



GEOGRAFFITI



Matt and his “moto” find another mode of transportation.

FRAs Return from Congo Visit

In January, faculty research assistants Matt Hansen and Dedier Devers visited the Democratic Republic of the Congo (DRC) to work with their Central African Regional Program for the Environment (CARPE) partners and to visit a global tree cover validation site in the region of Bandundu. As a result of political unrest, most development programs and science initiatives have vacated the region. While the local expertise and experience remain, they are not being well utilized. The researchers were gratefully received and their work with their CARPE partners went well. They met with many people working on projects varying from bonobo ape conservation to community outreach to popularize the idea of conservation.

In the Bandundu region, they did a field check of the tree cover. This region represents a highly complex mosaic of gallery forest and savanna. Bandundu is also an area

with high densities of shifting cultivation and malnutrition. There are many and varied endemic diseases that make life a great challenge. Malaria is the number one killer, especially of infants, but there is also sleeping sickness, river blindness, and other deadly diseases. The largest outbreak of ebola in the last ten years occurred in Bandundu. Malnutrition is a complicated phenomenon in this region, which actually feeds the capital of Kinshasa’s millions of inhabitants. The researchers decided to gather village-level health statistics for this area. They want to test if hunger is a function of land cover, i.e., quality of exploitable forest where most farming is done, or if it is a function of proximity to transportation networks. In the second case, hunger is self-induced by selling instead of saving foodstuffs.

Traveling proved the greatest obstacle to this adventure. (Matt speaks three local languages, having served in the Peace Corps in this area.) The main cross-country road is long ago degraded; the old paved road is little more than some asphalt outcrops between dirt. On their trip to Bandundu, their SUV averaged about 5 km/hour, but did not make it. Matt and Didier had to walk the last 30 kilometers to a mission hospital. They borrowed some motorcycles there to visit some villages and the “motos” both broke

Inside this Issue:

New Research, 2	Chair’s Message, 4
Black Saga’s 10th, 2	2001 Graduates, 5
Undergrad Degrees, 3	Student’s Present, 5
Distinguished Visitors, 3	Alumni Representative, 6
Faculty News, 4	Alumni News, 7

(Continued on page 8)

Research Extracts

Research at the Department of Geography is a constant kaleidoscope of continuing and new projects. Each Geograffiti we will have articles focusing on specific research projects as well as general overviews of some of the many diverse projects currently in the department. Many more examples of our research can be found on the departmental web pages.

Martha Geores has started work in collaboration with **Stephen Prince** on human dimensions of land degradation in Southern Central Africa. They are integrating the human and biophysical systems and relating it to land cover change. She will continue her research regarding forest management, particularly examining the difference between natural forests and private forests, how it is affected by local involvement, and how effective legislating ecosystem management is.

Eric Kasischke works on understanding boreal forest fire emissions. In collaboration with colleagues from Caltech, NOAA, and the Carnegie Institution of Washington, he tries to understand the role of boreal forest fires in inter-annual variations in atmospheric trace gas concentrations of carbon dioxide, carbon monoxide, and methane. His work also led to collaborations with scientists from the Russian Academy of Sciences to get a comprehensive picture of burned forest area of the whole northern hemisphere boreal forest. His research was recently highlighted in the journal, *Bioscience*.

Michael Kearney is developing tools to predict marsh vulnerability to sea level rise, together with **Eric Kasischke**, and extending this work to mangrove ecosystems. His work on the Chesapeake Bay has been highlighted in recent years by the *Baltimore Sun*, the *Washington Post*, and Maryland Public Television.

Axel Kleidon continues his work on atmosphere-biosphere interactions, particularly regarding the role of rooting depth of the vegetative cover in the climate system. This work includes an estimation of the importance of deep-rooted forests in affecting the climate during the last ice age, and new methodologies to determine global data sets of rooting depth, which contributes to the International Satellite Land Surface Climatology Project II of NASA.

Shunlin Liang's current research interests include developing quantitative algorithms for estimating land surface biogeophysical variables from optical remotely sensed data, assimilating remotely sensed data products into land surface dynamic models, and evaluating the impacts of map projection errors on spatial analysis.

