

## ALBANY, NY 2003 ABSTRACTS

**Anderson, Peter G.**, United States Military Academy: “Geography at the United States Military Academy”

The history of geography at the United States Military Academy (USMA) reaches back to the founding of the Academy in 1802. The longevity of geographic studies at USMA has helped to prepare thousands of cadets for a lifetime of service to their country. Over the course of 200 years the geography program has evolved to its present configuration through five periods: Landscape Drawing, Technical Drawing, Mapping and Topography, Consolidation and Expansion, and Integration of Diversity. The curricular and organizational changes that surfaced in each period reflected the work of a series of academic leaders who endeavored to shape an evolving department to the needs of the nation. Throughout the history of the Academy, external events helped define what was needed within the curriculum, while internal discussion shaped the way in which geographic studies adapted to those events. The present geography program is the result of this long history of adaptation and change.

**Bane, David J.**, Peace Corps volunteer, “Gringo Geography in Gracias”

This presentation will provide a first person narrative of the work of a Geographer /Returned Peace Corps Volunteer, who spent 2 years (2001-2003) working in Honduras with local counterparts to, among other projects, improve the technical capability of a municipal land records office, improve geography education, and conduct topographical surveys and draft plans for potable water systems. This presentation will also focus on questions of appropriate technology and project sustainability.

**Bane, David, J.**, Peace Corps volunteer, “Where is the Midwest?” Poster

This set of maps originates in an informal study of people's definitions of vernacular regions within the United States. Subjects were asked to color in a blank outline map of the 48 contiguous states, which resulted in interesting and often humorous commentary.

**Baumann, Paul R.**, SUNY Oneonta: “Allow the Buffalo to Roam: A GIS-Buffalo Commons Instructional Unit”

The short-grass area of the Great Plains of the United States is a large, sparsely populated region, which at one time was the home to millions of American buffalo. By the late 19<sup>th</sup> century, the buffalo had been basically eliminated from the region as well as other sections of the United States. For the last fifty years the region has faced major out-migration of people and dwindling employment opportunities. Due to these conditions, a proposal dubbed the “Buffalo

Commons” was introduced in 1987, which would return a very large section of the short-grass area to the buffalo. The proposal was designed to promote tourism and economic development along with returning the environment to its pre-European stage. Such a proposal is not likely to materialize but a new national park based on the short-grass ecology and the development of a very large herd of buffalo might be feasible. This presentation discusses a GIS instructional module designed to have students select a location for a “Buffalo Commons” national park. This module has been used in an undergraduate course on the geography of the United States and Canada and has produced considerable enthusiasm by the students in trying to find the “best” site for such a park.

**Bhatt, Vatsal**, University at Albany: “Non-conforming Realities: Urban Blight – a 21st Century Plight for Planners”

Issues of population loss and economic decline in American cities are widely known and amply discussed. Albany (NY) is prototypical among other de-industrialized state capitals faced with alarming concerns of urban blight. Despite several attempts by city administration the problems have been frustrating. City-University partnership promoted by the Historic Albany Foundation resulted in a Planning Studio in Fall 2003 to institute vacant housing inventory where students also came up with different strategies to resolve the revealed issues. Analysis of the data collected for Studio indicates some interesting and intricate relationship for the decay and decline of the neighborhoods. Extensive one to one interviews are being orchestrated with stakeholders to understand their perception of the issues, probable causes, how to bring a sustainable change with social equity and who they think can be key players in the process. Interview out come and suggestions of the Studio team will be incorporated with data analysis and literature review on the issue performed by the author.

**Blumler, Mark A.**, SUNY Binghamton: "The Three Mediterranean Climates."

"Mediterranean climate" has in effect three different definitions: 1) climate of the Mediterranean Sea and bordering land areas; 2) climate that favors evergreen sclerophyllous shrubs and trees; 3) winter-wet, summer-dry climate. These three definitions are often conflated, giving rise to considerable confusion and misstatement in the literature on biomes, vegetation-environment relationships, and climate change. Parts of the Mediterranean region do not have winter-wet, summer-dry climate, while parts that do, may not have evergreen sclerophylls. Places away from the Mediterranean Sea, such as the Zagros foothills, have more mediterranean climate than anywhere around the Sea under definition 3. Evergreen sclerophylls dominate some regions with

non-mediterranean climates, typically with summer precipitation maximum as well as winter rain, and short droughts in spring and fall. Thus, they may be said to be characteristic of subtropical semi-arid regions. On the other hand, where summer drought is most severe, i.e., the most mediterranean climate under definition 3, evergreen sclerophylls are rare to absent. Rather than correlating with sclerophyll dominance, regions of extreme winter-wet, summer-dry climate characteristically support a predominance of annuals, the life form best adapted to seasonal rainfall regimes. Some implications for biome mapping, and prediction of climate change impacts on vegetation distribution are discussed.

**Bodenman, John E.**, Bloomsburg University: “The Spatial Dynamics of the Investment Advisory Industry: The Case of New York City, 1983-2003.”

Traditionally, the institutional investment advisory industry in the United State has been concentrated in the downtown Manhattan financial district of New York City. However, industry listings (*Money Market Directory*, 1983-2003) indicate an increasingly dispersed pattern of investment advisory firm location from 1983 to 2003—a trend that appears to have accelerated in the wake of September 11, 2001. Maps and tables describe the institutional investment advisory industry’s spatial organization at both the inter- and intra-metropolitan scale. The *Money Management Directory of Pension Funds and Their Investment Advisors* (1983-2003) provides the data for the analyses.

**Boorstein, Margaret F.**, C.W. Post College: “Regions and Boundaries: Water and Land; and Human-Environmental Interactions: A Tale of Northern Minnesota and Southern Ontario”

This paper analyzes how the natural habitats of the waters and lands of southern Ontario and northeastern Minnesota have been both economically exploited and environmentally protected. As the home of several provincial and state parks, a wilderness area, a United States national park, and a successful lumber industry, the region serves as a microcosm of development and preservation in other parts of the United States and Canada. The paper first describes the physical setting and then traces the history of the region, including a gold rush, the battle(s) between conservationists and the lumber industry, and interactions among political units of two countries. It explains current issues which reflect the never-ending conflicts and compromises among supporters of local interests and those concerned with economic and environmental concerns of broader regions.

