Abstracts

Paper Sessions

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Internet Domain Names and the Political Geography of Misdirection: The Case of www.martinlutherking.org. Derek H. Alderman, East Carolina University

Over the past several years, geographers have focused on mapping and interpreting the spatiality of the Internet. An important figure in this effort is Stan Brunn, who has examined iconography in cyberspace and analyzed the structure of hyperlinks and flows of representation on the Web. Building upon Brunn's work, I examine the political geography of Internet domain names, which are used in locating and identifying Internet sites, and suggest that they provide an important window into studying social competition and conflict online. Domain names are important in directing (and sometimes misdirecting) people on the Web, not just navigationally but also ideologically. The case of martinlutherking.org illustrates the extent to which domains can be appropriated and manipulated as political tools. Stormfront, a white supremacist organization, controls the King domain and uses the power of misdirection to assist them in defaming the civil rights leader, bringing public attention to their cause, and intensifying racial conflict. Counter-intuitively, the King domain is an important "place" within the geography of hate and the larger racial politics that surrounds the civil right leader's name and memory. The case of martinlutherking.org illustrates the importance of domains in guiding flows of communication and social interaction across cyberspace and how the topological power of the Web, which Brunn has studied, can be harnessed and manipulated by social and political groups as they seek to be seen and heard. As I also demonstrate, domains and their associated Internet sites also influence the social construction and contestation of place in the physical, material world, thus challenging early "utopian" predictions that the political geography of the Web would somehow transcend social relations and inequalities found offline.

Tourism's Tragedy of the Commons at Mammoth Cave. Katie Algeo. Western Kentucky University

This paper explores the application of Garrett Hardin's classic model, the tragedy of the commons, to explain the failure to sustainably manage tourism at Mammoth Cave, Kentucky, during the era of private ownership before 1928. The "commons" in this case are conceptualized as the natural and cultural resources of the tourism enterprise. Using primary source materials from the Janin-Blair collections at the Huntington Library and the Historical Society of Washington, DC, I identify four distinct resources that were exploited unsustainably, lending support for creation of a national park. Nationalization of the cave through creation of the eponymous national park was a pragmatic, if partial, solution to these problems.

The Geography of Air Freight by Metropolitan Area

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Abstract

Despite the recent remarkable growth of air freight shipments, much of the existing literature on the 'geography of air transportation' have paid more attention to passenger issues than air freight. The purpose of this paper is to determine which specific variables most influence and shape the geographic distribution of air freight by metropolitan area using stepwise regression analysis. The empirical results suggest a model of five independent variables are the most simple, effective, and parsimonious solution where the R-squared suggested that 71.1% of the variation in the dependent variable. The traffic shadow effect was the most important predictor in predicting the natural log of air freight, where small MAs under the traffic shadow of larger MAs tended to generate lower levels of freight. The model also suggested that other key predictors included per capita personal income, the transportation-shipping-logistics employment market share, the number of medical diagnostic establishments, and average high technology wages. Thus, metropolitan markets with more affluent people, diverse and efficient ground support systems, freight forwarders and other transportation services, an intense agglomeration of hospitals and medical universities, a high wage-highly skilled workforce engaged in providing computer systems design and manufacturing are more likely to ship freight by air.

Remote Climate Forcings of Jamaica's Mid-Summer Dry Spell and Vegetative Response

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The seasonal cycle of the Intra-Americas Sea Mid Summer Dry Spell (MSD) is characterized by a bimodal rainfall season with peaks occurring in the late spring and late summer. While the MSD is a permanent feature, it undergoes interannual variability. Jamaican farmers have verified that the perceived MSD variability represents a significant obstacle to their cropping strategies, especially in July. Rainfall over Jamaica during July is influenced by the El Nino Southern Oscillation (ENSO) and the North Atlantic Oscillation (NAO). During warm year (0) ENSO events rainfall is reduced while the warm year (1) ENSO events promote wetter than normal conditions during the Jamaican MSD. Early Spring NAO phase values correspond negatively to the upcoming Jamaican MSD rainfall. Together, the ENSO warm phase year (0) and a strong spring NAO result in a constructive interference pattern that greatly inhibits Jamaican MSD rainfall. The impact of the MSD is discerned via a lagged vegetation response observed through a similar bimodal pattern of the normalized difference vegetation index (NDVI) in Jamaica. NDVI response to the MSD allows for the prediction of vegetative scenarios upon upcoming MSD.

Observed and Modeled Effects of Land Atmosphere coupling on Soil Moisture over an Agricultural region

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The relationship between soil moisture and outflow (evapotranspiration, drainage, and runoff) is fundamental to many hydrologic and water resources applications, such as watershed modeling, and agricultural and water balance monitoring. One process that can affect such a relationship is land-atmosphere coupling, whereby nonlocal landsurface anomalies can propogate through the atmosphere and affect local site behavior. In this study, we explore evidence for land atmosphere coupling in the Illinois Climate Network soil moisture field network through multiple regression of local and regional moisture on meteological variables and find a significant relationship between largescale moisture conditions and local wind speed. We infer that this can affect the local water balance through control of evaporation and use an analytical unsaturated zone model to model the effect of this regional dependence on the spatial and temporal dynamics of soil moisture, and show that while individual locations show more temporal variation in soil moisture, including effect decreases the variability of the large scale system.

Use of Land Parcel Data for GIS Analysis of Rural Gentrification Processes in Watauga County, NC

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Abstract: Rural gentrification is an issue of increasing discussion in the media and academic community, particularly with its increasing presence in the eastern and central US. Primarily associated with significant social and economic transitions in idyllic rural communities in the western US, increasing evidence of rural gentrification is emerging in the mountain region of western North Carolina. Since direct quantitative evidence of rural gentrification processes and related impact on land use is difficult to provide with current GIS data sources, this study examines the usefulness of land parcel data for GIS analyses to examine these processes. In particular, a case study demonstrating trends in building density over a sixty year time period in Watauga County, NC based on land parcel data is presented. Visual examination of spatial trends indicate three primary drivers of the county's housing density growth related to the location of significant natural and recreational amenities, towns with significant number of seasonal residents, and pre-existing transportation and utility infrastructure that aids new large housing development projects. The utility and limitations of this GIS-based approach are discussed in light of its effectiveness for practicing professionals working in land management.

Keywords: Rural gentrification, land parcel data, density surfaces, spatial processes, spatiotemporal analysis, GIS, geovisualization, Watauga County, North Carolina.

ABSTRACT. James Baginski (jbaginski@utk.edu), Department of Geography, University of Tennessee, Knoxville, TN 37996-0925.

Southern Suds Tapping Out?: An Analysis of Craft Brewing in the Southern United States

Since the origin of the craft brewing movement approximately three decades ago, the distribution of craft breweries in the United States at present is anything but ubiquitous. Preliminary analysis indicates that, among the four Census-defined regions, the South appears to be the least developed in terms of the number of craft breweries operating within it. With its focus specifically on the South, this paper first explores variations among Census regions and their respective subregional divisions, revealing that the South and its component divisions have the smallest numbers of craft breweries per capita than other parts of the country. The provision of craft breweries at the state level within the South is then examined. Multivariate linear regression analysis is employed to evaluate the effects of various state-level influences on the number of craft breweries per 100,000 residents. The results of the southern states regression analysis are compared to the results of a model that includes all fifty states, thus pinpointing variations in the extent of influence that the independent variables have in the South compared to their influence on craft brewing in the entire nation.

KEYWORDS: craft brewing, South

"The Role of Law in the Rescaling of Statehood: Some Insights Concerning Economic Regulation"

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University of Georgia

Abstract: Recent geographic literature on globalization has emphasized the scalar restructuring of statehood as a strategy to maintain capital accumulation. This paper contributes to that discussion by highlighting the importance of law in these transformations. Although law is often considered as synonymous with the state, the restructuring of contemporary global political economy involves a host of legal relations that operate at a distance from state territory. Examining issues such as the coordination of production networks through transnational corporations and the new geographies of international trade, the paper suggests that close attention to the law could expand our understanding of the networked, relational, and multi-scalar geographies of contemporary globalization.

ABSTRACT. Thomas L. Bell (tombell@utk.edu) and Margaret M. Gripshover (mgripsho@utk.edu), Department of Geography, University of Tennessee, Knoxville, TN 37996-0925. Can I Get a Witness? Making the Case for Gatlinburg Ambience

In this paper we discuss a court case in which the authors served as expert witnesses in a dispute between the owner of a property parcel and her tenant in the mountain resort town of Gatlinburg, Tennessee. The restaurant owner (the plaintiff) was accused by the landlord (the defendant) of violating the "ambience of Gatlinburg", a phrase that was written specifically into her rental agreement. The restaurant owner's supposed ambience violation was subletting a portion of her restaurant to salespersons locally known as "hawkers" who try to sell timeshare condominiums to tourists that pass by on the sidewalk. Our job as forensic geographers was to determine if the restaurant and timeshare sales sublet were in keeping with the general perception of Gatlinburg ambience. For this foray into forensic geography, testimony was prepared on the issues of ambience, visual blight and aesthetics, and the historical development of Gatlinburg as a resort community. While the judge accepted our testimony and evidence of the state of ambience in Gatlinburg, the case concluded in a Pyrrhic victory for the landowner.

KEYWORDS: ambience; forensic geography; Gatlinburg, Tennessee; land use; visual blight

Benitez, John

Abstract (The Upper U.S. South as a New Missionary Frontier?)

In the U.S., American Protestant religious organizations have historically "reached-out" to Hispanic populations, and today they continue this tradition though their attention has turned to proselytizing Hispanics outside of the Southwestern U.S. In order to "reach out" to these individuals, Protestant groups rely on extant religious organizational structures, in addition to new organizational agencies and geographic strategies and methods in order to incorporate new populations. These strategic methods of using existing resources and creating new agencies to evangelize new populations are contributing to the development of missionary frontiers in the regions of the U.S., such the upper American Southern states of Kentucky and Tennessee, and among religious organizations historically dominant to the region, including but not limited to the United Methodist Church, the Presbyterian Church (U.S.A.) the Christian Church (Disciples of Christ), and the Southern Baptist Convention.

Revisiting the Performance of Magnet Schools to Recentralize American Middle Class Families in the midst of High Gas Prices: Can Magnet Programs Offer High-Performing Neighborhood Schools in Gentrifying Neighborhoods?

By
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Department of Geography

Poor-performing schools are consistently seen as one of the greatest barriers to attracting middle class families with children to center city neighborhoods. Some groups have attempted to use schools to attract families to city neighborhoods; however, because school performance is highly tied to socioeconomic status (SES), it is difficult to introduce a high-performing school in a low-income neighborhood. Since areas that send students to superior schools have higher real estate values than areas with schools of lower perceived quality, it may be possible that the promise of enrollment in a high-performing magnet school could increase investment in targeted neighborhoods. However, one must first understand the relationships between student SES and magnet school performance for such a plan to be successful. To our knowledge there is little research on magnet school performance and how it relates to students' socioeconomic characteristics and the socio-economic status of schools' locations. This research attempts to connect these variables and create a model that predicts magnet school performance and the average family income magnet schools' student bodies.

A Comparative Assessment of Organic Agriculture in the American Southeast

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The distribution of U.S. states which have begun implementation of organic farming techniques is not stochastic in nature, but exhibits spatial trends based on factors such as climate, soil suitability, demand, economics, social consciousness, policy and attitude. This study will use quantitative methods to explore the proliferation of organic farming in the American Southeast. In doing so, it will 1) use spatial metrics to explain the predominance of organic farming practices in the United States and how this compares with the American Southeast and 2) if spatial trends do exist, the factors that contribute to this spatial patterning.

Living Personal Memorials. Stephen S. Birdsall, University of North Carolina at Chapel Hill.

Individual trees are used in some instances as tangible yet symbolic memorial expressions of remembrance for persons who have died. The roots of this practice among European cultures are not clear and can be found in non-European cultures, as well. Such living memorials are taken to represent the natural life-spirit of the individual remembered, projecting life into the future. Viewed as an element of landscape construction and sacred space creation, the impulse to plant memorial trees can be personal or communal and is not always unalloyed with other motivations. Several examples of landscape construction through memorial tree planting in New Zealand and the United States are discussed.

Comuna 13, as Dangerous as They Say? Comparing Perceptions with Crime Data in Medellin, Colombia.

Brian Blickenstaff
University of Southern Mississippi

Investigations into perceptions of danger and the sometimes quite different actualities of risk have long been subject of academic interest. In Colombia, a country once thought of as being the most dangerous nation on earth, these perceptions of risk run deep. Through statistical analysis of 2002 and 2003 homicide data from the city of Medellín, Colombia, these perceptions of risk are compared to the actualities observed during this two year period with a special focus on the perceptions of risk in the neighborhood of Comuna 13. Analyses show that perceptions and actual conditions may not overlap.

Gender, Race, and Ethnicity on U.S. Postage Stamps: A Visual Reading of American History

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Abstract

Postage stamps are visual products of a state, much like banknotes, flags, and museum displays. An examination of their content reveals what the state wishes those inside and outside its political boundaries to know and "see" about the state's population, economy, society, and politics. I examine the content of the nearly 4200 U.S. stamps issued since 1847 to discern how many included images of African, Asian, Native, and Hispanic Americans as well as women. In early years most issues depicted white men. Beginning in the 1950s there were more stamps for women, but not specific individuals; that change did not occur until the 1970s. African Americans since 1978 are regularly depicted on stamps in many categories. Native, Hispanic, and Asian Americans are still marginalized in stamp issues. The past decade suggest their appearance may be on the rise.

