

CURRICULUM VITAE

University of Idaho

NAME: Otawa, Toru

DATE: December 20, 2013

RANK OR TITLE: Associate Professor

DEPARTMENT: Landscape Architecture

OFFICE LOCATION AND CAMPUS ZIP: AA308 / 2481

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WEB: <http://www.uidaho.edu/caa/landscapearchitecture/toruotawa>

DATE OF FIRST EMPLOYMENT AT UI: 1985

DATE OF TENURE: 1987

DATE OF PRESENT RANK OR TITLE: August 1, 1988

EDUCATION BEYOND HIGH SCHOOL:

Degrees:

Doctor of Philosophy. University of Queensland, Australia. 1996. Geography, Planning and Environmental Management (formerly Geographical Sciences and Planning), Specialization: Geo-spatial Information Technology in Regional Planning.

Master of Landscape Architecture. University of Massachusetts at Amherst. 1978. Specialization: Regional Open Space Planning.

Bachelor of Science in Landscape Architecture (U.S. equivalent). Tokyo University of Agriculture (TUA). 1975. Specialization: Landscape Architecture and Regional Landscape Planning.

Certificates and Licenses:

GIS Professional (GISP), GIS Certification Institute, 2006-11

Diploma of English as a Second Language, State University of New York, Buffalo, 1976.

Diploma of High School Science Education, Tokyo University of Agriculture, Program in Teacher Training, 1975.

Diploma of English as a Second Language, English Language Center, Michigan State University, 1973.

EXPERIENCE:

Teaching, Extension and Research Appointments:

Associate Professor, University of Idaho, Moscow, 1989-present.

Assistant Professor, University of Idaho, Moscow, 1985-89.

Assistant Professor, Ball State University, Muncie, Indiana, 1980-85.

Fulbright Trainee, University of Massachusetts at Amherst, 1978-79.

Research Assistant, Natural Resource Planning Program, USDA Soil Conservation Service, Amherst, Massachusetts, 1977-78.

Academic Administrative Appointments:

Co-director, GIS Laboratory, College of Art and Architecture, University of Idaho, 1985-90.

Coordinator for Research and Grants, Center for Environmental Design, Research and Service, Ball State University, Indiana, 1983-85.

Non-Academic Employment including Armed Forces:

Partner, Plan/Design Research Group, Muncie, Indiana, 1981-85.

Part-time Assistant (Landscape Architect Trainee), K. Itoh Landscape Design, Inc., Landscape Architects, Tokyo, 1975-76.

Office Assistant (Socio-economic Data Analysis), Japan Management Association (JAMA), 1975-76.

Committee Member, Committee on Open Space Preservation, Ministry of Construction, Government of Japan, 1975-76.

Assistant to Planner, Okinawa Open Space Planning Team. Work included regional landscape analysis, drafting and publication, 1975.

Consulting:

Nippon Computer Graphics, Inc., GIS advisor and invited guest speaker, June-July 1988. (Non-fee based).

University of Idaho, held training session on a geographic information system (GIS) for Chilean resource managers, summer 1987.

Center for Energy Research, Ball State University, wind energy planning consultant, summer 1985.

Misc. consulting, work focused on environmental planning and design, Chiba, Japan, 1979-80.

TEACHING ACCOMPLISHMENTS: (Academic and Extension teaching)**Areas of Specialization:**

- (1) Environmentally sensitive landscape architectural design (e.g., Low impact and regenerative design).
- (2) Geo-design.
- (3) Planning and design for renewable natural resources with emphasis on renewable energy and water
- (4) GIS applications in regional landscape planning.
- (5) Land informatics and land information technology.

Courses Taught:

University of Idaho (65-75% load level):

Introduction to Landscape Architecture II, LArc 156, 2006 to 2010

Introduction to Computers in Landscape Architecture, LArc 210, 1997 to 2007

Landscape Architecture I, LArc 256•257•259, 1985-90, 2005 to 2010

Professional Practice, LA 358, 1985-87

Landscape Architecture II, LArc 360•361•362, 1985 to 2010

Landscape Architecture 1 & 2 LArc 353•355, 2010 to date

Landscape Architecture 3 & 4, LArc 463•465, 2011 to date

GIS Primer/GIS in Land Planning I, LArc 385•395, 1987 to date

Landscape Architecture III, LArc 460, Section, 2000 to 2010

Landscape Architecture 11 & 12, LArc 463•465 Section, 2011 to date

Computer-Aided Regional Landscape Planning, LArc 490, 1985 to 2005

GIS in Land Planning II, LArc 495, 2011 to date

Directed Study – GIS, LArc 404/499, 1985 to date

Graduate Studio 2, 3 & 4, LArc 556•558•562, 2011 to date

Ball State University (1980-85):

Design Communications Media, LA/Arch 161-163

Landscape Architecture Design, LA 301-302

Landscape Architecture Design, LA 401-403

Landscape Architecture Design, LA 406-506

Architectural Thesis (co-instructor), Arch 404-406

Computer-Aided Regional Landscape Analysis, LA 415/515

Research in Landscape Architecture, LA 416/516

Introduction to Micro-computers, LA 498/598

Students Advised:

Undergraduate Students:

Ten to 20 annually (Landscape Architecture), 1985 to date
 Over 200 undergraduate projects in applied GIS (1985 to date)
 Advisor to Japanese Student Association (JSA), 1996 to 2004.
 Advisor to UILA, UI Student Association in Landscape Architecture, 2000 to 2004.

