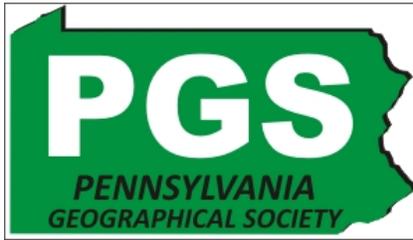


Program Guide for the
**2012 JOINT ANNUAL MEETING OF
THE PENNSYLVANIA GEOGRAPHICAL SOCIETY
AND
THE MIDDLE ATLANTIC DIVISION OF THE
ASSOCIATION OF AMERICAN GEOGRAPHERS**

**NOVEMBER 2-3, 2012
SALISBURY, MARYLAND**

Hosted by Salisbury University





**THE PENNSYLVANIA GEOGRAPHICAL SOCIETY
AND
THE MIDDLE ATLANTIC DIVISION OF THE
ASSOCIATION OF AMERICAN GEOGRAPHERS**

PRESENT THEIR

2012 JOINT ANNUAL MEETING

NOVEMBER 2 and 3, 2012

HOSTED BY SALISBURY UNIVERSITY

SALISBURY, MARYLAND

2012 Meeting Arrangements Committee

Brent Zaprowski, Salisbury University
Mark DeSocio, Salisbury University
Ola Johansson, University of Pittsburgh at Johnstown
Cathy Cooper, National Geographic
Tim Dolney, Penn State University at Altoona

Welcome to Salisbury Maryland! We are grateful that many of you took the time to make the drive and attend the conference. The meeting arrangement committee hopes that this year's conference will be both educational and enjoyable. If there is anything that we forgot, or if you have any questions about PGS, MADAAG, Salisbury University or the area, please ask us for assistance. We look forward to an exciting meeting! Thanks again for attending.

**2012 ANNUAL MEETING OF PGS and MADAAG
SCHEDULE OF EVENTS**

Time	Event	Location
Friday, November 2nd		
7:45 am-4:00 pm	Registration	Rotunda
9:00 am-4:00 pm	Posters and Maps on Display	Rotunda
8:10-9:40 am	Paper Session 1 - GIS and Remote Sensing	Montgomery Room
8:30-9:40 am	Paper Session 2 - Weather and Climate	Frederick Room
9:00-11:00 am	Coffee Break	Rotunda
9:50-11:20 am	Paper Session 3 - Human Geography I	Montgomery Room
	Special Paper Session S1 - Geography of the Delmarva Peninsula	Frederick Room
11:30 am-1:00 pm	PGS Luncheon	Worcester Room
12:00-12:45 pm	Guest speaker: Dr. Gerald Webster - Electoral Geography of the 2012 Presidential Election	Worcester Room
12:45-1:00 pm	PGS business meeting	Worcester Room
1:15-2:25 pm	Special Paper Session S2 -Traveling Tales From Eurasia: Political, Environmental, and Social Reports from 'the Field'	Montgomery Room
	Paper Session 4 - Geography Education	Frederick Room
1:30-2:30 pm	Student map/poster presenters available for questions	Rotunda
2:00-5:00 pm	K-12 Teacher's Workshop: Geography Adds Perspective to Science and Social Studies For Middle and High School Grades	Calvert Room
2:35-4:05 pm	Panel Discussion - Even Grounds: Career Preparation from Students Through Applied Internship Experience	Montgomery Room
	Paper Session 5 - Human Geography II	Frederick Room
4:15-4:45 pm	Student Awards Presentation	Montgomery Room
5:30-8:30 pm	PGS Annual Banquet and Awards Ceremony - Guest Speaker: Dr. Michael Folkoff, 2012 PGS Distinguished Geographer, Salisbury University	Ward Museum of Wildfowl Art
Saturday, November 3rd		
8:00-9:30 am	Registration	Henson Hall Lobby
8:30-12:00 pm	MADAAG Annual Geography Bowl	Henson Hall - Rooms 156 and 160
9:00-11:20 am	Paper Session 6 - Economic and Historical Geography	Henson Hall - Room 148
12:00-4:30 pm	Field Trip to Furnace Town Living Heritage Museum: Field trip departs from Lobby of Henson Hall near registration table	Snow Hill, MD

**2012 ANNUAL MEETING OF PGS and MADAAG
SUMMARY OF PAPERS AND PRESENTATIONS**

Friday, November 2nd	
	Montgomery Room
8:30-9:40 am * student paper contest entrant	<p align="center">Session 1 - GIS and Remote Sensing sponsored by the PASSHE GIS Consortium</p> <p><u>Chair:</u> Tom Mueller</p> <p>8:30 - Bradley Macpherson* - Intersection-Based Retail Location Modeling: A Nodal Network Approach</p> <p>8:50 - Charles Kaylor, Colleen Hammelman and Brandon Hoover - Digital Philadelphia: An Analysis of the Freedom Rings Partnership</p> <p>9:10 - Tom Mueller and Elizabeth Smith - Remote Sensing Education Using Oblique Imagery</p> <p>9:30-9:40 Questions</p>
9:50-11:20 am * student paper contest entrant	<p align="center">Session 3 - Human Geography I</p> <p><u>Chair:</u> Matin Katirai</p> <p>9:50 - Reilly Wilson - Neoliberalism in Publicly-accessible Playground Provision: A Case Study of Bihac, BiH</p> <p>10:10 - Matin Katirai - Predicting Obesity with ESRI's Consumer Expenditure Data</p> <p>10:30 - Ian Dunham* - Testing the Spatial Void Hypothesis: Mapping the Demand for Brick and Mortar Retail Banking Locations in Pennsylvania</p> <p>10:50 - Alec Foster* - Inside the Green Panopticon: Creating Environmental Subjects through Urban Forest Science and Education</p> <p>11:10-11:20 Questions</p>
1:15 - 2:25 pm	<p align="center">Special Session S2 - Traveling Tales From Eurasia: Political, Environmental, and Social Reports from 'the Field'</p> <p><u>Chair:</u> Jeremy Tasch</p> <p>1:15 - Ghazi-Walid Falah - Summer Field Research in Jordan: Some Lessons from the 2008 AGS Bowman Expedition to Jordan</p> <p>1:35 - Sya Kedzior - What is the Relationship Between Environmental Awareness and Resource Use? Exploring Failed Efforts to Clean India's Ganges River</p> <p>1:55 - Jeremy Tasch - Azerbaijan's Oil Wealth and the Hope for Trickle Down Along the Absheron Peninsula</p> <p>2:15-2:25 Questions</p>

