vol14/iss1/art44/>

G. Creative Works

- **System Design (Environmental Information Systems) (Selected Work)**

1. "Land Condition / Trend Analysis System". 1989. U.S. Army Corps of Engineers Construction Engineering Research Laboratory.
2. "Interactive Digital Landscape Architecture Slide Library". 1989-1991. With Marilou Hinrichs. Developed with funding from the Educational Technologies Board, the Vice Chancellor for Academic Affairs.
3. "TRAINER (Training Requirements Analysis and Integration with Environmental Resources)." 1990-1995. Developed for the U.S. Army Integrated Training Area Management Program, U.S. Army Corps of Engineers Construction Engineering Research Lab.
4. "Great Lakes Information Management System (GLIMS)". 1993. Developed for the U.S. Army Corps of Engineers, Detroit District.
5. "Illinois Streams Information System (ISIS)." 1994-1996. Developed for the State of Illinois Department of Natural Resources. 1986-90, 1994-1996.
6. "Multi-state Aquatic Resources Information System (MARIS)." Developed for USDA-Natural Resources Conservation Service, USDI Fish and Wildlife Service, USDI Forest Service, and state natural resources agencies.
7. "GEOVIEW." 1997. National Center for Supercomputing Applications. Developed for CAVE virtual reality environment.
8. "Illinois Digital Aerial Photograph Archive" 1997. Sandore, E., D.M. Johnston, and J. Johnson. Developed for UI Digital Library System.
9. "Fort Hood Internet MAP SERVER" 1998.. Developed for U.S. Army Construction Engineering Research Labs.
10. "TRACES: Revealing Nature Through Models of Landscape Dynamics." 1998. Exhibited in "Eco-Revelatory Design: Nature Constructed/Nature Revealed." (*Project lead, and software designer for 3D immersive application of landscape dynamics and video documenting the project*)

11. "River Pilot Simulator." Science Museum of Minnesota. (Permanent Exhibit) National Science Foundation (*Technical lead, and primary designer of exhibits, computer interfaces, and scientific modeling for permanent exhibits installed in museum galleries.*)
 12. Digital River Basin, St. Louis Science Center (Cyberville Gallery) , Science Museum of Minnesota, (Mississippi River Gallery) and Illinois State Museum (Changes – Dynamic Illinois Environments Gallery). National Science Foundation (*Technical lead, and primary designer of exhibits, computer interfaces, and scientific modeling for permanent exhibits installed in museum galleries.*)
 13. Dynamic Integrated Natural Resources Management Plan system. 2002. Adopted by the US. Army Corps of Engineers for use on installations. (*Project Principal Investigator and designer for project developing software to improve environmental management documentation on military installations.*)
 14. *Iowa Economic Development Mapping and Analysis. 2011. Iowa Department of Economic Development. (Project Principal Investigator and designer of comprehensive database infrastructure for asset mapping and cluster analysis).*
- **Landscape Architecture Design (Selected Work)**
 1. "Landscape Restoration Plan for Freihoelser Forst Training Area, West Germany." 1989. Principal Investigator. U.S. Army Corps of Engineers Construction Engineering Research Laboratory.
 2. "The Worker's Garden." 1994. Johnston, D.M. and T. Harkness. Design Honor Award, Illinois Chapter, American Society of Landscape Architects.
 3. "Eco-Revelatory Design: Nature Constructed/Nature Revealed." Exhibition Co-Curator with Brenda Brown and Terry Harkness).
Venues: Temple Buell Gallery, UIUC, Sept. 28 - October 23, 1998
 - Chicago Cultural Center, April 1- April 30, 1999
 - Boston Architectural Center, September 11 - October 17, 1999
 - National Building Museum, Washington, DC. Through October 22, 2000
(*Co-organizer/exhibition design, generator of project based on previous work on ecological design and public understanding*)
 4. Emiquon Preserve Visitor Use Plan (with Prof. Terry Harkness, and Austin Tao & Associates. The Nature Conservancy. 2005-2006 (*Co-designer for visitor use master plan for nearly 8,000 acre floodplain restoration project along the Illinois River, including four principal interpretive sites of natural and cultural (Native American) resources. Lead on hydrologic analysis, visualizations, and visitor interpretive elements*).
 5. Lake Michigan Shoreline Preserve. (With Prof. Terry Harkness). Openlands and Corlands, Chicago, IL. 2006 (*Co-designer for public access plan to Lake Michigan bluff and ravine complex undergoing restoration. Site is one of few publicly accessible lakeshore and ravine sites with unique remnant habitat. Primary responsibility for site hydrology, preliminary engineering design, visualization, and visitor interpretation and educational design*).
- H. Selected Bulletins, Reports, or Conference Proceedings (* Peer Reviewed, #Derived from Thesis, + Invited)**
- **Technical Reports:**
 1. #Johnston, D.M. "Multiobjective Decision Making Under Uncertainty: An Application of Fuzzy Set Theory." Water Resource Series Technical Report No. 102, Environmental Engineering and Science, Department of Civil Engineering, University of Washington, August, 1986. 217 pp.
 2. Johnston, D.M. and D.A. Kovacic. 1988. "Land Condition – Trend Analysis System: Definition of Prototype Data Base." Prepared for U.S.Army Corps of Engineers, Construction Engineering Research Laboratory. 43 pp.
 3. Johnston, D.M. 1989. "Land Condition - Trend Analysis System: Data Base System Tutorial." Prepared for U.S. Army Corps of Engineers Construction Engineering Research Laboratory. 20 pp.

