



June 24, 2011

Robert H. Gardner, Director
Appalachian Laboratory, UMCES
Coordinator, CW-CESU
301 Braddock Rd.
Frostburg, MD 21532
Email: gardner@al.umces.edu

Dear Dr. Gardener,

Please find enclosed The George Washington University Columbian College's application for membership in the Chesapeake Watershed – Cooperative Ecosystems Studies Unit. The George Washington University is a premier research institution whose faculty is engaged in a wide range of natural science, social science and public policy research that pertains directly to the CESU mission and mandate.

GW offers undergraduate, masters, doctoral, and post-doctoral programs in a variety of academic areas including Biological Sciences, Anthropology and Archaeology, Museum Studies, Public Policy, Organizational Studies, Geography, Tourism Studies, and Geological Sciences. Our institution has a strong record of productive partnership with federal, environmental, cultural and research agencies including the US National Park Service, the Smithsonian, NIH, the Corcoran Gallery of Art, NASA, NIST, the Department of Energy, and many others.

In fact two of those partnerships—described immediately below-- have served as a catalyst for this application since, in both of these cases, our National Park Service partners suggested we strengthen the partnership by applying for CESU membership.

In the first of these two cases, GWU participates in the Leadership for Public Lands and Cultural Heritage certificate program that been designed to prepare current and future leaders with responsibility for the United States' cultural and natural resources. This program resulted from the work of National Park Service's Leadership and Development (L&D) department focus on preparing the workforce with leaders who can deal with present and future challenges. The certificate program consists of six graduate-level courses resulting in 18 credits, with each course taught by one of a consortium of six universities. The George Washington University is one of the founding institutions and currently chairs the group of universities participating in this program. In addition, it is offering one of the six courses – Public and Non-Profit Program Evaluation. Two Faculty members from the George Washington University serve as member of the consortium group (Dr. Kathryn Newcomber, Director of the Trachtenberg School of Public Policy and Administration; and Dr. Elizabeth Davis, Associate Professor and Director of our Organizational Sciences & Communication Department).

In the second case, Dr. Lubkemann (GWU Department of Anthropology) has collaborated since 2008 with the US National Park Service-Submerged Resources Unit, and with Biscayne and Dry Tortugas National Parks (both in FL) in the "Southern African Slave Wrecks and Diaspora Heritage Routes Project". This project involves a field research program to locate, document, and preserve the archaeological remains of ships that wrecked while engaged in the international slave trade, while developing a cultural resource

management program that will preserve and protect this heritage. The US National Park Service Submerged Resource Unit and GWU collaborate in this project to assist partners in Africa in conducting maritime cultural resource research; in developing protection and management plans that integrate natural and cultural submerged resources (including in the two largest Marine Protected Areas in the Indian Ocean); in policy development; in the development of appropriate volunteer assistantship programs; and in building technical capacity. GWU and the USNPS-SRU also run a joint field school and longer internship programs for African partners in the United States. Our African partners include IZIKO (Museums of Cape Town), the Southern African Heritage Resources Agency (South Africa), University of Lurio (Nampula, Mozambique), and World Wildlife Fund-Mozambique. A letter of support from the director of USNPS-SRU for our CW-CESU application is annexed to this application.

The University has reviewed the general CESU descriptive material as well as the specific CW-CESU Cooperative and Joint Venture Agreement and the University agrees to abide by all the expectations and responsibilities of partner institutions.

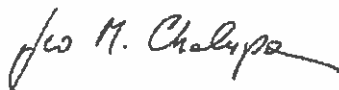
If our University is accepted as a CW-CESU partner we agree to:

- Encourage our faculty, graduate and undergraduate students to participate in CW-CESU projects;
- make laboratory, field, and technological facilities available to CESU projects that are conducted by our faculty and students;
- Accept an indirect cost rate of 17.5% of total direct costs of all federal projects funded through CW-CESU
- other terms and conditions as specified in the cooperative agreement for all CW-CESU partners

GWU has the facilities, equipment, and staff to support the research our faculty will conduct as CW-CESU partners. The University has recently reaffirmed its commitment to both environmental and to cultural heritage research alike in very concrete ways. Chief among this is our new The Science and Engineering Complex that will rise to eight stories and nearly cover an entire city block. The SEC, just across 23rd Street from Ross Hall, the biomedical sciences building, and the George Washington University Hospital, will anchor a new core of science and engineering on the campus. The organizing concept for the Science and Engineering Complex is integration. Integration of teaching and research on all floors, integration of research by clustering scientists from biology, chemistry, hominid paleobiology and physics on the basis of research interests and integration with our colleagues in engineering. This center of learning and discovery, slated to open early in 2015, will nearly double current lab and classroom space and will incorporate core research facilities, such as an imaging suite and a "clean" room to help transform the way research is conducted at GW. Teaching laboratories are being designed to reflect the latest pedagogical thinking about how student learn science most effectively. A three-story "high bay" will offer opportunities to scale up projects, providing a dedicated area for hands-on work with large objects such particle detectors for high energy physics experiments. This facility will mark the George Washington University as the premier scientific research institution in the nation's capital. We are also launching a new Phd program in our highly regarded Anthropology department.

We look forward to making a strong contribution to the CW-CESU partnership.

Sincerely,



Leo M. Chalupa
Vice President for Research

*Mission Statement
of
The George Washington University*

The George Washington University was created in 1821 through an Act of the Congress, fulfilling George Washington's vision of an institution in the nation's capital dedicated to educating and preparing future leaders.