**2012 ANNUAL MEETING OF PGS and MADAAG
SUMMARY OF PAPERS AND PRESENTATIONS**

Friday, November 2nd	
	Frederick Room
8:30-9:40 am	Session 2 - Weather and Climate
* student paper contest entrant	<p><u>Chair:</u> Chad Kauffman</p> <p>8:30 - Greg Faiers - Cut Off Upper Level Lows and Their Contribution to the Extreme Rainfall Climatology in Texas</p> <p>8:50 - Joshua Gebauer* and Brittany Kusniar - Investigation of Temperature Anomalies Across North America during the 2011-2012 Winter Season</p> <p>9:10 - Michelle Saunders* - Potential Explanations for the Differing Monthly Migration of United States Tornadoes: 1950-2011</p> <p>9:30-9:40 Questions</p>
9:50-11:20 am	Special Session S1 - Geography of the Delmarva Peninsula
* student paper contest entrant	<p><u>Chair:</u> Darren Parnell</p> <p>9:50 - Robert Nicholson* and Brent Zaprowski - Boulders on Delmarva? An Investigation into the Source and Mechanisms by Which Boulders Were Deposited on Delmarva</p> <p>10:10 - Wesley Skeeter* - Using Radar Composites Created in Model Builder to Perform Statistical Analyses of Cold Frontal Precipitation Events in the Chesapeake Bay Region: April through October 1997 - 2011</p> <p>10:30 - Darren Parnell - Selected Climate Characteristics of Salisbury, Maryland</p> <p>10:50 - William Waltman, S.K. Waltman, P. Biggam, K. Eggleston, T. D'Avello, E.D. Waltman, J.A. Thompson, D. Shields, S. Demas, and J. E. Brewer - Soil Climate Regimes Across the Delmarva Peninsula</p> <p>11:10-11:20 Questions</p>
1:15 - 2:25 pm	Session 4 - Geography Education
	<p><u>Chair:</u> Daniel Harris</p> <p>1:15 - Chad Kauffman and Brittany Kusniar - Undergraduate Students` Understanding and Attitudes about Climate Change</p> <p>1:35 - Mario Majcen - The Use of Audience Response Devices in Higher Education</p> <p>1:55 - Tracy Edwards - Celebrating 100 Years of Girl Scouts</p> <p>2:15-2:25 Questions</p>

2012 ANNUAL MEETING OF PGS and MADAAG

SUMMARY OF PAPERS AND PRESENTATIONS

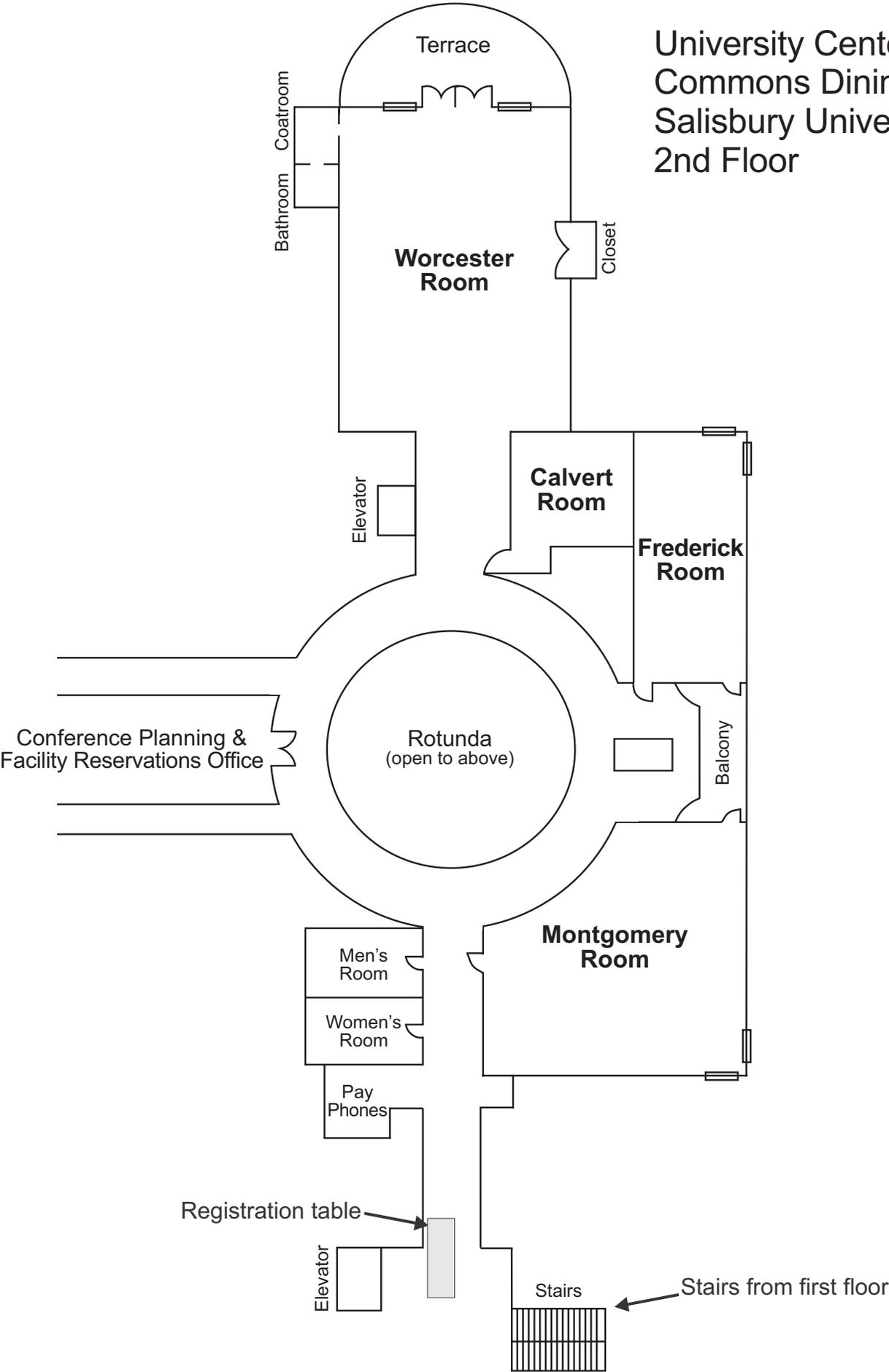
Friday, November 2nd	
	Montgomery Room
2:45 - 4:00 pm	<p>Even Grounds: Career Preparation from Students Through Applied Internship Experience</p> <p style="text-align: center;">Lokyee Lori Lui and Joy K. Adams</p> <p style="text-align: center;">Sponsored by the Enhancing Departments and Graduate Education (EDGE) Project of the Association of American Geographers</p> <p style="text-align: center;">This panel session will explore geography students' perspectives about the value of internships as an avenue into careers in professional geography. Panelists will discuss their internship experiences with a diverse range of employers representing the private, government, nonprofit, and academic sectors. Time will be reserved for panelists to interact with and respond to questions from the audience.</p>
4:15-4:45 pm	<p style="text-align: center;">Student Awards Presentation</p> <p style="text-align: center;">Please join us as we present awards to the winners of the student paper and the Elaine Bosowski map/poster contests</p>
Saturday, November 3rd	
	Henson Hall - Room 148
9:00-11:20 am	<p style="text-align: center;">Session 6 - Economic and Historical Geography</p> <p><u>Chair:</u> Gina Bloodsworth</p> <p>9:00 - Veera Holdai, Mara Chen and Barbara Wainwright - Maryland Residential Housing Sales 1995-2006</p> <p>9:20 - Gina Bloodsworth - The Elwha Dam Removal, the Final Flamboyant Chapter</p> <p>9:40 - Matthew Ramspott - The Changing Geography of Literacy in the United States</p>
10:00-10:10 am	Break
	<p>10:10 - Douglas Batson - Foreign Geographic Names for U.S. Defense, Diplomacy, and Development</p> <p>10:30 - Paul McDermott - The Land Patents of Western Maryland</p> <p>10:50 - Daniel Harris - Evaluating the Potential of Pixel Transitions to Infer Household Wealth on a Deforested Amazonian Frontier</p> <p>11:10-11:20 Questions</p>