4. Johnston, D.M., and D.A. Kovacic. 1989. "Land Condition - Trend Analysis System: Interim Report on Data Entry, USLE, Concealment, and Land Use Applications." Prepared for U.S. Army Construction Engineering Research Laboratory. 51 pp.
5. Johnston, D.M. 1989. Land Condition-Trend Analysis: Data Entry/Editing Manual. Prepared for USA-CERL. 38 pp.
6. Hopkins, L., D.M. Johnston, S-K. Lai, and M. Shiffer. 1990. Development of an Army Unique Approach to Land Use Allocation Strategies for Army Training Lands. Prepared for USA-CERL, 43pp.
7. Johnston, D.M., M. Hinrichs, L.D. Hopkins, and D. Phillippe. 1991. Illinois Streams Information System: Computer Users Manual. Department of Landscape Architecture, Dept. of Urban and Regional Planning, University of Illinois, Urbana, Illinois. 259 pp.
8. Johnston, D.M., R.B. Olshansky, I. Lee, and L.D. Hopkins. 1991. Development of Algorithms for Classification, Spatial Allocation, and Tradeoff Analysis For Training Land Use Management. Department of Urban and Regional Planning, Department of Landscape Architecture, University of Illinois, Urbana, Illinois. 45 pp.
9. Hopkins, L.D., Johnston, D.M. Pabich, K., Montague, S., Lee, I., Mukerjee, J. 1992. Prototype Spatial Land Use Allocation and Tradeoff Analysis System. Department of Urban and Regional Planning, Department of Landscape Architecture, University of Illinois, Urbana, Illinois.
10. Johnston, D.M., L.D. Hopkins, M. Hinrichs, I. Lee, H-B Kim, H-C Lu, and S. Srinivasan. 1994. TRAINER: A System for Training Requirements Assessment and Integration with Environmental Resources. Department of Landscape Architecture, Department of Urban and Regional Planning, University of Illinois, Urbana, IL. 184 pp.
11. Frederickson, K.E., J.D. Westervelt, and D.M. Johnston. 1994. Geographic information system/hydrologic modeling graphical user interface for flood prediction and assessment. USACERL Technical Report; EC-95/03, 53 pp.
12. Mitsova, H., D. Brown, D. Johnston, B. Saghafian, L. Mitsova, M. Astley. 1995. GIS Tools for Erosion/Deposition Modeling and Multidimensional Visualization. Part I: Interpolation, rainfall-runoff, Visualization. Prepared for USACERL, Contract No.: DACA88-95-Q-0438.
13. Mitsova, H., W.M. Brown, D. Johnston, L. Mitsova 1996. "GIS tools for erosion/deposition modeling and multidimensional visualization. PART II: Unit Stream Power-Based Erosion/Deposition Modeling and Enhanced Dynamic Visualization." Report for USA CERL. 38 pp.
14. Mitsova, H., L. Mitsova, W.M. Brown, D. Johnston. 1996. "Multidimensional Soil Erosion/deposition Modeling. PART III: Process based erosion simulation." Report for USA CERL. 28 pp.
15. Mitsova, H., L. Mitsova, W.M. Brown, D. Johnston. 1997. "Multidimensional Soil Erosion/Deposition Modeling. PART IV and V: Process based erosion simulation for spatially complex conditions and its applications". Report for USA CERL.
16. Mitsova, H., L. Mitsova, W.M. Brown, D. Johnston. 1998. "Multidimensional Soil Erosion/Deposition Modeling and Visualization Using GIS". Final report for USA CERL.
17. Mitsova, H., L. Mitsova, W.M. Brown, D. Johnston. 1999. "Terrain modeling and Soil Erosion Simulations for Fort Hood and Fort Polk Test Areas." Report for USA CERL.
18. Johnston, D.M., D. Szafoni, and A. Srivastava. 1999. "Illinois Streams Information System User and Reference Guide". Prepared for the Illinois Department of Natural Resources.
19. National Computational Science Alliance/University of Illinois at Urbana Champaign. 1999. "Toward Improved Geographic Information Services for a Digital Government". Report of NSF Digital Government Workshop. (*prime author*)
20. Mitsova, H., L. Mitsova, W.M. Brown, D. Johnston. 2000. "Terrain modeling and Soil Erosion Simulation: applications for evaluation and design of conservation strategies." Report for USA CERL.
21. Johnston, D.M., D. Timlin, D. Szafoni, J. Casanova. 2000. "Quality Assurance/ Quality Control Procedures for ITAM GIS Databases". USA CERL. Technical Report ERDC-CERL TR-00-20. 131pp. August, 2000.
22. Szafoni, D. J. Casanova, D.M. Johnston, K. Dilks. 2000. "Installation-Wide GIS Implementation Issues". USA CERL. CERL-TR-00-16 19pp.
23. Johnston, D.M., D. Timlin, J. Casanova. 2000. "Develop Methods and Guidelines for Multiple Use of Historic Data". Final Report. Prepared for USA-CERL.
24. Johnston, D.M., D. Timlin. 2000. "Scenario-based Planning Review and Application of a Tool to an Army Example". Prepared for USA-CERL.
25. Johnston, D.M., D. Timlin. 2000. "Risks to Military Land Uses Due to Exogenous Effects". Prepared for U.S. Army Construction Engineering Research Lab.