The **Regional Earth Sciences Application Center (RESAC)** has been successful in obtaining funding to continue operations for its first year of independence after the end of the start-up NASA grant. **Stephen Prince** (Director) and **Scott Goetz** (Manager) are pleased to find a growing interest in the department's contribution to State and Local government, NGOs, and companies in the region.



Black Saga teams from Springhill Lake Elementary School in Greenbelt, Maryland.

Black Saga Competition Grows into Its 10th Year

March 23, 2002, will mark the 10th year of the Black Saga Competition at the University of Maryland. This year almost 400 elementary and middle school students from 42 schools are expected take part, with as many as 1,500 participants and supporters attending. The impetus for this competition began in 1992, when **Dr. Charles Christian**, social and population geographer in the department, used his then-unfinished book *Black Saga: A Chronology of the African American Experience* as the basis for a question-answer format while mentoring 29 students at the Beltsville Academy. The response was overwhelming. After working with the teachers involved for several months, the first Black Saga Competition took place at Beltsville with great success.

The competition is based on a single idea: If you don't know African American history, you don't know American history. It tests student's knowledge of important people, places, events, and words of wisdom that have shaped the African American experience and American history. Dr. Christian says of the participants, "Some are moved by the sheer drama of the events and discover role models. Others taste the sweetness of achievement. For many it's the first chance they've had to shine. And it's academic achievement." The competitors work in teams of three,

(Black Saga Continued on page 8)

Undergraduate Programs in Geography

The Geography Department offers undergraduate students several interesting courses of study in geography. For geography majors, two tracks of study are available: (1) geography and (2) geographic information systems (GIS) and computer cartography. The geography track provides students with a broad background in human and physical geography, as well as requiring students to become familiar with modern geographic techniques, such as remote sensing. Majors may also choose to follow an area of concentration in a special field of interest, such as human dimensions of global change, urban geography and regional development, physical geography and environmental management, or human geography. These areas of concentration reflect current trends within the department as well as the broader field of geography, and are continually reviewed by the faculty to ensure that the suggested coursework is up to date. Although students who choose to follow the GIS and computer cartography track are also exposed to courses in human and physical geography, the bulk of the coursework is related to modern geographic techniques and is designed to help students develop strong quantitative skills. Students take advanced courses in GIS, computer cartography, and remote sensing, and have the opportunity to benefit from faculty who are international leaders in these fields.

The department has also developed links to the broader campus community. In recognition of the extensive applications of geographic technology, a citation program in Geographic Information Systems has recently been implemented. This 13-credit program offers students in other majors the opportunity to become familiar with GIS,

computer cartography, and remote sensing. The department also claims the land use and environmental mapping and data management concentrations within the interdisciplinary environmental science and policy major as department majors. Finally, the department offers a special double major program with the College of Education to provide future secondary school teachers a solid background in geography.

In recent years, the undergraduate program in Geography has grown substantially and reflects the growing demand for specialists in geographic approaches and technology. There are now over **150 majors: 72 in geography, 57 in GIS and computer cartography, 20 in environmental science and policy, and 2 in education.** The GIS and computer cartography track has experienced especially rapid growth as the demand for these skills has increased. The broad applications of geography are reflected in the diversity of students who participate in the GIS citation program or who choose to double major. For example, students

majoring in agronomy, anthropology, biology, journalism, sociology, business and women's studies are also taking courses or pursuing a second major in geography.

Despite the recent growth of the geography undergraduate program, majors are still able to receive individualized attention. The department maintains an advising office that is devoted solely to undergraduates, who may simply walk in for advising without scheduling an appointment in advance. The advisors are able to provide guidance on curriculum, internship opportunities, and job placement. The job placement rate for geography majors is quite high and the department sponsors a career and internship fair each semester to ensure that students have every opportunity to find a job in their field of interest. For more information about the undergraduate programs in geography, please visit the recently updated undergraduate web pages at www.geog.umd.edu/academic/undergrad/undergradprotram.html.

New Distinguished Visitors Series

The department is pleased to announce the start of a new Distinguished Visitor Series, which will increase the exposure to our teaching and research programs. Distinguished Visitors will be invited to visit the department for a couple of days. They will have a chance to meet with the Chair and department faculty, individually and in groups, to develop linkages and explore collaborative possibilities. The Distinguished Visitors will also meet with the department's graduate students for a question and answer session at an informal lunch and will give a seminar as part of the department's weekly seminar series, which is held on Thursdays from 3:30 - 5 p.m. in 1124 LeFrak Hall and is open to the public.