**Boyer, Kate**, Rensselaer Polytechnic Institute: “The Robot in the Kitchen: Some Thoughts on the Possible Future of Care Work and In-home Assistive Technology”

This paper considers two trends at opposite ends of the new economy: low-paid in-home care work, and high-tech “social” robotics. At present, the work of caring for the elderly, disabled, and convalescents is done primarily by women (disproportionately women of color) in the space of the home (Pratt, 1998). Meanwhile, in robotics labs at elite research universities and industry think-tanks in the U.S., Europe, and Japan; prototypes are currently being developed to take over some of this labor. I will explore what the development of in-home assistive technologies could mean for understandings about technology’s “place” in our lives; and what the development of this sector could mean for those who rely on carework for their livelihood. On the one hand, the space of the home carries great cultural and symbolic significance (England, 2000). Allowing robots into this space to help us with our most private tasks would mark an unprecedented level of intimacy in our relationship with technology. While a “nursebot” may be able to measure vital signs, how does the replacement of a human care-giver with an assistive technology alter the relationship between the person being care-for and the world outside? Looked at from the other side, though low-paid and often without benefits, in-home care work constitutes an important source of employment for low-skilled women. How are we to respond to efforts aimed at displacing this workforce? Drawing on issues of concern to feminist, cultural and economic geographers, I will examine the social politics, and possible futures, of care work and social robotics.

**Brown, Natalie**, Buffalo State College: “Effects of Bank Stabilization on Fish Diversity and Biomass: a Masters Thesis Proposal” Poster

There has been a growing concern about the many effects humans have on stream geomorphology and ecology. One such human impact is bank stabilization and the resulting change in channel geomorphology and fish community structure after construction occurs. Previous studies have shown that construction in a stream channel can negatively affect the fish community inhabiting the stream. The objectives of this study are twofold: 1) the effect bank stabilization construction has on stream morphology, and therefore physical aquatic habitat, will be determined, and 2) the effect bank stabilization construction has on fish diversity and biomass will be investigated. This study began in June 2003. Geomorphological and ecological data have been collected in two reaches of the East Branch of Cazenovia Creek: the Jarembek reach is scheduled to undergo bank stabilization in late August 2003 and the second reach will serve as a control reach where no construction will occur. Stream morphology was surveyed using a total station in both reaches in order to determine pre-construction channel shape in the Jarembek reach and channel shape in the control

reach. Preliminary results showed that the two reaches were morphologically similar prior to construction. Pre-construction fish surveys were also performed once a month during June, July, and August by way of electro-fishing. Preliminary results indicate that the fish communities are similar in species richness and biomass. This study will continue for the next one and half years. Channel morphology will be surveyed immediately following bank stabilization construction and then periodically to document any changes in channel shape in both reaches. Fish surveys will also be performed immediately following construction and then on a monthly basis in order to investigate the fish communities response to construction.

**Chen, Ying-Chih**, Rutgers University: “Impact of Relative Sea-level Rise on the Distribution Change of Mangroves on the Southwestern Taiwan between the years 1976-2000”

Since 1970s, the southwestern coast of Taiwan has undergone serious subsidence due to over-pumping of groundwater. The relative sea-level rise has been considered as one of the major factors that cause the death of mangroves along the southwestern coast of Taiwan. This research uses the historical aerial photographs (1976-2000) and collects other data of environmental change to analyze the distribution change of mangroves on Chiaï in recent twenty years to realize the different adaptation between the coastal and estuarine habitats of mangroves with regards to the relative sea-level rise. The regression analysis indicates the shrink of the mangrove along the coast has strong correlation with the subsidence. The mangrove growing along the coast of Chiaï almost disappeared in 1994 because there was no space for mangroves along the coast to migrate inland due to the block of the seawall. However, mangroves distributed in the Putzu River have the trend of migrating upstream. The mangrove near the mouth of Putzu River has died due to long-term flooding, but the population of mangroves more upstream is keep growing. It may be ascribed to the deeper invasion of tidal current and bring the seedlings to a suitable habitat in which they can maintain their elevation relative to the sea level. This result is significant while we consider the possible impact of future sea-level rise caused by the global climate change, we should consider the local subsidence firstly because the rate of subsidence is far faster than eustatic sea-level rise.

**Colvard, Charles R., Jr. and David Drake**, Rutgers University, and **Richard G. Lathrop Jr.**, Walton Center for Remote Sensing & Spatial Analysis: “Landscape Influences upon White-tailed Deer Density in New Jersey.”

White-tailed deer are an edge species that thrive in many fragmented landscapes in the East. Continued suburban expansion and commercial development have transformed much of New Jersey's

former rural areas into edge-rich, deer-friendly habitat. This paper uses a GIS and regression analysis to examine the influence of several landscape variables (e.g., forest edge, agricultural area percentage, road density, etc.) on New Jersey's white-tailed deer harvest, a proxy for deer density. The results of this study are intended to help planners and resource managers better understand habitat dynamics in a the Northeast's changing landscape.

**Craghan, Michael**, Middle Atlantic Center for Geography & Environmental Studies: “Studying People as Environmental Agents in Physical Geography”

Studying people as physical actors has a long history in physical geography. I'm going to argue that the long history has not been very fruitful. By 2003, 100 years after the founding of the AAG, 126 years after Marsh's inaugural volume there is still no coherent theory of how to study people as physical actors. Human geographers have theories for how human-environmental relations should be structured. But physical geographers need to make much progress. Recently rudiments of theory have been proposed. I believe that there may now be a full set of tools to identify what people do, and that now, working on an epistemology could lead to significant progress.

**Dalton, Craig**, Vassar College “Why a Waterfront Park: The Struggle for a Public Space”

Few public spaces are more important than parks as centers of civic life. When parks are created on waterfronts, a natural attraction, the result is often something akin to William Whyte's 100 percent location on a city-wide scale. However, newly opened post-industrial waterfronts are also prime real estate. These different interests set up a potential conflict over whose domain the waterfront shall become. This paper examines the feelings of ownership and the results of these conflicting feelings in a waterfront park in a small city on the Hudson River. Waryas Park in Poughkeepsie, New York has seen several conflicts of this kind. Why have and do people care so much about parks and other public open space? The waterfront park is the result of civic improvements with the heavy involvement and prompting by the people of Poughkeepsie, NY. Through a series of circumstances unique to the City of Poughkeepsie, Waryas Park created a strong feeling of ownership by the public. These circumstances are a mutually reinforcing combination of location, community-oriented history and broad-based usage. Without one of these Waryas park would never have grown to be such a strong place in the social fabric of Poughkeepsie.

**DiGiovanna, Sean M.**, Rutgers University, Michael Leyshon, University of Exeter: “International Perspective on Community Youth Planning: Comparing Somerset County, New Jersey and Somerset County, England”

This paper outlines issues and methodologies for conducting comparative research on approaches to youth planning in rural and suburban communities in the United States and England. Emerging research in the area of youth development, primarily in the UK, points to the role of young people as active agents in the construction of their identities and in turn, in the ways in which local spaces are constructed and appropriated. While traditional planning approaches tend to plan for young people, few cases exist where youth is encouraged to take an active role in planning. The authors are embarking on a comparative study of the ways in which rural and suburban youth see themselves as part of (or apart from) their communities and the extent to which these idealizations and behaviors are being incorporated into the local planning process. Of particular interest are the ways in which rural and suburban youth are negotiating the increasing annihilation of public space as communities attempt to control youth behavior by denying them places for informal recreation and socialization. How are young people responding to the ever more circumscribed uses of ‘the street’ imposed by the communities in which they live?