Graduate Students:

<University of Idaho>

Batha, Virginia. "Incorporating Wildlife Conservation within Local Land Use Planning and Zoning: Ability of *Circuitscape* to model conservation corridors." MLA Project, 2013.

Hail, Joshua. "Designing Detention Bioswale Models for Shallow Aquifer recharge in the dense clay soils in Moscow Idaho", MLA Thesis, 2013. (Committee Chair)

McDaniel, Stephen. "Using Origin Destination Centrality to Estimate Directional Bicycle Volumes." MS (Civil Engineering) Thesis. Spring 2013. (Committee Member).

Lemmel, Gordon. "Using Polycentrism and the Transect Concept to Preserve Wilderness, Promote Sustainability, and Encourage Regional Unity in Rural Areas." MLA Thesis Project, 2011. (Committee Chair)

Pratt, Donella. "The Accuracy of Viewshed Analysis and the Effects Created by the Inclusion of Vegetation Data." M.S.L.A., 2002-2004 (Committee Chair)

Cavalcanti, Lindalva F. "Evaluation of Change Detection in Tropical Savanna." Pre-doctoral student in Forest Resources, 1998-2000

Linley, Teddy. "Effects of Urban Renewal on the Change of Crime Rate: GIS Approach." Master's in Geography, 1995-97.

Arisawa, Tsutomu. "Black Locust Habitat Study for the Palouse Region." Master's in Range Resources. 1995-98.

Yang, Chenghai. "Measurement and Analysis of Field Spatial Variability for Site-Specific Crop Management, Steptoe, Washington." 1994. (Faculty advisor)

Kaleemullah, Mohammad. "Land Use Planning for Agroforestry in Pakistan." Master's in Range Resources. 1993-97.

Hayes, Stephen. "Elk Habitat Mapping Study, Idaho Panhandle National Forest." 1993-98.

Adams, Roger. "Avalanche Hazard Analysis, Warm Springs Canyon, Sun Valley, Idaho." 1993-95.

McConnell, Steve. "Landscape Planning for Ecosystem Sustainability." 1993-98.

Lillibridge, William. "Remedial Analysis for Hazardous Waste Analysis for Sweet Avenue Site." 1992.

He, Bin. "Development of a Field-Scale GIS Database for Spatially Variable Farming Management." 1992. (Faculty Advisor)

<Ball State University>

Bidwell, Mark. "Madison County Landfill: A Feasibility Study for Recreation End-Use Potential." 1984. (Committee Chair)

Schmieman, Susan. "Computer Augmented Plant Selector." 1982. (Committee Chair)

Spaid, Craig. "Development of Site Selection Procedure for Small Wind Energy Conversion Systems (SWECS)." 1982. (Committee Chair)

Materials Developed: (non-scholarship activity)**Courses Developed:**

LArc 385, GIS Primer

LArc 210, Introduction to Computers in Landscape Architecture

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:**Honors and Awards:**

SCHOLARSHIP ACCOMPLISHMENTS: (Including scholarship of teaching and learning, artistic creativity, discovery, and application/integration)

Publications, Exhibitions, Performances, Recitals (15~20% load level):

Refereed/Adjudicated: (i.e. books, book chaps. journals, proc., abstr. etc.; provide citations-author, date, title, publisher)

Ottawa, T. "A Comparative Study of Three Stream Restoration Projects in the Northwest." Accepted for publication in the *International Journal of Architectonic, Spatial, and Environmental Design*. *In press*.

Ottawa, T. "Modeling Wind Energy Facility Siting: Recapitulating Three Decades of Lessons." *In: Proceedings of the 12th International Conference on Social Sciences held in Honolulu, HI, May 29-June 1, 2013*, pp. 418-433.

Batha, Virginia and T. Ottawa. "Incorporating Wildlife Conservation within Local Land Use Planning and Zoning: Ability of *Circuitscape* to model conservation corridors." *In: Fábos, J.G., Lindhult, M., Ryan, R.L., & Jacknin, M. (Eds). Proceedings of Fábos Conference on Landscape and Greenway Planning 2013: Pathways to Sustainability. University of Massachusetts, Amherst, April 12-13, 2013*, pp. 161-174.

Ottawa, Toru. "An Exploratory Study of GIS-aided Visibility Analysis: Implications for Landscape Planning." *In: Landscape Legacy--Proceedings of the Council of Educators in Landscape Architecture Conference held in Maastricht, the Netherlands, 12-14 May 2010*, pp. 205.1-205.14.