Before the Park:
Creating a HGIS of Mammoth Cave Area Communities
Circa 1920

Matthew Brunt
Western Kentucky University

Before Mammoth Cave National Park became what it is today, this area was littered with communities. After land was acquired by the U.S. government, in the early 1900s, the people living within these communities were forced from their homes and made to relocate to the surrounding areas. Experiences surrounding this forced 1920s relocation, along with the cultural impact of such a relocation, are of great importance to this project. With the use of 1920s Census of Population and Housing, the researcher will be able to create a picture of the area's demographics before the relocation. Today, geography is starting to rely heavily on the use of Geographic Information Systems (GIS) as a tool to collect and analyze data while providing a means for accurate visual representations. Using a Historical GIS (HGIS), the researcher will be able to take the data from the manuscript census and precisely map this data at the household level. This will create a framework for other data, such as historical photographs, to be registered to build a multi-media digital representation of these communities before the 1920s relocation.

Brym

The Presence of the Polish-German Border in the Lives of Polish University Students

Since 2004, the border between Poland and a unified Germany has been an open and cooperative interior European Union (EU) border. Cooperation between Polish and German border provinces has been aided by the creation of euro-regions, a voluntary association of organizations which receive financial support from the EU for projects requiring cross-border cooperation. The border's traditional divisive functions were further devalued on December 22nd 2007 with the closure of customs checkpoints along the Polish-German border, as Poland officially became a full member of the Schengen Agreement. The agreement created a zone in which people and goods move unrestricted across member countries borders. Two months prior to the elimination of controls along the border, I interviewed Polish university students studying in Poland's northern border city of Szczecin to learn how the new openness and cooperation across the border has influenced their lifestyles. In this paper I begin with a brief description of the theoretical contributions of border studies towards assessing EU integration. Then I discuss four of the major themes which emerged from my interviews: the cross-border mobility of students, the reasons why students believed Germans traveled to Szczecin, the student's knowledge of euro-regions and their opinions on the future integration of the Polish-German border.

The Spatial Distribution of Tropical Cyclone Rainfall in Relation to the Radius of Gale-Force Winds in U.S. Landfalling Storms

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University of Florida

The National Hurricane Center (NHC) issues tropical cyclone (TC) advisories based on the radius of gale-force winds (R17). This study seeks to determine if this boundary can be utilized to signal rainfall arrival. Storm intensity is hypothesized to influence symmetry of the rain shield because intense TCs are more axisymmetric than weak TCs; thus the extent of the rain shield should be closely related to the extent of R17 in intense TCs. Forty-two TCs from 1995-2006 were analyzed. The R17 boundary and composite radar images enables the area within R17 to be calculated using GIS. Weak TCs contained less than 20% of the rainfall within the R17. Intense TCs contain upwards of 70% of the rain shield within R17, largely due to lower pressure and tighter wrapping of winds around the eye. To produce a rainfall climatology that can be incorporated into NHC forecasts one must understand which storm variables cause differing percentages of rainfall within R17; discriminant analysis (DA) shows that seven variables are important including: minimum central pressure (MCP) and storm size.

The Jurisdictional Arrangement of Sub-National Island Territories: Newfoundland and Labrador

Nicholas Campiz
University of Florida

This study compares and contrasts the recent history of economic recession and recovery of two island provinces in the North Atlantic: the Canadian province of Newfoundland and Labrador and the Danish autonomous province of the Faroe Islands. Analyzing previous literature, government reports, and personal interviews, the first half of the paper focuses on the provinces' similar economic paths out of the recession of the 1990s and into success in the 2000s. The second half contrasts the differing political dynamics each province maintained with their respective mainlands during the recession. The Faroese, with high levels of autonomy throughout this period, exhibited a relatively agreeable relationship with Denmark. Newfoundland, a more closely-tied province, exhibited high levels of acrimony with Canada. The paper further studies Newfoundland's attempts to extract increased levels of autonomy from the Canadian government, especially in managing the primary sector. The case will be used to contribute to debates in island studies concerning autonomies and the optimal jurisdictional arrangement of island territories, while exploring themes in modernity and development.

CARR, EDWARD AND MCCUSKER

DEVELOPMENT AND THE EMERGING FOOD CRISIS IN MULANJE DISTRICT, MALAWI

Abstract

Political ecological studies have long demonstrated that food insecurity and famine are products of particular, local interplays of environment, economy, and society. These studies challenge dominant narratives in policy and other political circles that cast food crises as the outcomes of environmental change or governmental failure. Focusing on the emerging food crisis in Malawi's Mulanje District, we examine the causes of this crisis, and its possible solutions. Our examination of the history of agricultural policy in Malawi clearly demonstrates that dominant development narratives not only fail to resolve the challenges facing the people of this district, but also serve to intensify these crises and forestall the achievement of food self-sufficiency and agricultural development. This crisis is but the most current manifestation of these policies as they are articulated with national politics and a changing environment in Malawi.

Cartwright, R.

Abstract for: Analysis of an apparent dendritic basin on the surface of Titan

As the images and data from Titan accumulate, many questions are raised regarding the various geomorphic processes taking place on the moon's surface. One of the most intriguing aspects of Titan is the compelling evidence that suggests fluvial erosion, transport, and deposition are occurring on the moon - driven by a methane based hydrological cycle. This paper applies the Strahler Stream Ordering method to an apparent dendritic basin recorded by the Huygens probe on its two and half hour descent to Titan's surface. The results produce a mean bifurcation ratio within the normal range of 3.0-5.0 exhibited by streams on Earth. Also included are calculations of drainage density and stream frequency for the basin.

Keywords: Huygens Probe, Titan, drainage basin, Strahler Stream Ordering

Geomorphic adjustment, geographic context, and disturbances

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Abstract

The adjustment of natural landscapes relates to the interaction between the rate, magnitude, and continuity of the various agents of change, and the resistance of earth systems to alteration in the past and present. Three general categories encompass the nature of these interactions: continual (e.g. gravity-driven) adjustment, uniformitarian systems (those subjected to periodic pulses of adjustment), and disturbance-dominated systems (wherein singular events leave a lasting footprint on the landscape). Previous models of geomorphic change have tended to focus on uniformitarian systems using a quantitative approach (e.g. Wolman and Miller, 1960). This paper outlines some limitations of quantitative, uniformitarian models, particularly when used without consideration of important geographic contextual information. A qualitative method, the "disturbance geomorphology model", is introduced to enable the inclusion of discrete, landscape-changing events within the continuum of landscape adjustment presented above. Reconciliation between qualitative and quantitative models is possible when qualitative models are used as the theoretical framework within which specific, quantitative analyses can be based; while predictive capability is a product of the quantitative aspects of the study, geographic and temporal context is provided by an appropriate qualitative conceptualization of the problem, such as the disturbance geomorphology model discussed herein.

Wolman, M.G. and Miller, J.P., 1960, *Magnitude and frequency of forces in geomorphic processes*. Journal of Geology, v. 68. pp. 54-74.

How Do Retirement, Migration, and Tourism Impact Residential Development in Coastal North Carolina? Thomas W. Crawford, Department of Geography, East Carolina University, Don E. Bradley, Department of Sociology, East Carolina University.

Coastal population growth and tourism economies are features of coastal development that impact North Carolina's coastal region by altering both physical and social landscapes. Retirement migrants are often an important component of population growth in coastal tourist areas. North Carolina attracts relatively large numbers of later life migrants often towards amenity rich locales such as the coast. The purpose of our research is to perform a comparative analysis of income and selected housing characteristics of coastal residents and to develop a spatial regression model to explain the variation of new residential housing unit growth during the 1990s. Results using PUMS data demonstrate that later life in-migrants tend to: (a) have greater household incomes, (b) own homes with greater property values, (c) be more likely to reside in owner-occupied housing, (d) be more likely to reside in recently built homes, and (e) be more likely to reside in single family detached homes. Spatial lag regression model results suggest that both intra- and inter-state migrants are important drivers of new housing development. Positive coefficients for the interaction terms involving migration and percent elderly suggest that in-migration of retirement age population is associated with new housing – an interpretation that is consistent with results from PUMS data analysis. New housing was also associated with higher levels of seasonal housing and household median income. We found that distance to ocean shoreline and beach locations had no effect on levels of new housing.

Kendrick J. Curtis

BEYOND THE PIPE IN RUTHERFORD COUNTY, TENNESSEE

Limitations to conventional means of wastewater disposal have long influenced the development of land in many non-urban areas. This has been particularly true in Tennessee; however, alternative wastewater technologies are altering even this influence as technology increasingly frees developers to seek opportunities wherever they arise. In the wake of this spatial liberation I set out to examine the influences of the new land use and settlement patterns which resulted from the introduction of this technology. In this paper I present a case study of Rutherford County, Tennessee, where development liberated by this technology has occurred without any real influence from planning policy or regulation. Thus, in this setting influences such as market demand, availability of land, and accessibility were instrumental to shaping the resulting development pattern. However, equally—if not more—instrumental was the local political pressure to leave the planning regulation in a condition to not inhibit the liberated growth.

Key words: exurban growth, infrastructure, planning

ENSO's Global Influence on the Seasonal Distribution of Daily Rainfall

Dr. Scott Curtis, Department of Geography, East Carolina University

Hazard, flood and landslide applications, especially in developing countries, have prompted the recent examination of changes to extreme rainfall using global satellite information. However, few studies have investigated changes to the entire distribution of rainfall, which is important for many hydrological applications. Interannual variability, in particular, can be determined with a two-sample non-parametric Kolmogorov-Smirnov (KS) test. The KS-test is computed between pairs of years on all available daily 0.25 x 0.25 degree Tropical Rainfall Measuring Mission Multisatellite Precipitation Analysis (TMPA) grid boxes seasonally. Then the fractional coverage of significant (95%) differences is related to the absolute difference of Nino 3.4 between the two years for the concurrent season and previous seasons. It was found that ENSO explains a large portion of the global variance, with the recent El Nino and La Nina events demonstrating atypical distributions of daily rainfall. Finally, this paper begins to point to regions where ENSO's influence on seasonal rainfall may be different than its impact on weather statistics within a season, helping to direct data gathering efforts for comprehensive regional studies.

Renewable Energy in North Carolina: The Potential Supply Chain

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&
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North Carolina is a net energy importer because of its heavy reliance on fossilized fuels as a major energy source. However, North Carolina could be a significant source of renewable energy even though few commercial-scale projects have yet to be completed. The purpose of this paper is to identify those companies with the potential ability to supply the component parts of the state's incipient renewable energy industry. This paper utilized the methodology developed by the Renewable Energy Policy Project to disaggregate renewable generation technologies into their individual component parts and then catalogue the location of existing conventional industries that could become suppliers to the new energy economy. The findings suggest that North Carolina's potential renewable energy supply chain is already a diverse and mature sector of the state economy comprising just over 1,300 firms and employing just over 61,000 workers. The greatest number of potential suppliers existed in wind energy-related production since it generated the largest number of firms (627) and jobs (32,534) relative to solar, biomass and geothermal supply chains. The geography of the new energy supply chain is tightly concentrated along the I-85 corridor between Charlotte, the Triad and the Research Triangle region with significant outposts in Hickory, Wilmington and especially Asheville.

Delahunty & Roberts

Textural Classification of Historical Urban Landsat Imagery

In 2007, the United Nations declared that for the first time in human history, there were more people living in urban areas than in rural areas. Satellite imagery is an important tool for managing and monitoring this landscape change. Classifications of imagery into urban vs. non-urban can be compared in order to quantify changes through time. Classification accuracy is best if the process includes spectral and textural data. Scenes of Boca Raton, FL in 1973, 1978, 1986, 1995, and 2002 were classified. The resulting data was utilized in three projects: 1) Urban coverage shapefiles were created from the raster data to make tint maps which identify periods of development. 2) The urban coverage shapefile of 1973 was merged with 1970 population and housing tract data to produce a map of urbanized area population density. 3) The rasters were density sliced, imported to animation software, and tweened to produce an animated map of urban sprawl.

Development of a Parcel-based Density Analysis Tool to Evaluate Growth Patterns in Western North Carolina

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Abstract

Western North Carolina has experienced major growth due to adjacent metropolitan areas, inexpensive land, and natural beauty. This has lead to tourism expansion and increased demand for retirement and second homes. The result has been a predominantly unplanned, fragmented, and low-density sprawl with major impacts on the natural and built environments, wildlife, and human well-being. To date, no good metrics exist to measure such growth patterns in Western North Carolina.

The Parcel-based Density Analysis Tool (P-DAT) uses GIS software to convert public data regarding current land ownership patterns into useful information for conservation planning and decision making. P-DAT provides fine-grained descriptions about distribution of parcel density and year-to-year changes, and can be easily integrated with other geographic data. In pilot tests, P-DAT was found to be a simple, inexpensive, and high-resolution approach to measuring development, with results easily understood by the public. P-DAT appears to be a powerful technique for measuring growth patterns, especially where limited resources exist for analyzing impacts of development.