Today, GW is the largest institution of higher education in the District of Columbia. We have more than 20,000 students—from all 50 states, the District and more than 130 countries—studying a rich range of disciplines: from forensic science and creative writing to international affairs and computer engineering, as well as medicine, public health, the law and public policy.

GW comprises three campuses—Foggy Bottom and Mount Vernon in Washington, D.C., and the GW Virginia Science and Technology Campus in Ashburn, Va.—as well as several graduate education centers in the metropolitan area and Hampton Roads, Va.

Our University actively engages Washington, D.C., and the world. Our location in the heart of Washington places us at the core of U.S. government, policy and law. We sit where the worlds of science, technology, media and the arts converge. Our students and faculty have the unparalleled opportunity to study and work alongside leaders and practitioners in every discipline, to take part in the interchanges that shape our community and the world.

Our mission is to provide an environment where knowledge is created and acquired and where creative endeavors seek to enrich the experiences of the global society. With nine schools and colleges and nearly 100 research centers and institutes, our students receive hands-on experience as they explore nearly any avenue of personal interest.

The depth and breadth of our academic programs, the exceptional qualifications of our full-time faculty, the unmatched experiences of our adjunct faculty and the strengths of our research initiatives allow our students, our faculty and our staff to look at the world beyond the classroom. They allow us to prepare the next generation of leaders.

Responsible Party/ Primary GW Contact for CW-CESU:

**Peg Barratt, Dean
Columbian College of Arts and Sciences
801 22nd St., N.W. Suite 212
The George Washington University
Washington, DC 20052**

List of GW Programs relevant to federal land management, environmental and heritage research and research agencies:

While George Washington University includes many departments and programs with relevant background and interests in participating in the CW-CESU, here we highlight a number of the most immediately pertinent, including: the Department of Biological Sciences, the Department of Anthropology (including the Hominid Paleobiology Program), the Department of Geography, American Studies, the Department of Organizational Sciences, the Trachtenberg School of Public Policy and Administration; the Institute for International Tourism Studies, the GW Capitol Archeological Institute, and the Geological Sciences Program.

Department of Biological Sciences

The Biological Sciences major is one of the most popular in the Columbian College, especially among students preparing for medical, dental, and veterinary programs and graduate programs in biology, zoology and botany. Faculty and graduate students actively engage in research on campus and in field sites around the world, and often collaborate with researchers at one of the many research institutes in the Washington, D.C., area. Faculty in the department teach and pursue research on a broad range of biological topics, from the molecular level to the organismal and ecosystem levels and on organisms covering a broad spectrum of taxonomic diversity. The Department of Biological Sciences offers a BA, a BS, and a Minor in Biology. It also offers programs leading to the Master of Sciences and Doctor of Philosophy degrees. The Department's graduate program is highly interactive, and students move easily between fields within the department and interact with other programs and institutions on and off campus. Graduate research is generally in one of two areas: (1) Cell, Molecular, and Developmental Biology, and (2) Systematics, Evolution, and Ecology.

Dr. Henry Merchant research interests include ecology; population energetics and dynamics; community and ecosystem analysis; biology of urban areas. His current research is focused upon a long term study of the population biology of the red-backed salamander (*Plethodon cinereus*). In this study he is examining common population parameters (size, sex ratio, color morph ratio, spatial distribution, etc.) as they vary seasonally and annually. He is also investigating the environmental factors affecting variation in the size of the reproducing population of the wood frog (*Rana sylvatica*). Both of these studies are conducted using a natural preserve that is just outside Washington, D.C. and is owned by a private foundation dedicated to environmental education.

Dr. Richard Tollo's areas of expertise include physical geology, mineralogy, petrology, geobotany, and geological field methods. His research primarily involves field-based studies of Precambrian igneous and metamorphic rocks, including application of petrologic and geochemical information to deduce the typically complex evolution of such rocks and the terranes in which they occur. His current work involves field and petrologic studies of Mesoproterozoic basement rocks and Neoproterozoic metavolcanic rocks exposed near Mount Rogers in southwestern Virginia. Investigations include detailed field mapping, petrologic and geochemical characterization, and in situ trace-element geochemical analyses of zircons dated by U-Pb isotopic methods. These studies are undertaken in collaboration with colleagues from the U.S. Geological Survey. A recent focus of their work involves detailed SHRIMP (sensitive high resolution ion microprobe) analysis of trace-element compositions in Precambrian zircons that have been dated using standard SHRIMP isotopic techniques. These studies are designed to elucidate the geochemical and petrologic mechanisms of zircon formation in polymetamorphosed rocks of igneous origin.

Dr. Hartmut G. Doebel's principal areas of interest include: population ecology, predator-prey interactions, wetland ecology. Currently he is exploring systems to study insect-immune responses to parasitoids. He is also interested in pedagogical research, especially on the use of technology in large classes.

Anthropology and Hominid Paleobiology

The Anthropology Department (<http://www.gwu.edu/~anth/>) is committed to integrating the humanistic and scientific perspectives of our discipline while pursuing advanced research of the highest quality. We believe that research should be both rigorous and creative, and that it should be intrinsically connected to our activity as teachers. Moreover, research and teaching activities of Anthropology faculty members should resonate with and complement each other. We believe that our undergraduate and graduate students deserve outstanding classroom and practice-based training in the "four fields" — archaeology, biological anthropology, sociocultural anthropology, and linguistic anthropology. A GW degree in anthropology should signal that the holder is experienced in synthesizing diverse kinds of data about human beings, a skill increasingly valued in a variety of professions as well as in academic settings.