**Donovan, Robert**, Rutgers University: “Challenges to the Deregulation of the Electric Power Industry”

The European Community has opened its electricity markets. Several states in the United States have successfully opened their markets as well. However, the transition to what is called deregulation is not yet complete and the way is fraught with peril, as has been evidenced by the California energy crisis in 2000 and 2001 and by the impending bankruptcy of British Energy. By looking at the history of the British and California experiences, perhaps some basic principles may emerge to help guide other states or nations and help them avoid disaster.

**Doshna, Jeffrey**, Rutgers University: “Questioning the ‘Entrepreneurial State’: An analysis of state-level economic development expenditures”

Despite two decades of discussion of a shift in state and local economic development towards more entrepreneurial policies, an examination of state expenditures reveals no such shift. An analysis of the National Association of State Development Agency (NASDA) Survey of State Expenditures is used to examine state spending. Overall, total spending on state economic development programs has risen; however, the share dedicated to entrepreneurial programs has been fairly stable. This paper examines spending, as reported in the 1982 to 1998 NASDA surveys. There is evidence that some states are

spending more on some entrepreneurial development programs, but an overall shift to “third wave” programs has not occurred. Spending on small business development and entrepreneurial development represent but a tiny portion of overall expenditures. Other than a few notable exceptions, most states continue to utilize traditional recruitment and retention strategies.

**Dougherty, Percy H.**, Kutztown University of Pennsylvania: “Historical Geography of Breweries in the Lehigh Valley, Pennsylvania”

The Lehigh Valley has a long and glorious history in the annals of the brewing industry. It was home to dozens of well know beers; and, during the 1800’s, rivaled New York City, Philadelphia, Pittsburgh, Chicago, and Milwaukee as one of the top American brewing centers. Breweries named Neuweiler, Horlacher, Daeuffers, Lieberman, Bluffington, Uhl’s, South Bethlehem, Eagle, Old Dutch, Edelstein, Viking, Miller, Northampton, Catasqua, Bushkill, Kuebler, Osterstock, Seitz, Widman, and Schaefer were important cultural and economic components of the Lehigh Valley landscape. Only the Schaefer brewery is still in operation, although it is operated by the Guinness Division of foreign beverage giant Diageo. It is natural that the Lehigh Valley gave birth to so many breweries for it is historically the third largest urban area in Pennsylvania, containing the cities of Allentown, Bethlehem and Easton with a population of three-quarters of a million people. In the late 1800’s and early 1900’s, this was a major growth area with its steel mills and industrial plants. In addition to market considerations, there is also an important cultural aspect. Waves of German settlers, beginning with the Pennsylvania Deutch and reaching its peak with the migrations of the 1880’s to supply workers for the burgeoning Lehigh Valley industries, demanded the golden elixir as part of their daily lives. Through breweriana memorabilia, especially the beer tray, and historical accounts, this paper presents the reasons for the rise and fall of the brewing industry in the Lehigh Valley in a spatial-temporal context.

**Fair, Linda S.**, Rutgers University: “Muslims in Denmark: Discourse of the Veil”

Today the country of Denmark has two conflicting reputations. First, it is known for its tolerance and openness. Denmark is renowned for saving Jews during World War II. Since the late 1960s it has been socially acceptable for a man and a woman to live as an unmarried couple. Same sex marriage has been legal since the 1970s. Denmark’s acceptance rate for asylum-seekers is the highest in Europe. During the last decade, on a per capita basis, Denmark was third on the list of number of refugees accepted by industrialized countries. At the same time that Denmark has this reputation for tolerance and

openness, it also has seen rising levels of racism and anti-immigrant prejudice and hostilities. Much of the antagonism centers on the presence of Muslim immigrants. Muslim women wearing headscarves (hijab) are a particularly visible target for such discrimination. In 1999 three Danish supermarket chains refused to employ Muslim women wearing headscarves in positions where they would be visible to the public claiming that the headscarves were “unhygienic and against the stores’ uniform policy.” The underlying reason for this cultural intolerance, in the guise of the “unhygienic veil,” is that the veil symbolizes the oppression of females and thus the inferiority of Muslim society. This paper analyzes the historical and current relationship between the West, including Denmark, and the Muslim East with particular emphasis on the discourse of the veil.

**Fraser, Elizabeth A.,** SUNY Cortland: “A Golden Opportunity Wrought with Challenges: Preparing Future K-12 Educators to Impart Geographic Knowledge in their Classrooms.”

Over the past few decades, several initiatives have been implemented with the hopes of improving the state of geographic awareness in our country. Despite these efforts, reports on the paucity of geographic knowledge in the United States appear all too often. As teachers at institutions of higher education, we are in unique position to address this problem; we can provide future K-12 teachers with a solid foundation in geography. However exciting this prospect may be, providing our education majors with a solid geographic foundation can be wrought with challenges. How do we overcome these challenges and maximize the effectiveness of this valuable opportunity? This presentation will discuss how SUNY Cortland is tackling these issues with an emphasis on a geography course intended specifically for education majors, its curriculum, its challenges, and how technology is assisting in the delivery of the information.

**Frothingham, Kelly M.,** Buffalo State College: “Channel Form Before and After Bank Stabilization Construction” Poster

Traditional “hard” engineering used to reduce sediment input to a stream from bed and bank erosion has been stream channelization. Channelization typically involves straightening and/or dredging of a stream channel. Stream channels may or may not be lined with concrete and/or rock riprap during this process. This type of construction has occurred in Cazenovia Creek, NY since the 1950s; however, stream managers are now trying to incorporate “soft” engineering, which uses vegetation to stabilize banks. This study was performed in a reach of Cazenovia Creek that was stabilized in December 2002 using a combination of hard and soft engineering techniques. The objectives of this study were twofold: 1) historical

channel change was documented using aerial photography; and 2) channel morphology was mapped before and after construction took place in an effort to quantify how much change resulted from stream bank construction. Results indicate that there was adequate channel change in the reach to warrant bank stabilization and that the construction itself had a significant impact on channel morphology. Future research will continue to monitor channel morphology in this reach to document changes in channel shape and evaluate the success of the bank stabilization.