Accounting for effective connectivity in spatially explicit disease models

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ABSTRACT

Though scientists have long recognized that disease dynamics can be determined by environmental heterogeneity and spatial structure, spatially explicit models based on realistic landscapes have rarely tested the importance of spatial structure and its effects on the movement of hosts, vectors, or pathogens. Here, we tested how incorporating the effects of spatial structure and functional connectivity into a spatially explicit model of sudden oak death influences model performance. We used a friction surface representing the relative rates or probabilities of movement through different land cover types to calculate effective or least-cost distances between known sources of infection. Effective distances were used to estimate the force of infection from surrounding locations based on a dispersal kernel. Model fit improved when effective distances, rather than Euclidean distances (which assume a homogeneous environment) were used to estimate the force of infection. This result suggests that if systems are spatially structured and models do not account for the effects of spatial structure and movement on disease dynamics, then those models and their predictions may be extremely inaccurate. This can have drastic consequences as spatially explicit models are increasingly being used to develop management and control strategies. Basing decisions on models that do not account for the effects of spatial structure may not only be completely ineffective in controlling the severity and spread of disease, but may also result in huge losses in terms of time and resources.

Impacts of the Social and Built Environments on Active Transport Patterns to a Neighborhood School in Alabama

Abstract

Childhood obesity rates have risen dramatically over the past three decades within the United States. During this same time period, walking and cycling to school rates have greatly diminished. A recent study indicates that the percentage of children walking or biking to school has dropped from 42% in 1969 to 15% in 2001. Physical activity rates have declined overall, but particularly in the intensive-exercise arena. Health promotion campaigns, therefore, have begun to focus on increasing lifestyle activities such as walking, biking, and climbing stairs. Health, transportation and planning studies have identified individual preferences, social structures and built environment features that support or discourage lifestyle activities. Distance to the destination has been found to have the greatest impact on active transport, but disentangling other salient factors in the social and built environments from that of distance has been challenging. The aim of this research is to isolate motivations and constraints to active transport in a localized setting around a neighborhood elementary school in Tuscaloosa, Alabama. Using survey data, GIS analysis, participant observation and semi-structured interviews, this research finds that actual and perceived distance act not only as a deterrent to active transport, but influences perceived function and motivation for walking or biking. Based on findings, potential programs and cost-effective interventions are proposed.

Keywords: active transport, school, built environment, health promotion

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Rainfall in the African Sahel: Humble beginnings of most Atlantic Ocean Hurricanes

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Department of Geography

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Many of the hurricanes that impact the Southeastern United States are born from African waves that originate in tropical West Africa during the austral summer season. The African Monsoon Multidisciplinary Activities (AMMA) field campaign took place during the summer of 2006 providing a wealth of information concerning the onset and development of the rainy season over the Sahel region of West Africa. Surface radar observations near Niamey, Niger during AMMA documented the structure, motion, and precipitation of cloud systems during the monsoon season for the first time in that part of the Sahel. Observations from this unique field campaign have helped shed light on the origin of the African waves that ultimately give rise to many of the most powerful hurricanes in the Atlantic Ocean. In this presentation we will show results on the organization and variability of Sahelian rainfall as observed by the AMMA radar and discuss the role of Saheliannrainfall in the formation of Atlantic hurricanes.

Can 'Climate Justice' be achieved in Central American Clean Development?

Mary Finley-Brook
University of Richmond

Paper prepared for the Annual Meeting of the Southeastern Division of the Association of American Geographers, Greensboro, North Carolina, November 22-25, 2008

Abstract: Equitable climate change policy, referred to in the literature as 'climate justice,' must buffer the most vulnerable populations from unfair burdens or impacts, but it must also consider decision-making processes, frameworks for taking and facilitating actions, relationships between the industrialized and developing world, and interactions between climate change policy and other livelihood factors. This paper assesses markets established through the Clean Development Mechanism (CDM), a key international climate change mitigation initiative. Emerging limitations in the CDM process are discussed through analysis of 39 projects in Central America. Carbon markets have become one of the fastest growing markets internationally and analysts predict that they will become one of the largest commodity markets in the world. This place-based study explores their present and future contribution to sustainable development in six countries.

Keywords: Central America, climate change, Clean Development, Kyoto Protocol, sustainable development, justice

Abigail Foulds, University of Kentucky

"We help: we create jobs!" Entrepreneurial Expatriates and Tourism in Granada, Nicaragua

The tourism economy of Granada, Nicaragua in its present stage began in the late 1990s. The city had seen rapid growth in both international tourism and residing expatriates until the global economic downturn in the past year or so, although the foreign population is still steadily increasing. These two groups, tourists and expatriates, cannot categorically be separated as there is substantial overlap in their experiences in Granada in a number of different capacities, including their motivations to come to Nicaragua and in the businesses that they patronize. Research conducted in 2004-2008 finds that much of the increase in tourist businesses in Granada is being carried out by expatriates, most of whom are former tourists themselves. Several expatriates came with the intention of starting businesses. Most, however, initially came as tourists and wanted to continue living a similar lifestyle in Granada as an expatriate. Many had not planned on starting a tourist enterprise, but found the local tourist economy lacking and so only then became entrepreneurs. This paper examines the role of expatriates in the development of the tourist industry in Granada, specifically focusing at their motivations for starting businesses and how the expatriates interpret their effects on the local economy.

Garrett, Keith GIS in Disaster Management

Abstract:

Geospatial Information technology is rapidly growing in capability and use. This growth is not however happening at a uniform rate. Different organizations have different levels of implementation for a variety of reasons. This is especially true in the government. This paper examines this uneven distribution in the context of local, state and federal government response to disasters and their preparedness for such events. It attempts to identify and contextualize the issues. It provides an example of an organization that has had to deal with a similar set of issues many times over as well as examines the mechanisms developed for dealing with the challenges of a confused information environment: The United States Marine Corps.

Seed Ag: situating *in situ*

Garrett Graddy, University of Kentucky, PhD candidate

This paper emerges from a doctoral, cross-[agri]cultural study exploring *in situ* agricultural biodiversity conservation initiatives in the global north and the global south—within community seed banks and networks in southern Appalachia and the southern Peruvian Andes. Despite obvious differences, parallels have emerged across these two sites regarding the crux of agri-biodiversity conservation (as circulation) and the importance of local ecological knowledges in the work of cultivating and preserving a broad array of native/heirloom varieties. In this paper and multi-media presentation, I attest to the spatial re-orientation involved in the (much-needed) renewal of agricultural biodiversity. This works on a few levels—from the economic, social, and political to the epistemological, such as the re-situating of agricultural knowledge in the field, not just in the lab, as well as the ontological, such as the re-configuration of such concepts as "natural resources" "biodiversity" as well as local, household, and the seed itself.

Gibs[1] and Geeks: The Payoff of North Carolina's Post-Industrial Economic Development Policy. William Graves and Jonathan Kozar. UNC Charlotte

North Carolina's economic development policy has long focused on luring both glamorous (Google and Dell) and traditional (smokestack chasing) facilities from out of state. This strategy results in a policy that overlooks locally developed, small scale technologies industries such as the emergent video game production cluster. This paper examines the emergence of the industry within North Carolina and its economic and social impacts. It was found that the industry, while small, promises to integrate sectors and regions within the state to a degree that has never before been seen. The industry draws upon elements of the traditional culture of the state (e.g. NASCAR and the military) to create both popular games and sophisticated training and simulation devices. In this sense the video game production cluster represents the first large-scale, high-tech cultural industry in the state. While the industry has the potential to create significant positive spillovers its short product cycles make it difficult to develop effective economic development policy to encourage its growth.

Establishing a date for the construction of a mid-19th century cotton gin-carder.
Dr. Kelly D. Gregg, Jacksonville State University.

Jacksonville State University, located in northeastern Alabama, recently completed construction of the "Little River Canyon Center" for the study of southern Appalachian culture and environment. As part of the development of programs for this facility, a mid-19th century cotton gin-carder was collected from the local area. The relevance of cotton to the South being undeniable, research was undertaken to integrate the gin-carder into educational activities. The first task was to establish a date of construction. Cleaning the drum cards of the saw-gin revealed small strips of old newspapers preserved under dense rows of tacks. Of the fourteen fragments salvaged, three contained dateable references. Two of these were advertisements for magazines. One of these was a literary "clip" magazine typical of the antebellum period. The second was for Godey's Lady's Book, a prominent publication throughout the mid-19th century. A third newspaper fragment referred to Mirabeau B. Lamar, the second President of the Texas Republic. After analysis, the most likely date for the construction of the gin would be the period between late 1841 and early 1846.

Abstract

Potential Costs of Implementing the Proposed Municipal Zoning Changes Post-Hurricane Katrina: A Case Study in Long Beach, Mississippi: Senior Honors Thesis Methodology Wendy J. Griffioen, University of Southern Mississippi.

Hurricane Katrina destroyed most of Mississippi's coastal communities. The city of Long Beach, Mississippi lost most of the structures and CBD located south of the CSX railroad tracks to the water's edge. The rebuilding plans set in motion by the Governor of Mississippi propose changes to the city of Long Beach to attempt to redesign the community. This will be an enormous project, if implemented. There are a large quantity of structures destroyed by Hurricane Katrina and the changes needed to achieve *Smart Code* and *Smart Growth* are going to be costly. This study addresses the various concepts needed to achieve *Smart Code* and illustrates a future project to help determine the potential costs for the city of Long Beach, Mississippi to buy the parcels needed to proceed with the Master Concept Plan of rezoning and rebuilding to meet *Smart Code*.

Paper Abstract

Title: Rediscovering the Cacao of Ecuador's Upper Napo River Valley

Name: John R. Grimes

Affiliation: Eastern Kentucky University

This paper aims at reconnecting what has been described as the "double disconnect" of chocolate by examining the cultivation of Cacao Nacional in the Upper Napo River Valley of Ecuador. Cacao Nacional is an heirloom variety of Forastero and is in some important ways different from newer hybrids. I describe how it is grown within a forest ecosystem by the indigenous Kichwa.

KEYWORDS: Cacao, Ecuador, Chocolate, Kichwa, Rainforest Ecosystem

Maximum Cabin Temperatures under Different Weather Conditions

Andrew Grundstein and Vernon Meentemeyer
University of Georgia
Department of Geography

A variety of studies have documented the dangerously high temperatures that may occur within the passenger compartment (cabin) of cars under clear sky conditions, even at relatively low ambient air temperatures. Our study, however, is the first to examine cabin temperatures under variable weather conditions. It uses a unique maximum vehicle cabin temperature dataset in conjunction with directly comparable ambient air temperature, solar radiation, and cloud cover data collected from April through August 2007 in Athens, GA. Maximum cabin temperatures, ranging from 41-76°C, varied considerably depending on the weather conditions and the time of year. Even under moderate conditions, however, cabin temperatures reached dangerous levels. Additionally, two predictive models of maximum daily vehicle cabin temperatures were developed using maximum ambient air temperatures and either average daily solar radiation or average daily cloud. Maximum vehicle cabin temperature indices were developed from these models to assess the level of danger. The models and indices may be useful for forecasting hazardous conditions, promoting public awareness, and to estimate past cabin temperatures for use in forensic analyses.

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"Social Movement Framings and the Globalizing City:
Preliminary Findings from a Relational Case Study of 1990-1996 Atlanta"

SEDAAG 2008 Abstract

Beginning in 1990 and continuing through 1996, the city of Atlanta embarked on series of urban redevelopment campaigns designed to prepare the city for the impending Centennial Summer Olympic Games. These preparations, seen in the context of Atlanta's historical context, were part of the city's continuing attempt to achieve world city status. Because these dramatic changes to the built environment often involved forced evictions, closure of public housing, displacement, and general unjust treatment of the poor, social movements in the city tried, with varying levels of success, to mobilize against these urban infrastructural changes. Regardless of their efficacy, however, these social movements sought to frame strategically the recent redevelopment of their city. Social movement organizations must employ these frames and framing strategies to mobilize effectively, counter the perceived oppression or injustice, achieve resonance in local target communities, communicate their cause, and maintain their credibility as viable, powerful, and relevant community forces.

This presentation seeks to analyze research identifying the relational dynamics of social movement framing amid the globalizing of cities. Examining the context of social movements within the city of Atlanta, and specifically the collective movement to resist Olympic-related development and urban restructuring in the several years prior to the 1996 Olympic Games, will provide a case study of the interactions between social movement framing and globalizing cities. In Atlanta, the historical and spatial context in which the social movements develop their framing strategies not only includes the well-known racially motivated politics and activism of the city, but also the relentless self-promotion, lack of concrete civic identity, and regime politics for which the city is infamous. Incorporating specifically geographic themes, such as place, space, and scale, will highlight the importance of a geographical perspective on social movement framing amid the globalizing city.

Does forest cover mean a forest?
Floristic comparison of protected and cardamom agro-forests.

Jaclyn Hall[1]

[1] Department of Geography, University of Florida, Gainesville

Is shade-grown agriculture an ecologically viable answer to tropical forest restoration and connectivity? The East Usambara Mountains contain the most biologically rich forests in Africa. Within the current era of promoting conservation incentives for expansion of forest cover, this shade-grown crop is proposed as a method to utilize private land to increase forest cover in order to increase ecosystem services. Most of the ecological research in this area has occurred within protected government forests. This study fills a critical data gap by providing empirical floristic evidence of the role of cardamom farms in biodiversity conservation and the ecological functionality of cardamom forests as corridors. Floristic data from protected areas, mature secondary growth, and active and inactive farms are analyzed to determine the ecology and conservation value of cardamom forests. Compared to protected areas, cardamom farms are poorer in biological aspects including species richness, and endemism, differ in attributes of canopy structure and size class composition, and are dominated by an invasive exotic. Agroforestry may not be the best method to increase connectivity of a biodiversity and endemic species hotspot.