We encourage team-teaching and experimentation with new teaching methods and technologies because these approaches feed back directly into cutting-edge research. Similarly, we eagerly seek out professional collaboration within and beyond the University in order to create the kind of vibrant intellectual community that stands at the heart of any great research institution. Last but not least, we will continue to place our knowledge at the service of the local, national and international communities to support humanistic values and human rights.

Dr. Stephen Lubkemann is a sociocultural anthropologist and maritime archaeologist. His work focuses primarily on social and political change in nations that have experienced protracted conflict and violence; on migrants, refugees, and diasporas; on international development and humanitarian action; and on cultural heritage and maritime archaeology in Africa and of the African diaspora. Dr. Lubkemann has conducted fieldwork with migrants and refugees in Mozambique, South Africa, Angola, and Liberia, and among diasporas in Portugal and the U.S. He has also worked on a variety of archaeological and cultural heritage projects in the U.S., Bermuda, and in Africa. He is director of The Southern African Slave Wrecks and Diaspora Heritage Routes Project, an international collaboration that includes the US National Park Service-Submerged Resources Unit.

Dr. Jeffrey Blomster is an archaeological archaeologist specializing in social complexity, interregional interaction and approaches to style, ritual and ideology. Dr. Blomster's regional and spatial research interests lie primarily in Mesoamerica, where he has focused on Mixtec, Zapotec and Olmec cultures. He has conducted archaeological and laboratory fieldwork at Etlatongo, in the Mixteca Alta of Oaxaca, Mexico, which examines the emergence of social complexity in the Nochixtlán Valley, and explores the impact of interregional interaction in this area. His academic writings have focused on manipulation and movement of style, looking at both traditional stylistic analyses as well as compositional approaches.

Dr. Robert J. Shepherd is a cultural anthropologist who focuses on tourism issues, cultural heritage, and the side-effects of market reforms in contemporary China. Dr. Shepherd has studied the politics of cultural heritage policies in Tibet, the rise of the Falungong Movement in China, and the cultural impact of a World Bank-funded tourism project on the island of Bali. His current research projects include an on-going analysis of the state-directed and UNESCO-supported development of a world heritage zone at Mount Wutai, Shanxi Province, China, its impact on local residents, and the conflicts that have emerged between different bureaucratic parts of the Chinese state. He is also currently working on a study of the performative aspects of street merchants in Washington, DC, and Beijing, China. The focus is on how these merchants produce their markets through their actions and the role that socially-constructed familiarity ties serve to link customers with sellers.

Dr. Alison Brooks is an archaeologist whose work has focused on the origin of *Homo sapiens*, and of the capabilities for modern human behavior. She has conducted field work and museum research in the Levant, Sweden, France, Botswana, Zimbabwe, South Africa, the Democratic Republic of Congo, and Ethiopia, and was the co-leader of a GW field school at Zhoukoudian, the "Peking Man" site southwest of Beijing. She also

lived and worked with the Jun/wasi people of northwestern Botswana for many years, looking at the relationship between their then-current hunting and gathering lifeways, and the formation of archaeological sites. Her current field project is in the Olorgesailie basin, in the Rift Valley of southern Kenya, which has perhaps the world's longest and most complete sequence of localities documenting the last million years of human evolution. Her work has documented the African origins of many aspects of modern human behavior including technological innovation, social complexity, and symbolic behavior, and has provided a template for discussions of the essential qualities of "humanness" and how to detect them in the archaeological record. She continues to refine the dating of African and other sites using protein changes in ostrich eggshell. She is an editor of *The Encyclopedia of Human Evolution and Prehistory 2nd edition* (Garland, 2000), and author of numerous papers including (with Sally McBrearty) "The revolution that wasn't: a new interpretation of the origin of modern human behavior" (*Journal of Human Evolution* 2000).

Dr. Susan Johnston has carried out archaeological research in Ireland since the 1980s. She has also done archaeological work in such varied places as India, England, and Rhode Island. She is currently conducting research at the site of Dún Ailinne, Co. Kildare, Ireland. This site, which saw a variety of uses between 3500 BCE and 400 CE, was one of the royal sites of the Irish Iron Age, and in that period was the ceremonial center of the rulers of the ancient kingdom of Leinster. She has published a number of articles and research reports on the site, including (with Bernard Wailes) *Dún Ailinne: Excavations at an Irish Royal Site, 1968-1975* and, most recently (with Doug Campana and Pam Crabtree) "A geophysical survey at Dún Ailinne, Co. Kildare, Ireland" in the *Journal of Field Archaeology*.

Geography

The Department of Geography (<http://www.gwu.edu/~geog/>) is dedicated to achieving excellence in research and education. We seek this through the diffusion of geographic knowledge that focuses on the relationships between the physical world and its occupation and modification by humans. Geography is an integral part of the basic education of university students, occupying a central role in the pursuit of knowledge among complementary disciplines. Offering introductory and a wide range of advanced courses, the faculty of geography is committed to excellence in teaching, scholarship, research, and the incorporation of innovative methods of geographic analysis and communication. We believe in fostering an educational environment that introduces young scholars to the theoretical and applied aspects of contemporary and historical geography. We seek to prepare graduates to meet challenges of further study and professional careers in several fields.