26. Case M., W.D. Goran, T.A. Gunther, J. P. Holland, D. M. Johnston, G. Lessard,, W. J. Schmidt. 2001. "Decision Support Capabilities for Future Technology Requirements". U.S. Army Corps of Engineers, Engineering Research and Development Center, Technical Report ERDC-TR-01-2. January, 2001
27. Johnston, D.M., D. Timlin, J. Casanova. 2001. "Dynamic Integrated Natural Resource Management Plan: User Needs Analysis and Requirements Specification," and "Proposed DINRMP Functionality." Reports for USA Army Corps of Engineers CERL.
28. Timlin, D. D.M. Johnston, B. Deal. 2002. "Guidelines for Developing Historic Urban Growth Series for Military Installations". USA CERL ERDC/CERL-TR-02-4. 63 pp.
29. Joyce Coffee, et al. 2004. "The Confluence of Water, Society, and Ecological Design, Executive Summary." Sponsored by the City of Chicago, Department of Environment and UIUC [co-organizer and presenter].
30. Joyce Coffee et al. 2005. City of Chicago, Department of Environment, "The Confluence of Water, Society and Ecological Design: Session Summaries," Co-organizer and presenter. Electronically published by the City of Chicago, Department of Environment:
http://egov.cityofchicago.org/webportal/COCWebPortal/COC_ATTACH/Water_Confluence_Session_Summaries_2.pdf
31. Austin Tao and Associates, The Office of Terry Harkness. 2006. "Visitor Use Plan for the Emiquon Preserve". The Nature Conservancy, Illinois Chapter, Chicago, IL. 100 pp.
32. Austin Tao and Associates, The Office of Terry Harkness. 2006. "Visitor Use Plan for the Emiquon Preserve: Executive Summary". The Nature Conservancy, Illinois Chapter, Chicago, IL 38pp.
33. Basmajian, C. T. Borich, D. Johnston, A. Logan, F. Owusu. 2010. Housing Affordability and Demographic Change in Iowa. Iowa Finance Authority, Des Moines, IA. 30pp.