Increasing multispectral classification accuracies by using hyperspectral satellite imagery in order to identify random and/or systematic changes within the vegetation of the Upper Kuparuk River Basin, Alaska: 1985 – 2007. Mary Hall-Brown, Dr. Roy Stine, Dr. Anne Hershey; University of North Carolina Greensboro: Dr. Peter Ray: Stanford University, Emeritus. Satellite imagery and aerial photography are tools that are helping Arctic researchers obtain a better understanding of a changing environment where in-situ research is often difficult and dangerous. Pontius et al., 2004, states that persistence within a landscape's vegetation is more common than its change; however, after decades of rising temperatures within the Arctic region, tundra vegetation is responding through biomass shift and biodiversity loss (Epstien et al, 2004; Jia and Epstein, 2003; Liston, 2002; Stow, 2004; Van Wijk, 2004; Walker et al., 2006). This research uses multitemporal, multispectral, and hyperspectral satellite imagery, and aerial photographs to identify vegetation within the Upper Kuparuk River Basin (UKRB), Alaska. A change detection analysis reveals groundcover modifications that occur over a 22 year period (1985 – 2007) and whether those changes occur randomly or systematically from one vegetation type to another.

A Spatio-Temporal Investigation of Barrier Island Marsh Distribution and Topography at Topsail Island, North Carolina

Joanne N. Halls
Dept. of Geography & Geology
University of North Carolina Wilmington

The rate of change of back-barrier land cover types was computed by gathering, rectifying, interpreting, and digitizing historical aerial photography (from 1938 to 1998) for Topsail Island, North Carolina. Topsail is a typical transgressive barrier island where the marsh area has steadily decreased from 1938 to 1998. To quantify the significance of the spatial changes, the study area was divided into 28 (with a width of 0.25 mi) segments were analyzed. Results indicate that there are three distinct areas of marsh stability the areas with greatest marsh loss were in the northern and southern back barrier areas. Further analysis was conducted by analyzing island topography using NOAA's LIDAR data. The buffer zones from the dune back towards the back barrier environment indicated a negative relationship between marsh sustainability and island height. In a comparison between high ground and buildings, it was unclear whether buildings had a larger negative relationship with marsh loss than ground height, however more investigation is necessary. This research has demonstrated a variety of spatial analysis techniques for quantifying the spatial and temporal changes in back barrier habitats.

Precipitation, pathogens, and sediment trends in the Little River, Tennessee

JORENE HAMILTON[1] AND INGRID LUFFMAN[1,2] *

[1] *University of Tennessee and* [2] *East Tennessee State University*
* Authors' names are listed in alphabetical order, lead authorship has not been assigned.

The Little River is on the state of Tennessee's Year 2004 303(d) list, and has existing TMDLs for sediment and *E. coli* bacteria. In this study, we investigate how precipitation, discharge, sediment, and pathogens are related in the Little River. Our goals are to (1) determine the degree of correlation between precipitation, turbidity, stream discharge, and pathogen (total coliform and *E. coli*) concentrations, and (2) develop a simple statistical model that predicts pathogen concentration from rainfall, stream discharge, and turbidity measurements. Spearman's correlation results show that discharge is most highly correlated to 7-day antecedent precipitation, and that turbidity and pathogen concentration are most highly correlated to the previous day's precipitation. We propose a simple regression model (R^2=0.57) for *E. coli* using readily available and easily measurable parameters such as precipitation, discharge, and turbidity.

Key words: Tennessee, stream discharge, water quality, model

Philanthropy's Era(s) and the Making of Urban Spaces
Katherine B. Hankins, Georgia State University

In this paper, I focus on the management, maintenance, and improvement of Grant Park in Atlanta to examine the changing role of the nonprofit sector in the production of urban spaces. Originating in 1883 as a philanthropic gift of 100 acres to by wealthy Atlantan Lemuel Grant "to promote the public good", the park is the oldest in the city. In 1999 the City of Atlanta relinquished control over the management of the park's grounds to a private, non-profit foundation, the Grant Park Conservancy. These two events, a wealthy businessman's gifting of a "public good" and the creation of a of a private organization to manage it represent distinct moments in city-building vis-à-vis the state-citizen relationship over the past century-and-a-half. By way of this case study, I explore the changing conceptualization of the urban public good by examining the changing role of philanthropy and voluntarism from the end of the nineteenth century to the beginning of the twenty-first. I argue that the paternalism of the Gilded Age philanthropist was gradually subsumed by the welfare state, which in turn was abandoned by government as it neoliberalized at a variety of scales. In its place, voluntarism and public-private partnerships now work not for the public good, as the philanthropy of old, but to maintain parks and the like as local, urban assets.

Estimating water quality parameters in a reservoir using spectral reflectance

Luoheng Han
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Abstract

The purpose of the study was to develop algorithms to estimate chlorophyll a concentration, Secchi Disk Depth (SDD), and Total Suspended Solids (TSS) using spectral reflectance. Lake Martin, a reservoir, in eastern Alabama was selected as the study area. There are a total of 25 sampling sites over about 160 km^2 water surface covered by the lake. Six monthly data collections from April to October except May were operated in 2004. The upwelling radiance was collected over the water surface at each sampling site and downwelling irradiance was collected over a Spectralon reference panel. The portable spectroradiometer used has the spectral range from 350 to 1050 nm with 1 nm spectral resolution. In addition to utilizing the reflectance itself, the first derivatives of the reflectance were computed. Both reflectance and first derivatives were correlated with the water quality parameters. After analyzing each monthly reflectance-water quality relationship, all six datasets were combined and a multi-temporal algorithm was developed for each water quality indicator.

Abstract

Senior Honors Thesis: Exploring Patterns of Repopulation and Rebuilding of Gulfport, Mississippi Following Hurricane Katrina, a GIS Based Approach

David Hansen

University of Southern Mississippi

On August 29, 2005, the face of the Mississippi Gulf Coast was forever changed by Hurricane Katrina, one of the single most destructive natural disasters in the history of North America. Federal Emergency Management Agency (FEMA) estimates place the number of housing units which suffered major to severe damage within Harrison County, Mississippi at approximately 25,000 units. This paper explored both anthropogenic and natural factors which have influenced the rebuilding patterns of the inhabitants of Harrison County, Mississippi, with focus on the area of the city of Gulfport. Redevelopment patterns were evaluated by using GIS based analysis to explore the location of utility billing accounts and the results for Gulfport as a whole were compared to results for the area affected by Hurricane Katrina's storm surge.

Key Words: Hurricane Katrina, Population Shift, Mississippi Gulf Coast.

A century of reserve management and change in a Ridge and Valley forest

Justin L. Hart
University of North Alabama

Saskia L. van de Gevel
Appalachian State University

Henri D. Grissino-Mayer
University of Tennessee

The Ijams Nature Reserve was established in 1910 and is the oldest natural area in the Ridge and Valley of Tennessee. We quantified species composition, stand structure, and successional dynamics and analyzed radial growth patterns of trees to document stand age, recruitment, and disturbance history. The forest was dominated by white oak and tulip-poplar while sugar maple and American beech had high densities in the understory. The forest experienced one stand-wide disturbance event in the 1920s, likely attributed to the loss of American chestnut. The disturbance regime was characterized by localized, asynchronous events that influenced only neighboring trees. Under the current disturbance regime, composition of the stand is projected to change as shade-tolerant mesophytes in the understory are recruited to larger size classes. This composition shift has been widely reported throughout the region and is commonly linked to active fire suppression. However, the forest of the Ijams Nature Reserve has not burned during development and exhibits a marked change in species composition. We propose the composition shift is related to understory facilitation by disturbance oriented canopy species that have created conditions favorable for the establishment of mesophytes and by the loss of American chestnut that resulted in canopy gaps.

Historic Climate Change in Southeastern National Parks

JONATHAN M. HERBERT

Jacksonville State University

Climate change is an important issue for National Parks. This study uses weather station data to describe climate change in seven National Park Service units in the Southeastern United States. Time series analysis is carried out at the annual and seasonal level for the period 1971-2000. Results indicate that temperature and precipitation has increased over this time period. Significant increases are found in several parks, including Everglades and Shenandoah National Parks, Okeefenokee National Wildlife Refuge, and Fort Donelson National Battlefield.

KEY WORDS: climate change, temperature, precipitation, National Parks

tolt, D. H

Understanding Turkey Creek: trying to help save a heritage site with aerial photographs, mapping, and ground truthing

SUMMARY (Abstract)

This project is using maps, aerial photography, and oral history to help compile a history of a community founded by newly freed men and women in 1866 in Mississippi called Turkey Creek. The region is a cohesive community with a rich and full history. Most of this has been in the oral tradition. This community of emancipated slaves has been thriving in the Deep South, but modern sprawl and other views of development are threatening its existence. This community has maintained its homogeny in spite of a sprawling Gulfport, Mississippi that has surrounded and incorporated the area, developers, Hurricane Katrina, and environmental issues. It has achieved a place on the National Register of Historic Places as of 2007, but is still in danger of losing its identity and its history. With the use of mapping, the community can gain a wider audience and their story can be better known and, possibly, embraced for who they are and not what the land can become!

MONITORING PAKISTAN'S GWADAR PORT PROJECT -- Thomas F. Howard, Associate Professor, Armstrong Atlantic State University, Savannah GA.

China has long had good relations with Pakistan, and both countries have tended to ally themselves against India. In recent years, the undeveloped deep water port of Gwadar, on Pakistan's Makran coast, has attracted Chinese investment, for what appear to be multiple reasons, some economic and some military. Since 2002 China has spent some $1.3 billion on the creation of up-to-date port facilities and on transportation projects to connect Gwadar with the rest of Pakistan and with China itself. The Internet increasingly allows us to monitor such projects from our offices. We can use Google Earth to zoom in on them in great detail. We can find photographs taken at ground level. We can find government documents and newspaper stories that cover them. Though we may still have many unanswered questions, these on-line access points create possibilities for research, both by ourselves and by our students, that were unheard of only a decade ago.

ANNEXATION, INCORPORATION AND THE EXPANSION OF CENTRAL CITIES IN NORTH AND SOUTH CAROLINA.

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ABSTRACT:

During the last four decades of the twentieth century North and South Carolina experienced rapid population growth and significant development of their metropolitan centers. In both states metropolitan population growth outstripped overall growth by more than 20 percent. However, the distribution of this population growth within metropolitan centers was strikingly different.

This study utilized data from the period from 1960-2000 to explore the relative impact of two substantially different policy climates, particularly in terms of annexation policies and incorporation statues, on the pattern of growth and expansion of central cities and their suburbs in North and South Carolina. We argue that the differences in growth patterns can be linked to striking differences in annexation policy, particularly in policies regarding involuntary annexation. We also argue that the annexation and incorporation policy differences between the two states has impacted the formation of special district governments.

After the Love Has Gone: The Politics of Love and Dr. King's Relevance for 21st Century Community Development.

Author: Dr. Joshua Inwood

Abstract:
This paper engages with Dr. King's work and presents a more geographically sophisticated understanding of King's legacy than his oft repeated 'I Have a Dream' speech. Through an analysis of Dr. King's concept of the Beloved Community, I argue that Dr. King's work stems from the experiences of the Black Atlantic World. Consequently we should see Dr. King's social theory as part of a larger anti-colonial struggle which sought to integrate African American and Western notions of community. I argue that King's work holds contemporary importance as a counterpoint to current neoliberal conceptions of community.

Title: Modeling States Legislative Response to *Kelo v New London*
Author: Ryan James, University of North Carolina at Charlotte

Following the *Kelo v New London* decision, eminent domain reforms of varying strength were introduced in every state, and no model has been developed to understand the underlying forces driving the introduction and adoption of these reforms. The goal of this paper is to examine the strength of the eminent domain reforms passed after *Kelo v New London*. Using logistic regression, this paper draws association between the economic and planning forces that influence legislation strength. *Kelo v New London* is examined in both a legal and economic development context. Independent variables are drawn for there and entered in to a logistic regression to predict legislation strength. Twenty-Six states passed strong eminent domain reform following *Kelo*. The independent variables that were statistically significant in predicting legislation strength were employment concentration in the manufacturing sector, employment concentration in the construction sector, level of overall planning reform, and the percentage of the population that rents housing.

Paper Title:
The "Mezzogiorno Trope": Peculiar nationalism and the politics of spatial representation in Germany

Corey Johnson, Ph.D.
Department of Geography
University of North Carolina at Greensboro

Abstract

Practices of spatial representation can be revealing indicators of particular—and peculiar—brands of nationalism. In this paper, the prevalent use of a comparison between eastern Germany and the Italian Mezzogiorno by a specific set of German elites is examined. It is argued in the paper that anxieties about Germany's place in the European and global economies are accompanied by this particular spatial vocabulary as a means of unloading those anxieties on the ongoing project of German unification. Eastern Germany, painted as a homogenized "space of backwardness," is thereby made out as a key factor inhibiting competitiveness and modernization of the wider German economy. Such nationalized discourse and practices of internal "othering" find certain parallels in other places, such as in perceptions and representations of the "South" within the United States.