Dr. Lisa Benton-Short is an associate Professor that earned her PhD from Syracuse University. Her interests include Monuments, Memorials and Public Space, National Parks in Cities, Environmental Issues in cities Urban Sustainability, Cities and Immigration. She is currently in progress of writing a book entitled "National Identity and the National Mall. Previous publications include (with J.R Short) coauthoring "Cities and Nature" and co-editing "Migrants to the Metropolis: the Rise of Immigrant Gateway Cities", as well as numerous articles including "Politics, Public Space and Memorials: The Brawl on the Mall" in *Urban Geography*.

Dr. Melissa Keeley is an assistant Professor of Geography and earned her Ph.D. from Technical University of Berlin. Her research interests include urban environmental management, land-use planning and the environmental services provided by urban vegetation. Some selected publications including "Using Individual Parcel Assessments to Improve Stormwater Management" in *Journal of the American Planning Association* and "Green Roofs and the Green Area Factor" from 3rd Annual Green Roofs for Healthy Cities Conference.

Joseph Dymond's research interest include culture, Identity, and Nationality; Latin American Development and Urban Environments; Nature Tourism. He received a Master of Natural Sciences degree from Louisiana State University in 1999 and a Master of Science degree from Penn State in 1994. His publications include coauthoring (with M. Bradshaw, G. White, E. Chacko) the "Contemporary World Regional Geography."

Dr. Nikolay Shiklomanov is an Assistant Professor of Geography. In 2001, he received a Ph.D. in Climatology from University of Delaware. His research interests include the Arctic environment, Climatic variability and change, Geomorphology, History of Arctic research. His publications include coauthoring (with F.E. Nelson, D.A. Streletskiy, K.M. Hinkel, and J. Brown) "The Circumpolar Active Layer Monitoring (CALM) Program: Data Collection, Management, and Dissemination Strategies" for the 9th International Conference on Permafrost as well as coauthoring (with Riseborough D, Shiklomanov N.I., Etselmuller B., Gruber S) "Recent Advances in Permafrost Modeling" in *Permafrost and Periglacial Processes*.

Dr. Ryan Engstrom is an Assistant Professor of Geography. He received his Ph.D. in Geography, through the Joint Doctoral Program in Geography, San Diego State University / University of California, Santa Barbara, in 2005. His research interests include Remote Sensing, GIS, Climate Change, Arctic Environments, and Population Estimates. Dr. Engstrom is also the Director of the Spatial Analysis Lab and Center for Urban and Environmental Research at GWU. His publications include coauthoring (with L. Fu, N. Cowan, R. McLaren, and S. Teach) "Is spatial accessibility to primary care providers associated with vaccination coverage among children with Medicaid insurance?" in *Pediatrics* as well as coauthoring with (A.S. Hope, H. Kwon, and D. Stow) "the Relationship between Soil Moisture and NDVI near Barrow, Alaska, in *Physical Geography*.

American Studies

The American Studies Department (<http://www.gwu.edu/~amst/>) offers three degrees: BA, MA, and PhD. The faculty and students who make up the American Studies Department combine interests drawn from a variety of perspectives and methods of inquiry: history, folk life, cultural studies, literary analysis, as well as the study of art, architecture, and visual culture. However, most faculty and students find their intellectual pursuits intersecting at some point around questions of public culture and/or public history. Students at all levels develop individualized, interdisciplinary programs of study in consultation with faculty advisors. Common areas of research include: Cultural Production, Difference and Diversity, Spatial Organization, and Material Culture.

Richard Longstreth is a Professor of American Studies and director of the Graduate Program in Historic Preservation. Paralleling his academic responsibilities, Professor Longstreth's professional interests lie in two, complementary realms. As a scholar, he has written extensively on the history of nineteenth- and twentieth-century architecture in the U.S. In recent years, his research has focused on retail development in major metropolitan areas, relating economic, design, urbanistic, and cultural factors that have fundamentally reshaped the American landscape since 1920. His City Center to Regional Mall and The Drive-In, the Supermarket, and the Transformation of Commercial Space won four national awards in the fields of architectural history, urban history, and historic preservation. Recently he completed preparing *The Department Store Transformed*, to be published by Yale University Press.

Professor Longstreth has been involved in the preservation field at the national, state, and local levels and in the public and private sectors. Since 1984 he has taken an active role in Washington-area initiatives. Testimony he gave on a few of these cases is being published in a case-study book by the National Park Service and National Council for Preservation Education in 1997. Much of his other writing on the subject has addressed preserving the recent past. He has figured prominently in efforts to save numerous mid-twentieth-century sites, locally and nationally, and was a founding member of the Recent Past Preservation Network.

Dr. John Michael Vlach is a leading expert on American material culture, especially African American and Caribbean decorative arts, folk architecture, and historic preservation. He is a Professor of American Studies and Anthropology at The George Washington University and director of the University's Folklife Program. For more than 30 years, he has concentrated his scholarship on aspects of the African Diaspora by conducting field research in Africa, the Caribbean, and the southern regions of the United States. His 10

books cover numerous topics in American decorative arts, vernacular architecture, and rural landscape. As guest curator or consultant to numerous museums, Dr. Vlach has developed exhibitions for art museums, historical societies, and libraries from coast to coast. Most recently, the exhibit "Landscape of Slavery," based on Prof. Vlach's books, opened at the University of Virginia Art Museum. he serves as an advisor to a Capitol Hill community oral history project and is a member of the Historic Preservation Review Board for the District of Columbia.