- **Conference Proceedings:**

1. *Johnston, D.M. "The Use of Integrated Mapping Systems in Environmental Impact Assessment and Land Use Planning." ISPRS 4 - Proceedings, International Society for Photogrammetry and Remote Sensing Commission 4: Cartographic and Data Bank Application of Photogrammetry and Remote Sensing. August, 1983, pp. 353-357
2. *Johnston, D.M. "Diagnosis in Wastewater Treatment Facilities." Proceedings of the American Society of Civil Engineers Specialty Conference on Computer Applications in Water Resources. Buffalo, NY. pp. 601-610. June, 1985
3. *Johnston, D.M. "An Application of Approximate Reasoning to Wastewater Treatment Processes." Proceedings of the NSF Workshop on Civil Engineering Applications of Fuzzy Sets. Purdue University, West Lafayette, IN. pp.115-125. September, 1985.
4. *Hopkins, L.D., and D.M. Johnston. 1990. "Locating Spatially Complex Activities With Symbolic Reasoning: An Object Oriented Approach". Proceedings of the International Symposium on Spatial Data Handling. University of Zurich, Switzerland. pp762.
5. *Hopkins, L., and D. Johnston. 1990. "Spatial Decision Support Systems: Several Research Hypotheses and Experimental Settings". ORSA-TIMS, Philadelphia, PA.
6. +Johnston, D.M. 1993. "Development of a Decision Support System for Training Land Management." Proceedings First International Symposium on Advances in Forest Research. Kangweon National University, Korea.
7. *Ellis, C. D., D. W. Schneider, D. M. Johnston. 1996. "Integrating technology and the community: Landscape process models, GIS representation, and process support interfaces as agents for collaborative landscape planning." Proceedings CELA '96. pp.101-112. ISBN#0-941236-23-4
8. *Ellis, C. D., D. M. Johnston, L. D. Hopkins. 1996."Ethnographic assessment of ecological modelers for design of a collaborative geographical modeling system." Proceedings GIS/LIS 96. pp.488-500. ISBN#1-57083-042-8
9. *D. M. Johnston, Z. Nedovic-Budic, M. A. Records, M. A. Ruesink, and E. Waggoner. 1996. "Local National Spatial Data Infrastructure Node in Champaign County, Illinois: Prototyping and Learning." Urban and Regional Information Systems Association (URISA) 1996 Annual Conference Proceedings (July 27-August 1, 1996, Salt Lake City, Utah), pp. 374-386.
10. *Hopkins, L., D. Johnston, J. Westervelt. 1996. "Geographical Modeling Systems: Integrating Multiple Models in Space and Time." American Collegiate Schools of Planning (ACSP)/Association of European Schools of Planning (AESOP), July, 1996, Toronto, Canada.
11. *Johnston, D.M. and C. Ellis. 1997. "Representation and Computation of Spatial Relations in the Context of Situational Awareness'. Proceedings of the ARL Conference on Advanced and Interactive Displays Federated Laboratory Consortium. Washington, D.C., January, 1997.

12. *Johnston, D.M., and M. Ruesink. 1997. "Internet Access Tools for the Multistate Aquatic Resource Information System (MARIS)", Internet in Natural Resources and Environmental Management Technology '97, Seattle, WA.
13. Mitasova, H., L. Mitas, D. Johnston, and D. Austen. 1999. 10th International Soil Conservation Organization Conference (ISCO'99). "Multiscale simulation of land use impact on soil erosion and deposition patterns."
14. *Johnston, D.M. and C. Ellis. 1999. "The Effectiveness of Qualitative Spatial Representation In Supporting Spatial Awareness And Decision Making". Proceedings of the ARL Conference on Advanced and Interactive Displays Federated Laboratory Consortium. Washington, D.C., January, 1999
15. *Hopkins, L.D., D.M. Johnston and V. George. 1999. Sketch Planning Tools. 6th International Conference on Computers in Urban Planning and Urban Management, Venice, IT; October, 1999.
16. *Johnston, D.M. and A. Srivastava. 1999. "Decision support systems for design & planning: the development of HydroPEDDS (Hydrologic Performance Evaluation & Design Decision Support) system for urban watershed planning", 6th International Conference on Computers in Urban Planning and Urban Management, Venice, IT; October, 1999
17. *+Ellis, C. and Johnston, D.M. 1999. "Qualitative Spatial Representation for Situational Awareness and Spatial Decision Support" (selected for plenary session). Conference for Spatial Information Theory -COSIT'99. Stade, Germany.
18. *Johnston D.M., A. Srivastava. 2000. "Hydrologic Design Performance Evaluation: Use of Abstraction and Sketch Tools in a GIS Decision Support System". HydroInformatics2000, July, 2000
19. *Johnston, D.M., D. Curtis, J.Sonin. 2000. "The Digital River Basin: A Science and Technology Program for Informal Education." . HydroInformatics2000, July 2000.
20. *Johnston, D.M., D. Timlin, D. Szafoni. 2000. "Spatial Accuracy Quality Assessment for Environmental Management". 4th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences.
21. *Johnston, D.M. 2003. The Digital River Basin: Interactive Real-Time Visualization of Landscape Processes. International Symposium on Landscape Modeling. Annault University, Germany.