Jordan, L.

Humanitarian Geographic Information Systems

Geographic Information Systems (GIS) have been widely adopted for humanitarian pursuits and increasingly applied in the scientific study of the causes and consequences of conflict. The diversity of strategies and partnerships formed to promote peace using GIS testifies to the creativity of geographers in collecting, analyzing, and distributing spatial data to advance and watch-guard human welfare. Work within GIS frequently presents public participation GIS in opposition, methodologically, to expert-driven GIS. However, a spectrum of applications, from volunteered to contracted, and multi- to single-authored demonstrate the multiplicity of ways in which a humanist GIS might be pursued.

TREE ENCROACHMENT OF A SAWGRASS (*Cladium jamaicense)* MARSH WITHIN AN INCREASINGLY URBANIZED ECOSYSTEM

D. J. Keellings[1], C.M. Knickerbocker[2], S. Leitholf[2], E.L. Stephens[2], H. Laird[2], C.J.R. Anderson[2], J. E. Fauth[2], and P.F. Quintana-Ascencio[2]

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Fire suppression and altered water drainage often change community structure and species composition in human-dominated ecosystems. We describe the decline of sawgrass marshes between 1940 and 2002, and assess the current condition of remnant marshes within the MacKay Tract, an isolated wetland embedded within rapidly developing eastern Orlando, Florida. We tested the correlation between live sawgrass and presence of adult hardwood trees and seedlings (primarily red maple, *Acer rubrum*) and described vegetation in plots with different levels of tree encroachment. Total area occupied by open sawgrass in the MacKay Tract declined dramatically during the last 60 years; in 2002, open sawgrass comprised only 12 % of the area covered in 1940. Tree basal cover was negatively associated with live sawgrass and positively related to red maple seedling density, but not associated with dead sawgrass tussocks. We suggest that woody species are continuing to colonize what is left of the sawgrass marsh.

Keough, S.

Abstract

Canada is the largest supplier of oil to the United States, and much of the oil we import is extracted from the oil sands in Alberta. As a result of the booming oil economy in the province, other parts of Canada are experiencing population losses to Alberta, where the financial perks of working in the oil industry outweigh the negative aspects of the often-dangerous jobs. This paper explores aspects of the current inter-provincial migration patterns in Canada as a result of Alberta's oil boom. Specifically, this paper examines the migration between the province of Newfoundland and Labrador to Alberta, and the cultural and economic situation in each province as a consequence of this migration. Using reports from the Canadian census and published testimonials from Newfoundlanders, this paper shows that inter-provincial migration is seen as a potential threat to Newfoundland culture by those still on the island.

Interpreting Sea Level Rise Assessments: A Review of Rates, Methodologies, and Impacts

Nathan P. Kettle
Department of Geography

Abstract

Coastal communities and ecosystems are at risk to permanent and episodic inundation, contamination of freshwater supplies, and other environmental changes due to sea level rise. It is therefore critical that information on baseline conditions and projections of future change are available to stakeholders to help guide mitigation and adaptation strategies. However, the interpretation of impact assessments is not always straightforward given the uncertainties in measuring sea level rise, the challenges in predicting the magnitude of future change, and the difficulty in acquiring appropriate data and methodologies for quantifying impacts. In addition, many sea level rise assessments are not at a spatial scale relevant for local decision makers. This study describes how sources of uncertainty hinder the accurate evaluation and interpretation of sea level rise assessments. We then review sea level trends and impacts along the Carolina coastline– a region at high risk to significant economic and environmental losses – in order to identify what we don't yet know but need to understand about adaptation to sea level rise along the Carolina coast.

"Non-place or place of transit- the mobile world of a hurricane evacuation shelter"

Adam Keul
Florida State University

Geographers have investigated the character of place using a variety of methodologies and definitions. I find that the character of non-place as defined by Augé has been less adequately debated. Using interviews obtained from hurricane evacuees temporarily living in a converted gym/library in Nacogdoches, Texas, I show that although this place showed elements of being a non-place- transience, signification, and abandonment, it remained a place by definition of Cresswell in its nascent contestation of doxa and containment of meaning. I also find that for some, the shelter provided not only a sense of place, but a strong feeling of home as defined by Tuan. Especially for those evacuees whose homes were destroyed, the evacuee shelter was a home in transition. Place has often been tied to fixity and 'roots', however this investigation reveals that a sense of place can develop in a site conceptually designed for transition. This shelter was relational and rich with emotion and experience- far too humanized and specified to be a non-place.

Can Rising Atmospheric CO_2 Conditions Influence Dendroclimatic Reconstructions? *Paul A. Knapp*, University of North Carolina, Greensboro and *Peter T. Soulé*, Appalachian State University.

Increasing rates of radial growth linked to atmospheric CO_2 levels have been identified in various tree species during the last 50-100 years. We examined whether radial growth increases in the semiarid tree species western juniper can be explained in the absence of climatic change using an 11-site composite chronology beginning in AD 1000. We found that late 20^{th} /early 21^{st} century radial growth was greater than the millennial average by 27%, and two significant regime shifts in radial growth occurred post 1947. Our development of growth-climate models to examine the influence of CO_2 on radial growth indicated that 54% of annual growth can be explained by June PDSI values, but the addition of CO_2 accounted for a 14% increase in explanatory power. We then reconstructed June PDSI values since AD 1000 and found that when CO_2 was excluded from the models, values were overestimated at the end of the record. We conclude that the use of CO_2-sensitive trees for dendroclimatic reconstructions of positively correlated climatic variables may influence results if CO_2 is not directly modeled.

"Hurricane West Winds": Observations of High Wind Events Associated with Mid-Latitude Cyclones in the Great Lakes Region

John A. Knox

University of Georgia

Abstract

Great Lakes history is replete with examples of "hurricane west winds" associated with mid-latitude cyclones that have led to the sinking of vessels such as the *Edmund Fitzgerald*. However, climatological analyses and dynamical explanations for these windstorms have not been forthcoming. In conjunction with students at the University of Georgia, a 44-year climatology of non-convective wind events (NCWEs) for the Great Lakes region has been created using hourly wind data for 38 first-order weather stations during the months of November through April. The results confirm the folklore that these high winds preferentially emanate from a westerly direction: between 70% and 76% of all NCWEs were associated with wind directions from 180° through 270°. This directional preference is borne out across most of the Great Lakes region, suggesting a non-topographic cause for the directional preference. The connection between NCWEs and low-pressure systems found in this climatology and in case studies suggests that mid-latitude cyclone dynamics may be a possible cause of the directional

preference. Work in progress suggests a possible connection between NCWEs and upper-tropospheric jet-stream winds.

Assessing Watershed Integrity with a Flexible, Indicator-Based Approach. John Kupfer and Peng Gao. Univ. of South Carolina.

Our objective in this study was to quantify, evaluate and map measures of ecological integrity for watersheds in South Carolina. We calculated 51 indicators related to habitat fragmentation, conservation status, demography, urbanization, pollution and vulnerability to soil loss at the scale of 8-digit hydrologic units. We then used Principle Components Analysis (PCA) to identify distinct groups of related indicators. The PCA results identified five significant components that explained 74.4% of the variance in indicator values among watersheds. PCA Axes 1-5 corresponded to indicator groups associated with: 1) land use and priority species occurrences, 2) urban development and human stressors, 3) agricultural development and land protection, 4) riparian land use and stream impairment, and 5) agricultural conversion and abandonment. Next, we developed integrity and vulnerability scores for each watershed in the state by selecting metrics associated with each component and categorizing watersheds on the basis of the scores. This methodology provides a flexible, easily-interpretable ranking of watersheds that may also be integrated with field-based surveys to serve as the basis for monitoring and reporting on a variety of watershed-level environmental management goals.

"What Would Robert E. Lee Do?": Race, Religion and the Confederate Battle Flag

Jonathan Leib, Old Dominion University
and
Gerald Webster, University of Wyoming

The two most important events in the history of the American South are the Civil War and the Civil Rights Movement. While race clearly played a dominant role in these two historical upheavals, the region's deeply felt religiosity was also central to both events. Today's debates over the symbols associated with both the Civil War and Civil Rights Movement underscore how race and religion continue to intersect in the region's political discourse. While these debates have pertained to a broad array of issues, most vitriolic have been the long list of controversies over the meaning of the Confederate battle flag. Due to its use during both the Civil War and Civil Rights Movement, the flag has become imbued with layered meanings that reflect both racial and generational differences of interpretation. In this paper, using a discussion of Southern religious traditions, both white and African American, we explore the central role of religion as it has intertwined with race in the debates over the meaning of the Confederate battle flag.

Ichthyochory, Closure of the Suwannee Strait, and Population Divergence in *Hymenocallis coronaria*.

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ABSTRACT: Closure of the Suwannee Strait is a recognized vicariance event influencing the genetic divergence of populations of freshwater fauna on either side of the Atlantic/Gulf drainage divide. The macrophyte Hymenocallis coronaria also exhibits this divergence pattern, and a molecular clock analysis dates the divergence of populations to 8.6 million years ago (95% confidence interval 9.3 to 7.9 MYA), a divergence date consistent with the closure of the Suwannee Strait. This divergence pattern, along with other local scale genetic patterns, suggests a potential role of ichthyochory in the dispersal and migration of H. coronaria. We also discuss preliminary results from limited controlled ichthyochory experiments involving Ictalurus punctatus.

The Origin and Geographical Spread of the Term Gerrymander in 1812, Kenneth C. Martis, West Virginia University

The word gerrymander first appeared in print in the Boston Gazette newspaper on Thursday, March 26, 1812. The term was used in conjunction with a map of the Essex South District, an odd and peculiar shaped Massachusetts state senatorial district, which was morphed into a political cartoon depicting a strange animal with claws, wings and a dragon-type head. The word coined that day is now the standard term in political geography and social science for the spatial manipulation of electoral districts for partisan gain. The illustration published that day is one of the most famous political cartoons of early American history and iconographies of electoral geography. Incredible as it may seem, the artwork which was used to print the original gerrymander illustration in 1812 survives today and is now available for the first time for public viewing and research. This paper examines the origins and spread of the term gerrymander and creation of the accompanying illustration in 1812, and preservation of the original artwork to this day.

Comparing the wind and rain fields of tropical cyclones at landfall

Corene J. Matyas

University of Florida

Previous research suggests that rainfall from tropical cyclones is related to storm size. This study evaluates this relationship for 58 landfalling storms, and also determines which environmental conditions favor elongated rain fields. The distance between the edge of the rain field, as determined by utilizing radar reflectivity data, is measured using a GIS. Pearson correlation coefficients are calculated between these distances and several measures of storm size, and between variables that characterize storm location, intensity, and motion, and the vertical wind shear, moisture, and temperature of the environment surrounding the storm. In the southwest and northwest quadrants of hurricanes, the rain-field extents are positively correlated with storm size. Storm motion and intensity (vertical wind shear) are related to the rain-field extents in the northwest (northeast) quadrant. Faster tangential winds and a long storm duration are associated with larger rain fields in the SW quadrant. Only weak correlations occur between the variables for tropical storms. Future work will develop orthogonal predictors using principal components analyses that will enter multiple linear regression analyses to predict the extent of the rain fields in each storm quadrant.

DROUGHT AND OTHER DRIVING FORCES BEHIND POPULATION CHANGE IN RURAL COUNTIES IN THE UNITED STATES

Justin Maxwell
Appalachian State University

Population change can indicate shifts in the economic and cultural characteristics of the United States. The possible impacts that drought may have on postindustrial population patterns in the United States have been ignored. I examined the traditional variables in the population change literature and included the Clark et al. (1999) tree ring reconstruction of Palmer Drought Severity Index (PDSI: Palmer 1965) values in six rural counties of three different climate regimes in the United States. I used a correlation analysis to determine which variables significantly influenced population change. In addition, I created bivariate and multivariate regression models to determine what the driving forces behind population change were in each county. The traditional variables in the population change literature accounted for the majority of population change in each county. With the exception of the climatic variables, counties within the same region tended to have similar driving forces for population change. Drought influenced population in three out of the six counties and in each climatic regime I examined, suggesting the need for drought's inclusion when examining population change in the United States.

McDonald

Why parents take kids to school? Evidence from the San Francisco Bay Area

Abstract

Problem: Rates of walking to school have declined sharply in recent decades and federal and state governments have recently committed funds to reverse these trends.

Purpose: To increase rates of walking and biking to school, SRTS program managers need a detailed understanding of why many parents choose to drive their children to school.

Methods: The study presents descriptive data on why parents drive and walk with their children to school and how the patterns vary with distance to school, child's race/ethnicity, child's age. The final section evaluates non-infrastructure Safe Route to School program to assess how well they meet parental concerns.

Results: We found that while safety, particularly stranger danger, is an important concern of parents, convenience is more commonly cited as a reason for driving children to school. Among parents that drove their children less than 1 mile to school – the most likely potential walkers – 66% say they drop their child at school because of convenience. The assessment of SRTS programs found that few addressed parental convenience.

Conclusions: SRTS programs need to address parental convenience needs by providing alternative ways of walking children to school, e.g. walking school buses, or educating parents about when it is appropriate for youth to walk with out adult supervision. The first strategy may be most effective with elementary students and the second with middle and high school students.