This semester, the department is pleased to present two Distinguished Visitors. The first is **Dr. Lawrence A. Brown**, Distinguished University Professor and Chair of Geography at Ohio State University. He is scheduled to visit the department on April 18 and will give the department seminar on April 18. For additional background on Dr. Brown, please visit his home page at <http://paradise.sbs.ohio-state.edu/faculty/brown/>.

Our second Distinguished Visitor is **Dr. John Adams**, Professor and Core Faculty Member, Master of Urban and Regional Planning Program, Hubert H. Humphrey Institute of Public Affairs, University of Minnesota. He'll visit the department the following week and will give the department seminar on April 25. An abridged CV for Dr. Adams can be found at <http://www.geog.umn.edu/Faculty/Adams.html>.

Faculty Receive UMIACS Joint Appointments

Department of Geography faculty **Dr. Samuel Goward** and **Dr. Christopher Justice** have been awarded joint appointments at the University of Maryland Institute for Advanced Computing Studies from July 1 of this year. This continues and extends a long and fruitful partnership between members of our department and the institute. **Dr. Ralph Dubayah's** term of membership finishes this year. That of **Dr. John Townshend's** was renewed last year for an additional term of four years.

The University of Maryland Institute for Advanced Computer Studies (UMIACS) is a research unit within the College of Computer, Mathematical, and Physical Sciences whose mission is to foster interdisciplinary research and education in computing. The Institute's research programs are led

by distinguished faculty from many different departments. Major sponsored research programs address fundamental issues at the interface between Computer Science and other disciplines, and are supported by an advanced computing infrastructure.

The Institute houses the Global Land Cover Facility and the Deforestation Mapping Group (PI John Townshend). You can read more about the Institute at www.umiacs.umd.edu

Faculty News

New Appointments

Catherine Dibble completed her PhD in December from the University of California, Santa Barbara. She is now an Assistant Professor in the depart-

ment.

Jason Drake has become a Research Associate on our research staff. He is studying the structure and function of forest ecosystems. Joining him is **Ivan Csiszar**, an Associate Research Scientist, who is involved with active fire detection from polar orbiter satellites.

Professional Affiliations

Shunlin Liang, Associate Professor, is now an Associate Editor of the international leading journal, *IEEE Transactions on Geoscience and Remote Sensing*.

Martha Geores, Associate Professor, was elected vice-president of the Mid-Atlantic Division of the Association of American Geographers for 2002.

Kudos for the Rainmakers

The Office of Research and Graduate Studies hosted a luncheon on Dec. 10, 2001, to honor faculty and researchers who were among the top 100 campus-wide in securing contact and grant support—called the “Rainmakers.” Among the Rainmakers honored were Department of Geography faculty **Ralph Dubayah**, **Christopher Justice**, and **John Townshend**. Congratulations!

Geography is the human experience on planet Earth, and projects in the Department of Geography literally encompass the whole Earth. Faculty are at the forefront of the discipline's future, dissolving the boundary between social and physical science and exploring the human dimensions of global change to better understand the Earth's land surface and the ways that humans interact with it.

From the Chair

In a department as large and as complex as ours so much happens that few can appreciate all of the hard work that goes on behind the scenes. One of the real benefits of being chair is that you are arguably in the best position to see and appreciate much of the effort that people put in throughout the department.

I was reminded of this recently, when I was told of our current efforts to maintain and improve our externally supported research activities. Since the beginning of the year no fewer than 33 separate grant proposals have been submitted by members of the department. Bids have been made to many government agencies, including inevitably many going to NASA, but also to NOAA, and several other federal agencies; other less conventional sources of funding have been approached, including the Ronald McDonald Foundation. Not all of our bids for the approximately

of the enormous vigor of our research enterprise that so many separate bids have been made for such a substantial amount of support.

The number of bids also reflects incredibly well on our administrators, most ably led by Kate Wiersema, who carry out the crucial tasks of ensuring that budgets are properly planned and validated, and all the necessary supporting information is provided and properly routed through the University administration. If it sounds easy, then believe me it isn't. The number of proposals submitted represents almost one submission per working day since the beginning of the year, a truly remarkable achievement.

