

Background Letter: Promotion to Full Professor



Introduction

This letter supports my request for promotion to *Full Professor* in the Department of Geography at Michigan State University (MSU). I obtained my Ph.D. at the University of Kansas in 1995 and have been at MSU since that time. My goal at MSU has been to create a well-rounded academic profile with strengths in research, teaching, and service. This letter outlines that profile.

Research

I am a physical geographer with a specialization in geomorphology. My research has focused primarily on the evolution of sand dunes in the central Great Plains and Great Lakes region. In this context I have published 24 research papers (first author on 15), with one currently in press and 4 in preparation. This work has been supported with ~\$750K in grants collectively obtained from a variety of agencies, including the State of Michigan, NASA, and NSF. My work in the central Plains has been published in several top tier journals in physical geography, such as *The Association of American Geographer's Annals*, *Quaternary International*, and *Quaternary Research*. These papers have contributed a great deal about the history of paleoenvironmental change in the region and have thus been collectively cited over 70 times.

My work in Michigan has focused on dune formation in coastal and non-coastal areas. Much of this research was groundbreaking because it was the first to reconstruct the chronology of dune formation in many places. My initial Michigan research focused on non-coastal dune fields in the state and demonstrated that mobilization of eolian sand occurred in the middle Holocene, which is much more recently than previously thought. This research has implications for broader paleoenvironmental research in the region and has thus been published in *Geology* and *The Holocene*, which are prominent journals in the Earth sciences.

Most of my work has focused on coastal dunes along Lake Michigan. This research is important because the dunes have a very high public profile in the state. Before I began studying the dunes, it was generally believed that they basically formed during one depositional episode about 5,000 years ago. I was the first to lead teams to systematically test that hypothesis by dating buried soils contained within the dunes. This research demonstrated that the dunes have grown episodically for the past ~5,000 years in a way that is intimately tied to lake level fluctuations. These findings have been published in high-profile journals such as *Geomorphology*, *Journal of Coastal Research*, and *Quaternary Research*, to name a few.

My coastal dune research has had numerous spin-off components that are associated with the popularity of the landscape. I have served in an outreach capacity, for example, as an informal consultant for the Coastal Zone Management Division (CZM) of

the Michigan Department of Environmental Quality (MDEQ). In addition to numerous unofficial discussions about the dunes, I have served as an expert witness for CZM several times in contested cases involving housing development within the dunes. These collective experiences led to a paper in *The Annals of the Association of American Geographers* by [REDACTED] and I that focused on a new way to view the dunes in the context of environmental ethics. I also served in a joint project with the Alliance for the Great Lakes and Ford Motor Co. that involved looking for alternative sand sources (other than sand dunes) for the foundry industry. The results of this project are being prepared for submission to *The Annals of the Association of American Geographers*. In other outreach efforts, I have given over 10 invited lectures to lay groups about the dunes, including the keynote presentation at the first annual *Michigan Dune Day* in 2003. Finally, stories about my research have been published in many newspapers in the region, including the Chicago Tribune, Detroit Free Press, and Lansing State Journal, to name a few.

Teaching

Along with my research program, I have worked diligently to develop a well-rounded teaching profile. In the context of my research, I have advised 9 M.A. theses that focused on dune geomorphology. I also advised one Ph.D. student and helped her obtain an *NSF Dissertation Improvement* grant to study alluvial geomorphology in Michigan.

Within the classroom I have taught a variety of traditional courses at MSU, including *Fluvial Geomorphology*, *Introduction to Physical Geography*, *People and the Environment*, and *Regional Geomorphology*. My typical course load per semester has consisted of one large (~ 200 students) lecture class along with a small (< 20 students) class. My goal with each class is to vigorously promote learning and an appreciation for all aspects of Geography. I try to reach this goal by being enthusiastic, closely involved with students, technologically savvy, and by having high standards.

In addition to my work in traditional classroom settings, I have also consistently applied myself toward non-traditional teaching venues. For example, each time I teach *Regional Geomorphology* I lead my students on a week-long field trip to the Great Plains to examine landscapes in the region. I have now led 5 such groups on this excursion. I have also been very active in MSU's *Study Abroad* program and have led several (6 total) student groups to New Zealand and/or Australia. In 2005-2007, for example, I led the first 3 efforts of MSU's *Sports Program Down Under* program. Although the program is based in Sydney, I led several field trips to places such as the Blue Mountains National Park and Great Barrier Reef.

Most important of my non-traditional efforts has been my involvement in MSU's *Virtual University*. In this context, I was the first member of our Department to develop an online course, specifically for *Introduction to Physical Geography*. This successful effort was funded by a *Lilly Teaching Fellowship* and subsequently led me to create an online version of *People and Environment*. Given the success of these classes, our Department has developed additional online courses and we are now the leading such program at MSU with over 1000 students taught each year.

As an offshoot of my online work, I was approached by [REDACTED] Inc. in 2001 to create a new commercial textbook for physical geography. Given my overall teaching and career goals, I agreed to create a web-based interactive learning system that was built around a traditional textbook. To support the development of this book, I obtained a development grant from Wiley that was administered by MSU. The resulting book is entitled *Discovering Physical Geography* and was published as a first edition in 2007. This textbook has been very well received thus far and is being used at 63 schools around the U.S., including Ball State University, The University of Kansas, and the University of Texas at Austin, to name few.

Service

In keeping with my overall career goals, I have sought to develop a record of solid academic service. Much of my effort in this vein has revolved around traditional academic applications. For example, I have served several times as a proposal reviewer for NSF and as a manuscript reviewer for journals such as *Geomorphology*, *Journal of Arid Environments*, *Journal of Sedimentary Research*, and *Quaternary Research*. At MSU, I served on 4 successful search committees for new faculty and was chair of one of them. I have also served on 6 Ph.D. committees at the university, with half being in MSU's Department of Anthropology. At the M.A. level, I have served on 6 student committees in Geography other than those I chaired.

I have also tried to contribute in ways that reflect my teaching interests. I served, for example, as the academic mentor for a *Lilly Teaching Fellowship* obtained by [REDACTED]. I was also a member of the *Teacher/Scholar Task Force* for the College of Social Sciences. I am currently a member of the *University Committee on Liberal Learning*, which is seeking ways to apply progressive learning methods and standards across MSU.

Conclusion

In summary, I believe I have developed an academic record that warrants promotion to Full Professor. My goal has been to create a well-rounded profile with strengths in several areas. I have been involved in groundbreaking research about the evolution of sand dunes both in the Great Plains and Great Lakes regions. This work has been supported by a variety of state and federal agencies and has been useful to various state agencies. I have been first or solo author on the majority of the associated research articles, which have been published in top-tier journals. My teaching record is strong and diverse, with significant contributions in a variety of ways that reach across both the university and discipline as a whole. Finally, I have served in many ways that have contributed to the discipline and academic fabric at MSU.