Keywords: walk to school, convenience, safety, parents, children, Safe Routes to School

An Examination of Election Results Anomalies in the Bible Belt in Florida, John W. McEwen, Florida State University

Over the past several decades, population surveys and analyses of Florida culture have shown that there are two regions of the state, one of which is known as the Bible Belt. The Bible Belt is considered a region in the panhandle of Florida whose southern boundary extends from the "inside corner" of Florida's Gulf Coast, up to Northeast Florida near the Jacksonville area. This paper will look at the share of votes by major political party in the Bible Belt region of Florida. The Bible Belt region of Florida is a culturally conservative area of the state and largely votes Republican in presidential elections. While this is the case, there are anomalies where voters lean heavily Democratic. Using GIS as a tool for data analysis and visualization, this paper will examine differences between precincts which voted Democratic and the surrounding precincts which voted Republican in the 2000 presidential election. The results will shed light on local variances in party preference in the panhandle region of Florida known as the Bible Belt.

PUBLIC MEMORY AND IDENTITY AT CHIANG KAI-SHEK MEMORIAL HALL IN TAIPEI, TAIWAN

Daniel McGowin
The Florida State University

Abstract

Throughout his tenure as president of the Republic of China (Taiwan), Chen Shui-bian and members of his Democratic Progressive Party (DPP) have taken steps to remove images and memories of Chiang Kai-shek, the late Kuomintang (KMT) leader of the ROC. One of the most visible and controversial moves was the decision to rename a memorial to Chiang. This paper examines the DPP's decision to rename the Chiang Kai-shek Memorial Hall in Taipei. The debate has not only occurred between the opposing parties, but also involves different political scales – the central government of the ROC and the municipal government of Taipei. The attempts to rename the memorial are also part of a larger struggle over Taiwanese identity and the battle over the myths and history that have shaped the island state.

Spatial Dispersal Modeling of Sudden Oak Death in Oregon

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The sudden oak death is caused by the pathogen that now is called phytophythora ramorum, which resulted in the mortality of millions of oak trees in west coastal Califonia and recently occurred in Oregon. Many researches have focused on the dispersal limitation and environmental and ecological requirements controlling the spread of invasive pathogens, which is important for prediction and early detection of the disease outbreaks. However, the spatial dynamic process of the occurrence of sudden oak death across space is overlooked, like other types of biological invasions over space, which is challenging in methodology and theory. Modeling the spatial process of the sudden oak death from the initial occurrence to its current status and quantifying the spatial patterns of dispersal is important for prediction, detection of early outbreaks, and control of spread of this disease. In this study, we first reviewed related studies where spatial dispersal functions had been applied to quantify the spatial dispersion of disease in biology. Then, a new approach is developed to model the spatial dispersal of this disease and a temporal data is used to verify this new approach. Based on this new approach, the spatial gradients are computed, and statistical models are applied to quantify the spatial gradients from the initial occurrence of this disease to its current status in the state of Oregon. The model properties also are explored in regard to the spatial dispersal of sudden oak death.

Incorporating Linear Landscape Diversity into Greenway Alignment Planning

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ABSTRACT

In delineating greenway alignment, one objective is arguably visual quality. That is, to situate a future greenway that offers users the enjoyment of abundant visual attractions. In practice, however, this has not received as much attention as it deserves, and is often overshadowed by the primary consideration of land suitability. From an analytical perspective, a balanced approach is in order that incorporates both objectives of visual quality and land suitability in the delineation of greenway alignments.

As a first step toward this goal, in this paper, we introduce the concept of *linear landscape diversity* and propose a method for its measurement.

Keywords: *Greenway Alignment Planning, Linear Landscape Diversity, Spatial Modeling*

Title: Counting Prisoners and the U.S. Census

Author: Matthew L. Mitchelson

Affiliation: University of Georgia

Abstract:

The purpose of this paper is to identify, map, and measure the political implications of 'counting' prisoners during the process of census taking. My goal is to explore the intersection of 'counting' and 'mobility', both theoretically and empirically, at the scale of the U.S. nation-state. Contrary to powerful geographic images of confinement and restraint, prisons are actually the loci of considerable population mobility. As prisoners move through the criminal justice system they experience a socio-spatial process of intra-national exile, which may relocate them hundreds of miles from their pre-arrest home. Prisoners were included in Census 2000 population counts as 'residents' of their prison. In turn, the political power of nearly 2 million prisoners effectively flowed 'up the river' as they served their sentences. Current debate and discussion concerning the Bureau's residence rules for prisoners in the United States for the 2010 census spans a broad range of actors, institutional bodies, and interest groups. However, to date, geographers have been relatively silent. This paper investigates this fundamentally geographic process. Statistical and spatial analyses of the nation's imprisoned population are conducted, and further illuminated using the state of Georgia as a case study.

The NASCAR Cluster in Charlotte: It's No Accident

Ron Mitchelson, Department of Geography, East Carolina University
Derek Alderman, Department of Geography, East Carolina University

Charlotte's current cluster of NASCAR related activities is impressive (425 firms and $6 billion in revenues). The "new" economic geography suggests that such clusters of specialization evolve initially for "accidental" reasons, although once established they are sustained by external scale economies that attract even greater opportunities. In particular, we examine how Charlotte's NASCAR cluster actually got its "accidental" start. The birth of Charlotte's NASCAR cluster is anything but an accident of history. It started with a lucrative and illegal moonshine relationship between the rural and urban south. Then it was directed toward Charlotte early on because of Atlanta's negative reaction to racing/moonshine culture. That locational preference was reinforced as a result of Atlanta's over-specialization on one form of racing technology that was regulated out of the competitive mix. Once set in motion, Charlotte's competitive advantage was solidified with an amazing assembly of driver/mechanic talent, the appearance of an advanced race shop that modeled future industrial behaviors, and the creation of a premiere racing venue. This cluster now faces issues of market growth, environmental sustainability, and a contested identity. Charlotte's future, at least in part, is tied to the health of two NASCAR community dimensions, knowledge and memory.

(In)Visibility of the Enslaved within Online Plantation Tourism Marketing: A Textual Analysis of North Carolina Websites, E. Arnold Modlin, Jr., Louisiana State University, and Derek H. Alderman, East Carolina University

Tourism landscapes are constructed and marketed in selective ways that reaffirm long-standing patterns of social power and inequality and thus influence whose histories and identities are remembered and forgotten. The purpose of this paper is to conduct an analysis of plantation tourism marketing in North Carolina, measuring the degree to which the history of slavery and the enslaved are (in)visible within online promotional texts. Previous research has found that the slave experience is frequently ignored in promoting the southern plantation, although the analysis of North Carolina has been limited in the past and no studies to date have examined the promotional images found on plantation websites. An analysis of 20 websites for historic plantations in North Carolina does not reveal a universal exclusion of the enslaved but it certainly shows an uneven treatment. Among those plantation websites that show a sensitivity to slave history, two discourses are employed that still run the risk of misrepresenting the enslaved. They are the discourse of the individual (a)typical slave, and the discourse of the good master/faithful slave. We conclude by highlighting two representational strategies used by some plantation websites that could serve as exemplars for other destinations inside the state and beyond. These strategies include documenting the different identities and histories of many slaves rather than just a few, and discussing the hardships and resistance that often characterized the slave experience.

Economic Restructuring, Industrial Job Losses and Community Redevelopment Challenges: the View from Cabarrus County, North Carolina. Tyrel G. Moore and Jamie L. Strickland, University of North Carolina at Charlotte

Global economic restructuring has reshaped North Carolina's traditional industrial cornerstones, built on textiles, tobacco, and furniture. In 1972, those sectors accounted for one in every four North Carolina jobs; in 2005, that ratio stood at only one in 20 jobs. Related job losses and plant closings accompanied the dramatic restructuring to severely erode local employment and revenue bases. Cabarrus County for example, lost more than 6,500 jobs between 2003 and 2007, presenting unusual challenges for municipal and county governments. They were called upon to provide infrastructure incentives following the closure of Kannapolis' massive Pillowtex textile complex to support the building of the North Carolina Biotechnology Research Center and to adjust to Phillip Morris' decision to relocate from Concord. Municipal and county bonds via tax increment financing to provide incentives that centered on the Biotechnology Research Center and NASCAR's Lowe's Motor Speedway. The latter local burden followed a controversial rezoning for a new NHRA drag racing facility. This paper details restructuring and adds synthesis to media attention attracted by these developments.

Rural-Urban Migration in Developing or Less Developed Countries: The case of Bhutan

Dr. L. Joe Morgan, PhD – University of North Carolina at Greensboro
Mayur A Gosai – University of North Carolina at Greensboro

Abstract

Bhutan is not notably different from many other developing countries when comparing to the challenges they all face during modernization. Bhutan is in the early stages of development, higher rates of rural-urban migration presents a significant problem. The pressures faced by the urban areas such as rapid overpopulation, overburdened infrastructure, lack of accommodations and facilities are problematic. Contemporary literature suggests problems that are only focused on the urban part of rural-urban migration. These problems in Bhutan have a dual focus similar to the Arthur Lewis model (1954) which describes a two sector world for Less Developed Countries (LDCs). Lewis suggests a non-capitalist, subsistence agriculture sector and a modern or technologically advanced urban sector in LDCs. He assumes little or no change in production in the rural areas and an eventual leveling of urban labor demand and supply curves. Where the model differs significantly from the Bhutanese perspective is in the industrial and business sector. Bhutanese cites are advancing by most accounts but technologically advanced does not describe them. Further, lack of access to commercial markets and loss of production due to out migration severely hinder development in the rural economies.

Bed Sediments in Runs Undergoing Restoration: Kissimmee River, Florida

Joann Mossa, Jim Rasmussen, and Ursula Garfield
Department of Geography, University of Florida

When the Kissimmee River in south-central Florida was channelized during the 1960s, cut off portions of the former main channel, known as runs, became stagnant and fine and organic-dominated sediments began to settle on the channel bottom. The river is undergoing restoration, and these runs are now or will soon be receiving flow. There is need to know more about the quantity, nature and spatial variability of these sediments because there is concern that several decades of organic sediment accumulation will be flushed downstream and overwhelm Lake Okeechobee. Through coring, it was found that bottom sediments in restored sections were sandy and did not have fine or organic sediments. In unrestored runs, fine and organic-dominated sediments averaged approximately 0.5m, were spatially variable, and were generally thickest in the thalweg. Several cores had one or several thin to thick layers of interbedded sand before the firmer sandy bottom (pre-channelization bed) was reached. Although the processes explaining the interbedded sand layers are somewhat enigmatic, varied local disturbances are possible explanations.

R u OK? Mis u lots :~) Use of Information and Communication Technologies in Social Relationships. Ann M. Oberhauser with Amy Gentzler and David Westerman. West Virginia University.

Increased use of communication technology has broadened the scope and convenience of how we communicate in our work, education, relationships, and leisure activities. One aspect of this technology is information and communications technology (ICT) which has significantly affected the way people establish and maintain relationships. This paper will analyze the socio-spatial dimensions of how young people use a variety of communication channels for relational purposes. Specifically, this discussion examines the ways in which college students use ICT such as cell phones, instant messaging (IM), email, social networking sites (SNS), and other forms of technology to form and maintain relationships. The effect of attachment style and gender among participants are highlighted as critical dimensions of both social presence and relational satisfaction. We draw from theoretical and methodological approaches in the disciplines of communication studies, human geography, and psychology to analyze how ICT is linked to social relations in the context of increased spatial mobility and ease of communication. Findings reveal that mobile communications enhance and facilitate the social dimensions of human interaction, especially among young adults.

The Ties That Bind: Early Cinematic Representations of American Empire from the Philippines to Cuba, 1899

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This paper examines early filmic representations of empire, focusing on the global imperial project of the United States during the Spanish-American War, images that confirm the geopolitical and cultural necessity of the US's expansionist and annexationist aspirations. We examine the construction of these hegemonic visions by focusing on the representations of Filipino and Cuban resistance against foreign aggression in six Edison films made in 1899. Our intentions are to examine how the films produced by Edison portray Filipinos and Cubans as the "others", and to investigate the ways these re-enacted films can be re-authored to reclaim the erased Filipino and Cuban identity. The Edison films used in this discussion offer scholars a range of analytical tools to provide insights and apprehend meanings regarding the appearance and movement of the 'others' as captured (and staged) in these films. These films, part of war's cultural production, were meant to rouse patriotism among the American public, and present a perceived dichotomy between the backwardness of 'other' forces and the modernity and superiority of America.

Key Words:
Cultural geography, cinema, representation, Philippines, Cuba, empire

Powell, W.

HOME – TO – SCHOOL TRANSPORTATION COST FOR K - 6 CHILDREN IN ASHE COUNTY, NC: A SPATIAL EQUITY ISSUE IN RURAL COUNTIES

Considering that the United States is experiencing a rapid increase in fuel prices and that past school consolidation decisions have caused many rural school districts to become reliant on centralized schools, this increased cost of fuel is directly impacting school districts and the parents in those districts. Some school districts are passing along large economic impacts to the parents of students due to the cost of transportation but traditionally, this cost is largely unquantified. This paper attempts to begin to quantify the transportation costs faced by parents living at the edge of their respective school districts using Ashe County, North Carolina as an initial template for comparison purposes. This paper attempts to demonstrate that the inequality of costs passed along to parents can differ by as much 100% within a single rural county in North Carolina.