Suleiman Osman specializes in U.S. urban history, the built environment, U.S. cultural and social history, and the study of race and ethnicity, with a particular focus on the way urban space both shapes and is produced by culture and politics. His current project on the history of gentrification in Brooklyn explores the relationship between New York's physical and symbolic cityscapes. Tracing the efforts of a new middle class to reinhabit and restore aging Victorian neighborhoods, Professor Osman examines how Brooklyn's declining commercial and industrial landscapes were recast as postindustrial sites of anti-bureaucratic authenticity.

Dr. James A. Miller is a Professor of English and American Studies and Director of the Center for the Study of Public History and Culture. His work focuses on twentieth century African American cultural politics, including explorations of literature, film, and music. He wrote his Ph.D. dissertation on the works of Richard Wright and, since that time, has had a long-standing interest in the relationship between social and political movements and African American cultural production. His recent book, *Remembering Scottsboro: The Legacy of an Infamous Trial* follows the trajectory of the notorious case and its aftermath as it circulated in fiction, poetry, drama, and film, from the 1930s until recent times. Professor Miller's current research examines the interactions between African American and South African jazz musicians between 1959 and 1965, as the pace of freedom struggles in both countries began to rapidly escalate.

Teresa Anne Murphy's work focuses on the relationship between gender and culture in the late eighteenth and early nineteenth centuries. She is particularly interested in how women manipulated gender conventions in roles of social activism and how ideas about gender evolved and were contested during this time period. Her broad fields of interest for both teaching and research are US Cultural History in the pre-twentieth century and US Women's History. Her first book, *Ten Hours Labor: Religion, Reform, and Gender in Early New England*, analyzes the way in which gender relationships were expressed in evangelical revivals, temperance reform, and the labor movement of the antebellum period. She argues that many of the working people who participated in religious revivals and reform movements in New England used their practices to challenge employers rather than simply acquiescing to their employers' beliefs. She also analyzes how religion became a language of labor protest that women could wield with propriety.

Organizational Sciences

Organizational Sciences (<http://www.gwu.edu/~orgsci/>) is part of the GW's Columbian College of Arts & Sciences and was founded in 1981. The program draws from a broad range of resources within the University including organizational management, psychology, communication, economics, and statistics. Organizational Sciences ties managerial and executive success to the integration of knowledge in three key areas: Strategy & Change Management, Leadership & Communication, and Performance & Talent Management. Our program is based on the premise that for individuals and organizations to succeed - whether they are in the for-profit, not-for-profit, government, military, service, or manufacturing sectors - they must be ready to think and act in the most effective ways possible. Organizational Sciences is focused on preparing individuals to quickly analyze and solve problems by synthesizing information, rethinking work processes, enhancing member collaboration, sculpting organizational culture, integrating the interests of a diverse set of stakeholders, and steering the organization toward a successful future. The achievement of this requires a deeper understanding of the relationship between the individual, organization, and environment.

Dr. Elizabeth B. Davis is Associate Professor and Director of the Organizational Sciences/ Communication/I/O Psychology Department at The George Washington University. Since joining the faculty,

Dr. Davis has continued to research, write about and work with the business, government, and non-profit sectors. She served as project director for a Latin American health care strategy conference hosted by the Institute for International Trade, Diplomacy and Development at St. Joseph's University's Erivan K. Haub School of Business. Her current research is focused in the areas of organizational culture and strategy formulation and performance, and the effects of building and implementing strategic initiatives in organizations. An authority in strategic management, business policy, and organizational dynamics, Dr. Davis has published numerous articles in these topic areas. Her work has appeared in the *Journal of Business and Economics*, the *Business Journal*, *Journal of Production and Operations*, the *Case Research Journal*, the *Journal of Medical Humanities*, the *Journal of Quality Management*, the *Health Policy Journal*, and in numerous conference proceedings at The Eastern Academy of Management, the Academy of Management, The Strategic Management Society and the Northeast Business & Economics Association. She has lectured and done consulting work in strategy and human centered systems change in the U.S A., Caribbean, Latin America, and Europe. Dr. Davis earned her B.A. from Columbia University, and received her Ph.D. in Systems Sciences from the Wharton School, at the University of Pennsylvania. is currently serving as the Chair of the consortium of the consortium of universities who are offering the Leadership for Public Lands and Cultural Heritage certificate.

Dr. Nanette M. Blandin is an Assistant Professor of Organizational Sciences. Her areas of expertise include: Leadership, Human Capital Development, Executive Education, Ethics, Organizational Behavior, and Public Policy. She holds a doctoral degree in human and organizational studies from George Washington University, a Masters Degree in Public Administration from the University of Southern California, and a Bachelors Degree in Political Science and French from the University of California. She teaches graduate courses in organizational behavior and leadership at George Washington University and American University, and is a Senior Fellow at the Burns Academy of Leadership, University of Maryland. Dr. Blandin's background includes twenty years at The Brookings Institution where she served as Vice President, Director and Senior Staff in the Center for Public Policy Education, and designed and managed a wide variety of educational programs for U.S. and international companies, professional associations, federal agencies, and foreign embassies. Previously, she worked in the Office of Inspector General, U.S. Department of Labor, Office of Management and Budget, and the State of California. S She is currently President of The Nexus Institute, a global executive education and leadership development organization.

