

Doctoring the Profession

PhDs in landscape architecture are on the rise. What universities offer these degrees? How will they affect the way the discipline is taught? The first-ever survey of doctoral programs provides some answers.

BY LOLLY TAI, FASLA

The doctor of philosophy degree is a relatively new phenomenon in landscape architecture. While the terminal degree in most fields has been the PhD, in landscape architecture it has been the MLA. More recently, however, the doctorate has become a requirement for many teaching jobs in landscape architecture, too. Pursuing an advanced degree demands a monumental amount of motivation, perseverance, stamina, and sacrifice, but academics and researchers agree that the PhD is needed if they are to attain an equal footing with peers in other disciplines.

The degree was first offered in such pioneering programs as those at the University of Michigan (1939), Harvard University (1942), and the University of Newcastle, UK (1949). During the late 1980s and 1990s, PhDs in landscape architecture began to surface in other institutions in the United States and abroad. Today, while the number of programs has grown, fewer than a dozen universities offer PhDs in landscape architecture, according to a study based on 85 Council of Educators in Landscape Architecture



member institutions surveyed in 2003 with an 86 percent response rate ($n = 73$).

So which schools now offer PhDs, and how do candidates choose among them? How will landscape architects benefit from the degree, and how will the degree benefit the profession?

Universities Offering a PhD in Landscape Architecture

Offerings for concentrated study vary depending on the institution and its available expertise (see Table 1). Harvard's program, for example, is primarily focused on ecological research and landscape history. The University of Michigan's offerings include restoration ecology, landscape ecology, landscape perception, urban design,

and brownfield redevelopment. The University of Illinois at Urbana-Champaign (UIUC) focuses on history, theory, and behavioral and cultural factors and offers a broad list of concentrations, including contemporary visual theory as it relates to the built environment; the history of South Asian, European, Islamic, and American landscapes; environmental perception; and the study of management of cultural heritage sites. "One of the great strengths of the UIUC department," Associate Professor Fairchild Ruggles says, "is that the design faculty and history/behavioral faculty overlap." Designers, historians, and experts in natural resource management collaborate in studio reviews, thesis committees, writing projects, and

Table 1 Universities that offer a PhD in landscape architecture

Institutions in North America	Estab'd	Degrees	Administered through
Harvard University, Cambridge, MA	1942	PhD in LA and DDes	Graduate School of Arts and Sciences and Graduate School of Design, www.gsd.harvard.edu
University of Illinois, Urbana-Champaign, IL	2001	PhD in LA	Department of Landscape Architecture and School of Architecture, www.landarch.uiuc.edu
University of Michigan, Ann Arbor, MI	1939	PhD in LA and PhD in Natural Resources and Environment	School of Natural Resources and Environment, www.snre.umich.edu/prospective-students/la_phd.php
Institutions in Europe, Australia, Oceania	Estab'd	Degree	Administered through
Heriot-Watt University, Edinburgh, Scotland	1987	PhD in LA	School of Landscape Architecture, www.hw.ac.uk/prosp/pg/eca/landscape.php
Lincoln University, Canterbury, New Zealand	1994	PhD in LA	Environment, Society, and Design Division, Postgraduate Programs, www.lincoln.ac.nz/study/courses/phd.htm
University of Newcastle, Newcastle upon Tyne, UK	1949	PhD in LA	School of Architecture, Planning, and Landscape, www.apl.ncl.ac.uk
Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia	1996	PhD in LA	School of Architecture/Industrial Design/Interior Design/Landscape Design, www.rmit.edu.au/browse?SIMD=DR234

conference planning—and on conceptualizing the future direction of the department. “Most of UTUC’s PhD faculty members hold design degrees, primarily in either landscape or architecture, and more than half also hold PhDs,” Ruggles says.

In Australia, the Royal Melbourne Institute of Technology focuses on design research, based on actual projects and on critical reflections on the history of the profession and important Australian designers.