2012 ANNUAL MEETING OF PGS and MADAAG

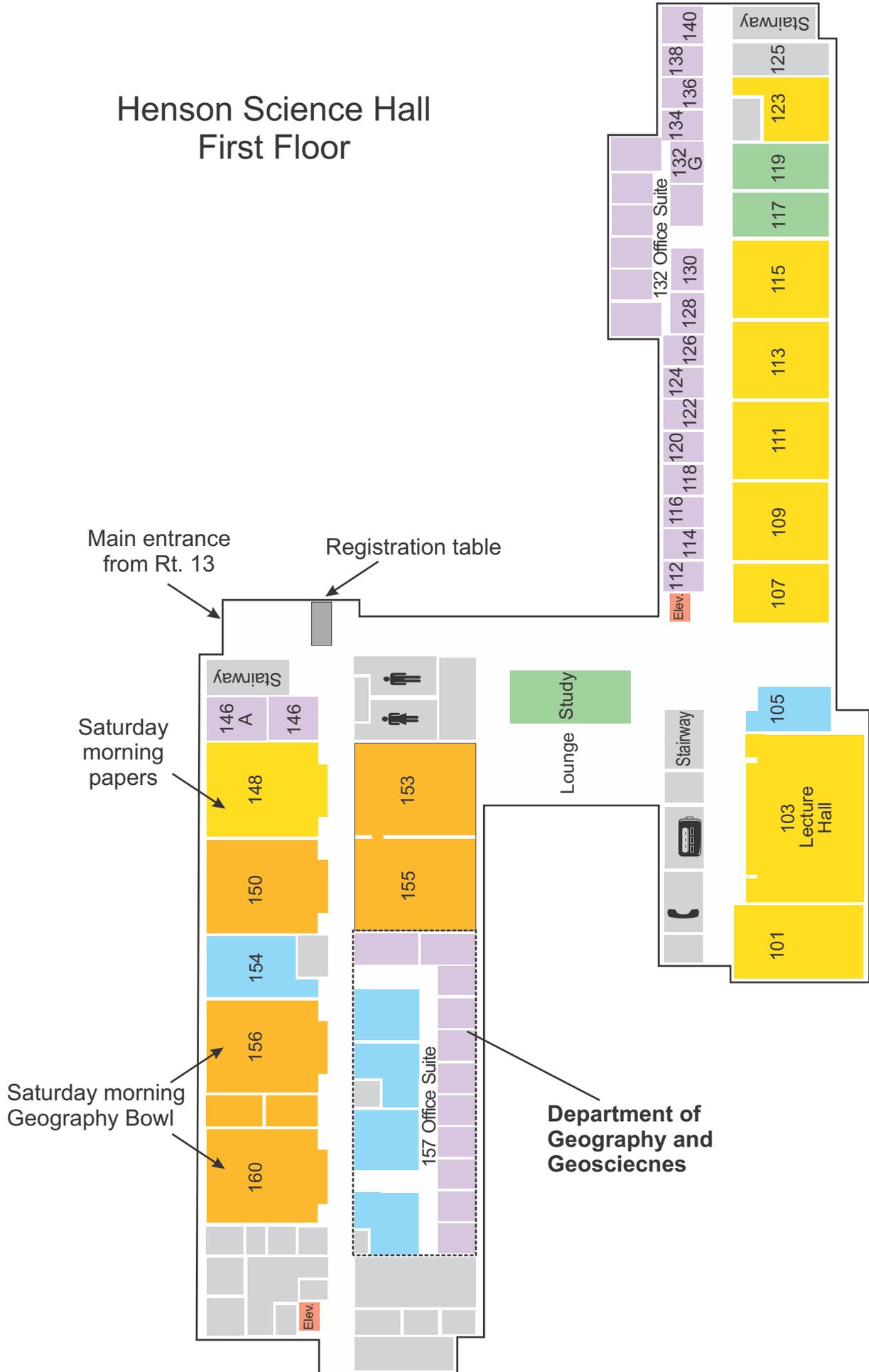
SUMMARY OF PAPERS AND PRESENTATIONS

Friday, November 2nd	
	Frederick Room
2:35 - 4:05 pm	Session 5 - Human Geography II Chair: Ola Johansson 2:35 - Ola Johansson and Michael Cornebise - Wilbur Zelinsky's Pennsylvania Town and Contemporary Urbanization: A Preliminary Investigation 2:55 - Gloriana Sojo Lara - Regional and Local Impact of Infrastructure Development Projects in the Costa Rica-Nicaragua Border 3:15 - Brendan Tuttle - History and Shifting Political Space in Bor Country, South Sudan 3:35 - Heath Robinson - Saving the State from Occam's Razor: Social Behavioralism, Documentality, and the Existence of States 3:55-4:05 Questions
5:30-8:30 pm	Ward Museum of Wildfowl Art PGS-MADAAG Annual Banquet and Awards Ceremony Guest Speaker: Dr. Michael Folkoff, 2012 PGS Distinguished Geographer, Salisbury University - <i>Legacy Mill Ponds on the Lower Eastern Shore of Maryland in Wicomico County, MD</i>
Saturday, November 3rd	
	Henson Hall - Rooms 156 and 160
8:30 am-12:00 pm	MAD-AAG Geography Bowl

University Center
Commons Dining Hall
Salisbury University
2nd Floor



Henson Science Hall First Floor



Main entrance from Rt. 13

Registration table

Saturday morning papers

Saturday morning Geography Bowl

Department of Geography and Geosciences

LUNCHEON SPEAKER

Webster, Gerald R. (University of Wyoming), *Electoral Geography of the 2012 Presidential Election*

BANQUET SPEAKER

Folkoff, Michael E., Michael Scott, and Daniel Harris, (Salisbury University), *Legacy Mill Ponds on the Lower Eastern Shore of Maryland in Wicomico County, MD*

This investigation was of the effect of historic mill ponds on the fluvial geomorphology of Wicomico County on the Eastern Shore of Maryland. Previous research indicated that legacy mill ponds greatly modified pre-settlement drainage of Mid- Atlantic Piedmont rivers. The few studies of the coastal plain examining coastal plain drainage were of individual sites which were extrapolated to a regional model. We conducted a regional analysis of the county using geospatial data, SSURGO (soils) and LiDAR combined with historic maps and imagery. Mill ponds were constructed to take full advantage of most major tributaries in the county, creating an anthropomorphic drainage pattern of ponds/swamps linked together by short stream reaches. Existing mill ponds have been highly altered and serve mainly aesthetic and recreational uses. Legacy mill ponds have reverted to high-quality, freshwater wetlands, that are characterized by a unique soil catena formed from the sediment deposited behind mill dams as well as in pond backwaters. Modern secondary roads inherited mill dams as stream crossings making road improvements control over stream dynamics a continuous dynamic force in the county's fluvial geomorphology.