Dr. Gelaye Debebe is an Assistant Professor of Organizational Sciences as well as a Faculty Affiliate for the Center for Gender in Organizations Simmons Graduate School of Management. Her research interests include cross-cultural and organizational learning, women's leadership development, qualitative research methods. Her publications includes the journal articles "Cross-Cultural Competence and Power-Based Rules: A Native American Case Study," *International Journal of Intercultural Relations*, 32:5 and "Guest Learning and Adaptation in the Field: A Navajo Case Study," *Development in Practice*, 12:3. She has also published two books *Transforming Women Leaders: Three Pathways to Leadership Effectiveness* and *Navigating Power: Cross-Cultural Competence and Coordination in Navajoland*.

Trachtenberg School of Public Policy and Public Administration

The Trachtenberg School of Public Policy and Public Administration offers graduate programs that prepare students for careers in public service as analysts, leaders, managers, and researchers. Our programs consistently rank among the nation's top programs in public policy, public administration, and public affairs.

The Trachtenberg School welcomes students with wide-ranging backgrounds and interests. We offer graduate programs that embrace multiple perspectives and practical knowledge to prepare students for active and reflective engagement in local, national, and global governance. Our master's programs in public administration (MPA) and public policy (MPP) integrate theory and practice in scholarship, teaching, and service and embrace multiple perspectives for advancing critical analysis and practical knowledge of public policy and public administration. The Certificate in Nonprofit Management provides professionals with the

knowledge and skills necessary to lead and manage nonprofit organizations successfully. Our PhD in Public Policy and Administration offers a rigorous multi-disciplinary curriculum that prepares students for careers in academe, research institutions, federal, state, and local governments, and international organizations.

Dr. Kathryn Newcomer is the Director of the Trachtenberg School of Public Policy and Public Administration at the George Washington University where she is also the Co-Director of the Midge Smith Center for Evaluation Effectiveness, home of The Evaluators' Institute (TEI). She teaches public and nonprofit program evaluation, research design, and applied statistics. She routinely conducts research and training for federal and local government agencies and nonprofit organizations on performance measurement and program evaluation, and has designed and conducted evaluations for several U.S. federal agencies and dozens of nonprofit organizations. She serves on the consortium group for the Leadership for Public Lands and Cultural Heritage certificate program that GWU currently chairs in collaboration with five other universities and with the National Park Service's Leadership and Development (L&D) program. She also teaches the Public and Non-Profit Program Evaluation course for that certificate program.

Dr. Mark Starik is a Professor of Strategic Management and Public Policy with research interests in strategic environmental management, international environmental policy, stakeholder management, strategic management and public policy integration. Professor Starik has also consulted with a number of business, government, and nonprofit organizations on a wide-range of sustainability-oriented topics. Professor Starik has published numerous books and articles and has taught several courses at each level on these topics. He is the faculty advisor of the GW Net Impact student group and the volunteer coordinator of the biennial GWSB application to the Aspen Institute "Beyond Grey Pinstripes" program, both of which promote the incorporation of social and environmental issues in businesses and business schools.

Dr. Dwight Cropp is an Associate Professor of Public Policy and Public Administration with research interests in intergovernmental relations, urban and regional issues, resource development, management. He is a former Director of the D.C. Office of Intergovernmental Relations. His numerous articles and publications include "The Urgent Challenge: Educational Excellence for All" (Mayor's Advisory Commission on Post Secondary Education, 1988).

Dr. Arun Malik is an Associate Professor of Economics, and Public Policy and Public Administration with research interests in environmental and resource economics, regulation, public economics, microeconomics. His research focuses on the design of environmental policy, with forays into other areas of public economics. He currently serves as an Associate Editor of a new journal, Strategic Behavior and the Environment.

Dr. James Edward (Jed) Kee's teaching and research interests include budget theory and policy; intergovernmental finance; state-federal management issues; and public sector productivity, management, and leadership. Professor Kee has had an extensive career in state government administration in New York and Utah. He was counsel to the New York State Legislature and served under two Utah governors as state planning coordinator, state budget director, and executive director of the Department of Administrative Services. His publications include *Out of Balance* (with Scott Matheson, 1986); "The Crisis and the Anticrisis Dynamic: Reshaping the American Federal System" (1992) in *Public Administration Review*, and "Benefit-Cost Analysis", in *Handbook of Practical Program Evaluation*.

International Institute of Tourism Studies

The International Institute of Tourism Studies is a world class educational institution that has been involved with tourism development and education for over 20 years. Situated within the School of Business, GW's Tourism Programs include several professional development programs targeted at building human capacity in a relatively short time frame. Additionally, GW offers an on-line master of tourism program ranked in the top 25 on-line business degrees in the US. GW is known for its experience in international tourism development at the national, regional, and local levels. This includes tourism destination management, event management,

hospitality management, conservation, parks and protected areas, and other areas. GW just completed its tenure as Chair of the World Tourism Organization Education Council, a council of the world's leading tourism educational institutions. GW is now serving on the Board of Directors for the new UNWTO Center of Excellence on Destinations, which is sponsored by Tourism Montreal, National Geographic Society, Canadian government agencies and selected government tourism authorities.