PhD candidates at Heriot-Watt University in Edinburgh have specialized in history and theory of landscape architecture, cultural landscapes, environmental perception, wayfinding in the landscape, innovative design, inclusive access to outdoor environments, designing with and for children, experiencing forest landscapes, golf course architecture, rural land use and landscape planning, recreation and conservation in the landscape, ecology, environmental assessment, and computer-aided design in landscape architectural practice. Heriot-Watt’s director of research in environmental studies Catharine Ward Thompson says, “Research is not limited if appropriate supervisors can be identified.”

Lincoln University at Canterbury, New Zealand, and the University of Newcastle at Newcastle upon Tyne, UK, provide areas of specialization based on their faculties’ particular expertise.

PhDs with a Concentration in Landscape Architecture

Although universities that offer the PhD in landscape architecture remain few, they are supplemented by programs that allow a concentration in landscape architecture (see Table 2). Some universities offer an interdisciplinary PhD; others grant doctorates in allied disciplines, with landscape design as a specialty.

Table 2 Institutions offering PhDs with an LA “specialization”

Institutions in North America	Degree (Related concentration)	Administered through
Arizona State University, Tempe, AZ	PhD in environmental design and planning	College of Architecture and Environmental Design, www.asu.edu/caed/SPLA.html/SPLAProgram.htm
Colorado University, Denver, CO	PhD in design and planning	College of Architecture and Planning, thunder1.cudenver.edu/andp/degree_programs/phd.html
University of Guelph, Ontario, Canada	PhD in rural studies	School of Rural Planning and Development and Department of Landscape Architecture, www.uoguelph.ca/OAC/SRPD/program.html
North Carolina State University, Raleigh, NC	PhD in design (concentrations in community & environmental design; information design)	College of Design, ncsdesign.org/content/index.cfm?mode/1/fuseaction/page/1/fileName/PhD_Design.html
Texas A&M, College Station, TX	PhD in urban and regional science	College of Architecture, Department of Landscape Architecture and Urban Planning, archweb.tamu.edu/College/academics/degrees.html
Texas Tech University, Lubbock, TX	PhD in planning, mgt., and design	College of Architecture, www.arch.ttu.edu/Architecture/Academic_programs
University of California, Berkeley, CA	PhD with concentrations in environmental planning; urban planning and design	Departments of LA and Environmental Planning and of LA and City and Regional Planning, www-laep.ced.berkeley.edu/laep/index.html
University of California, Davis, CA	PhD in geography with concentration in LA	College of Agriculture and Environmental Sciences, ces.ucdavis.edu/AcadProg/GradStudy.htm
University of Florida, Gainesville, FL	PhD with concentration in LA	Design, Construction, and Planning, www.arch.ufl.edu
University of Maryland, College Park, MD	PhD in urban and regional planning and design; PhD in natural resource sciences	Department of Urban and Regional Planning and Design, www.arch.umd.edu ; Department of LA and Natural Resource Sciences, www.nrsi.umd.edu/grad/NRSLGradPrograms.cfm and www.gradschool.umd.edu/catalog/programs/NRSC.html
University of Massachusetts, Amherst, MA	PhD in regional planning	Department of Regional Planning and Landscape Architecture, www.umass.edu/larp/lrp_phd/index.html
University of Montreal, Montreal, Canada	PhD in amenagement (environmental design)	Faculty of Environmental Design, www.umontreal.ca
University of Texas, Arlington, TX	PhD in urban planning and public policy	School of Urban and Public Affairs, www.uta.edu/supa
Virginia Polytechnic Institute and State University, Blacksburg, VA	PhD in environmental design and planning	College of Architecture and Urban Studies, www.arch.vt.edu
Institutions in Europe, Australia, Oceania	Degree (Related concentration)	Administered through
University of Melbourne, Parkville, Australia	PhD in environmental planning	School of Architecture, Building, and Planning, www.arbld.unimelb.edu.au
University of New South Wales, Sydney, Australia	PhD in built environment	Faculty of the Built Environment, www.fbe.unsw.edu.au/degrees/research