I. Abstracts

- 1986 *Kesler, G., B. Orland, and D. Johnston. 1986. "Computers in Landscape Architecture at the University of Illinois: A Plan for the Future." Council of Educators in Landscape Architecture Conference. University of Georgia. September, 1986
- 1988 *Johnston, D.M. and M. Munn. "Design and Management Strategies for an Urban Nature Preserve." Council of Educators in Landscape Architecture. Pomona, CA. June, 1988
- 1989 *Hopkins, L.D. and D.M. Johnston. 1989. "Implementation of the Illinois Streams Information System: Stream Classification and Mapping System." Council of Educators in Landscape Architecture Conference (CELA '89). Amelia Island, FL. September, 1989
- 2001 Johnston, D.M. and J. Braden. Performance Assessment of Conservation Design Practices. Council of Educators in Landscape Architecture Conference (CELA '89)

J. Book Reviews

- 1989 Kesler, G. and D.M. Johnston. "The Art of Computer Graphics Programming" by W. Mitchell, R. Liggett, and T. Ryan. Landscape Journal. Fall, 1989
- 2003 Johnston, D.M. 2003. "Landscape Modeling: Digital Techniques for Landscape Visualization." Stephen Ervin and Hope Hasbrouck. McGraw-Hill. Journal of the American Planning Association, vol. 69(2), p. 213.
- 2003 Johnston, D.M. 2003. Landscape erosion and evolution modeling. Harmon, R. S. and W. W. III Doe. Kluwer Academic, New York. 540 pp. Landscape Ecology, vol. 18(2), pp.210-211.

K. Selected Other

- 1993 Johnston, D.M. "(R)evolution in Landscape Architecture: Review of the 1992 CELA Annual Conference." Landscape Journal. 1993
- 1993 + "Environmental Modeling with Geographic Information Systems". SUNY College of Environmental Science and Forestry, Syracuse, NY.
- 1994 + "Geographic Information Systems at the University of Illinois", Midwest GIS Conference, USDA Soil Conservation Service. October 4-5, 1994
- 1994 TRAINER: A System for Training Requirements Assessment and Integration with Environmental

- Resources, U.S. Army Corps of Engineers 1994 Conference on GIS and Remote Sensing; New Orleans, LA. Aug. 10-12, 1994
- 1994 GLIMS: Great Lakes Information Management System. U.S. Army Corps of Engineers 1994 Conference on GIS and Remote Sensing; New Orleans, LA. Aug. 10-12, 1994
- 1996 + "Computational Issues in Ecological Modeling." Artificial Intelligence and Simulation '96; San Diego, CA. Mar. 24-27, 1996
- 1998 * Goodchild, M., D.M. Johnston, D. Maguire, V. Naronha. "Distributed Computing for GIS." University Consortium for Geographic Information Science Annual Meeting, Park City Utah. June 21-25, 1998.
- 2002 + "Water Works." College of Architecture and Landscape Architecture, University of Minnesota. Minneapolis, MN. April, 2002
- 2004 + Braden, J.B., and D.M. Johnston. Downstream Economic Impacts of Conservation Design. Lake Michigan Watershed Academy, Northern Illinois Planning Commission.
- 2004 *Johnston, D., and J.B. Braden. Downstream Economic Benefits from Conservation Design Practices. Illinois Water 2004. Urbana, IL
- + numerous on-campus colloquium talks (Civil Engineering, Library Sciences, NCSA, Urban and Regional Planning, Geography, Anthropology)