Key Words: School Transportation, Rural Transportation, Transportation Cost

Impacts of human land use on surficial soil hydraulic properties in the southern Blue Ridge

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University of Georgia

Soil hydraulic properties have been shown to affect watershed hydrology by influencing transmission rates of precipitation to stream networks, and human land use has been shown to influence these properties. Particle size distribution, saturated hydraulic conductivity, bulk density, and water holding capacity were measured at 90 points (30 points in each category of forest, lawn, and pasture) in western North Carolina. Forest soils demonstrated markedly lower bulk densities and higher infiltration rates, porosities, and water holding capacities than lawn and pasture soils, which did not differ. Mean values for each property were (forest = F, lawn = L, pasture = P): conductivity (cm/h) – F=7.7, L=1.1, P=1.2; bulk density (g/cm^3) – F=0.8, L=1.2, P=1.2; water holding capacity (%) – F=72%, L=42%, P=39%. Particle size distribtions did not significantly differ among land use classes, and the differences between the hydraulic properties of forest vs. nonforest soils were attributed to land management practices. These results suggest that conversion of forest to other land uses in this region will be accompanied by increased overland flow, significantly altering water budgets and reducing baseflows.

Nicholas Quinton, Florida State University and Gerald Webster, University of Wyoming

Voting in Alabama, put in its "Place"

This paper employs Agnew's (1987) conception of place to establish the links between the particular social formations within Alabama and their impact on political outcomes within the state. The analysis includes both a qualitative discussion of places in Alabama and a quantitative analysis that utilizes correlation analysis, factor analysis and LISA statistics. The quantitative analysis specifically considers the electoral geography of five statewide referenda and five partisan elections. The results are used to make inferences to the effect of place on both partisan politics and direct democracy.

Nationality "Undefined": Resistance, refusal and place-making through placing subjects in *The Syrian Bride* (2004)

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ABSTRACT: This paper examines how the control of peoples' mobility through international borders is part of the state's attempt to make real its geographical imaginations. Such a process of "place-making" is highlighted in Eran Riklis' *The Syrian Bride* (2004), a film that illustrates disrupted lives caught up in the fight over territory, identity, and mobility in Israel's occupation of Syria's Golan Heights during what is to be a border-wedding ceremony. The paper argues that border crossings are sites crucial to the nation-state's production of place not only through the border itself but also through the use of passports and identification cards, which serve as discourses to actively produce particular "truths" about subjects. Critical to "place making" is the "placing of subjects" through the distribution and use of passports and travel documents at border crossings. The indigenous Golanis' sustained politics of refusal against the Israeli state's projects of subjectivity formation, express a relationship where resistance and transgression are never fully absent in this process.

Alongshore variation in beach and dune changes at microtidal inlets along the Outer Banks of North Carolina

Katherine A Renken

East Carolina University

Digital elevation models (DEMs) derived from lidar data collected between 1997 and 2005 were created and used to calculate volumetric changes in beach and dune zones at four microtidal inlets along the Outer Banks of North Carolina: Oregon Inlet, Hatteras Inlet, Ocracoke Inlet, and Drum Inlet. Shoreline segments 6 – 9km in length north and south of the inlet mouth were split into 500m sections to examine alongshore fluctuations in sediment budget. The results show that the long-term trend in the sediment budget was negative, with large losses in beach and dune volume. The smallest losses occurred within 1km either side of the inlet and 5 – 6km south of the inlets while greater losses occurred 1 – 6km north of the inlet and 1 – 5km south of the inlet. Contrary to common belief, individual storm events generated isolated areas of deposition. In the vicinity of inlets, shoreline changes did not correlate with volumetric changes in the beach or dune. Indeed, large shoreline retreat was offset by vertical accretion in the dune along the first kilometer either side of the inlets. A conceptual model defining various alongshore zones of loss or gain is presented for the microtidal inlets examined in this study.

Scheitlin

Increasing Losses from Hurricanes Affecting Florida

Florida has been visited by some of the most destructive and devastating hurricanes on record in the United States causing well over 450 billion dollars in damage since the early 20th century. The value of insured property in Florida against windstorm damage is the highest in the nation and on the rise. The frequency and severity of hurricanes affecting Florida are examined from the best set of available data and the damages are related to characteristics of the storms at landfall. Results show that normalized losses are increasing over time consistent with increases in hurricane intensity and hurricane size.

Protecting Wetlands using High Resolution Remote Sensing and GIS

David L. Shaeffer
East Carolina University

Abstract

The purpose of this study was to create a predictive model for delineating Department of the Army jurisdictional wetlands using high-resolution Light Detection and Ranging (LiDAR) derived Digital Elevation Models (DEMs) and Quickbird Multispectral imagery. Topographic derivatives such as slope, curvature, Topographic Wetness Index (TWI), and hill shade were estimated using LiDAR-derived DEMs. Spectral and vegetative indices such as Normalized Difference Vegetation Index (NDVI), infrared/red (IRR), and infrared-red (Vegetation Index) were estimated using Quickbird multispectral imagery. Wetland and upland sites in Goose Creek State Park in Beaufort County, North Carolina were randomly sampled and stacked with DEMs, multispectral imagery, and elevation and multispectral derivatives. Binary logistic regression was used to analyze the data at the pixel level and proved to be a useful method for studying jurisdictional wetlands. Elevation, hill shade, and profile curvature were found to be the best predictors of jurisdictional wetlands. This study was a successful pilot study and shows promise for future analysis. However, the current model is site specific and further analysis needs to be conducted on a variety of wetland types to improve transferability and the range of applicability.

Title: Climate change and spruce beetle activity in forests on the Alaska Peninsula

Author: Rosemary L. Sherriff, Department of Geography, University of Kentucky,

Abstract

In the last few years increasing attention has been focused on the widespread activity of bark beetle outbreaks across various ecosystems in North America. In spite of widespread activity, we know little about the occurrence of past bark beetle epidemics. In this study, I examine the occurrence of and climatic influences on historic spruce bark beetle (*Dendroctonus rufipennis*) activity on the Alaska Peninsula to compare with known activity on the Kenai Peninsula, Alaska. Across 10 sites, 934 tree cores were sampled from live and dead trees. The methods focus on the detection of past spruce beetle activity through documenting accelerated growth releases in understory spruce when larger diameter trees are killed. The results, in combination with evidence from the Kenai Peninsula, indicate that extensive synchronous beetle outbreaks have occurred since the early 1800s across south-central Alaska that may have been similar in spatial scale to recent outbreaks since the late 1990s. Spruce beetle outbreaks follow multi-year periods of warm temperatures and also correspond with El Nino events. Yet, evidence of historic beetle activity, in combination with evidence of beetle-caused mortality since the late 1990s, suggests that recent beetle outbreaks may be of unprecedented severity (i.e., higher mortality) than previously observed.

Sheskin, Ira

Jews in the South: an Update, Ira M. Sheskin, University of Miami.

Ten years ago, this researcher presented an analysis of Jews in the South at the Southeastern Division meeting. It was subsequently published in the *Southeastern Geographer* (Sheskin, 2000). A major finding of this research was that many small Jewish communities in the South have ceased to function. Part I of this presentation updates that research, examining the changing size and spatial distribution of the Jewish population of the South, from 1960 to 2008, and from 1997 to 2008. Part II presents a brief profile of 18 southern Jewish communities.

Changing Climate and Radial Tree Growth in a High Elevation Spruce-Fir Ecosystem on Grandfather Mountain, North Carolina. Peter T. Soulé. Appalachian State University. Despite evidence that acidic deposition can harm spruce-fir forests, even in heavily impacted ecosystems such as Mount Mitchell in North Carolina, radial growth declines are not always present. Given the ecological significance of the spruce-fir ecosystem on Grandfather Mountain, my primary objectives were to 1) determine whether growth rates of red spruce have changed in recent decades in response to environmental or climatic stimuli, 2) determine the driving forces behind radial tree growth, and 3) determine the degree of climate change experienced on GFM. I sampled 52 red spruce trees and developed a tree-ring chronology using standard dendroecological techniques. I examined the relationships between radial growth, climate variables, and time using simple correlation and regression. Rather than decreasing because of stresses imposed by acidic deposition, radial growth rates of red spruce increased through time, and the growth rates were most strongly related to temperature (positively) and days with precipitation (negatively). In addition, significant climate changes on GFM are evident, with the most dramatic change being an increase in mean summer temperatures in excess of 1.4°C since 1956.

Growing Geographers in Texas Soil: An Ethnographic Study of Teaching and Learning Geography in the Field

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For the past six years, the geography program at the University of Houston, Clear Lake has been running a popular nine-day Geography of Texas field trip. Anecdotal evidence suggests that this field-based experience is a powerful learning activity and continues to evolve into a richer, more meaningful pedagogical experience for both students and instructors. However, this evolution is driven by constant critical reflection and restructuring of the field course, not because of content problems but rather because of students' negative reactions to learning in a non-traditional, "out of the classroom" environment. This paper chronicles the pedagogical history of the fieldtrip, details key research findings from data collected during the fieldtrip, and offers suggestions for innovative teaching and research in geography field-based education.

Comparing Image Classification Techniques for Arctic Tundra Land Cover, Toolik Lake, Alaska

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University of Alaska Fairbanks

Abstract

Satellite remote sensing classification of vegetation in the Arctic Tundra is hampered by a short growing season and ground that is often obscured beneath clouds. The vegetation in the study area, Toolik Lake Field Station, Alaska, Kuparuk River Region (68.38 North, 149.36 West) was small with varying species growing in clusters and must therefore be placed in different vegetation communities. This study compares different classification techniques, unsupervised, supervised (using spectral and spatial features), and expert systems. The data set, a pan-sharpened five meter SPOT image, was a higher spatial resolution than other recent satellite based research. Accuracy assessments based on random and stratified random sampling was completed. The vegetation classes were based on the plant communities developed by Walker et al., (1994) and personal observations in the field. This research found that expert systems classification achieved the highest overall accuracy of 74.66 percent with a Kappa of 0.6725.

Sultana, Selima

TO AND FROM SCHOOLS: DO TRAVEL DISTANCE AND TIME AFFECT WHETHER OR NOT CHILDREN RIDE THE SCHOOL BUS?

Many public school systems in the USA require that each child should attend his or her nearest school, and those that live beyond a specified walking distance will be provided bus transportation. These polices are undermined by low-density residential development. In addition to increasing bus miles and time traveled and placing stress on school budgets, tight household time budgets may often override these policies as parents drive their children to and from school. This research examines these issues in the Guilford County, North Carolina school district, using a survey of parents to identify their choice of transport mode for their child's travel to school. Among children who travel by school bus, those living in newly developed low-density neighborhoods are traveling much greater distances and times than children in older high-density urban areas. As a result, many parents choose to drive their children by car as they can get up later in the morning. Picking them up after school preserves time for after-school activities.

Key Words: School transportation, low-density development, Mode choices, Guilford County Schools

Talbott, M.

Demographic Characteristics of Pedestrian and Bicycle Accidents: Which Groups of Children Should be Targeted for Safe Routes to School Program?

Although pedestrian and bicycle awareness has improved over the decades, injuries and fatalities involving motor vehicles are still occurring every year. There were total of 4,784 pedestrian fatalities and a total of 773 bicyclists fatalities 2006, (National Highway Traffic Safety Administration, 2006). The major concern with this problem is that children are being included in these numbers. There are existing governmental programs aimed toward the safety of children while walking and biking. One program in particular, the Safe Routes to School program, is now trickling down to state and local levels. The purpose of this paper is to determine the demographic characteristics of these accidents in order to better target the safety programs to the individuals and communities who need it the most.

DEMOGRAPHIC CHARACTERISTICS OF PEDESTRIAN AND BICYCLE ACCIDENTS: WHICH GROUPS OF CHILDREN SHOULD BE TARGETED FOR

Region, Race, Representation: Traditional African American Music in Appalachia

Deborah J. Thompson

University of Kentucky

Abstract: African-American influence has been widely recognized in forms of music such as old time string band, gospel and bluegrass music associated with the Appalachian Region. The region itself and its culture are often regarded as almost exclusively white, despite an African American population of about eight per cent. Scrutiny of one festival featuring traditional music and interviews with some African American singers in the region reveal some of the characteristics of African American music in Appalachia.

Spatial and Temporal patterns of Wind damage to Residential Structures from Hurricane Charley: The Role of Building Codes and Age of Structures. Graham A. Tobin, Department of Geography, University of South Florida and Jeff Burton, Association of Millwork Distributors.

This paper looks at wind damage from Hurricane Charley in Charlotte County, Florida from a temporal and spatial perspective. It is clear that wind speed is highly correlated with wind damage, what is less apparent is the relationship between wind speed, age of structures and building codes. More stringent building codes that focus on hurricane mitigation would reduce losses. Hurricane Charley provided an ideal opportunity to test the effectiveness of such strategies. With the assistance and cooperation of a local government in a state that has built a sophisticated GIS/database infrastructure, this paper builds a geographic model that relates the numerous data sets into a sophisticated view into hurricane/construction. To determine the spatial and temporal patterns in wind damage data were collected on wind speed, age of structures, replacement permits, construction standards and the total population. Findings suggest that housing constructed with the windows designed to resist high wind pressures and protected by standards of the Florida Building Codes suffered fewest replacements even when accounting for the spatial variation of the hurricane path. Preliminary lessons indicate that existing building codes in many states may underestimate the hazardousness of hurricane winds and hence should be reviewed.