One of the interdisciplinary programs is at the College of Architecture and Urban Studies at Virginia Polytechnic Institute in Blacksburg, Virginia, which offers a PhD in environmental design and planning (EDP). The program embraces multiple disciplines, and its students, working closely

with landscape architecture professors, earn a PhD in EDP with a concentration in landscape architecture. “Bottom line, you can get a PhD in the disciplinary area of landscape at Virginia Tech—even though it will be called EDP,” says Dean Bork, ASLA, chair of the landscape architecture department.

The University of Massachusetts, Amherst, and Arizona State University, Tempe, both grant doctorates in regional planning and EDP. Their programs are flexible, offering specializations in landscape architecture under the umbrella of planning. The University of California, Berkeley, offers PhDs in environmental planning as well as urban planning and design. "Berkeley's program is not a PhD in landscape architecture," says Professor Linda Jewell, FASLA. "The major is environmental design and planning with concentrations in design, planning, history, theory, and criticism. However, elements of landscape architecture have been in each of these programs, and many of them have focused on design as well as on history in architecture."

In Canada, the University of Guelph, Ontario, has PhD programs in two disciplines closely related to landscape architecture, geography and rural studies. Cecilia Paine, ASLA, Guelph's landscape department chair, explains that her school has "students from many backgrounds." She says, "They must

demonstrate or gain command of two disciplinary areas, such as economics and geography, or design and sociology. Their focus of study must relate in some way to sustainable rural communities."

Australia's University of New South Wales "is a 'one-school faculty,' with all of the disciplines organized into programs—architecture, landscape architecture, planning, and building/construction management, among others," says Linda Cockery, head of the faculty of built environment. "When students join our faculty to get a PhD, they belong to the faculty rather than to a specific program, and they graduate with a PhD in built environment," she says. Similarly, at the University of Melbourne, Senior Lecturer Ray Green says, "Students enroll in a university-wide doctoral program conducted through the faculty of architecture, building, and planning. So one does not get a PhD in landscape architecture." Students do, however, write a thesis on a subject qualifying as landscape architecture.

A number of new programs are emerging. Ruggles indicates that next year the University of Illinois will begin a specialty in technology, which, she says, "in land-

scape architecture we define as watershed, grading, sustainability, and other similar environmental issues." Washington State University, Pullman/Spokane, received university senate approval for a doctor of design and is awaiting approval from the state capitol. Michigan State University, East Lansing, is developing a PhD in built environment, with specializations in urban and regional planning, facilities management, and building and construction management. The University of Washington, Seattle, has just had an interdisciplinary PhD approved and will be offering it starting this year. Professor Iain Robertson, ASLA, says, "Our department participates in the new collegewide PhD with architecture, construction management, and urban design and planning, but it does not have a track specifically for landscape architecture." Course offerings are intended to cut across disciplinary and departmental boundaries, not to reinforce them. Robertson said his permanent faculty includes three PhDs and one professor who has been doing doctoral work in urban design and planning.

Institutions such as the University of

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Table 3 Duration/cost

Institutions in North America	Duration of study	Credits	Residency	2002-03 In- /out-of-state tuition
Harvard University	3 years (DDec); 6 years (PhD)	64 credits	4 years	\$26,400/\$26,400
University of Illinois	5 years (fewer with MLA or MArch; more without master's)	24 units (fewer for students with MLA or MArch)	16 units in residence	\$2,950/\$7,287
University of Michigan	4-8 years (for residents)	68 credits without an MLA; 50 credits with an MLA	3 years minimum	\$12,000/\$24,500
Institutions in Europe, Australia, Oceania	Duration of study	Credits	Residency	2002-03 Internal/international tuition
Heriot-Watt University	3 years full-time equivalent; maximum 4 years full-time	Not based on credit system	Recommended but not required: 3 months' full-time residency at the beginning and the end of PhD (other periods on campus may be required)	£2,850 for UK/EU students; £8,000 for all others
Lincoln University	3 years full-time (possible to study off campus for 2/3 of the program)		1 out of 3 years	NZ \$3,500; Internat'l \$22,000; (approx. US \$12,000)
University of Newcastle	3 years full-time; 5 years part-time		Residency required for full-time but not for part-time	UK/EU £2,940. Overseas £7,620
RMIT	3 years full-time; 6 years part-time		No	Not provided