III. Resident Instruction

A. Summary of Instruction

1. Descriptive Data (Course Titles Listed First Semester Taught)

Year	Fall Courses	Spring Courses
1986-87	LA/UP 341 Land Resource Evaluation LA 437 Land Resources Planning and Design Studio	LA442/UP445: Spatial Design Methods (Advanced Geographic Information Systems)
1987-88	LA/UP 341 LA 437 (Studio) UP 348 – Environmental Workshop LA 499A Thesis (2)	LA442/UP445 LA 490 Independent Study (2) LA 499A (2)
1988-89	LA/UP 341 LA 437 (Studio) LA 499B (8) Thesis Proposal Seminar LA 481 (1) LA 490 (1)	LA442/UP445 LA 499B (11) UP 497 (1) Thesis Research LA 499A (3)
1989-90	LA 499A (2) UP 497 (1)	LA442/UP445 LA 499B (12) UP 497 (1) LA 499 (1)
1990-91	LA 437 (Studio) LA 341 LA 499A (1) LA 490 (2)	LA 442/UP445 LA 499A (1)
1991-92	LA/UP 341 LA 437 (Studio) LA 499 (1)	LA 244 – Landscape Construction (Studio)
1992-93	LA/UP 341 LA 499A (1)	LA 244 (Studio) LA 499A (1) LA 490 (1)
1993-94 (0% teach appoint)	Sabbatical LA 499 (1)	Sabbatical UP 499 (1)
1994-95 (50% teach appoint)	LA/UP 341 LA 499A (1) UP 497 (1) UP 499 (1)	LA442/UP445 UP497 (2) LA 490 (1)

1995-96 (50% teach appoint)	LA/UP 341 UP 499 (1) LA 499 (1) LA 490 (1)	LA499B (9) Thesis Workshop UP499 (1) LA499 (1) LA490 (2)
1996-97 (50% teach appoint)	LA437/LA465 (Studio) LA499 (4) UP499 (1)	LA442/UP445 UP499 (1) LA499B (3)
1997-98 (50% teach appoint)	LA437/UP465 (Studio) LA 499 (1) UP 499 (1)	LA442/UP445 LA499 (1) LA490 (1)
1998-99	(50% teach appoint) LA437/465 (Studio)	(0 % teach appoint) LA 499 (1) LA 490 (1)
1999-2000	(0% teaching appointment)	(0% teaching appoint)
2000-2001	(25%) LA/UP 341	Sabbatical Leave
2001-2002	LA/UP 341 LA437/465 (studio) LA 490 (1)	LA 442/UP 445
2002-2003	LA/UP 341 LA 499 (2)	LA 442/UP 445 LA 236/338 – Design Workshop (Studio) LA 499 (3)
2003-2004	LA/UP 341 LA 437: (Studio) LA 499 (1)	LA 181 Design Communications II (new course) LA 499 (1)
2004-2005	LA 441 LA 537 (Studio)	LA 587: Landscape Modeling with GIS (new course) LA 281 8 Week Short Course in Computer-Aided Design LA 599 (1)
2005-2006	LA 441: Ecological Design (revised course) LA 599: Thesis Studio (new course) LA 537: (Studio) UP 597 (1) LA 599 (1) LA 590 (1)	LA 281: LA 587: Digital Modeling in Design (new course) UP 599 (1) LA 590 (1)
2006-2007	LA 335: Community Design Studio LA 441 LA599 (thesis students) LA390 (independent study)	LA 281 LA587
2007-2008 Iowa State University	LA 582: Landscape Architecture Seminar	CRP 391: Field Travel (St.Louis) CRP 498: Portfolio Development and Assessment
2008-2009	LA 582	LA 302: Ecological Design and Planning CRP 391 CRP 498
2009-2010	LA 541: Research Methods LA 587: Digital Modeling in Design (coord.) CRP 454: Senior Planning Seminar (coord) CRP 293: Environmental Planning	CRP 498
2010-2011	LA 541 CRP 391 CRP 498	CRP 498

2. Supervision of Graduate Students

University of Illinois

Ph.D. Committee Chair: Department of Urban and Regional Planning (The Department of Landscape Architecture became a Ph.D. granting program in 2001).

Yoihee Lee Chin, Ph.D., 1995 Senior Researcher, KYDI, Soowon, Korea

Christopher Ellis, Ph.D., 1997 Chair, Department of Landscape Architecture, University of Michigan.