Dr. Donald E. Hawkins is the founder of the Tourism Studies Program at The George Washington University. He is the author or editor of over 100 articles or books including *Tourism in Contemporary Society*, *Ecotourism Planning and Management*, and *the Environmental Classroom*. He is also the founding editor of the *Journal of Leisure Research*, serves on the editorial boards for the *Journal of Travel Research and Tourism Management*, and served as the editor-in-chief of the *World Travel and Tourism Review*. Dr. Hawkins is internationally recognized for his leadership role and research in tourism policy development, particularly in recent years in St. Kitts and Nevis, Bulgaria, Dominica, Honduras, Jordan, Egypt, Jamaica, Venezuela, Argentina, Bermuda, Panama, St. Lucia, Romania and the United States (particularly, Loudoun

County, and Miami-Dade County, Florida). Dr. Hawkins research interests include ecotourism development; tourism policy analysis and strategic planning; hospitality and tourism education; and destination competitiveness strategies integrating tourism marketing, economic development, environmental management systems and foreign investment.

Dr. Sheryl M. Elliot serves as the director for the undergraduate programs for the Department of Tourism & Hospitality Management. She is a founding member of the Pan American Federation of Hotel and Tourism Schools (CONPEHT) and current chair of the Washington, DC Industry Advisory Board for the National Academy Foundation, Academy of Travel and Tourism. Dr. Elliot has produced seven educational videos on topical issues in tourism and has been a contributing author to the following publications: *Annals of Tourism Research*, *World Travel and Tourism Review*, *Journal of Vacation Marketing*, *Tourism Management*, and *Papers de Tourism*. Most recently, she was part of the editorial team for the publishing of a seminal work on quality in tourism education, *TEDQUAL: Quality in Tourism Education*, published by the World Tourism Organization. She is a frequent guest of television programs including CNN and NBC.

Dr. Ginger Smith, is Associate Dean for the College of Professional Studies with a primary responsibility to co-develop and co-design multidisciplinary undergraduate, master's, and certificate level programs for adult

learners in partnership with industry, government, and non-profit organizations. She also served as founding

Director of GW's distance learning Accelerated Master of Tourism Administration and Deputy Director of the on-campus program. Before coming to GW, Dr. Smith served as founding Dean of the International School of Tourism and Hotel Management, Ana G. Mendez University System, San Juan, Puerto Rico. For the U.S. Department of Commerce, Dr. Smith worked as Senior International Policy Analyst and Acting Director of Public Affairs and Acting Director of Policy and Planning for the U.S. Travel and Tourism Administration. She also chaired the APEC (Asia Pacific Economic Cooperation) Tourism Working Group and was a member of the OECD (Organization for Economic Cooperation and Development) Tourism Committee and Bureau. For the World Tourism Organization in Madrid, she chaired the Quality Tourism

and Safety Committee and was a member of the Safety and Security Task Force and Environmental Indicators Project. She served on three task force committees (environmental concerns, technology, and safety and security) for the U.S. White House Conference on Travel and Tourism. Additional areas of tourism research and publication include terrorism, social and cultural heritage, sustainable economic development, and the reduction of barriers to trade in services through the interpretation of multilateral free trade agreements (GATS and NAFTA).

Dr. Tyra Hilliard is the faculty advisor for the Event and Meeting Management concentration in the MTA program. She is Executive Director of the International Institute of Tourism Studies. She serves on the

Bylaws Committee of the International Council on Hotel, Restaurant, and Institutional Education (I-CHRIE)

and on the Education Committee of the Capital Chapter of the Professional Convention Management Association (PCMA). As an event and meetings industry lawyer, Dr. Hilliard has authored numerous articles in industry publications like *Successful Meetings*, *Association Meetings*, and *Corporate & Incentive Travel*. Some of her recent articles include “Caught in the Web,” (about a current patent dispute in the industry), “Trust Department of Tourism and Hospitality Management International Institute of Tourism Studies.”

GWU Capitol Archaeological Institute

The GWU Capitol Archaeological Institute (<http://archaeology.columbian.gwu.edu/>) is specifically designed to take advantage of the university’s location in the heart of Washington, DC, a setting with a unique gathering of resources unparalleled anywhere else in the world. The mission of the Institute includes:

- advancing archaeological research initiatives and cultural heritage development in the Middle East (including both Israel and Jordan), Greece, Italy, Egypt, China, Africa, and Mexico, in addition to elsewhere in the world, both on land and underwater;
- advocating for policies that will help preserve world heritage and promote heritage tourism;
- facilitating a global community of academics, politicians, diplomats, businesses, and the general public through lecture programs, field schools, museum exhibitions, visiting scholars, and other relevant initiatives;
- creating unique opportunities for students, faculty, and patrons through relations and programs with universities and institutions in key countries worldwide;
- advancing the field through studies of the role of cultural and archaeological heritage in sustainable development and by practicing “green” archaeology on the Institute’s excavations;
- providing a high-level lecture series which takes advantage of our location in Washington, DC
- providing guided tours by the world’s leading archaeologists to domestic and international sites which link current affairs to past places and events;
- welcoming visiting scholars from prestigious universities and institutions, both domestic and international, for periods of several days to several months, including the possibility of a semester- or year-long fellowship;
- creating a space for exhibitions concerned with archaeology, including cutting-edge technology;
- and serving as a clearing house for notices of archaeological lectures and events in the greater Washington DC area.