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Minnesota in Minneapolis, the State University of New York at Syracuse, Temple University in Philadelphia, and the University of Georgia in Athens are building a critical mass of PhD faculty with the hope of starting doctoral programs in landscape architecture or with a landscape architecture concentration.

Typically, the interdisciplinary approach enables institutions to consolidate their resources: faculty, staff, students, and facilities. Candidates conduct independent research within a body of knowledge related to landscape architecture, and they benefit from interdisciplinary faculty and student collaboration. "PhD students need cohorts, and by pooling the students, we have enough to fill PhD-level seminars on design theory and research," says Jon Burley, ASLA, associate professor at Michigan State University.

But University of Michigan's Professor Joan Nassauer, FASLA, questions whether doctorates in related disciplines will benefit the profession as much as PhDs in landscape architecture. "While landscape

Table 4
Faculty in programs that offer a PhD in LA

Institutions in North America	PhDs in LA	MLAs	Approx. number of PhDs in allied field
Harvard University	0	0	5
University of Illinois	0	9	8
University of Michigan	1	6	35

Institutions in Europe, Australia, Oceania	PhDs in LA	MLAs	Approx. number of PhDs in allied field
Heriot-Watt University	1	6	3
Lincoln University	1	2	2
University of Newcastle	1	3	1
RMIT	0	5	5

architecture can draw a great deal from interdisciplinary research that does not explicitly address landscape architecture," Nassauer says, "this leaves landscape architecture research and practice to infer its implications for the discipline.... I think

landscape architecture needs the rigorous intellectual self-awareness that comes from research within the discipline to advance and lead in an interdisciplinary world."

Candidates: Their Motivations

Although some PhD candidates come from practice, more typically they come from academia. Their ultimate goal is to acquire the knowledge and skills to conduct substantive, original research and investigations. Ward Thompson of Heriot-Watt remarks, "There is a desire among PhD candidates for an academic career or advancement in that career, or to advance an employer's interest in a problem area. They have a desire to gain personal qualifications that demonstrate ability to conduct and supervise research." At Lincoln University, Professor Simon Swaffield says, "Most students were in consultancy prior to enrolling in our program, and they were prompted to pursue their PhD for a career change to teaching."

"I wanted to learn about how to conduct research. For educators, this is becoming more critical," says Mary Myers, ASLA, an associate professor at Temple University and a PhD candidate at Heriot-

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Watt University. Myers is interested in pursuing original and independent research about road design theory. "It's a potentially rich area for landscape architecture professionals. It is my hope that my research will contribute to the theory of road aesthetics," she says.

Myers believes the ability to do sophisticated research is especially critical because universities increasingly measure their success by the quality and quantity of their faculties' funded research and scholarly publications. She says, "A PhD moves us in the direction toward credible research. It will certainly help to advance my career goals." Survey respondents agreed that at major research universities, inexperience in research is a definite handicap.