Ottawa, T. "Modeling Land Use Changes in the Palouse Region of the Northwestern United States." *In: Proceedings of the Trends in Knowledge-Based Landscape Modeling Conference; May 18-20, 2006; Dessau, Germany. Heidelberg: Wichmann-Verlag; May 2006; pp. 104-114. (ISBN 13: 978-3-87907-439-6)*

Ottawa, T. "Regional Constraints Analysis for GIS Adoption: Tools for Advancing Regional Planning Applications," *Landscape Review*, v. 10, n.1 & 2 (2005), pp. 79-85.

Ottawa, T. "Benefits and Obstacles of GIS Implementations: Recent Perceptual Shifts and Implications for City and Regional Planning Organizations." *In: Proceedings of GITA27 Conference held in Seattle, WA, April 2004*.

Ottawa, T. *Maximizing Power of GIS in Applied Land Informatics*. Lewiston, NY: Mellen Press, March 2004. 350 pp.

Ottawa, T. "GIS Diffusion in Urban and Regional Planning Organizations: Analysis of Paradigm Shift in the 1990's." *In: Proceedings of the 2002 Hawaii International Conference on Social Sciences held in Honolulu, Hawaii*.

Ottawa, T. "Analysis of GIS Diffusion in Digital Government: Application of an Evaluation Model." *In: Proceedings of the 2002 GIS Conference held in Toronto, Ontario, Canada*.

Ottawa, T. "Paradigm Change in the Implementation of Organization-wide Geographic Information Systems (GIS): Analysis of Qualitative Data in Land Informatics." Paper presented and abstract published in the 2001 CELA Conference Program, California Polytechnic State University, San Luis Obispo, August 2001, p. 150.

Ottawa, T. "Improvement and Advancement of Teaching and Learning in Geo-spatial Information Technology as Applied to Landscape Planning." Poster paper given at CELA2000 Conference at the University of Guelph, Ontario, Canada, August 2000. Abstracts published in CELA2000 Program, p. 184.

Yang, C.; C.L. Peterson; G.J. Shropshire; and T. Ottawa. "Spatial Variability of Field Topography and Wheat Yield in the Palouse Region of the Pacific Northwest." *Transactions of the American Society of Agricultural Engineers*, v. 41, n.1 (January 1998), pp. 17-27.

Chang, K.; P. Jankowski; T. Ottawa; and M.G. McGowan. Groundwater Vulnerability Mapping. Final technical report (refereed) for Division of Environmental Quality, Idaho Department of Health and Welfare, Boise, Idaho. Moscow: Idaho Water Resources Research Institute, June 1994.

Kaleemulla, M.; T. Ottawa; and J. H. Ehrenreich. "Prospects of GIS in Agroforestry." *In: Proceedings of the Third North American Agroforestry Conference, Ames, Iowa, 16-18 August, 1993*, pp. 191-197.

McConnell, Steve; Penelope Morgan; Arthur C. Zack; Ruth Carapella; Don Long; and Toru Ottawa. Landscape Planning for Ecosystem Sustainability. *In: Proceedings of Symposium on Interior Cedar- Hemlock-White Pine Forests: Ecology and Management held in Spokane, Washington, March 2-4, 1993*. Pullman, WA: Department of Natural Resource Sciences, Washington State University, 1993, pp. 179-185.

He, Bin; C.L. Peterson; and T. Ottawa. Development of a Field Scale GIS Database for Spatially Variable Farming Management. *In: Proceedings of the 1992 ASAE Pacific Northwest Section meeting held in Bozeman, MT, Sept. 16-18, 1992*. Paper No. PNW92-108.

Ottawa, T. and Ken Lyons. "Success of GIS Implementation: Perceptual Variations among Local Government Officials in Queensland, Australia." *In: Proceedings of the LIS'92 Symposium held in Vancouver, B.C., February 1992*.

Ottawa, T. and Craig Rindlisbacher. "Teaching GIS at the University of Idaho." *In: Proceedings of GIS'90 Symposium held in Vancouver, B.C., Canada. March 1990*, pp. 537-40.

Ottawa, T. "GIX: A PC-Based Geographic Information System for Teaching Landscape Architecture." *In: Proceedings of 1989 CELA (Councils of Educators in Landscape Architecture) Conference held in Amelia Island, Florida, September 1989*, pp. 107-112.

Ottawa, T. "New Approach to PC-based GIS Software Development." Abstract published in *Proceedings of the International GIS Symposium (IGIS) held in Baltimore, MD in March 1989*.

Ottawa, T. "GIX: A PC-Based Geographic Information System (GIS)." *In: Proceedings of the Conference on Land Classifications Based on Vegetation: Applications for Resource Management. Moscow, Idaho, 1987*, pp. 310-11. (General Technical Report INT-257, February 1989).

Ottawa, T. "Accuracy of Digitizing: Overlooked Factor in GIS Operations." *In: Proceedings of GIS'87 – San Francisco. University of California, Berkeley, California, 1987*, pp. 295-99.

Ottawa, T. "Wind Resource Analysis." *Journal of Landscape Architecture (Zoen Gaku Ronshu)*. No. 4 (March 1985), pp. 18-20. (Published in Japan)

Ottawa, T. "Technology Assessment for Landscape Architecture: Computer Applications." *In: Proceedings of 1984 Council of Educators in Landscape Architecture (CELA) Conference. University of Guelph, Guelph, Canada, 1984*.