PANEL ABSTRACT

Lui, Lokyee Lori (Association of American Geographers) and **Joy K. Adams** (The George Washington University), *Even Grounds: Career Preparation from Students through Applied Internship Experience*

This panel session will explore geography students' perspectives about the value of internships as an avenue into careers in professional geography. Panelists will discuss their internship experiences with a diverse range of employers representing the private, government, nonprofit, and academic sectors. A senior investigator affiliated with the AAG's Enhancing Departments and Graduate Education (EDGE) project will guide the panelists in a dialogue centered on the following questions:

1. What kinds of internship experiences are available in today's job market, particularly within the Middle Atlantic region?
2. What transferable and geographic skills and information do students and recent graduates develop through their internship experiences?
3. How do internships help students identify potential career paths and personal strengths and weaknesses?
4. How do internships and other professional development experiences enhance students' perceptions of their employability?

Time will be reserved for panelists to interact with and respond to questions from the audience.

PAPER ABSTRACTS

Batso, Douglas (National Geospatial-Intelligence Agency), *Foreign Geographic Names for U.S. Defense, Diplomacy, and Development*

After 13 months in Iraq, soldiers of A Company, 1/6 Infantry, knew the dangers of the “Hajji Beyli” neighborhood all too well. Oddly, two years later, after repeated tips from informants that a violent incident would occur there, the location of “Hajji Beyli” remained a mystery to senior officers. This paper shows how place name institutional knowledge from extended humanitarian, peacebuilding, or combat missions might be retained. The National Geospatial-Intelligence Agency (NGA) publishes weekly updates to its foreign toponymic database of 8.5 million geographic names for 5.5 million features. The GEOnet Names Server (GNS) at <http://earth-info.nga.mil/gns/html/> already receives over 17 million visits annually. Even so, the GNS data warehouse could become more valuable, indeed a treasure trove of human geography information, if individuals could submit comments, historical insights, audio files with pronunciation, and ground photos of named geographic features. The session includes the history of the United States Board on Geographic Names from its founding in 1890 to an ever expanding, and now digitally searchable gazetteer of foreign place names; and efforts underway to enable customer interface.

Bloodworth, Gina (Salisbury University), *The Elwha Dam Removal, the Final Flamboyant Chapter*

After decades of wrangling, political infighting, technical consulting, and preliminary surveys, the Elwha Dam, in Washington State, is now half-way removed. This is the last chapter in one of the most visible, controversial and riveting dam removal fights America has yet seen. This paper reviews the past 4 decades of confusion, and provides an update on this last chapter is the most costly and complex dam removal project in America finally gets underway. Not only does the deconstruction of this dam involve a rotating cast of characters, policies and laws reaching from this Washington to that Washington; but the removal of the dam itself appears to be ushering in an unexpected new spectator sport in restoration tourism. A review of the multiple media coverage this project now generates, as well as new efforts by the National Park Service to structurally control the influx of visitors suggests that the Elwha dam removal signals the beginning of a new generation of tourism activated by ecological restoration projects.

Dunham, Ian M. (Temple University), *Testing the Spatial Void Hypothesis: Mapping the Demand for Brick and Mortar Retail Banking Locations in Pennsylvania*

When considering the long-term asset-building or wealth accumulation strategies of households, a primary area of concern is the relationships that a household establishes with banking entities that offer safe and affordable financial products. According to the Federal Deposit Insurance Corporation (FDIC), 6.1 percent of Pennsylvania households are unbanked; and 18 percent are underbanked, meaning that, while a member of the household has a bank account, the household used a non-bank financial product in the previous 12 months. This study utilizes data from the Pennsylvania Department of Banking and Securities, the FDIC, and the Census Bureau to examine the spatial distribution of demand for retail banking locations in Pennsylvania. By providing tangible results that help identify possible geographic areas where public and private sector investments are needed,

this research is intended to inform policymakers and the banking industry about economic inclusion issues, and promote access to safe and affordable financial products.

Edwards, Tracy L. (Frostburg State University), *Celebrating 100 Years of Girl Scouts*

On March 12, 2012, Girl Scouts across the country joined together to celebrate 100 years of Girl Scouting! The Girl Scout movement, which began in Savannah, Georgia with one woman (Juliette Gordon Low) and 18 girls, has grown into an international organization with over 50 million current Girl Scouts and alums in the United States alone. Given the geographic and community-building nature of the Girl Scout mission, there is tremendous potential for geographers to engage these girls through campus-based outreach initiatives. This paper presents success stories of such events, provides examples of badge and journey work which integrates geographic concepts, and reviews general Girl Scout procedures for developing such programs. Council boundaries and contact information are also provided in the hope this short presentation can inspire others to organize such an event.

Faiers, Gregory E. (University of Pittsburgh at Johnstown), *Cut Off Upper Level Lows and Their Contribution to the Extreme Rainfall Climatology in Texas*

Cut off upper level low pressure systems have been responsible for many extreme rainfall events in the South Central United States. In this research, extreme one day rainfall records from 19 stations in Texas, each of which has 63 years of data, formed the basis of the research. Using surface and upper air weather maps, the weather pattern associated with each event was determined (frontal/tropical system/air mass-other/upper level low). Preliminary results show that these upper level systems are responsible for a significant number of extreme 1-day rainstorms from west-central Texas to the Gulf Coast. Northern Texas sees relatively few of these storms in their extreme rainfall records. The upper low storms are most common at Eagle Pass (on Mexican border) and Houston (13 such events), Midland (11), Corpus Christi (10) and San Antonio (10). At most locations, fronts are the dominant cause of extreme 1-day rainstorms while tropical systems rival upper lows in some places and exceed them in others.

Falah, Ghazi-Walid (University of Akron), *Summer Field Research in Jordan: Some Lessons from the 2008 AGS Bowman Expedition to Jordan*

There is no doubt that understanding the culture and speaking the native language(s) of one's study area are key factors in the success of any expedition to a foreign country. In addition, understanding the unique social and political conditions at the time of the expedition—and adjusting one's mind accordingly—is among the major factors in successful project completion. This paper is about my own experience of leading an expedition to Jordan in 2008, as both an Ohio-based geographer and an Arab national familiar with the cultural, social, and political environment of the Hashemite Kingdom of Jordan. When doing research in Jordan, I argue, non-Jordanian residents, especially those based in North America, should first take steps to prepare themselves intellectually and be equipped with the necessary field research training, including how to communicate with the various people they plan to meet or may otherwise encounter in the study area.