Robert Corry, assistant professor at Guelph University, Ontario, Canada, had been in professional practice in the public sector and sought a doctorate for still another reason. He says, "I chose to pursue a PhD to expand my knowledge, particularly at the boundaries of landscape architecture. The interdisciplinary nature of landscape ecology appeals to me, and

Table 5
Number of students accepted in PhD programs/number of graduates

Institutions in North America	No. of students accepted each year			
		No. of students accepted overall		No. of students graduated in last 5 years
		Total no. of graduates in LA		
Harvard University	2-3	9*	3	6**
University of Illinois	2-3	5	n/a	0
University of Michigan	1	40	5	30
Institutions in Europe, Australia, Oceania				
Heriot-Watt University	3	22	6	7
Lincoln University	-	5	2	2
University of Newcastle	3-4	7	6	n/a
RMIT	?	6	0	0

*since 1963; **since 1987

throughout my previous landscape architecture education and practice I recognized that we need to integrate ecology into design to improve landscape architecture. I chose a concentration that could help designers understand the ecological consequences of changing landscapes." Corry has

found that a PhD program has made him much more rigorous, reasoned, and measured in his observations of landscapes and the world.

Elen Deming, associate professor at Syracuse University, says, "I wanted to demystify the process of research—to understand the structural relationship between research and design and the interchange between the two. The PhD opened up a huge new domain for my intellectual curiosity." For Deming, it was tough getting used to being a full-time student again after many years of being in the workforce, but she "bit the bullet and enrolled in Harvard's doctor of design program," she says. "The faculty at the Harvard Graduate School of Design offered a very strong history and theory

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concentration. I wanted to immerse myself in exploring the research methods by which we understand the histories and theories of landscape architecture."

For a landscape architect interested in research and teaching at the university level, the advanced degree provides authority when applying for research funds or promotions, and it creates parity between the landscape architect and peers in disciplines for which the PhD is a requirement. Several respondents said they lost positions to competitors with PhDs and that they are now seriously considering pursuing the degree.

Choosing PhD Programs and Careers

Candidates select institutions based on several criteria: a program's concentration areas, the expertise of its faculty, the duration of its program and residency, and cost. Programs with a part-time option are especially attractive to professionals in mid-career.

Those searching for a PhD program should know that, because the PhD in landscape architecture is relatively new and rare, most programs suffer from the incongruity of having MLAs teach PhD candidates, as Table 3 documents.

Myers says she chose Heriot-Watt for its excellent research reputation, because her adviser's area of expertise matched her academic interests, and because the school offers a PhD in landscape architecture/ design and independent and part-time study. "The fact that I could carry on my job and do the program was very attractive. I tied my teaching with my research focus, developing a course that supported my investigation. I worked on my studies every spare moment," she says.

Guelph University's Corry sought an additional benefit—mentoring. "I cannot overstate the importance of finding the right person with whom to study," he says. "School reputation, duration, tuition, and location are unimportant by comparison."

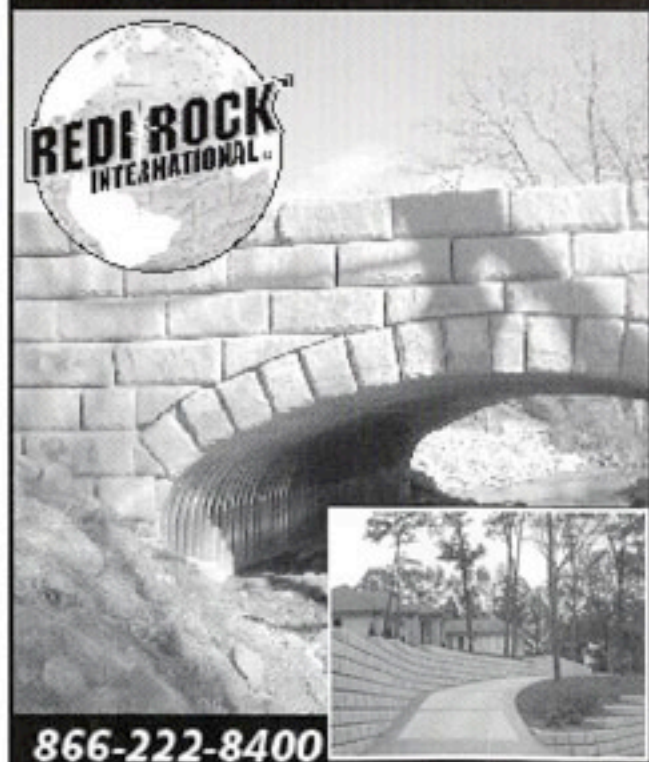
As suggested earlier, most PhDs come from academia and return to it. "We have one senior practitioner going back into