Ottawa, T.; Schoen, D.A.; and Justham, S.A. "Assessment of the Wind Resource in Indiana: Modeling Approach." Abstract published in *Proceedings of the 1983 Miami Conference on Renewable Energy Technology. Coral Gables, FL: University of Miami, 1983*.

Ottawa, T.; Schoen, D.A.; and Justham, S.A. "Regional Wind Resource Assessment in Indiana." *In: Proceedings of the 1983 Council of Educators in Landscape Architecture Conference. Logan, Utah: Utah State University, 1983*.

Ottawa, T.; Schoen, D.A.; and Justham, S.A. *Indiana Wind Energy: a guide to harnessing Hoosier wind power*. Muncie, IN: Center for Environmental Design, Research and Service, Ball State University, 1982.

Ottawa, T. and Spaid, C. "Development of an Educational Slide Program Describing a Site-Selection Procedure for Small Wind Energy Conversion Systems." *In: Proceedings of the 1982 Wind and Solar Energy Technology Conference. Columbia: University of Missouri, Engineering Extension, 1982*.

Ottawa, T. "Wind Energy Planning: Development and Application of a Site Selection Method for Wind Energy Conversion Systems (WECS)." *International Journal of Energy Research*, vol.4, no.3 (July 1980): 283-306. DOI: 10.1002/er.4440040310

Ottawa, T. *Open Space Plan: Stockbridge, Massachusetts*. Natural Resource Planning Program. Amherst, MA: U.S. Department of Agriculture, Soil Conservation Service, 1978. 138 pp.

Ottawa, T. "On the Mason Esker." *Map and Landscape*, vol. 17, no. 12 (December 1975): 6 - 10. (Published in Tokyo)

Science Resource Office, Massachusetts Legislation. *Wood-Gas-Facility Electricity Generation*. MEPA Model Policy Simulation #15. 1978. (Co-authored)

Uchiyama, Masao, chairman. *A Study on the Establishment of Open Space Preservation Policies in Development Areas*. Bureau of Cities, Ministry of Construction, Government of Japan, 1976. (Co-authored)

Peer Reviewed/Evaluated: (i.e. journals, articles, proceedings, abstracts, etc.)

Ottawa, T. "GIS in the U.S.: Major Issues." *PIXEL*. No. 78 (March 1989), pp. 187-88.

Ottawa, T. "GIS in the U.S.: Current Trends." *PIXEL*. No. 77 (February 1989), pp. 169-70.

Ottawa, T. "GIS in the U.S.: 25 Years of Development." *PIXEL*. No. 76 (January 1989), pp.162-64.

Ottawa, T. "GIS in the U.S.: What is a GIS?" *PIXEL*. No. 75 (November 1988), pp. 156-58.

Ottawa, T. *Wind Energy Planning: a bibliography*. Chicago, IL: Council of Planning Librarians, October 1979. (No. 16)

Regional Planning Studio 775-776. West Springfield Master Plan. Amherst, MA: Department of Landscape Architecture and Regional Planning, University of Massachusetts, 1977. (Co-authored and peer-reviewed)

Other: (reports, proceedings, papers, citations and references, performances)

Ottawa, T. *A Theoretical Framework for Evaluating the Implementation of Geographic Information System (GIS): Socio-Cultural Approach*. Ph.D. Dissertation. University of Queensland, Australia, 1996. 361 pp. (Dissertation-refereed).

Ottawa, T.; S. Perrin; and S. Mulberry. *North Fork of the Payette River Recreation Resources Management Study -- from Payette Lake to Cascade Reservoir*. Final technical report. Bureau of Land Management, Boise District, U.S. Department of the Interior. December 1994.

Ottawa, T.; W. Henkel; and S. Sanderson. *South Fork of the Payette River: Recreation Resources Management Study*. Final technical report. U.S. Forest Service, Boise National Forest. January 1994.

Ottawa, T.; W. Henkel; and S. Sanderson. *North Fork of the Payette River: Recreation Resources Management Study*. Final technical report. Bureau of Land Management, Boise District, U.S. Department of the Interior. January 1994.

Ottawa, T. *Landscape Architecture Software Directory*. Technoscape Research, Muncie, Indiana, 1985.

Ottawa, T.; Schoen, D.A.; and Justham, S.A. *A Wind-Resource Prospecting Study for Indiana*. Final Technical Report. Muncie, IN: Center for Environmental Design, Research and Service, Ball State University, 1982.

Ottawa, T. *Development of a Slide Program Describing a Site-selection Process for Small Wind Energy Conversion Systems (SWECS)*. Final Technical Report. Oakridge, TN: Department of Energy Technical Information Center, 1982.

Refereed/Adjudicated (currently scheduled or submitted): (provide citations)

Batha, Virginia and T. Ottawa. "Incorporating Wildlife Conservation within Local Land Use Planning and Zoning: Ability of Circuitscape to model conservation corridors." Paper presented at the 2013 Fábos Conference on

Landscape and Greenway Planning: Pathways to Sustainability to be held at the University of Massachusetts. The final manuscript is being peer-reviewed for publication in an international journal.