Foster, Alec L. (Temple University), *Inside the Green Panopticon: Creating Environmental Subjects through Urban Forest Science and Education*

Urban sustainability policies and programs are often accepted at face value, without being evaluated critically. This research addresses this problem for tree planting goals in Philadelphia through a textual analysis of the Science Delivery and Marketing Plan of the new United States Forest Service Urban Field Station there. Analysis of Foucault's theorization of governmentality, recent environmental governmentality research, and other critical urban forest research provides four possible key problems with urban forest plans, programs, and policies. These include: the creation of new scientific knowledge/power to engender new environmental subjectivities along with the lack of consideration of local knowledges, the portrayal of urban trees as only having positive characteristics and effects, the differential preferences that urban residents hold for trees, and the neoliberalization of urban forests increasing inequities in distribution. Textual analysis found that the Science Delivery and Marketing Plan attempts to create new identities of environmental stewardship among Philadelphia residents.

Gebauer, Joshua G. and **Brittany Kusniar** (California University of Pennsylvania), *Investigation of Temperature Anomalies across North America during the 2011-2012 Winter Season*

Climatic anomalies and weather extremes are important phenomena to investigate in the scope of broader climate change discussions. Thus, the purpose of this project was to uncover which areas of North America experienced significant deviations in temperature and precipitation from the climactic norm during the winter season of 2011-2012. Another focal point was to investigate possible explanations for these climatic deviations. The methods used involved delineating the United States into six regions: Northeast, Southeast, South Central, Midwest, Northwest and Alaska. Each region was then assigned a city (re: weather observation station) to represent it. Cities defined were Pittsburgh, PA; Atlanta, GA; San Antonio, TX; Chicago, IL; Seattle, WA and Fairbanks, AK. Each day's temperature MAX/MIN and departure from normal for December, January, and February were cataloged. After analyzing the observed data in both catalog & graphical form, it was discovered that the Midwest region experienced the most consistent temperature MAX anomalies, while the Northwest experienced slightly below average temperatures. Alaska's winter, however, was found to be the most unique due to the large temperature fluctuations that occurred. Next, planetary-scale teleconnective features such as the North-Atlantic Oscillation (NAO), Arctic Oscillation (AO), Pacific Decadal Oscillation (PDO), Pacific-North America (PNA) Pattern, and El Nino Southern Oscillation (ENSO) were all considered in their possible role in providing context for the above anomalies after careful examination of their signal/phase during the respective time period. It was found that a majority of the regions experienced above average temperatures during the 2011-2012 winter and it is suggested here that the teleconnective features played a strong role in forcing such anomalies.

Kaylor, Charles, Colleen Hammelman and **Brandon Hoover** (Temple University), *Digital Philadelphia: An Analysis of the Freedom Rings Partnership*

This paper explores the Freedom Rings Partnership (FRP) in Philadelphia and its implications for access to digital technologies for Philadelphia residents. Freedom Rings is a public-private partnership spearheaded by the Philadelphia Office of Information and Technology (OIT) and the

Urban Affairs Coalition in 2010 to ameliorate the digital divide in many Philadelphia neighborhoods which was funded by the federal broadband stimulus. In this study we perform a before and after analysis of the project's impacts using data made available by the Partnership and publicly available data on broadband expansion from the U.S. Department of Commerce to assess the effectiveness of this granular approach to bridging the digital divide.

Harris, Daniel W. (Salisbury University), *Evaluating the Potential of Pixel Transitions to Infer Household Wealth on a Deforested Amazonian Frontier*

Widespread land cover stability is noted along much of the "Arc of Deforestation" in the western Amazon basin following conversion from mature forest to pasture. In Rondonia, Brazil, land cover conversion began with initial settlement in the 1970s, peaked with continued immigration in the late 1980s and 1990s and continues albeit to a lesser degree into the 21st century. The continuous record of the Landsat Thematic Mapper platform enables for the classification of land cover in each year during the settlement period and thus the ability to examine land cover class changes at the pixel level between years. The number of pixel transitions noted at the farm household level was found to explain household wealth obtained via household interviews for a sample of farms in a six municipality area centered around Ouro Preto do Oeste.

Holdai, Veera, Mara Chen and Barbara Wainwright (Salisbury University), *Maryland Residential Housing Sales 1995-2006*

The recent crash of the housing market has contributed significantly to the economic recession. It is imperative to develop a better understanding of factors that affect the housing market in the wake of the economic crisis. This study analyzed housing data from the years 1995 to 2006 on 12 different variables such as the number of house sales, median sale price, average interest rate, and various population and socioeconomic factors. Cluster analyses were done to separate the state into different regions based on the annual changes of housing sales data. Regression modeling was then carried out to examine the effects of a common set of factors on the residential housing markets in each of the cluster regions.

Johansson, Ola (University of Pittsburgh at Johnstown) and **Michael Cornebise** (Eastern Illinois University), *Wilbur Zelinsky's Pennsylvania Town and Contemporary Urbanization: A Preliminary Investigation*

In 1977, the Penn State geographer Wilbur Zelinsky wrote a seminal article called "The Pennsylvania Town: An Overdue Geographical Account" that has been frequently cited in research and textbooks on American geography. Zelinsky identified a set of morphological traits in the cities and towns of eastern Pennsylvania which indicated that their historical process of urbanization was different compared to places elsewhere in the United States. This paper will explore what the Pennsylvania Town is like today. Since the publication of Zelinsky's article in the 1970s, many new social, spatial, and economic processes have affected the patterns of urbanization. Some of these processes include disinvestment, gentrification, new ethnic settlement patterns, the emergence of "consumption cities" including an emphasis on tourism and cities as "entertainment machines," and exurbanization in the greater Megalopolis region. Because Zelinsky convincingly argued that the Pennsylvania Town exhibits unique traits, the question is whether or not these contemporary urban

processes have affected the Pennsylvania Town differently than cities elsewhere. A sample of four Pennsylvania Towns – Lancaster, York, Reading, Harrisburg – is used to explore this question.

Katirai, Matin (West Chester University), *Predicting Obesity with ESRI's Consumer Expenditure Data*

According to the Centers for Disease Control (CDC) (2011) approximately thirty three percent of U.S. adults and seventeen percent of U.S. children and adolescents are considered to be obese. Over the past twenty years rates of obesity have dramatically increased in the U.S. and no state had a prevalence level of less than 20% (CDC, 2011). Obesity is a result of several factors such as behavior, genetics, diet and a lack of physical activity. Others have examined the link between the built environment and obesity and believe urban form contributes to obesity (Frumkin, Frank and Jackson, 2004). The consequences of obesity have been thoroughly chronicled. Individuals are faced with diabetes, high blood pressure, and heart disease which have a major impact on the quality of life and life expectancy. The medical costs associated with obesity are quite substantial and costs have been estimated to be around \$147 billion (Finkelstein, 2009). This study examines obesity at the county level using data from Behavioral Risk Factor Surveillance System (BRFSS) and ESRI business analyst consumer expenditure data. The intent of the study was to predict county obesity levels from the BRFSS using consumer expenditure data at the household level. Expenditure data that was examined included: meals at restaurants, video game software, sports/exercise equipment, fruits and vegetables, snack foods, and smoking products. Linear regression was used to determine the influence of the expenditure data on the dependent variable of obesity rates. Initial results indicate that some variables are better predictors of obesity than other variables.