**Fulford, John, K.N. Irvine, and M. Perrelli,** Buffalo State College: “Development of a Hazardous Materials Spill Response Model for the Railway Industry using a Geographic Information System”

The objective of this research was to identify and organize data (using a Geographic Information System or GIS) needed to develop emergency preparedness plans for spills of hazardous materials (hazmats) transported by railways. A demonstration location in Erie County, New York, was chosen where a hypothetical hazmat incident could occur. Four database types were used to identify the sensitive areas of the community. These were: infrastructure/facilities; physical environment; emergency responders; and hazmat incident data. Within ArcView 3.2, a total of 10 buffers were created using the recommended isolation and protective action distances from the 2000 North American Emergency Response (NAERG). These buffers identified what facilities, physical environment, and emergency responders would be affected as a result of a hazmat spill under varying circumstances. By knowing what sites will be affected, emergency responders can better gather the necessary information needed to manage a hazmat incident. Because the amount of information needed to manage hazmat incidents is so large, GIS can be used to effectively organize these data. Specifically, for the railway industry, the use of GIS in emergency preparedness could make an already safe method of transportation more so; as well as give railway

**Fulford, John, S. J. Vermette, and K.N. Irvine,** State College Buffalo: “Modeling Anhydrous Ammonia Dispersion through the Use of the Areal Locations of Hazardous Atmospheres (ALOHA) Model” Poster

This research project focused on the sensitivity of the ALOHA model to varying wind speeds, using the release of liquefied anhydrous ammonia as the example contaminant. When a hazardous material (hazmat) is released into the atmosphere an area of dispersment, or footprint, is created. The ALOHA model provided estimates for the size of the footprint, as well as the concentration of the hazmat and how the concentration changed over time. Results showed that at lower wind speeds, a

larger footprint was created. The concentration level also was higher at lower wind speeds. The use of the ALOHA model to visualize hazmat releases into the atmosphere is an effective tool that could be used to predict how a hazmat will react under varying weather conditions. Results of the model were combined effectively with a GIS to visualize the hazmat footprint over a specific geographic area.

**Geiger, Charles, Millersville University:** “Mapping Historical Electricity Production in Pennsylvania”

Commercial electricity production in Pennsylvania (PA) has a 130-year history, the second longest among the US states. Each stage of its evolution, from numerous small local producers, to large regional monopolies, to the current deregulated structure, has created a different spatial structure, in addition to its economic and political structures. Mapping the system presents a few challenges, even in simply determining precise electricity generating station locations. USGS quadrangles and aerial photographs are important sources for those stations still present or whose remains still stand. Harder to locate are those early stations documented only in text or old photographs. Once accomplished, however, the ability to compare patterns of production and consumption can show areas of electrical service inefficiency. Interestingly, PA’s role as a fuel producer has helped to create some of those inefficiencies. For example, many coal-burning stations were built near mines and connected by high-voltage transmission lines to their urban markets.

**Girma, Hewan, Hofstra University:** “Micro-credit in the Development Process, Case study: Ethiopia”

This paper examines the role that micro-credit programs, hailed by many as one of the most efficient development strategies, can be effectively applied in the country of Ethiopia to combat and eventually eliminate poverty. Through an in-depth examination of the Grameen Bank model in Bangladesh, this paper intends to show the various innovations in micro-lending resulting in a new banking system with a “social consciousness.” Current replication programs of the Grameen Bank model in Ethiopia, as well as in other least developed countries (LDCs) will be included coupled with specific considerations of their respective socio-economic situation. An overview of the economic, social, and political situation in Ethiopia gives thus an understanding of what obstacles these programs would have to overcome, as well as situations conducive to the success of the programs. Replicating the Grameen Bank model in Ethiopia can serve as a case study for innovative development strategies and can be extended to the rest of Sub-Saharan African countries, and other LDCs.

**Godfrey, Brian J., Vassar College,** “Redeveloping the World Trade Center Site: Competing Regimes of Representation at “Ground Zero”

After the destruction of the World Trade Center on September 11, 2001, various institutional proposals to redevelop the devastated site in Lower Manhattan sparked intense public debate. Given the visibility and magnitude of the events of 9/11, unprecedented public scrutiny attended to the redevelopment planning process. At the “Listening to the City” town meeting, convened by the Civic Alliance in July 2002, for example, about 5,000 concerned citizens overwhelmingly rejected the initial round of plans. This paper analyzes the site-plan competition—which resulted in Studio Daniel Libeskind’s selection—in terms of contested regimes of representation. A discursive analysis of the Libeskind proposal and other finalists reveals ideological underpinnings of redevelopment with diverse understandings of the local, regional, and global roles of Lower Manhattan.

**Greenow, Linda and Jo Margaret Mano, SUNY New Paltz:** “Hub of the World: U.S. Promotional Map Brochures in the Mid-Twentieth Century”

Cartographic historians have traditionally studied how map accuracy has been improved by technological innovations in place location and map reproduction. Over the last three decades, a small group of researchers has considered how maps have been used to shape perception and advance political agendas. From this viewpoint, maps are analyzed as cultural artifacts that both reflect and shape contemporary perspectives. Commercial maps for travelers and potential residents represent an important theme in this thread of investigation, yet little has been written about this sector of the map trade, except for a handful of articles focusing on road maps. In the late nineteenth century, U.S. travelers’ maps could include railroad timetables and promotional material. Advertising strategies were further developed by oil companies’ road maps in the early twentieth century. By the 1960s and early 1970s, the rapidly expanding highway system along with the popularity of automobile ownership meant that Americans were traveling more than ever. Potential economic growth stimulated urban boosterism as places vied for new industries and residents. This study examines promotional map brochures distributed by Chambers of Commerce and businesses in the mid-twentieth century, illustrating attempts by local leaders to promote their towns and counties to tourists, potential residents and industries.

**Hayes, Jane**, SUNY Suffolk Community College: “Trash to Cash: A Case Study of the Dutchess County Resource and Recovery Agency”

Operating since 1989, the Dutchess County Resource and Recovery Agency’s waste-to-energy facility processes 450 tons of municipal solid wastes per day. The waste is burned, heating water, producing steam which is then converted into electricity by a turbine generator. The plant sells the electricity of Central Hudson providing electricity for approximately 9,000 to 10,000 homes. The economic and environmental impacts of the waste-to-energy program will be evaluated.

**Heard, Kevin, Joel Plummer, Keith Smith, and Lucius Willis**, Binghamton University: “Binghamton University’s Census 2000 Internet Mapping Service”

The United States Census of Population and Housing is an example of a widely used but very large and difficult to use research database. Methods to extract sub-sets of such datasets on demand as well as methods to analyze such datasets over the Internet is the wave of the future. At Binghamton University, with the use of ESRI’s ArcIMS software, we have developed a customized Internet Mapping Service, which allows the user to select from a group of Census variables and map them for any part of the country. Other options include selecting one of several geographic scales for mapping and being able to download a dataset of a selected variable group for further analysis. This application also provides visualization of various levels of AOMCs by tract in MSAs. This presentation will consist of a discussion of the problems encountered in the development of this service and a live on-line demonstration.