The next 12 months look like tough ones financially as the State battles with the challenges of decreased revenues.

(Chair's Message Continued on page 6)

Department Graduates 60

Geographers in 2001

Congratulations to the 42 Undergraduates, 5 PhDs, 12 MAs, and 1 MA/MLS who graduated in Spring, Summer, and Fall of 2001. Four people received their doctorates at the fall graduation ceremony; this equals the previous record of four Geography PhDs at a single graduation ceremony. (Scholarly paper/thesis/dissertation follows graduate students' names.)

BS in Geography:

Spring: Sammy Barakat; Christina Canova; Brandon Cole; Jeremy Fisher; Geoffrey Gomez; Julio Gonzalez; Michelle Harrington; Robert Hayward; Jesse Houser; Andras Kish; James Kelley; Brian Lee; Jodi Marcus; Ferenc Miskolczi; Gereld Nembhard; Becky Perry; James Tedrick; Diedre Truesdale; Sara Varsa; Eric Weinmann. **Fall:** Marcos Aguilera; Sharon Anastacia; Jessica Cearfoss; Maryvan Cheung; Jonny Fountano; Andrew Greene; Anthony Iyamu; Dana Scott; Jennifer Steele; Kyle Synan

BS in Geography with the GIS/Cartography

Specialization:

Spring: Michael Blank; David Disney; Martha Lwansa; Glenn O'Neil; Leslie Pichel; Robyn Toland. **Fall:** Kalimah Abdul-Sabur; Debra Fischman; Joan Mark-Bell; Jason Richardson; Kenneth Simon; Donald Spies

MA: Spring

Troy Curry, "Satellite Detection of Tree Line Change in the Northern Canadian Boreal Forest"

Matthew Fowler, "GIS for Emergency Management: Spatial Database Design for the Hazards Management Community"

Spring 2001 graduates smile along with the piñata. From left: Sara Varsa, James Tedrick, Matthew Fowler, Stephen McCauley, Tyrone Ligon, Ronald Luna, Nancy Beller-Sims, Christopher Knouss, Ping Liu, and Benjamin White



Christopher Knouss, "GIS-Based Methodology and Assessment for the Calculation of the Probable Area of Anthrax Release in Washington, D.C."

Tyrone Ligon, "Determining an Objective Number of Minority Districts in a Redistricting Plan"

Ping Liu, "Application of Remote Sensing in Hydrological Modeling—A Literature Review"

Ronald Luna, "Transforming *Espacios Culturales* into Cultural Spaces: A Study of How Fútbol/Soccer has Become a Cultural Symbol of National Identity for Latinos in the Washington, D.C., Metropolitan Area"

Stephen McCauley, "White Faces and Open Spaces: Connecting Race and Landscape in Suburban Maryland"

Benjamin White, "Global Forest Cover Assessment and the Problem of Forest Definitions"

MA: Summer

Daniel Gillespie, "Characterization of Spatial Relationships Among Forest Canopy Height, Proximity to Streams and Slope Using Lidar"

Edward Hyer, "Modeling Emissions of Trace Gases from Fires in the North American Boreal Forest"

Jennifer Small, "Climatic Suitability for Malaria Transmission in Africa, 1901-1995"

MA: Fall

James Tringe, "Agricultural Land-Use Classification: Combining Direct Observations with Remote Sensing"

(Graduates Continued on page 7)

Students Present and Publish

Congratulations go to three University of Maryland geography graduate students who won prizes for outstanding paper presentations. The student paper competition took place at the 2001 annual meeting of the Mid-Atlantic Division of the Association of American Geographers on October 5 and 6 in Frostburg, MD. **Megan Weiner** won first place among PhD students for her paper entitled "Mapping Forested Wetlands Using Multitemporal SAR," and **Claire Jantz** took second place with her paper, "Understanding Forest Change in Northern Virginia, a Case Study." **Jill Eastman** won second place among the MA students with a paper entitled "Factors Leading to Land Cover Change in the Portland (Maine) Region: 1990-2000." Monetary awards were granted to the winners.