Ottawa, T. "A Comparative Study of Digital Terrain Data for Viewshed Calculations in Scenic Resource Management." Abstract accepted for full paper presentation at the 2012 NAEP Conference in Portland, OR. Notified it was changed to a poster presentation two weeks prior to final submission was due. Therefore, this abstract was withdrawn for unethical reasons. Ultimately, the final manuscript has been submitted to an international academic journal for double-blind review. In progress.

Ottawa, T. "Paradigm Change in the Implementation of Corporate Geographic Information Systems (GIS): Analysis of Qualitative Data in Land Informatics." Manuscript submitted for review and potential publication in *Landscape Journal*. Manuscript lost by the journal editors at the University of Oregon.

Peer Reviewed/Evaluated (currently scheduled or submitted):

Presentations and Other Creative Activities: (i.e. slide sets, web pages, video productions, etc., provide date and location)

Ottawa, T. GIX2000 for Windows. (Software written in C/C++). Copyrighted in 1999.

Ottawa, T. GIX Users Guide. (Manual for GIX Software). Copyrighted in 1988.

Ottawa, T. GIX: A Geographic Information System for Personal Computers. (Software written in C). Copyrighted in 1988.

Professional Meeting Papers, Workshops, Showings, Recitals: (provide date and location)

Ottawa, T. "A Comparative Study of Three Stream Restoration Projects in the Northwest." Presented at the 7th International Conference on Design Principles and Practices held at Chiba University, Japan, March 2013.

Ottawa, T. Integration of Aerial Photo Images into GIS-aided Visual Landscape Assessment, Northern Rockies Chapter Meeting of Urban and Regional Information Systems Association, March 1996.

Ottawa, T. Innovations in GIS and GIS Workshop -- The Rural Town: Designing for Growth and Sustainability, Coeur d'Alene, Idaho, June 1995.

Ottawa, T. Groundwater Vulnerability Mapping Project, Jerome Pilot Study, 1994 Groundhog GIS Meeting, Post Falls, Idaho, December 1994.

Ottawa, T. Payette River Recreation Management Study, 1994 ASLA National Meeting in San Antonio, Texas, November 1994.

Ottawa, T. and Mary McGown. Groundwater Vulnerability Mapping Project, 1994 ASLA National Meeting in San Antonio, Texas, November 1994.

GIS Workshop via the Internet at the 1994 ASLA Meeting, San Antonio, Texas, November 1994

North-fork of the Payette: River Recreation Management Study, with Shae Sanderson, 1994 Northwest Conference on Spatial Data, Boise, Idaho, April 1994.

Ottawa, T. "Modelling GIS Implementation for Success." Tutorial seminar held at the 1991 NICOGRAPH Symposium, Tokyo, Japan, November, 1991. (Invited)

Chang, Kang-tsung and Ottawa, Toru. "Teaching GIS at the University of Idaho." Paper presented at Geoprocessing Conference held in Boise, Idaho, March 8-10, 1989.

Ottawa, T. "Capturing an Invisible Landscape Resource: Development of a Wind Energy Site-Screening Method." Presented at the 1982 CELA Conference. Blacksburg, VA: Virginia Polytechnic Institute and State University, 1982.

Patents: (provide title/description, patent number and date)

Grants and Contracts Awarded: (provide principal and co investigators, title, sponsor, funding dates, amount)