**Henderson, Keith G.**, Villanova University: “A Climatology of Pennsylvania’s State Parks.”

Across the country State Parks have become popular multi-use recreation areas. In 2001 more than 750 million people visited the 5,616 U.S. State Parks. Pennsylvania’s State Park system is composed of 116 outdoor recreation areas covering 250,000 acres. Each year an estimated 37 million people enjoy Pennsylvania’s State Parks. Activities vary seasonally from boating, hiking, fishing, and picnicking in the summer, to winter skiing, sledding, and snowmobiling. The majority of these activities are weather dependent. A cool, wet summer or a warm winter could conceivably have significant impacts on Park usage. This paper presents a preliminary examination of the impact of weather and climate variations on Pennsylvania’s State Parks. The Parks are grouped by climate regions to create a climatology of temperature and precipitation averages and variability. The vulnerability of Park activities to climate impacts is assessed by comparing climatic conditions during key times of year to Park offerings. Monthly visitation data from 2002 are used as a case

study of one year’s impacts. 2002 is an especially interesting year because of the major drought and heat wave that no doubt influenced summer usage.

**Holcomb, Briavel**, Rutgers University, “Luring train passengers: The railroad poster in the U.K. and U.S.A. 1900-1950”

The first half of the 20<sup>th</sup> Century was peak time for passenger trains and also for that advertising art form, the railroad poster. While early posters emphasized the amenities, comforts and speed of train travel, both in the U.K. and U.S.A. depictions of attractive destinations and landscapes *en route* became *de rigueur*. While posters in both countries idealized and romanticized landscapes, American posters more often reflect the wild “sublimity” of the Hudson School and cities are depicted as powerful, vibrant centers of the economy. In Britain, meanwhile, rugged nature is replaced by cultivated or pastoral and well populated scenery and cities are centers of history, culture and refinement. The primary purpose of this presentation is to drag its author from her late 1940’s steam train reveries to her maiden powerpoint presentation, provide the audience with a little eye candy, while hoping to avoid pitfalls in that medium to which Tuffte and others have directed attention.

**Huang, Youqin**, University at Albany: “From Work-Unit Compounds to Gated Communities: Housing Inequality and Residential Segregation in Transitional Beijing”

Housing provision and consumption in Chinese cities have undergone dramatic changes since the launch of housing reform in 1988. With the introduction of market forces into the housing system, households are given freedom of choosing between public and private housing, between rental and homeownership. As a result, households begin to be sifted and sorted socially, economically and spatially. A relatively homogeneous society organized around work-unit compounds is evolving into one with significant housing inequality and residential separation. High-end “gated communities” and dilapidated “migrant enclaves”, neither of which existed in socialist China, are now emerging side by side in Chinese cities. Because of the transitional nature of the housing system, both market forces and traditional socialist institutions such as the Household Registration System and work units contribute to increasing housing inequality and emerging residential segregation. While the two forces often lead to different forms of housing inequality, they also work together to aggravate existing inequality. Using the 2000 census and fieldwork data, the empirical analysis of housing consumption in Beijing shows significant housing inequality across education, occupation and type of urban areas. While it is clear that neighborhood sorting is in process, the overall residential pattern is characterized with segregation at

the micro-level but mixing at the macro level due to various reasons.

**Irvine, Kim N., M. Perrelli, and N. Brown**, Buffalo State College: “Development of a GIS-based Watershed Modeling Tool to Assess Septic System Impacts on Water Quality”

Failing septic systems are thought to be an important source of fecal coliform in the Buffalo River watershed and a partnership was established between Buffalo State and the Erie County Department of Environment and Planning to develop a GIS-based modeling tool to assess septic system inputs. Within ArcView 3.2, the Erie County Water Authority building footprint layer was used to identify all structures in non-sewered areas that were located within 91 m (300 ft.) of a waterway. In some cases, it was necessary to identify and digitize additional structures using 1996 digital orthoquads. These structures formed the basis for the fecal coliform loading calculations from the septic systems. Flow rates from most structures were calculated based on U.S. EPA-recommended values, although the state permit values were used in the case of major dischargers. Daily fecal coliform load from each structure was calculated based on flow rate and representative bacteria concentrations published by the U.S. EPA. These loads were adjusted by factors varying between 0% and 99.9% to represent treatment efficiency for the septic system. The 1244 km<sup>2</sup> Buffalo River watershed was divided into 101 sub-basins using the automated delineation tool within the U.S. EPA’s BASINS (Better Assessment Science Integrating point and Nonpoint Sources) model. The fecal coliform load entering each of the 101 sub-basins was calculated for the different treatment efficiencies and a calibrated version of the BASINS model was used with the load information to determine fecal coliform concentration in the waterways. Modeling efforts indicated that fecal coliform loading from septic systems is of concern in two major tributaries to the Buffalo River; lower Cazenovia Creek and Cayuga Creek around the Lancaster-Depew area. The model also indicated that on a basin-wide average basis, septic systems need to be between 99.5 and 99.9% efficient in removing bacteria to avoid major water quality problems. The GIS-based modeling approach provided valuable information for local decision-making, but the approach was data-intensive and required the utilization of significant technical resources.

**Johansson, Ola**, University of Pittsburgh at Johnstown: “An Assessment of Urban Sprawl in the Middle States Region 1990-2000”

One of the unfortunate but seemingly unstoppable consequences of urban growth is sprawl. The Middle States region, despite low population growth in many areas, is strongly affected by sprawl and, as one geographer has noted, is taking on the

spatial form of a Galactic City. Despite the widespread use of the sprawl concept, there is no commonly accepted agreement of what it entails, much less an exact quantifiable definition. In this paper I will discuss the growth of 25 cities in New York, Pennsylvania, New Jersey, and Delaware that are the centers of the regions’ Metropolitan Statistical Areas. The main tool I have used is the urbanized area designation as defined by the U.S. Bureau of the Census. The basic criteria for urbanized areas is population density – a minimum of 1,000 people/sq.mi. By investigating changes in urbanized areas from 1990-2000, various measurements of sprawl can be obtained, including absolute spatial growth, change population densities, and size and density of the newly designated urbanized areas v. population changes in older areas. Additional factors such as city size, location and region, and population growth are also incorporated into the analysis.

**Lawson, Catherine**, University at Albany, “Freight Front and Center: The Role of Geographic Information Technologies (GIT) in Meeting the Needs of Freight Planning”

More than 15 billions tons of goods valued at more than \$9 trillion moved on the nation’s transportation system in 1998. Freight volumes are expected to grow by nearly 70% by 2020, with the value of these goods reaching almost \$30 trillion. All of this activity comes at a cost in system operations – congestion! A recent Transportation Research Board (TRB) report called for the collection of new data to support decision making for freight planning to deal with the impacts of freight including data on origins and destinations; commodity characteristics; weight; value; mode; routing; time of day; and vehicle type and configuration. Traditional surveying techniques are not adequate for these new requests. This paper will examine the potential for using archived Intelligent Transportation Systems (ITS) data and Geographic Information Systems (GIS, combined as Geographic Information Technologies (GIT), to meet the needs of freight planners, with examples for a series of technology-based pilot studies conducted in Washington State.