Adaptive Capacity for Fisher Success

Tracy Van Holt

University of Florida

Abstract:

This paper reports on how artisanal fishers in Chile adapt as coastal agricultural lands are transformed to forest-plantations and as new fisheries management regimes are implemented. Data include reports by 279 fishers on the price they received for various resources, as well as on their knowledge of each resource, on the location of fisheries, on boat availability, and on their age. Data also include satellite images (to measure plantation development and the productivity of marine phytoplankton) and GIS output (to characterize spatial relationships of management areas). Finally, *Concholepas concholepas* (N=360), known locally as locos, were surveyed for shell parasite load and other health characteristics. Environmental factors explain the most variance in the price of both fish and shellfish. Specifically, shell parasites and chlorophyll-a patterns accounted for the most price variance for locos, a nearshore fisheries characterized by restricted access. Intensified technology (more boats) helped fishers receive higher prices for corvina (*Cilus gilberti*) fishes, an open-access, offshore, fisheries. Traditional ecological knowledge and technology explained a smaller fraction of price variation, but helped fishers adapt in the offshore fisheries. Knowledge played a smaller role in success for loco fishers.

New Public Management in Elder Care in Norway: Implementation and Outcomes,
Micheline van Riemsdijk, University of Tennessee

New public management (NPM) has become a widespread ideology for cost-cutting initiatives. NPM adopts private sector techniques such as competition, entrepreneurship, the contracting out of services, and downsizing in an effort to reduce costs. NPM promotes market-driven competition and minimal intervention by the state. This paper critically investigates the implementation and outcomes of NPM-inspired reforms in Norway, which was a reluctant and tardy convert to the ideals of NPM. The findings in this paper are based on twelve months of fieldwork in Oslo that included interviews and participant observation in two nursing homes. The city of Oslo was at the forefront of NPM, and contracted out the management of several nursing homes to a semi-private organization. A case study of Polish nurses in Aurora Borealis, a nursing home in Oslo, reveals that this organizational model created severe governance challenges and negative outcomes for these nurses. I argue that the NPM-inspired reforms favored efficiency and cost-cutting over social equality, which contributed to poor working conditions for Polish nurses. In conclusion, I address sites of empowerment that enabled several Polish nurses to improve their working conditions over time.
Key words: new public management, healthcare, elder care, Norway, Poland

The New U-Turn: Logistics Chain Costs and the North Carolina Furniture Industry

SUSAN M. WALCOTT

University of North Carolina Greensboro

The disastrous impact of global competition at the end of the 20th century devastated North Carolina's furniture industry, a major segment of the state's traditional triumvirate along with tobacco and textiles. Soaring fuel costs since 2005, with an accelerated rate of increase since early 2008, shifted the factors of production sufficiently to cause some major manufacturers to increase U.S.-based production capacity. This research examines important recent changes in the North Carolina furniture industry for indications of an incipient U-turn bounce-back linked to logistics chain price increases. Data from the U.S. Department of Commerce quarterly reports updated in mid-June 2008, combined with interviews with national and state industry experts, provide a picture of employment and production capacity strengthening in a sector highly sensitive to fuel cost increases.

Using Ecological Niche Modeling to Predict Actual and Potential Habitat for the Bog Turtle, *Glyptemys muhlenbergii.* Elizabeth M. Walton. University of North Carolina Greensboro Geography Department.
ABSTRACT — The goal of this research was to develop an ecological niche model that would assist researchers in finding additional mountain wetland habitats containing bog turtles *(Glyptemys muhlenbergii)*, an endangered species. A variety of biological and environmental data layers were organized in a geographic information system to create an environmental space. Each layer had the same spatial extent and all pixels were aligned in stratified layers in their proper planimetric (*x*-, *y*-) locations. The Genetic Algorithm for Rule-set Prediction, an algorithm used to develop an ecological niche model, was used to analyze the data layers and regions that are known to currently support bog turtles to obtain specific signatures and environmental tolerance ranges. The model then analyzed these data layers to identify additional habitat sites with the same signatures and potential capacity for support. The environmental space was projected into geographic space and will be ground referenced and investigated for accuracy and occupancy in the near future.

Modification and extension of an existing scattering-model-based speckle filter to coastal environments

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Abstract

A modified scattering-model-based speckle filter (SMBSF) for polarimetric phased array type L-band SAR (PALSAR) data was studied. The filter was able to further reduce speckles and preserve polarimetric scattering characteristics as compared to the original SMBSF. To assess the effectiveness and applicability of the modified filter to coastal environments, we then used a classification method based on the decomposition of different types of scattering mechanisms to classify the original PALSAR data, and the data filtered before and after the modification into different landuse and land cover (LULC) types. The most satisfactory results were obtained from the data after the use of the modified filter.

Hurricanes and Global Warming: Editorial Discourse Before and After Katrina

HEATHER WARD
East Carolina University

Critical discourse analysis of 100 newspaper editorials about hurricanes and global warming one year before and one year after Hurricane Katrina reveals several of Van Dijk's persuasive content features, manipulation of scientific reports and emotional appeals, and the persistent disconnect between scientific information and public perceptions. The database contains editorials from 29 newspapers and media outlets in ten southeastern states and considers three research questions. What topics appear most often? How do the writers use scientific information? What are the predominant argumentation techniques? Media studies of this nature continue Norman Fairclough's critical language studies at a time of unprecedented change in the ways people obtain news and information.

KEY WORDS: discourse analysis, critical language awareness, media studies, frames, hurricanes, and global warming

Adaptive, context-dependent multi-scale image texture

Timothy Warner
West Virginia University

Jong Yeol Lee
Korea Research Institute for Human Settlements
Seoul, South Korea

A large literature on texture in remote sensing image analysis has developed, but in practice texture is not easily incorporated into image classification. In particular, research has shown that the optimal texture scale varies with spectral class, as well as how far a pixel is located from pixels of other spectral classes. This study proposes a solution to these problems by developing an adaptive, context-dependent texture measure, using multi-scale texture attributes. The texture-scale profile is a representation of the dependence of texture on scale. From the texture-scale profile, seven characteristic texture-scale profiles can be identified, and used to assign each pixel to one of a limited number of texture-related image contexts. For each context, an optimal texture measure is proposed. The approach is developed and tested using a case study from Jeju, Korea. Compared to all other texture measures, the proposed adaptive texture measure provided the greatest average, minimum and maximum accuracy for the five spectral classes studied. Future work is needed to enhance the texture rules, and apply the adaptive texture method to other scales of data.

The geographical techniques of campaign politics: A case study from the heartland.
Henry Way. James Madison University.
Drawing on examples from the 2006 election season in Kansas, this paper explores the geographical dimensions to campaign politics. The analysis examines four categories of techniques by which candidates articulate a geographical awareness: rooting, connecting, associating, and understanding. Through this introduction, the importance of geography to rhetoric will be presented, the centrality of place identification will be examined, and the intersection of geographical imagination, politics and discourse will be explored. The paper suggests that cultural geographies of politics can reveal the importance of spatial thinking and communication within politics, and that geographers can learn something about places and the construction of identity from this analysis of politics.

Waylen and O...

ABSTRACT

Large portions of the agriculturally productive regions of mid-Ghana rely almost exclusively of rainfall as the only source of moisture. Traditional agricultural practices have developed to take advantage of both the major rainy season and the minor rainy season to produce two crops during a year and to use the intervening short dry spell to dry and store the harvest as well as to prepare the ground through slash and burn for the second crop. Analysis of daily rainfall records through the region consistently indicate a shift in rainfall regime since the mid-1970s generally characterized by a tendency towards a more unimodal seasonal distribution. The minor rainy season is ending sooner and the short dry spell is becoming increasingly variable, both of which have implications for traditional agriculture. Two aspects of this change are of interest to farmers; 1) the total amount of rainfall likely to be experienced in a particular period and 2) the number of days over which that rainfall is delivered. These two variables are considered in terms of simple long-term terciles (below normal, near normal and above normal) in order to convey information to farmers. Both variables are clearly correlated and the combination of tercile conditions (eg. above normal amount of rain in a 50 day period, being delivered in a below normal number of days) each of which has varying consequences for agriculture. Both are therefore modeled as a strongly correlated bivariate normal process. Changes in the probabilities of these various combinations of long run tercile occurrences between the periods 1951-1970 and 1981-2000 are computed for a variety of planting dates throughout the traditional growing season, calculated over periods of time ranging from 30 to 90 days. Results indicate that changes in the probabilities of combined sets of terciles have even greater detrimental effects than consideration of the two variables separately.

Flags, Banal Nationalism and the Invasion of Iraq. Gerald R. Webster, University of Wyoming

National flags are symbolic containers which condense a range of meanings and emotions pertaining to a population's perceived common historical experience, cultural homogeneity and efforts to define a similarity of outlook for the future of a country. Using Billig's theory of banal nationalism, the purpose of this paper is to identify, analyze and evaluate the use of the United States national flag. Is the concept of banal nationalism germane to the display of the United States national flag? This essay concludes that the concept of banal nationalism is highly germane to the use of the U.S. flag, and that it has been used quite effectively to build an emotional foundation in the population that can be tapped if not manipulated to garner support for dubious initiatives and policies, including the invasion of Iraq.

Wessel

SPATIAL INFORMATION IN THE ENVIRONMENT: INVESTIGATIONS OF GPS AND ROAD MAP NAVIGATION

Wessel

Abstract:

Navigation is a common way humans acquire spatial knowledge about the environment that typically involves the use of either a printed road map, written directions, or a global positioning system (GPS). Recent literature suggests navigation using GPS devices alters our perception and disengages us from the environment (Leshed 2008). This paper proposes GPS devices influence the manner in which we spatially depict and interpret the urban environment. This study observes eighteen participants who navigate using a printed road map and a GPS device in real-life driving scenarios. Participants' spatial mental representations of the urban environment are interpreted using a series of sketch mapping exercises. These cognitive maps show participants using GPS devices for navigation store and recall spatial information differently than those using a traditional road map.

America's New Manufacturing Centers in the Global Economy: Exports by Value, 2006.
James O. Wheeler, University of Georgia

Over the past 35 years, American metropolitan areas have been transformed away from goods production toward advanced services. Although manufacturing jobs have suffered a long-term decline, U.S. manufacturing remains a significant force in the burgeoning global economy. A new urban-industrial landscape has been set in motion by the global economy. This research focuses on major U.S. metropolitan areas that produce manufactured goods by export value for 2006, based on recently released data by the U.S. Department of Commerce. Three classic concepts in urban-economic geography are utilized to understand metropolitan exports: agglomeration, proximity, and comparative advantage. New York, Houston, Los Angeles, Seattle, and Detroit account for 27 percent of metropolitan exports, and the leading 50 centers comprise more than 70 percent. The top destination countries are Canada and Mexico, followed by Japan and China. The three most important economic sectors represented by the largest exporting metropolises are computers and electronics, chemicals, and transportation equipment. These findings reveal how the U.S. economy, as articulated through its most potent export metropolitan areas, is integrated into the global economic system.

What if the South Doesn't Matter? Immigration, Scale, and the Politics of Change, Jamie Winders, Syracuse University, jwinders@maxwell.syr.edu

This presentation examines the 'place' of the South in immigrant framings of their experiences in southern cities, raising the question, what if the South does not matter to new immigrants? Drawing on on-going work in Nashville, Tennessee, it reflects on a recurring theme in research on the daily work and leisure lives of new Latino residents in Nashville – namely, that the South, as a place and an idea, is largely absent or unacknowledged as a scale for organizing and making sense of immigrant experiences and encounters in Nashville. I build on this unexpected finding to develop the argument that an intra-national comparative framework, whether between North and South or nation and South, has been the taken-for-granted starting point for understanding the region, the historical reference that makes the South and its features legible. New Latino residents, I suggest, create a moment when that historical legibility of the South and its 'place' vis-à-vis the North/nation must be rethought and the voices and perspectives through which scholars consider something called the South must be expanded. Part of a larger manuscript on the ways that Latino migration, and its effects across Nashville, are *placed* and *scaled* in dominant visions of Nashville's urban future and present, this presentation reflects on how to approach and analyze situations where, to borrow and flip Richard Gray's distinction, the 'idea' of the South is largely missing but the 'fact' of its political, economic, and cultural systems and practices are ever present in immigrant lives in the *nuevo* South.

From Redneck Riviera to Florida's Great Northwest: The Rebranding of Florida's Panhandle

By Kathryn Ziewitz
Florida State University Dept. of Geography

Over the past decade, a concerted effort has been mounted to change the identity of the Florida Panhandle. This "rebranding" campaign synchronized with the change in corporate mission of the region's dominant landowner from papermaking to real estate sales. The paper looks at the messages the company transmitted through various texts and images in order to create representations of place that would appeal to potential land buyers as well as to opinion leaders. Analysis of these messages shows an emphasis upon quality of life and aesthetically pleasing nature. Discourse, economic power, and nature are found to be interacting forces shaping regional identity, with outcomes of the rebranding campaign uneven and still evolving.

Zook

Exploring the GeoWeb: An analysis of the extent of user generated spatial data on the Internet

Abstract: The past few years has seen the increasing availability of spatial data and services available to and created by users of the World Wide Web. Given the increased ability for users to add data and make maps, this paper asks the question, "Which places are the object of user generated spatial content creation", and outlines a methodology to answer it and provides an initial analysis of one measure.