- Tohoku Recovery Project, Japan World Exposition Commemorative Fund, 2013, Approx. \$6,000, Granted but withdrawn due to lack of matching on U.S. side.
- Milton Arthur Park Master Planning Project, City of Moscow Parks and Recreation, 2013, \$709.
- Stanley Pioneer Park Project, City of Stanley, 2012, \$1,214.
- Riggins River Park Project, National Park Service, Nov. 2011, \$1,500.
- Re-design Study for Warm Springs Hollow, W.S. Neighborhood Association, 2009. \$500.
- University of Idaho Travel Grant, April 2006, \$900
- Deyo Reservoir Master Planning Study, Idaho Fish and Game, 2005, \$2,000.
- University of Idaho Travel Grant, March 2004, \$750
- University of Idaho Travel Grant, March 2002, \$900
- University of Idaho Travel Grant, July 2001, \$700
- Faculty development grant, University of Idaho, August 2000, \$1,600
- Sabbatical leave application approved, 1998-99 academic year.
- Post-closure land reclamation study for recreational use. Blaine County Recreation District, 1997. \$850.
- Floodplain mitigation study, City of Orofino, Idaho. 1997. \$250.
- Grant to conduct North Fork of the Payette River Recreation Resources Study II. Bureau of Land Management, U.S. Department of the Interior, 1994, \$5,000.
- Grant to conduct North Fork Payette River Recreation Resources Study I. Bureau of Land Management, U.S. Department of the Interior, 1993, \$5,000.
- Grant to conduct Groundwater Vulnerability Study for Jerome Pilot Area, administered by Idaho Water Resources Research Institute; with Drs. Chang and Jankowski (Co-PIs), Department of Geography, Idaho Division of Environmental Quality, September, 1992. Total project cost, \$113,702. \$12,000 allocated to Ottawa.
- Grant to conduct South Fork of the Payette River Recreation Resources Study class project. U.S. Forest Service, 1992, \$1,100.
- Grant to conduct South Fork of the Payette River Recreation Resources Study class project. Bureau of Land Management, U.S. Department of the Interior, 1992, \$1,000.
- Research scholarship (tuition waiver and stipend for 3 years of Ph.D. study; OPRS) to develop a model for evaluating the implementation of land/geographic information systems (L/GIS), Government of Australia and the University of Queensland, 1990, AUD\$66,000. (Used one-year worth ~ Approximately AUD\$22,000)
- Funding provided by Pixel Magazine for GIS workshop, 1989. \$1,000.
- Grants to conduct workshop "Use of GIS in water resource planning in Pakistan," U.S. Agency for International Development (USAID), 1989. ~\$7,000
- University of Idaho Travel Grants; in 1987, 1988, and 1992. \$600 per grant
- Grizzly Bear Habitat Mapping for Idaho Panhandle National Forest, U.S. Forest Service. Digitized 12 24K-Quads. 1986-87.* (Contract)
- Bald Eagles Habitat Mapping, Lake Pend Oreille, Idaho. Idaho Department of Fish and Game. 1987-88.* (Contract)
- Mapping Geophysical Factors at INEL for SCC Proposal, Dr. Terry Howard, Department of Geology, University of Idaho. 1987-88.* (Contract)
- State-wide Soil Series Mapping, Dr. Maynard Fosberg, Department of Soil Science, University of Idaho. 1988.* (Contract)
- Grizzly Bear Habitat Mapping for Colville National Forest, Washington, U.S. Forest Service. Digitized 36 Map Layers. 1988-89.* (Contract)
- National Wetland Inventory Mapping, Wheaton Quadrangle for Dr. Joseph Ulliman, Department of Forest Resources, University of Idaho. 1989-90.* (Contract)

Caribou Habitat Mapping for Idaho Panhandle National Forest, U.S. Forest Service. Digitized over 30 24K-Quads. 1985-86.* (Contract)

Grant to prepare a data base for a PC-based geographic information system. University of Idaho Seed Grant Program. 1986. \$4,000

Research grant to develop a slide program depicting a site selection procedure for small wind energy conversion systems, U.S. Department of Energy Midwest Appropriate Technology Small Grants Program, \$9,831. Managed three graduate assistants. September 1981.

Research grant to conduct A Wind-Resource Prospecting Study for Indiana. Indiana Department of Commerce, Energy Development Board. Total project cost \$79,592. Project director. Three PIs and five RAs. October 1981.

Research grant for 'Preliminary Investigation of Assessment Techniques for Regional Energy Consumption by Means of Land Use Analysis.' College of Architecture and Planning CORE Grant Program, Ball State University. \$850.00

Grant-in-aid for review of literature on energy planning models from the Asia Foundation through Japan Society, Inc. March 1978. \$250.00

Selected as a Fulbright travel grantee by the U.S. Educational Commission in Japan under U.S. Government sponsorship. July 1976.

Misc. personal grants in smaller amounts (< \$1,000)

*Contracts administered as co-director of A/A GIS Laboratory and ranged from \$3,000 to \$7,000

Honors and Awards:

Landscape Architecture Annual Award, Tokyo University of Agriculture (TUA), 1984.
 Merit Award, Research Category, 1983 ASLA Professional Award Program.
 Presidential Award for Undergraduate Thesis, Tokyo University of Agriculture, 1975.
 Scholarship for Exchange Program, TUA-Michigan State University, 1973.

SERVICE:

Major Committee Assignments: (National, State, District, County, University, College, Departmental and dates)

National:

American Society of Landscape Architects, Open Committee on Landscape/Land Use Planning, Member, 1980-2008; Open Committee on Digital Technology, 2008-to date
 Council of Educators in Landscape Architecture (CELA), Committee on Innovations, member, 2001
 CELA Region 1 Director, 2001 to 2004
 International Geographic Information Foundation, Trustee, 1997-98
 Scholarship Committee, Chair, 1997

University of Idaho:

(University)

International Affairs Committee, 1997-98
 Safety and Loss Control Committee, 2009-to 2012

(College)

Guest Lecture Committee, 2013-present
 Facilities Committee, 2013-present
 Student Petition Committee, 2006-2013
 College Safety Committee, 2006-2013
 Promotion and Tenure Committee, 2003-05, 2011
 Design Technology Center Committee, 2000-01•2012
 Dean Search Committee, 1992
 College Computer Committee, 1985-89
 Field Trip Committee, 1985-89

(Faculty Unit)