Sangjun Lee 2007. Researcher, Seoul, Korea

Ph.D. Committee Member (Urban and Regional Planning)

Sang-Yun Han, Ph.D., 1990

Shih-Kung Lai, Ph.D., 1990

Joihee Lee Chin, Ph.D., 1991

Mike Shiffer, Ph.D., 1991

James Westervelt, Ph.D., 1995

Hyong Bok Kim, Ph.D., 1995

Sandeep Kumar, Ph.D., 2001

Ji Chen, PhD (Civil Engineering), 2001

Yueming Wu, PhD, 2002

Mark Schmidt, PhD, (Natural Resources and Environmental Studies). 2003

Master of Landscape Architecture Committee Chair (*and present position when known*)

Carol Emmerling-Dinovo, MLA, 1988 Graduate Program Director, Univ. of Illinois at U-C

David Ferguson, MLA, 1988 Professor and former Head, Ball State University

Joanne Holmaas, MLA, 1989 National Park Service

Gretchen Messer, MLA, 1989 Planning Director, Wisconsin

Miki Stuebe, MLA, 1989 National Park Service, Denver Service Center

Paul Fuesel, MLA, 1989 KBG, Inc., Seattle, WA

Chuck Ehlschlaeger, MLA, 1989 Professor, Western Illinois University

Paul Loechl, 1994 U.S. Army Corps of Engineers

Karen Frederickson, 1993 Center for Policy, IUPUI

Diane Timlin, 1997 The Nature Conservancy

Deanna Koenigs, 1997 University of Illinois, ESLARP

Deborah Samyn, 1997

Avinash Srivastava, 1999 EDAW, Inc. Alexandria, VA

Astrid Hoffman, 2002 Edward D. Stone, Inc. Ft. Lauderdale, FL

Jyotsana Agarwal, 2003

Kris Johnson, 2003 Design Workshop, Aspen, Co.

Miran Jung, 2003 Edward D. Stone, Inc. Ft. Lauderdale, FL

Sangjun Lee, 2004 Ph.D. Candidate, University of Illinois

Yen-Ju Lin, 2005

Josh Runhaar, 2005 City of Provo, UT

Sarah Lovell, 2005 Assistant Professor, University of Vermont.

Kathy McQuiggan, 2006 EDAW, Inc, Los Angeles, CA

Ruth Stafford, 2006 Wallace, Roberts, and Todd, Inc. San Diego, CA

Committee member for over 34 Thesis students including Landscape Architecture, Architecture, Urban and Regional Planning, Geography, and Natural Resources and Environmental Studies.

Iowa State University

Master of Community and Regional Planning Committee Chair

Fei Wang, Community and Regional Planning 2009

Erin Mastre, Landscape Architecture, 2011

Nicholas Meyer, Community and Regional Planning, 2010

Thomas Coleman, Community and Regional Planning and Landscape Architecture, 2011

Jasna Hadzik, Community and Regional Planning, 2011

3. Other Contributions to Instructional Programs

Instructional Grants:

1. Johnston, D.M., and M. Hinrichs. "Computer-Aided Instruction for Landscape Architecture". University of Illinois Educational Technology Board. (Two awards – summer and fall -- \$10,000).
2. Johnston, D.M. and S. Isard. Office of the Dean of the College of Liberal Arts and Sciences. Improvements to the Instructional Capacity of the Geographic Modeling Systems Lab. 1998-2000. \$10,000/year, 3 years.
3. Johnston, D.M., J. Keller, and S. Isard. UIUC Computer Fund Advisory Committee. Computational Modeling for Physical Anthropology and Geography. 1998. \$25,000.
4. Johnston, D.M., and Rhoads, B. UIUC Educational Technologies Board. Improving Student Access and Use of Digital Stereo Image Data. 1998. \$6,000.
5. White, C., Johnston, D.M., and Lewis, B. Intel Grant Program. Geographic Information Systems Using Intel/NT Computers. 1998. \$238,813.

Other teaching: Lectures in NCSA, and Colleges of LAS, Engineering, ACES, and FAA.