Kauffman, Chad M. and Brittany Kusniar (California University of Pennsylvania), *Undergraduate Students' Understanding and Attitudes about Climate Change*

This paper first discusses the nature of climate literacy and the role of climate education modules in light of new curriculum options at California University of PA. The diagnosis of students' understanding of climate change concepts is presented from various independent samples taken across a myriad of majors and class standing at the institution. Survey results are presented to illuminate a host of surprising results students relate about their relative understanding of climate change. Moreover, students' attitudes about climate change are revealing especially in light of their chosen major(s). Trends in the data are presented with suggested curricular adjustments at the conclusion of the presentation in light of the ongoing survey results.

Kedzior, Sya B. (Towson University), *What is the Relationship between Environmental Awareness and Resource Use? Exploring Failed Efforts to Clean India's Ganges River*

Environmental awareness is often assumed to be one of the greatest factors influencing resource use activities. Activist organizations and state officials in India argue that efforts and policies aimed at pollution abatement in the Ganges River continue to be unsuccessful due to a lack of popular awareness about pollution in the river and its associated risks. This paper presents the results of a study that questioned this claim, finding that majority of water users demonstrate intimate knowledge of river water pollution in the Ganges, and indicate little ambivalence about the existence of pollution and the overlap (or lack thereof) between scientifically and religiously informed ideas

about pollution. The paper draws on these findings to question the use of ‘environmental awareness’ as a discursive construct employed by the state and local NGOs, and to argue that increased awareness does not necessarily translate into changed resource use or political activity.

Macpherson, Bradley D. and Mark de Socio (Salisbury University), *Intersection-based Retail Location Modeling: A Nodal Network Approach*

Utilizing social network analysis (SNA), this paper analyses a road network whereby intersections are treated as interconnected nodes. Each node is weighted according to an index comprised of population, road classification, intersections of varying road classes, and traffic volume – in effect, creating an intersection-based gravity model. Node-to-node links were tabulated in a sizeable (1835 x 1835) edge weighted matrix and imported into SNA software and centrality (Bonacich power and Freeman centrality) values computed and imported into a GIS. The model was then successfully proofed by comparing nodes ranked by centrality measures with existing patterns of intersection-based retailing.

Majcen, Mario (California University of Pennsylvania), *The Use of Audience Response Devices in Higher Education*

This paper focuses on the use of audience response devices (aka “clickers”) in college-level Earth Science education. The concept is easily adaptable to any other discipline including Geography. Clickers are handheld devices that enable students to transmit their answers electronically in a real-time poll. Current technology allows more than 100 devices to be connected so it can be applied to high enrollment classes. Author implemented this technology in an introductory general education course in Earth Sciences. The results were beyond expectations, as measured by the analysis of student learning objectives as well as overall grade average. Clickers also enabled instructor to adapt his lecture to student feedback in the real time. The obvious disadvantage of using clickers is an additional cost to student, which can be partially mitigated by increased adoption of this technology so that students can use the device in other courses.

McDermott, Paul D. (Montgomery College), *The Land Patents of Western Maryland*

Early land patents of Maryland were characterized by irregular shapes and sizes due to the use of the metes and bounds system. However, most were characterized by unique names expressing the joy of ownership, boundary problems, or landscape features. The land patents are useful to geographers for they can provide information about vegetation and migration patterns. In this case, examples are provided using data acquired for Washington County, MD.

Mueller, Tom and Elizabeth Smith (California University of Pennsylvania), *Remote Sensing Education Using Oblique Imagery*

This presentation examines Remote Sensing of the Environment, a course that covers the composition and interpretation of aerial photographs and remote sensing images. Students learn how to interpret photos and satellite imagery for quantitative and qualitative information on natural and anthropogenic features and processes. The class requires independent and group interpretations of maps, satellite imagery, computer processed and enhanced images. One project is highlighted in this

presentation. Using the oblique aerial photography and the data analysis tools available in Pictometry, the highest risk for flooding were assessed for the campus of California University of Pennsylvania and Marist College in Poughkeepsie, New York.

Nicholson, Robert C. and Brent Zaprowski (Salisbury University), *Boulders on Delmarva? An Investigation into the Source and Mechanisms by Which Boulders Were Deposited on Delmarva*

The Delmarva Peninsula is part of a large wedge of sediment derived from the erosion of the Appalachian Mountains. The generally small size of the sediments on Delmarva reflects the cycles of marine transgression and regression which have shaped the geology of this region. These relatively low-energy processes do not readily account for the presence of large, angular boulders on Delmarva. Some possible explanations include ice-rafting, fluvial activity, frost heaving, and local in situ induration. Through analysis of the spatial distribution and rock type of the boulders we have been able to draw some preliminary conclusions. First, the present elevation of the boulders is higher than any Pleistocene sea level, making ice-rafting unlikely. Also, though the climate on Delmarva during the Pleistocene was cold enough to have caused frost-heaving, correlation of the boulders with rocks in a lower stratum would be necessary to confirm this. The high degree of rounding of sandstone cobbles and boulders supports a possible origin of fluvial deposition. Finally, local soil conditions could likely lead to the in situ induration of limonite and calcareous sandstone. To support these preliminary conclusions, further analysis of the spatial distribution of the boulders may be warranted. Also, a detailed assessment of the mineralogical makeup of the boulders might reveal analogous rocks in possible source areas.

Parnell, Darren B. (Salisbury University), *Selected Climate Characteristics of Salisbury, Maryland*

This presentation illustrates historical extreme weather events and selected climate characteristics for Salisbury, Maryland. Specifically, growing season characteristics, snowfall variability, heat waves, heavy rainfall events and Nor'easters were analyzed. It is a compilation of independent student research projects that have been completed under my supervision. Time series graphs and histograms were created from daily temperature and precipitation data. Specific criteria were established to identify the extreme weather events. Results indicate that heavy rainfall and snowfall events have been highly variable while the timing of last spring frosts and heat waves has been relatively consistent. Six historical Nor'easters were examined and mapped to examine the spatial trends in the paths of low pressure. Each of these storms was found to have very similar characteristics throughout their lifetime. This information can be useful for decision makers and has the potential to reduce the loss of life, crop damage and property damage.

Ramspott, Matthew E. (Frostburg State University), *The Changing Geography of Literacy in the United States*

Researchers in a variety of social science and educational disciplines have documented relationships between literacy and other measures of socioeconomic well-being (e.g. poverty, life expectancy), often with a focus on the developing world. Historical and regional variations in educational policy and its association with race and ethnicity in the U.S. have previously been studied using literacy data collected as part of the 1930 Census. But discussions of the implications of geographical patterns observable in standardized literacy surveys have seen relatively little coverage in the

geographical literature, perhaps in part because of lingering questions surrounding the appropriate definitions of adult functional literacy. Despite these questions, geographical patterns of literacy may offer valuable insights into the changing social landscape and associated policy considerations. This project aims to map and examine the changing geography of literacy in the U.S., using data from the National Assessments of Adult Literacy completed in 1992 and 2003.