Adm. Asst. Search Committee, 2002-03, 2004-05
 Advisor to UILA--Student Chapter of ASLA, 2001 to 2005
 Faculty Search Committee, 2002, 2006, 2007
 Faculty Third-year Review Committee, 2006, 2009 (Chair)
 Chair, Chair Search Committee, 1994
 Promotion and Tenure Committee, 1994-95, 2005-06, 2012
 Department (Unit) Faculty Committee, 1985 to present

Ball State University:**(University)**

Senate, member

(College)

Promotion and Tenure Committee

(Department)

Graduate Curriculum Committee

Professional and Scholarly Organizations (including memberships, committee assignments, editorial services, offices held and dates)

American Society of Landscape Architects (ASLA), full member, 1980 to present
 Council of Educators in Landscape Architecture (CELA), institutional member,
 Ball State University, 1980-85
 University of Idaho, 1985 to present
 Regional Director, 2001 to 2004
 Fulbright Association (U.S.A.), full member, 1999 to 2005
 Tokyo Fulbright Association (Former Garioa/Fulbright Alumni Association), full member, 1978
 to present
 International Geographic Information Foundation (IGIF), trustee, 1996-98 (1997 Chair of
 Scholarship Committee)
 National Association of Scholars, full member, 2000 to 2003
 Sigma Lambda Alpha - Landscape Architecture Honor Society, full member, 1988 to present
 Urban and Regional Information Systems Association (URISA), full member, 1980 - 1998

Outreach Service: (Including popular press, interview articles, newspaper articles, workshops-seminars-tours organized, Extension impact statements) . Too many to list.

Community Service: (non-academic unrelated to employment) Undisclosed.

Honors and Awards:**Other:**

Editorial Board Member, *Landscape and Urban Planning Journal*, 2002-to 2008
 Paper reviewer, Council for Educators in Landscape Architecture (CELA), 1992-95; 1997-98. 2007
 Proposal reviewer for Environmental Education Program, EPA Region X, 1995-97
 Co-director, GIS Laboratory, College of Art and Architecture, University of Idaho, 1985-90
 GIS advisor for students, staff, and faculty, 1985-to present
 Departmental Research Colloquium Coordinator, 2006-07.

PROFESSIONAL DEVELOPMENT: (workshops and seminars attended)**Teaching:**

- Participated in Arc/Info Geographic Information System Training at ESRI, Summer 1987.
- Attended Arc/Info 8 Training at ESRI/Olympia, August 2000.

Scholarship:**Outreach:**

Administration/Management:

Service-Learning Studio Projects (at UI only-Ball State projects available upon request):

- 1986
- Site Design for Neighborhood-scale Residential Units with Emphasis on Solar Energy Access Frontier-II Addition, Moscow, ID
 - Design of City Signage for Centennial Celebration, City Beautification Committee, Moscow, ID
 - Siting for Public Sculpture (Joint Project with Dept. of Art), Facility Planning, University of Idaho
- 1987
- Site Selection for Utility (Transmission Line) Corridor, Conrad to Shelby, Montana. Montana Department of Natural Resources.
 - Historic Preservation for Battery Osgood-Farley, San Pedro, California, City of Los Angeles.
 - Redevelopment Planning for Entry Area, Wallace Complex, Facility Planning, University of Idaho.
- 1989
- Troy City Park, City of Troy, Idaho.
 - Site Redevelopment for Latah Care Center, County of Latah, Moscow, Idaho.
 - St. Maries Industrial Park Plan, City of St. Maries, St. Maries, Idaho.
- 1990
- Pend Oreille County Park Redevelopment Plan, County of Pend Oreille, Colville, Washington (Joint Project with Dept. of Architecture).
 - Plan for Student Family Housing: Application of AutoCAD / LandCadd, Facility Planning, Moscow, Idaho.
 - Post Falls Crush Stone Mining Reclamation Project, Acme Concrete Co. (Spokane), Post Falls, Idaho.
- 1992
- Mining Reclamation Study for North Idaho Crushing Co., Joel, Idaho.
 - Lakeshore Redevelopment Study, City of Harrison, Harrison, Idaho.
 - South Fork of the Payette River Recreation Management Study, Lowman to Banks, U.S. Forest Service and Bureau of Land Management, Boise District, Valley County, Idaho.
- 1993
- Inventory of Land Resources for Georgia Experiment Station, Double Cabin, Georgia (with Linda Johnson).
 - Palouse Falls State Park Plan, Little Palouse and Gildersleeve Falls, Whitman County, Washington. (With Lynda Johnson).
 - North Fork of the Payette River Recreation Management Study, from Cascade Reservoir to Black Canyon Reservoir, Bureau of Land Management, Boise District.
- 1994
- Wetland Design for Secondary Wastewater Treatment, Paradise Creek, Moscow, Idaho. (With IWRRRI).
 - Mining Reclamation Study for North Idaho Crushing Co., Joel, Idaho
 - North Fork of the Payette Recreation Management Study from McCall to Cascade Reservoir, Bureau of Land Management, Boise District.
- 1995
- Wetland Design for Secondary Wastewater Treatment for the City of Troy, Troy, Idaho.
 - Post-closure Landfill Reclamation Study, Latah County Landfill for Latah Sanitation, Inc., Latah County, Idaho.
 - Schweitzer Mountain Land Use Study, Schweitzer Mountain Resort, Inc., Sandpoint, Idaho.
- 1996
- Wetland Design for Secondary Wastewater Treatment: Hoo Doo Water and Sewer District, Latah County, Idaho.
 - Floodplain Mitigation Project, City of Moscow, Idaho.
 - Bellevue Triangle Open Space Plan, Wood River Land Trust, Sun Valley, Idaho.
- 1997
- Wetland Design for Secondary Wastewater Treatment for the City of Deary, Idaho.
 - Post-closure Landfill Reclamation Study: The Ohio Gulch Landfill, Blaine County, Idaho.
 - Floodplain Mitigation Project for the City of Orofino, Idaho.