Claire Jantz has also just had a chapter entitled "Cades Cove: Reconstructing Human Impacts on the Environment Before Euro-American Settlement" published. It appears in *Culture, Environment, and Conservation in the Appalachian South*, edited by Benita J. Howell, and published by the University of Illinois, Champaign, IL.



New Alumni Representative

The Department of Geography welcomes **Colleen Joyce** as its representative to BSOS's Alumni Chapter Board. Through our association with the BSOS Alumni Board, we will be able to structure our own department alumni association, develop networks, plan alumni events, and fund the publication of an alumni newsletter.

Colleen is currently a geographer at the U.S. Census Bureau. She earned a Masters Degree in Geography from the University of Maryland, College Park, in December 1999 and has a B.A. in Social Studies Secondary Education, with concentrations in history and geography, from Miami University, Oxford, Ohio. She has been with the Census Bureau since June 1999, and in that

time has worked extensively with population estimates, analyzing postcensal estimates for counties, places, and metropolitan areas; reviewed systems for updating the geography of places and counties in support of the population estimates program; and analyzed historical changes in U.S. city population sizes and distributions. Other major projects included work on the Metropolitan Area Standards Review Project, which involved developing new criteria for delineating metropolitan areas. Colleen is originally from New York, but grew up primarily in Annapolis. She currently lives in Greenbelt, MD, and enjoys hiking and traveling.

The Department of Geography Alumni Association?

The BSOS Alumni Board is encouraging BSOS departments to develop strong alumni programs, with their support and some initial funding. Through our BSOS Board representative, Colleen Joyce, we have already taken some preliminary steps.

Shortly, the department will be meeting with a number of your alumni

colleagues to get their ideas on what they envision a departmental alumni association to be, what it should do, how it should serve them, and how it should be structured. It will be **your** organization, with department involvement and administrative support.

We would like you to take the opportunity now to offer your input, by either returning the attached card or emailing us at crossgro@geog.umd.edu (with a subject line of "Alumni Support"). We want to develop a viable list of active alumni with which to share news of department and alumni activities on a regular basis.

Please give us information about yourself, items you want included in the next newsletter, ideas for organizing the alumni association, and names of up to five alumni you personally know who might be interested in joining the department alumni association.

Thank you, and we look forward to hearing from you.



Can you identify the people in this photo? It was found in a file in the graduate office. If you recognize who they are, let us know!

(Chair's Message Continued from page 4)

However, when one hears what is happening on many other campuses throughout the nation, then our situation, although likely to be challenging, does not appear to be too bad.

Despite tightening budgets we still hope to provide enlarged teaching laboratory space for next year. We also hope to supplement our traditional UNIX facilities with a classroom of 30 PCs. The latter makes sense economically because of the astonishing power of PCs today and because ESRI, the market leader of GIS, now focuses on these platforms.

Elsewhere in this issue of Geograffiti, we describe our initial efforts to work with our alumni more closely. Alumni represent an enormously valuable resource for any department and to be frank, we have made an insufficient effort to retain contacts with them and to make them a continuing part of the life of the department. We intend to change this and have an ambitious set of plans to engage them and to help them help us.

John Townshend
Chair, Department of Geography

How Your Contributions Help the Department

Alumni contributions to the University of Maryland College Park Foundation, which are designated to the Geography Department, are greatly appreciated. These funds support key department activities for students and faculty: Fall and Spring Career Days; TA appreciation events; recognition awards for undergraduate and graduate students; summer programs for minority students; Gamma Tau Upsilon activities; faculty retirement activities; and alumni outreach. Thank you very much for your continuing support.

Alumni in the News

Nancy Beller-Simms (Ph.D., '01) works in human dimensions of global change at NOAA.

Francis A. Galgano, Jr. (Ph.D., '98) has been in Saudi Arabia since June 2001. He is assigned to the Office of the Program Manager, Saudi Arabian National Guard Modernization Program, and will return to the United States Military Academy in June 2002, where he is an Academy Professor (the equivalent of gaining tenure). He managed to choose a sabbatical year in Saudi Arabia before the current troubles started. As he comments "great timing."

David E. Goldenberg (Ph.D., '77) is Research Director at Muse & Associates, a Washington, DC-based health policy consulting firm. The firm provides cost estimates, policy analysis, regulatory and statutory analysis to clients interested in healthcare issues, especially related to Medicare and Medicaid programs. His work includes data collections and analysis, policy assessments, and special studies. He has been involved in applied research/consulting for nearly 25 years.