practice and one person working for a public office/environmental authority in Italy," says Ward Thompson. "Otherwise, they are in universities in the UK, USA, Canada, and Brazil and in private practice consultancies in the UK and Italy." Harvard University's Mimi Truslow indicates that the Graduate School of Design (GSD) has one PhD graduate employed at a research institute in Switzerland, two doing postdoctoral work at the GSD, and three working either at the National Academy of Sciences or the National Research Council.

"I worked in practice for seven years before going back to grad school.... The PhD had a profound impact on my career," says Robert Ryan, ASLA, assistant professor at the University of Massachusetts. "I am still a landscape architect, but in academia instead of private practice. The PhD has been instrumental in my current research work, grant writing, teaching, and advising of grad students."

Several respondents indicate they were able to create niche areas for themselves and develop new courses aligned with their areas of expertise.

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The Impact of PhDs on the Profession

Views on how the advanced degree will affect the landscape architecture profession vary, and some survey respondents assert frankly that landscape architecture doctorates will benefit academia more than the profession. But there is agreement that more degrees will create more long-term, meaningful research projects run by sophisticated teams. PhDs in landscape architecture, it is thought, will make the profession more credible as a full-fledged, mature academic discipline and will increase opportunities for research. Funded research, in turn, will make possible an array of practices specializing in, for example, GIS mapping, ecological design, bioengineering, and computing.

A PhD program, University of Michigan's Nassauer says, "helps to identify new areas for practice and for making design and planning decisions based on new knowledge." The University of Illinois's Ruggles believes the PhD will enhance landscape architecture's stature, "especially compared to related fields such as architecture and planning." She says, "It will also encourage the production of written work of the highest intellectual quality so that there will be a permanent

record—in the form of published books and journals—of how landscape architects, historians, and theorists design, manage, and interpret the built environment." She adds that more intensive study of the culture, history, and ecology of world landscapes will produce more environmentally and culturally sensitive designers.

Allan Shearer, a recent Harvard PhD, believes the teaching of landscape architecture is moving toward the "theoretical end of the spectrum"; he speculates that this change "might produce a shift in the profession in 25 years." Most of those interviewed for this article, however, said the PhD in landscape architecture will create a better balance in the profession between theory and practice and promote research for practical application—"action" research that is helping to solve physical, environmental, and societal problems. The ideal, says Ward Thompson, is "practice that is informed by theory and that helps challenge and develop (grounded) theory." Instead of a growing separation between theory and application in the profession, Ruggles says, PhDs are achieving a more sophisticated understanding of how the

two relate and why we design as we do. She asks, "What good is theory if it has no application or if its application is useless? What good is design if it has no driving concept, no greater meaning?"

If landscape architecture, a young discipline, wants to be equal to other disciplines in academia, it must offer a research-oriented degree. The hope is that landscape architects who are grounded not only in practice but also in the rigors of a PhD program will be able to use research to enrich and improve practice. The relationship between practice and research is symbiotic. The MLA and PhD can harmoniously weave training, education, and practice into a strong, disciplined profession. LA

Lilly Tai, FASLA, is chair of and professor in the Department of Landscape Architecture and Horticulture at Temple University in Ambler, Pennsylvania. She earned a PhD from Heriot-Watt University, Edinburgh, Scotland. She would like to extend her great appreciation to all the institutions that responded to her survey and made this study possible. Thanks also to Bron Whiting, senior technical support specialist at Temple University, Ambler, for his assistance with this project.

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