IV. Service (Public, Professional/Disciplinary, and University)

A. Summary of Service Since Last Promotion

1. Public Service

- University President's representative on the Illinois State Geographic Information Council. (1992- present)
- Executive Committee, Information Agriculture, and Government Information Committees of the Champaign County Network, an interagency community effort to create a highly networked community for information exchange and use. (1994 - 1999)
- Planning Committee, Information Agriculture: Agricultural Technologies Leaders Forum, June, 1995 & July, 1996
- Chair, Spatial Data Standards Task Force. University of Illinois/City of Champaign/City of Urbana. A task force created to enable the three units to move toward geographic information interoperability. 1997-1998.
- Leader, Volunteer Construction Teams. 1997-present (Appalachia, Costa Rica, Bolivia) East St. Louis Action Research Project, Volunteer Weekend
- Steering Committee National Science Foundation NSF-CISE Digital Government Initiative: GIS Workshop 1998.
- Steering Committee, Data Visualization '98 Conference. GIS World, Inc. and Resource Technology, Inc.
- City of Champaign Environmental Advisory Committee (1998-2000)
- City of Champaign Growth Area Task Force (2000)
- CIC- Committee on Institutional Cooperation, Committee on GIS project cooperation. (2000)
- Scientific Advisor, Blackberry Creek Urban Futures Management Creek. (U.S. EPA, Illinois DNR, Kane and Kendall Counties). 2002 (*Invited reviewer and consultant in hydrology, landscape modeling, and ecologic design to U.S. E.P.A. directed program of strategic planning for watershed management in developing basins.*).
- Science Advisory Council, Emiquon Restoration Plan. The Nature Conservancy, U.S. Fish and Wildlife Service. (2001- present). (*Invited member of scientific panel to advise and work with The Nature Conservancy on a restoration and management plan for an 8,000 acre floodplain preserve along the Illinois River. Focus on hydrologic modeling and geospatial information.*)
- Technology Advisory Committee, St. Louis Science Center, Cyberville Gallery. (2001-2007). (*Invited member of panel advising the St. Louis Science Center on trends and strategic efforts in technology for future exhibit and educational program development.*)

2. Service to Disciplinary and Professional Societies or Associations

- Member: Task Committee on Expert Systems in Water Resources. Water Resources Planning and Management Division, American Society of Civil Engineers. (1986-88)
- Jury Member: Student Awards Program. Illinois Chapter American Society of Landscape Architects. (various)
- University Delegate to University Consortium for Geographic Information Science (UCGIS) 1998-2005.
 - Member, Research Committee

- Chair, Nominations Committee
- University Delegate to University Consortium for Water Resources (UCOWR) 2004-2007
- Awards Committee, Council of Educators in Landscape Architecture (CELA) 2010

3. University/Campus Service

Department of Landscape Architecture:

- Ph.D. Committee (2004 – 2007)
- MLA Committee (1986-2004)
- Faculty Member, Ph.D. in Regional Planning Program. Department of Urban and Regional Planning. (1986 – 2007)
- Department Computer Committee. (1986 – 2007)
- Department Webmaster (2005 – 2007)
- Departmental Space Resources Committee (various)
- Departmental Curriculum Review Committee (1987-89)
- Departmental Task Force: Future Computing Needs in Landscape Architecture. (1986)
- Departmental Task Force: Land Resources Graduate Specialization. (1986)
- Department Advisory Committee (1986-97; 2001 – 2004)
- Department Search Committee (various)
- Department Promotion and Tenure Committee (1986-1998, 2001 –2004)
- Graduate Program Coordinator (1990-97)
- Departmental Head Review Committee (1994-95, 2006-2007)
- Departmental Lecture Committee (1994-97)

College of Fine and Applied Arts

- Executive Committee (1998-1999, 2006-2007)
- Academic Disciplinary Committee (1995-2007)
- Computer Committee (1996-97, 2003-2007)

University of Illinois

- Masters Program Sub-committee, Graduate College Fellowship Allocation Review Committee (1989)
- Director, Geographic Modeling Systems Lab. (1990-2001)
- University Senate Sub-Committee on Undergraduate Disciplinary Review (1995-96)
- Mentor, Clauzelle MacIntyre, Clark-Atlanta University; Graduate Research Opportunity Program (past mentor for McNair Program). (1996-97)
- University of Illinois- ESRI, Inc. University Consortium Site License Administrator (1997-2000)
- Geographic Information System Committee, University of Illinois Computing and Communications Services Office.

Iowa State University

Campus

- VPRED Advisory Council 2007-2008
- VPRED Search Committee 2008
- Department Chair's Council (CoD Representative) 2010/2011
- CEAH Governance Task Force (chair) 2009/2010
- Research and Economic Development Council 2010-p
- Associate Deans for Research/Institute Directors Council 2010-p

College

- Cabinet and Executive Cabinet
- Facilities and Services Council, Communications Board
- Student Affairs Council
- Faculty Recognition and Development Board
- IDRO Advisory Board