**Le Bossé, Mathias**, Syracuse University: “Normandy – in French Memory”

On this side of the Atlantic, only recently has the memory of June 6, 1944, – “D-Day” – received the proper and full consideration, and its actors the honors, due to a unique world event and its heroes. For the French people in Normandy, where the Allied landings heralded both regained freedom from the German and Nazi occupiers and the end of the war, D-Day commemorations have had a longer and naturally different history. By surveying the multiple ways memories of “*le Débarquement*” have been constructed and sustained locally by the French over

the last decades, this paper argues that the culture and politics surrounding such a “place-event” (or “place-cum-event”), almost always “national” in character, also need to be set in a broader context of evolving international relations and geopolitical visions. Ultimately, a way is opened towards a trans-national and cross-Atlantic study of what remains of “the longest day”.

**Lewandowski, James**, West Chester University and Timothy Sullivan, Hunterdon County,: “A GIS Approach to Documenting and Assessing the ‘Neighborhood Effect’ in Voters’ Political Behavior”

This research analyzes spatial clusters of matching responses to survey questions about current political issues solicited from voters in Pennsylvania House District 155. The clusters are analyzed in terms of the so-called “neighborhood effect.” The neighborhood effect is a contextual element of political behavior in which voters are influenced by the social communications network within a spatially constrained area around their residence. This effect exhibits itself through spatial clusters of voters’ political behaviors that differ within an area, the clusters’ spatial proximity, and their shared socio-demographic circumstances. The research uses GIS and spatial statistics to assess the absolute and relative magnitudes of spatial clusters. Uniform and compact spatial clusters having 1) proximity to one another, 2) shared socio-demographic circumstances, 3) differences in survey responses to a particular issue, and 4) statistical significance are understood to be empirical expressions of the neighborhood effect. One such expression is documented and discussed.

**Lewis, David A.**, University at Albany: “Territorial Constraints for Innovation and Development: The Role of Geography in the Performance of Technology Business Incubators”

With the success of technopoles, federal devolution, and the increasing understanding of the nexus of innovation and regional economic growth, state and local governments have sought to replicate the experiences of locations like the Silicon Valley. At the state and local level, one of the favored policy options to spur innovation-based development has been public investment in technology business incubators. The number of technology business incubators across the country has nearly tripled since 1996. The aggregate growth in the population of technology incubators masked the reality that their performance has been uneven across space and many technology incubators ceased operations. While some have theorized about the characteristics of communities that have a greater capacity to host a successful technology incubator, there has been little empirical research that investigates what these factors are or the degree to which technology incubator programs can compensate for the lack of regional

capacity. Theoretically, technology incubation fill the gaps in the innovation process and mitigate market failures and enable clients to transcend geographical barriers to success. Through surveying the population of technology business incubators in the U.S. established before 1999, this research distinguishes between the affects of an incubator program and the regional characteristics that may determine performance at different stages of incubator clients’ development.

**Lin, Pin Shuo and Monica Nyamwange**, William Paterson University: “Perceptions on Urban Inequality in New Jersey”

This paper uses results from a questionnaire survey to examine issues related to urban inequality in New Jersey. Specifically it analyzes perceptions on: 1) Inequality in housing, employment, educational attainment among blacks, hispanics and whites. 2) Strategies for reducing the above inequalities. The paper examines the relationship between perceptions on inequality and demographic characteristics such as age, educational attainment, income and gender.

**Marr, Paul**, Shippensburg University: “The Growth of the Warehousing and Trucking Industry in South-Central Pennsylvania

Over the past decade the I-81 corridor between Hagerstown, Maryland and Harrisburg, Pennsylvania has seen dramatic growth in warehousing and trucking facilities. Currently there are nearly 150 warehousing and trucking facilities along this 60 mile stretch of interstate highway, with more under construction or in the planning stages. Several factors are responsible for the growth of the trucking industry in the region. Interstate 81 passes through few large cities, unlike I-95 to the east, so urban traffic is minimal. Interstates 70, 76, and 78, which intersect I-81 within the region, provide easy access to both the eastern seaboard and the interior. Land prices in south-central Pennsylvania are comparatively low, which is an important consideration for this land-intensive industry. Labor in the region is also abundant and relatively inexpensive. Local governments view the expansion of warehousing and trucking as a benign form of economic development. Yet the infrastructure to support warehousing and trucking lags far behind the needs of this rapidly growing industry. The limited number of access points to I-81 has created large clusters of trucking facilities around the few existing interstate entrances, clogging local roads with truck traffic they were never designed to accommodate. This research will provide an overview of the development of the warehousing and trucking industry in south-central Pennsylvania, and draw attention to current and future issues facing the region in light of the industry’s continued growth.

**McCrary, Keith, P. J. Hernandez, and Stacey Lodge**, West Chester University of Pennsylvania: “New Jersey Bog Turtle Environmental Threat Assessment using GIS”

The New Jersey bog turtle environmental threat analysis represents collaboration between three Graduate students in the Department of Geography at West Chester University of Pennsylvania in the summer of 2003. The project focused on a five county area in Northwestern New Jersey that encompasses the Highlands physiographic region. Data used in the analysis include the locations of contaminated soil and groundwater, as well as environmental areas that are exceptionally sensitive to pollutants – specifically unconfined wells and bog turtle habitats in both emergent and forested wetlands. This sensitivity of habitats and groundwater sources to nearby pollutant sources poses further danger to the federally endangered bog turtle. GIS analysis was performed by combining several data sources from 2001 using ArcMap 8.1. A distance analysis was completed between each environmentally sensitive area and each of known pollution locations. The resulting distances are broken into five categories, with each category representing a 250 foot segment ranging from zero to 1,000 feet, an established distance for well contamination sampling. Results are presented in a choropleth map which uses a color scheme ranging from dark red (direct contact) to yellow (1000 feet) to represent the five distance categories in terms of threat. Analysis shows that there are several bog turtle habitat areas and unconfined well locations that fall within 1,000 feet of contamination areas. The study’s findings and methodology provide a basis for a more detailed analysis of the relationship of pollution sources and environmentally vulnerable areas to vulnerable animal species within the study area and beyond.