Amongst the CAI faculty are:

Dr. Linda Brown is an anthropological-archaeologist who works in the Maya region of Central America. Her research interests include the archaeology of ritual and religion, household archaeology, ethnoarchaeology, and the use of archaeological artifacts and sites by contemporary descendant communities.

Currently Dr. Brown is the director of *El Proyecto Arqueologías Indígenas*, which examines the ceremonial use of archaeological objects and sites by contemporary Maya ritual practitioners in Guatemala and she the co-director of the Say Kah Project in Belize, focused on a non-royal Classic Period household at a “secondary” center and issues of political hierarchy. Dr. Brown’s work has been recognized through numerous competitive grants and fellowships including those from the National Science Foundation, the Wenner-Gren Foundation and Dumbarton Oaks.

Dr. Andrew M. Smith II specializes in the social and cultural history of the Greek and Roman Near East, in particular the interactions between indigenous and non-indigenous peoples in urban and rural settings. His current research concentrates in Syria, where he is examining social transformations and urban development at the oasis city of Palmyra during the Roman period. Dr. Smith is also an active field archaeologist, having worked on surveys and excavations in Greece, Austria, Israel, and Jordan, where he has worked since 1989. Currently, he directs the excavations and survey of the Roman fort at Bir Madhkur (as part of his larger Bir Madhkur Project), a site that also served as the first major caravan stop west of Petra on the ancient Spice Route. The Bir Madhkur Project itself is an extension of Dr. Smith’s Wadi Araba Archaeological Research Project, which began in 1996, the goal of which is to synthesize current knowledge of the Araba’s physical and cultural landscape in both Israel and southern Jordan and to expand upon this knowledge by supporting further archaeological research in the Araba valley. The author of several articles, Dr. Smith is currently writing a monograph about his work in Syria.

Dr. Elise Friedland is a specialist in Roman art and archaeology, Roman sculpture, the Roman Near East, and museum studies, she serves as the sculpture specialist for the Excavations at the Sanctuary of Pan at Caesarea Philippi/Banias in Israel and for the site of Jerash in Jordan. Her co-edited book, entitled *The Sculptural Environment of the Roman Near East: Reflections on Culture, Ideology, and Power*, has just been published by Peeters Press in Belgium (2008).

Dr. Alison Brooks (see Anthropology)

Dr. Stephen C. Lubkemann (see Anthropology)

Dr. Jeffrey Blomster (see Anthropology)

Dr. Susan Johnston (See Anthropology)

Geological Sciences Program

The Geological Sciences Program at George Washington University is an independent academic program offering Bachelor of Arts and Bachelor of Science degrees in geology. The program takes advantage of the rich geological setting of the University which is situated in close proximity to the Appalachian Mountains and which is located within one of the major concentrations of geologists and geologically-related professionals in the country. The degree programs in geology at GWU involve both field and classroom-type education, and are expressly designed to prepare students for a wide range of career opportunities including working in the environmental science industry, seeking employment as a professional geologist, becoming an earth science educator, contributing to science-related writing, and undertaking further scientific training in graduate school. Many of our students use their undergraduate degrees as a springboard toward admission to the best graduate programs in geology in the United States.

Dr. Charles E. Brown has completed research studies centered in the geologic and hydrologic disciplines including digital modeling of groundwater flow and remediation techniques, geochemical fate and contaminant transport modeling, and geostatistics and multivariate statistical modeling applications to water resources and other scientific data. He also has worked on digital simulation modeling of sedimentation and structural processes in geologic basins, oil and gas exploration, hydrodynamics of petroleum and natural gas

reservoirs, borehole and surface geophysical applications in geologic basins, environmental issues in geology and science, as well as international energy and time series forecast modeling. He continues to complete research that is related to the subjects above, and is working on a third book entitled "World Water Resources". Because digital modeling simulation in geology, hydrology, and geochemistry will lead the geologic and hydrologic sciences into the next century, Dr. Brown continues to focus on computer simulation modeling in the various sciences. He is also interested in the cross correlation of geological and biological sciences in solving environmental issues.

Dr. H. Henry Teng's research interest is probing and understanding the behavior of earth materials in natural aqueous environments, including rock-water interactions (dissolution, formation, transformation, chemical change) in nature. Current research focuses on mineral dissolution and crystallization in waters with different chemistry to unravel reaction processes and mechanisms at crystal-water interfaces. Approaches include in situ microscopic study and ex situ experimental exploration from both energetic and kinetic points of view. Exploring biomolecule-mineral interaction to understand biomineralization, (e.g. shells or bones) in biological systems, and the origin of bio-homochirality (the uniform handedness in amino acids and sugars) and, hence, the origin of life. Investigating interactions of microbes with soils to determine if certain fungi are able to promote nutrient release from minerals (bio-fertilizer). Studying methods to curtail CO₂ emission through geological carbon sequestration by converting CO₂ to carbonate minerals as a permanent solution; this study includes the crystallization processes of carbonate minerals to better understand this conversion, and the use of catalysts and bacteria to convert CO₂ to calcium carbonate.

Dr. Catherine A. Forster's research interest is discovery and collection of Mesozoic age vertebrates, primarily dinosaurs, with field programs in China, Madagascar, and South Africa. Primary description and phylogenetic analysis of dinosaur taxa. Her current work focuses on ornithischian dinosaurs, particularly the Ornithopoda. She has also worked with theropod (including birds) and sauropod dinosaurs, as well as non-dinosaurian taxa such as turtles, cynodonts, and crocodylians.