Robinson, Heath (The University of Illinois at Urbana-Champaign), *Saving the State from Occam's Razor: Social Behavioralism, Documentality, and the Existence of States*

This presentation is concerned with the ontological existence of states and whether their study is a matter of objective fact. The seemingly mind-dependent nature of states has caused some scholars, especially in international relations, to question their existence. Previous investigations into the ontological status of the state have focused on the state in isolation, but this presentation approaches the subject within the context of the existence of social objects more broadly. It draws upon the recent development of the ontological theory of documentality, which asserts that documents can change the world and bring new entities into existence. It is argued that states are quasi-abstract documentary entities that developed in parallel with society's acceptance of constitutive documents. Documentary theory provides a framework to accept state existence and admit them into the ontology of the world.

Saunders, Michelle (Salisbury University), *Potential Explanations for the Differing Monthly Migration of United States Tornadoes: 1950-2011*

An analysis of United States tornado touchdowns was performed by calculating the monthly statistical mean center for all tornado touchdowns for the last 62 years. To facilitate a comparison from a previous study, the data were separated into two periods (1950-1978 and 1979-2011). When comparing the first period's mean center locations to the second period's, there were several spatial differences. The data were analyzed to determine potential reasons for these differences. Maps were made to display all tornado touchdowns according to their Fujita scale rating. Strong El Nino and La Nina events were compared to determine their potential influence on the pattern of touchdowns. The warmest and coldest years for the U.S. during both periods were also compared to see if they had different monthly spatial distributions.

Skeeter, Wesley R. (Salisbury University), *Using Radar Composites Created in Model Builder to Perform Statistical Analyses of Cold Frontal Precipitation Events in the Chesapeake Bay Region: April through October 1997-2011*

Radar estimated storm precipitation total composites were created using the Model Builder application in ArcMap for every cold frontal and squall line event that passed over the Chesapeake Bay between April and October from 1997 to 2011. Composites were created using two models and archived radar scan data from three regional radar stations. The first model converted reflectivity values to precipitation rates for each scan. The second compiled the converted scans from the available radar stations. Random samples were then selected and averaged from designated areas paralleling the eastern and western shores of the Bay, providing east and west averages for each composite. The sampling was performed by a third model. Statistical analyses were performed on

the differences between east and west samples, including one-sample t-tests, one-sample sign tests, and correlations to Chesapeake Bay sea surface temperatures at the time of each event.

Sojo Lara, Gloriana (The George Washington University), *Regional and Local Impact of Infrastructure Development Projects in the Costa Rica-Nicaragua Border*

This research investigates the regional and local impacts (in terms of social and economic integration) of two infrastructure development projects, Carretera JMP in Costa Rica and Carretera ASF in Nicaragua, in the border region between these two countries. It explores the motivations behind the construction of these projects and their differing implications for local people and for national governments. Furthermore, the paper raises questions about the management of development projects in border regions: “for whom, by whom and in whose interest” are these developed? Data was obtained through ethnographic work in the area and from interviews with government officials. Quantitative data was used to determine patterns in touristic and economic activity. The findings suggest that these projects are increasing tourist activity in the border region and facilitating transnational movements of goods. However, their development has also tightened border controls limiting historical patterns of local commercial exchanges and social interaction.

Tasch, Jeremy (Towson University), *Azerbaijan’s Oil Wealth and the Hope for Trickle Down along the Absheron Peninsula*

Oil development in Azerbaijan has had significant economic, social and environmental impacts at local to national levels. Corporations, NGOs, communities and the government are being challenged to ensure that the benefits accruing from natural resource development are maximized in a sustainable way, while the potential negative impacts from oil and gas extraction are mitigated so that communities benefit from investments in the energy sector. Oil and gas drilling can indeed significantly benefit local populations. There is risk, however, that energy development can also cause adverse effects on local communities. This can include negative impacts on property rights and access, environmental quality, inflation, a disruptive influx of newcomers and unwelcome changes in traditional social structures, and social jealousy. Azerbaijan’s 2020 Olympic bid and Eurovision 2012 displayed to the world a positive vision of wealth and modernity facilitated by natural resource development. But with cameras gone, what are the opinions of individuals concerning the costs and benefits of natural resource development? Drawing from the views and perspectives of individuals living in communities where oil has been accessed for hundreds of years, this research contributes to a better understanding of livelihood opportunities and constraints among those living and working along Azerbaijan’s Absheron Peninsula, while identifying key domestic policy challenges that if unresolved could potentially lead to an “Azerbaijani Spring.”

Tuttle, Brendan R. (Temple University), *History and Shifting Political Space in Bor Country, South Sudan*

Based on ethnographic research carried out between 2009 and 2010 in the vicinity of Bor, South Sudan, this paper examines a thorny problem of oral history, ethnography, and cultural geography. Memories of the past in Bor were embodied by a terrain of stories and place-names that spanned three overlapping political geographies. The first was a product of the slave-and-ivory trade of the 1840s to the 1890s when Bor was an outpost first of the Ottoman Empire and then the Mahdist state;

the second, an Anglo-Egyptian colonial town, and the third was the product of Sudan's civil wars. I examine how stories about the 1840s were anchored in the geography of the 1940s. Doing so reveals a complex relationship between memory, belonging, and land, as well as a series of methodological issues which bear on the reconstruction of past political geographies.

Waltman, William J., S.K. Waltman, P. Biggam, K. Eggleston, T. D'Avello, E.D. Waltman, J.A. Thompson, D. Shields, S. Demas, and J. E. Brewer (West Virginia University), *Soil Climate Regimes across the Delmarva Peninsula*

The boundary of the mesic and thermic soil temperature regime has long been placed at the Maryland/Virginia state line. Both soil temperature and moisture regime boundaries oscillate in time and space, but within traditional soil surveys, the classification and mapping of soil climate regimes has largely been treated as static soil properties. Long-term (1895-present) monthly weather station data from the Historical Climatology Network were modeled using the Java-version of the Newhall Simulation Model (jNSM; v.1.6.0) and SSURGO as the source of available water storage. The weather station records were classified into soil climates regimes from metrics of soil water balances and biological windows. The jNSM results were compared with geospatial soil survey databases to evaluate soil climate boundaries through time and develop new methods to harmonize and disaggregate soil climate regimes across the major land resource areas (MLRA) of the Delmarva Peninsula and Assateague Island National Seashore.

Wilson, Reilly B. (Temple University), *Neoliberalism in Publicly-accessible Playground Provision: A Case Study of Bihac, BiH*

This research examines the emergent influence of a neoliberal ethos on publically-accessible playground (PAP) provision. Recent global trends in early childhood playground provision reflect the increasing transfer of both installation and management of PAPs from public to private funding sources. Through a case-study of Bihac, Bosnia-Herzegovina (BiH), this research attempts to articulate ways in which global neoliberal forces on municipal management strategies have manifested in terms of PAP provision, as well as the perception of PAPs by local inhabitants. A theoretical framework of neoliberal manifestations in PAP provision is elaborated through a literature review. Analysis of municipal and NGO documents is interwoven with interview responses, ethnographic observations, and photographic documentation in order to illuminate the current situation of PAP provision and utilization in Bihac.