Shaul Krakover (Ph.D., '82) was elected president of the Association of Israeli Geographers for the 2001-2002 term.

Keith Littlefield (Ph.D., '99) is now working at NIMA as Acting Director in the Acquisitions Office.

Patrick May (Ph.D., '99) is Assistant Professor at Plymouth State College, Plymouth, NH (not at Salem State College, as reported last year).

Byron Middlekauff (B.A., '69) is a Professor at Plymouth State College, Plymouth, NH, where he has been for the last 13 years. (He received his Ph.D. at Michigan State in 1987). He writes, "I had Dr. Thompson for a geography of transportation class during his first year at the University of Maryland, 1968-69, I think!" and "I was in Connie Chung's economics class!"

Douglas Reardon (Ph.D., '98) is an Assistant Professor at Coppin State College (not an instructor, as reported last year).

Robert Rusin (B.S., '97), recipient of the department's

Anderson Award in 1997, is currently working at the Naval Research Laboratory doing software metrics. He'd rather be in the woods, but the money is better at NRL.

Joseph G. Vanderbloemen (B.S., '98) is Assistant Director of Information Technologies at the College of Science, University of South Florida. His current work involves maintaining UNIX, Windows, and MacIntosh networks of the college, helping install and operate the remote sensing laboratory's new X-Band receiving antenna, and processing and producing daily sea surface temperature images from four NOAA satellites using AVHRR.

(Graduates Continued from page 5)

MA/MLS: Spring

Glenn Griffiths, "The Role of GIS-Derived Analysis in the Implementation of "Smart Growth" Planning with Special Reference to the Washington Metropolitan Region"

PhD: Spring

Nancy Beller-Sims, "The Stages of Natural Hazard Mitigation and Preparedness: An Investigation of Four Counties and Their Experiences with the Impacts of El Niño"

PhD: Fall

Eric C. Brown de Colstoun, "Automated Global Land Cover Classifications Using Satellite-Based Data from the Advanced Very High Resolution Radiometer (AVHRR) and Multi-Directional Data from the Polarized and Directionality of Earth Reflectances (POLDER) Instrument"

Jason B. Drake, "Lidar Remote Sensing of Tropical Forest Structural Characteristics"

Jeffrey E. Frank, "Defining a Descriptive Conceptual Model of the U.S. Biotechnology Industry"

James M. Harmon, "The Geographic Conditions of Contact: Native Americans, Colonists, and the Settlement Landscape of Southern Maryland, 1600-1695"

GEOGRAFFITI

... is published biannually during the academic year by the Department of Geography at the University of Maryland for faculty, staff, students, alumni, and others interested in the work of the Department. Letters are welcome.

The next scheduled issue is for December 2002. Please send news items for future issues to Robert Crossgrove, University of Maryland, Department of Geography, 2181 LeFrak Hall, College Park, MD 20742. Phone: 301-405-8085; Fax: 301-314-9299; Email: crossgro@geog.umd.edu.



(Continued from page 1)

down as well. This meant another 20-kilometer walk from midnight to 4:30 in the morning on a night with no moon. According to Matt, the continuous failures with mechanized vehicles provided a sense of liberation once they started walking. "Walking offered some form of assurance that progress would be made and that we, hopefully, were not likely to break down like the truck or motos."



Didier faces yet another obstacle on the researcher's travels in the DRC.

(Black Saga Continued from page 2)

mainly on their own time, beginning in the fall to master a study guide provided by Dr. Christian, consisting of 801 questions and answers covering several hundred years of African American history. At the beginning of the year, the teams compete locally, with the top three teams advancing to the state finals. The top 10 elementary and top 10 middle school teams receive awards at the competition.

If you have a chance, stop by the Stamp Student Union on March 23 to see the competition. It is being held in the Grand Ballroom, with the elementary teams beginning at 8:30 a.m.



Black Saga teams from Mayo Elementary School in Mayo, Maryland

NON-PROFIT ORG.
U.S. POSTAGE
PAID
COLLEGE PARK, MD.
PERMIT NO. 10

Department of Geography
University of Maryland
2181 LeFrak Hall
College Park, MD 20742