1998

- Master Plan Development for Joseph Street Site. Partner: Moscow School District, Moscow, Idaho.
- Land Reclamation Study for Post-mining Sand and Gravel Operations. CTA Architects & Engineers in cooperation with the Yellowstone River Association, Billings, MT.
- Grading/Drainage Plan for Joseph Street Property, Moscow School District 281, Moscow, Idaho.

2000

- Long Gulch Wetland Restoration Project. Partner: Idaho Department of Fish and Game and Idaho Transportation Department, State of Idaho.
- Plan for Moscow Mountain Wester Red Cedar Preservation Site. Partner: Nature Conservancy of Idaho.
- Design for Archaeological Sites and Their Ecotourism Potential: IFLA Design Competition. (Various communities throughout the Northwest)

2001

- Cultural Resources Design Study for the Nez Perce Historical Park. Partner: National Park Service.
- Latah Trail Analysis. Partner: National Park Service.
- LID (Low Impact Design) Project. Washington State University, Cooperative Extension.

2002

- Paradise Creek Restoration Study. Partner: PCEI.
- Rathdrum Mountain Trail Planning Study. Partner: National Park Service.
- Canoe Camp Park Redesign Study. Partner: Nez Perce National Historical Park, National Park Service. Award-winning Project.

2003

- South Fork of the Palouse River Restoration Project <Partner: Palouse-Clearwater Environmental Institute (PCEI)>
- Regional Open Space Planning Project <For 2003 Annual Green Space Design Competition>
- Buffalo Eddy Site Planning Project <Partner: National Park Service, Nez Perce National Historical Park>
- Moscow Ice Rink Site Planning Project <Partner: Palouse Ice Rink Association - PIRA>
- U.S. 95 Re-routing Study <For ASLA Student Design Competition>

2004

- Clyde Park Site Master Planning <Partners: City of Moscow Parks and Recreation Department and PCEI>
- Open Space Linkage Study for the City of Rathdrum <Partner: City of Rathdrum Parks and Recreation, and Planning Departments>
- Design Implementation of Clyde Park Master Plan <Partner: City of Moscow Parks and Recreation Department>

2005

- Deyo Reservoir Master Planning Study for Idaho Department of Fish and Game.
- Design Study for the Nez Perce Battlefield Historical Park, National Park Service.

2006

- Wetland Design for PCEI Rodeo Center.
- Introduction to Computer-assisted Wetland Construction Design at the PCEI Center.

2007

- Moscow Reservoir Park Master Plan <City of Moscow/PBAC>
- Moscow Ball-field Parking Lot Design <City of Moscow Parks and Recreation Department>

2008

- Paradise Creek Restoration Project-Phase I
- Northwest Passage Corridor Management Plan: Viewshed Protection Study

2009

- Paradise Creek Restoration Project-Phase II
- Moscow Ball-field Park Master Planning, City of Moscow, Parks and Recreation Department
- Warm Springs Hollow Re-design Project -- LArc 257, Autumn Semester <Warm Springs Hollow Neighborhood Association>

2010

- Indian Creek Restoration Project <UI-Caldwell Campus>. Award-winning Project.
- Warm Springs Hollow Re-design Project -- Continued, Spring Semester <Warm Springs Hollow Neighborhood Association>
- Moscow Ball-field Park Master Planning – Continued – LArc 257

2011

- Orofino-Jaypee Rails to Trails Design Project, Clearwater County, Idaho
- Riggins River Park Design Project, City of Riggins + National Park Service
- Regional Viticulture Study in LArc 495, Clearwater, Latah, Nez Perce Counties, USDA/UI Extension Service.
- Baker Street Park Design Project, City of Moscow Parks and Recreation Dept.

2012

- Dead Man's Hill Path Design, City of Moscow and Moscow School District 281, Idaho
- Stanley Pioneer Park Design, City of Stanley, County of Custer, Idaho

2013

- Milton Arthur Park Master Planning I, City of Moscow Parks and Recreation Department – LArc 355
- Zone of Impact Study in Latah County, Idaho – LArc 463
- City of Genesee Sports Complex Design, City of Genesee, Idaho – Larc 465
- Milton Arthur Park Master Planning II, City of Moscow Parks and Recreation Department – LArc 353
- Storm-water/Rain-garden Design for IRIC Building, University of Idaho – LArc 355