**McGlenn, Lawrence**, SUNY New Paltz: “Early Public Health and the Contemporary Environmental Movement in the United States” (SATURDAY)

The environmental movement in the United States is generally recognized as having begun in the 1960s when a series of inspiring books on the environment were published, and when a series of environmental crises were faced throughout the country. However, a close examination of the public health movement in the United States in the late 1800s reveals intriguing parallels to the contemporary environmental movement. A close examination of the similarities and contrasts of the two movements can help to “peel back” the labels that have been attached to them. The goal is to refine our understanding of how attitudes toward the environment have developed and changed during the industrial and post-industrial period.

**Melendez, Belkys**, Montclair State University: “New Theories to Explain Acid Precipitation in Northern New Jersey”

The Northeast Region of the United States is known for its acid precipitation, especially in the New York/New Jersey Metro Region. It has been concluded that nitrogen oxide and sulfur dioxide have a strong association with the production of acid precipitation from auto exhaust emissions and industrial activities in the region. In this paper the author will use two studies of local wet deposition (rain) of the northern region of New Jersey to associate trends between pH levels and landscape and wind direction. It has been shown that, in these cases, acid precipitation is higher in rural areas compared to urban areas. The paper makes use of these pH level trends to develop new conceptual models to explain acid deposition: the sea-salt aerosols theory and tree-filter theory. Sea salt aerosols can buffer acid precipitation, more so in areas closer to the ocean, in this case, the urban areas of New Jersey. The forested rural areas of New Jersey, rain falling through and near the leaf canopy can be buffered before it falls to the ground. Local wind patterns, combined with these buffering factors, can over-ride regional acid precipitation trends.

**Misner, Jennifer and John Hasse**, Rowan University: “Characterizing the Condition of Two New Jersey Watersheds”

Watershed-based land management is a growing trend in both the official government and non-government sectors. The ecological and social processes within a watershed are interconnected and interdependent. In this study, two New Jersey watersheds were characterized through environmental mapping, compared and contrasted to develop geographical-based parameters or indicators for assessing the social and ecological conditions within each watershed. The two watersheds represent a heavily urbanized watershed (Newton Creek, Camden, NJ) and a suburbanizing watershed on the rural fringe (Chestnut Branch, Glassboro, NJ). The indicators developed in this study are designed to provide information about environmental conditions related to land-use patterns in two characteristically dissimilar watersheds.

**Mower, James**, University at Albany, “Adaptive Surface Resampling for Mobile, Real-Time Terrain Visualization”

An augmented scene delivery system (ASDS) serves real-time, captured perspective imagery with overlain cartographic symbols for visual interpretation of landforms. This paper will discuss an adaptive resampling procedure for high-resolution elevation data structures that support perspective mapping for a prototype ASDS. This procedure controls the resolution of resampled elevation data with distance

from a viewpoint, limiting undersampling in foreground renderings and oversampling in the background. To support a practical mobile ASDS application, the procedure executes real-time resamplings for new locations in a timely manner.

**Myers, James R.**, Rutgers University: "County-level Variations in Farmland Preservation in New Jersey"

Open space and farmland preservation have received significant support from both residents and legislators in New Jersey. Farmland preservation has been overseen on a statewide level since 1984, with the intent to preserve farming as a viable industry within the state. In 1999 the Garden State Preservation Trust Act permitted the issuance of bonds for preservation totaling \$1 billion between 2000 and 2010. Meanwhile, local and county open space taxes add considerably to the amount of funding available for preservation. The distribution of such significant amounts of funding over a relatively short period of time raises concerns about the equitable distribution of preservation and preservation funds. Because implementation of farmland preservation in New Jersey places a great importance on the active involvement of county governments, preservation has occurred in a way that is inequitable between counties in terms of the proportion of existing farmland preserved within each county. Several factors at the county level seem to contribute to a county having a high proportion of its farmland preserved, including the proportion of land in the county that is farmland and the rate at which development is occurring. Interestingly, despite the avowed purpose of farmland preservation, the apparent profitability of agricultural activities in a county seems to have little effect on farmland preservation within that county. The results suggest that research into the execution and effects of farmland preservation programs have the potential to make those programs more effective.

**Nampoothiri, Sreekumar E.**, University at Albany, "Indian Geographical Knowledge and Thought in the Vedic and Puranic Periods"

India is one of the oldest civilizations in the world and contributed considerably to the development of many fields. All the ancient Indian texts refer to various concepts in mathematics, astronomy, astrology, and medicine. These texts refer to many geographical features such as settlements, mountains, rivers, oceans, people, minerals, etc. This is corroborated in the writings of many scholars and writers of the western world of the same period, especially Greek, Egyptian, and Macedonian scholars. Though many studies have been conducted to understand and locate the present-day positions of these geographical entities, the effort to understand the underlying thought process seems to be not so developed. This paper attempts explore the underlying thought process behind the geographical knowledge of

the vedic and puranic period, which is approximated to be from 1500 B.C. to 500 A.D.

**Nichols, Karen**, Hudson River Maritime Museum: "Hudson River Lessons: Recognizing the Constraints and Opportunities of Museum-Based Education"

The museum geographer/educator is tasked with educating thousands of people in a season, and with doing so quickly and using tools (e.g., the 'exhibit') that once adopted rarely change. This paper addresses the challenges and opportunities of this form of education. The author uses the example of her work on the Hudson River Maritime Museum's Estuary Education Project to question the objectives of museum education and to expose: 1) the limitations of traditional museum pedagogy (e.g., the "interpretive panel") and 2) the often problematic political and financial dynamics of museums as nonprofit institutions reliant upon outside funding and/or ticket sales and merchandizing. While constraints to progressive pedagogy abound, this paper also suggests that museums offer unique educational opportunities not common in school or university settings. Moreover, information about museum visitor demographics and trends in museum attendance support the notion that this educational forum is extensive and popular. The museum is an often overlooked public education niche that deserves attention.

**Norris, Darrell**, SUNY Geneseo: "The Domestic Architectural Vocabulary of an Early Automobile Suburb: The Twelve Corners, Brighton, NY, 1915-55"

The literature of domestic suburban architecture in the automobile age reflects modes of thought and organization given at times to an overarching sense of homogeneity, both of social context and its related material-cultural expression, and elsewhere to an image of diversity encapsulated most especially by a wide repertoire of distinct architectural styles. This paper is a first attempt to extract some salient evidence from a field survey of three thousand pre-1955 homes built in Rochester's first automobile suburb, around the Town of Brighton's Twelve Corners intersection. The project's long-term goal is to place the rich vocabulary of architectural style, detail and scale in the context of socio-economic circumstance and change before 1930, during the Depression and wartime era, and amidst post-war recovery. But this exercise requires a taxonomy and chronology of built forms sensitive to the practices of developers, builders and tradesmen in circumstances only weakly limited by any rationale for standardization. Thus stylistic vernacular expression embodying Tudor, Colonial Revival, Georgian or neo-Victorian taste proved to be creatively eclectic, and the resultant domestic architectural mix was further complicated by (in particular) expression through front

entrance forms and fenestration. But, within a framework of standard and small lots, a narrow spectrum of square footage, neighborhood desirability (especially of its schools) and the patina of landscape and maintenance, the Twelve Corners subdivisions have acquired an image (and appearance) of homogeneity very much at odds with the diversity of expression and intent that created this suburban landscape.