POSTER ABSTRACTS

Buchino, Judith A. (AMEC), *Things Are Seldom What They Seem: A Legislative Approach: Myth or Reality in Protecting Our Precious Resource of Karst Terrain*

This work is an overview of the issue of karst terrain and its impact on both the natural phenomenon of the lands, and the people who live there. Two major concerns are for the protection of the karst lands and their intrinsic beauty as a natural resource; and for the public health and safety of the community that resides in these areas of karst terrain. This study is an investigation of legislation with regards to the presence of karst terrain within a jurisdiction. The state of West Virginia has a large swath of karst terrain that extends along the eastern part of the state. It includes seventeen counties: Berkeley, Grant, Greenbrier, Hampshire, Hardy, Jefferson, Mercer, Mineral, Monongalia, Monroe, Morgan, Pendleton, Pocahontas, Preston, Randolph, Summers, and Tucker. An online survey was conducted on the present legislative efforts in these seventeen counties, and a summary of results is presented. The results of this research can be used to enlighten the community on the importance of karst terrain and to provide guidance to watershed managers, urban planners, and other government officials for water quality implementation plans and land use management in karst terrain.

Eppley, Joshua M. and **Ahmad Massasati** (University of Pittsburgh at Johnstown), *Mosaic of WWII Aeronautical Charts of the Northwest United States*

WWII once-restricted aeronautical charts of Northwest United States were collected and scanned into a 300 dpi digital format. These charts (5x4ft) include topographical and basic map information. In addition Armed Services bases and airfields, supposed military target areas deemed “Danger” or “Caution,” and radio stations with their signal ranges, beacons, and paths are included. Once in digital format, image processing techniques and software were used to mosaic and geo-reference the data into the WGS84 projection system and made usable in Geographic Information Systems platforms. While contemporary maps potentially harbor more information and analysis, older paper-based maps show the craftsmanship that went into creating them, a true art form that we are losing in the technological age. This project also shows how areas changed over time and how military, especially communication, operations have adapted throughout history.

Haynes, Mitch (Salisbury University), *Drainage Basin Discharge Analysis*

The ability to predict how a drainage basin will react to increased volume of water has the potential to save money from losses of property, agriculture, and personal possessions, as well as save lives. A series of models in ArcMap was developed that could not only delineate and determine what size and dimensions of a drainage base from a DEM, but could also run tests on the basin to determine to hydrograph of the basin during peak flow events. Flow events from each basin could either show characteristics of flashy flow (high volume over a short period of time), or sluggish flow (high volume spread out over a longer time scale). Basins were then examined and ranked on the terrain ruggedness and land use of each basin, which was able to provide a predicted flow.

Hogue, Aaron S. (Salisbury University), *Declines in Mammalian Carnivore Biodiversity on a Mid-Atlantic Peninsula*

The Chesapeake Bay region was one of the earliest areas of the U.S. colonized by Europeans. Consequently, the ecosystems of this region were among the first to be impacted by European land use practices. We sought to evaluate the long term effects of these practices by assessing changes in mammalian carnivore biodiversity over time on an early-colonized peninsula. Carnivores were selected because, as predators, they require large home ranges and are particularly vulnerable to land use changes such as habitat loss and fragmentation. We used archaeological and colonial records to reconstruct the native fauna, and contrasted this with evidence of existing species from field data, museum specimens, and other sources. Ten species were found to be native. Of these, half are extirpated or nearly so. Of the others, only 2 species are relatively widespread and common. The implications of these findings for the peninsula and the eastern U.S. are discussed.

Loeser, Carlee (Salisbury University), *Lake-Effect Cloud Band Frequency and Snowfall with Emphasis on Multiple-Lake Connections*

Great Lakes lake-effect cloud bands are an indicator of thermally-generated mesoscale circulations and often produce snowfall downstream of individual or multiple lakes. An investigation of the frequency of Great Lakes lake-effect clouds during a fifteen-winter period was conducted using visible satellite imagery. Lakes Superior, Michigan, and Huron had a higher frequency of lake-effect clouds than Lakes Erie and Ontario with a climatological maximum over each lake occurring in December or January. The snowfall of lake-effect events affecting central New York state were also examined by comparing events originating over Lake Ontario to events with a multi-lake connection between Lakes Huron and Ontario. The results indicate that, on average, single-lake WPB events produced more snowfall than multi-lake WPB events; however, single-lake SPB events produced less snowfall than multi-lake SPB bands. The likely factors leading to these interesting findings will be discussed during the conference.

Martz, Kendra R., Erik C. Aspril, M. Chelsea Gilliam, and Cynthia A. Brewer (The Pennsylvania State University), *Mapping Around the World*

We share our experiences from workshops, key elements of real-world business travel, and visits to regional and/or national mapping agencies in Germany, United Arab Emirates, and Japan, that exposed us to a wide range of mapping practices and map use. We all completed individual projects in a specific country, such as water supply and infrastructure, energy, and habitat conservation. We planned the trip spring semester 2012 and traveled for three weeks in June. Later in the fall semester we will present our projects at the US Geological Survey headquarters, bringing national policies, GIS applications, and mapping ideas home to the United States to make recommendations for the next generation of The National Map.

Macpherson, Bradley D. and Mark de Socio (Salisbury University), *Visualizing the Centrality of Road Intersections on Virginia's Eastern Shore*

This project analyzes road intersections as nodes in a network. In lieu of absolute locations, intersections are presented in abstract in terms of their relationships to one another based on their positionality (or centrality) within the overall network.

Mello, Ryan G. (Salisbury University), *Critical Area Mapping Updates for Maryland*

In 2008 legislation was passed and signed into law that involved updating the maps for Maryland's Critical Area Program. The last formal maps were published around 1972 and although all counties have updated maps they have not been digitized and are not official. The Critical Area Mapping Project allowed the formation of a shoreline and a landward boundary of tidal wetlands and a digitally generated 1,000-foot Critical Area boundary. Land use within the Critical Area consists of Intensely Developed Areas (IDA), Limited Development Areas (LDA), and Resource Conservation Areas (RCA). Various regulations allow for development in portions of the Critical Area; however the main objective is to limit development within. The process for the Critical Area map creation involves numerous review steps and involvement of county officials, public review, and site visits. Due to the length of time it takes for the maps, this map is not official as of publication and is considered a draft.

Temple, Kameelah and **Joseph Zume** (Shippensburg University), *Exploring the Connections between Land-use/Land cover (LULC) Change and Storm Response in the Middle and Lower Susquehanna River Basin*

Several studies have directly linked the severity of storm response within a watershed to land-use and land cover (LULC) change. For example, as urbanization increases within a watershed the proportion of impervious surfaces also increases leading to quicker runoff generation and more rapid stream response to storms. In central and eastern Pennsylvania, the record flooding of the Susquehanna River from Tropical Storm Lee raises the question of how LULC change may have contributed to the floods. This study attempts to address this question by examining historical LULC maps from 1984-2006 against historical discharge data at five USGS gauging stations on the Susquehanna River.