**Owusu, Thomas**, William Paterson University, “The Economic Status of Immigrants and Non-Immigrants in the City of Paterson, New Jersey”

Using 1990 Census 1% Public Use Microdata Sample (PUMS), this paper examines the economic status of immigrants and non-immigrants in the City of Paterson, New Jersey. Economic status is measured primarily in terms of employment income, occupation, labor force participation, unemployment, and rate of poverty. Differences in economic status are explained in terms of various factors including educational attainment, language, period of immigration, race, age, and gender.

**Pipkin, John S.**, University at Albany, “Political Architecture: Two Gilded Age Interventions that Shaped Albany”

In the ostentatious urban landscapes of the Gilded Age, political agendas and public purposes found expression in uniquely resourceful architectural languages. The passions and moralizing compulsions of “the battle of styles” were largely spent. The austerities of mature modernism lay in the future. Architects and clients claimed free access to all manner of historicizing references, while the technical resources of modernism allowed them to contemplate unprecedentedly grandiose projects. In this paper we use official sources and newspaper reports to examine the urban and political context of two ninety-year old Albany structures, the Delaware and Hudson and the State Education Buildings. The D&H represents an unanticipated outcome of efforts by Republican boss William Barnes to clean the riverfront, in collusion with railroad companies, facing a veto by the Governor, and harried by commercial interests and the Democrats who were about to replace his political machine with a more durable one of their own. This primal struggle of boss and critics led to a fully fledged City Beautiful Plan for Albany. The Education Building, in contrast, was an avowedly “non-political” intervention by Commissioner Andrew Draper, a progressive partnership of education, government, and public sector planning. Yet the building was a visually aggressive gesture, symbolically obliterating the Episcopal Cathedral and prompting debate about the views around the Capitol. In outlining the contrasts between these buildings (classical/gothic, public/private, localizing/universalizing, church/state,

“bossism”/progressivism) we examine what their style and visual impact meant to contemporaries, and what they mean today.

**Pope, Gregory A.**, Montclair State University: “Setting Erosion Rates on a New Pedestal: Perched Rocks”

The “balanced rock” piques the interest of students and tourists, and illustrates the powerful forces over time that are capable of sculpting bizarre shapes and placing random boulders into improbable arrangements. Postcards and roadside stops notwithstanding, balanced rocks have not made a large impact on quantifiable process geomorphology – until recently. Rates of balanced rock tipping can provide a record of slope stability and seismic disturbance. Balanced rocks, perched rocks in particular, can provide in a few instances a rare means to measure weathering and erosion rates, relating to overall landscape denudation. A perched rock, for the purposes of this paper, is a boulder that is placed over another rock surface by water, glacial ice, or gravity. While the surrounding rocks erode at a more rapid rate, perched rocks shield the underlying rock from weathering and erosion, often producing pedestals, particularly if the surrounding rock is less competent. Net erosion since deposition equates to height of the pedestal. Unlike remnant caprocks, which usually have an unidentifiable “time zero” for the onset of denudation, it is sometimes possible to estimate the time of deposit for a perched rock (for instance, a deglaciation or catastrophic flood). An estimate of time, along with a measurement of erosion, provides an erosion or denudation rate. This paper presents several examples from deserts, alpine areas, and New York and New Jersey glacial erratics to test this opportune methodology.

**Reiser, John J. and John E. Hasse**, Rowan University: “Using Dynamic Mapping Resources for Watershed Education”

The complexity of environmental systems has been difficult to effectively portray in traditional paper maps. New software tools have increased the possibilities and options for dynamic mapping. Instant feedback through the use of hyperlinks, visual and audible prompts, as well as engaging animation provides the user with a richer environment in which the transfer of geographic information can be facilitated. This paper presents the creation of dynamic mapping projects for two New Jersey watersheds and provides an assessment of the effectiveness of dynamic mapping for providing environmental information to community stakeholders.

**Reisinger, Mark E.**, SUNY Binghamton: "Latino Migration to Allentown and Lehigh County, PA"

This paper presents information concerning the migration patterns of Latinos to Allentown and Lehigh County, PA. Specifically, the research in this paper is guided by three questions: 1) What are the origin locations for Latinos moving to Allentown? 2) What is drawing Latino migrants to Allentown? 3) What are the demographic characteristics of the Latino migrants to Allentown? To answer these questions the research draws on survey work conducted in Allentown in the Fall of 2002. The survey indicates that the determinants of Latino migration to Allentown and Lehigh County, PA are extremely complex and it is difficult to make generalizations. The simple economic models of migration do not present the complete picture. The determinants include a variety of geographic, social, cultural, and demographic factors as well.

**Rengert, Arlene**, West Chester University: "Community College Geography in the Middle States: Some Observations and Frustrations"

Community College geography in the Middle States region remains relatively random: some colleges offer none, others a fairly wide array of classes; some expect a geography background in those who they hire to teach it, and others do not; some offer at least modest support for faculty development such as conference attendance, and many do not. Following the New York AAG at which a specially convened session invited input from community college faculty, suggestions for helpful actions by the AAG were sent forth. This presentation is a follow-up to that report.

**Rengert, George**, Temple University: "Hot Spots of Crimes Within Buildings"

Traditional Geographic Information Systems (GIS) is address based so that all the crimes that occur at a specific address are recorded at a point in space. For example, if we have a parking garage with five decks, all the auto theft that occurs on those five decks are ascribed to the address of the parking garage. This potentially creates "false hot spots" of crime since if the entire space available for crime is considered, there may be less crime per unit area than on the street front. This paper illustrates how hot spots of crime within buildings can be determined using the vertical as well as the horizontal axes.

**Ringer, Enid L.**, Hunter College: "How Geography Graduates Report on their Careers"

Since most geography majors leave the academic setting after receiving their bachelors or masters degrees, understanding how graduates utilize their geographic education is important to understanding career potential for geographers in non-academic settings. The purpose of this paper is to report on preliminary results of a survey of geography

graduates about their careers. Different elements of what a geography degree could contribute to career potential were analyzed. The survey was administered to graduates of Hunter College during the summer of 2003. The analysis is based on 48 responses. Responses of bachelor's and master's degree recipients are compared for: the type of work they do, their knowledge of career opportunities before majoring and after graduation, the utility of geography in opening up career opportunities, and whether they view themselves as having geography-related careers.

**Rodrigue, Jean-Paul**, Hofstra University: "Freight and the City: Distribution in the New York Metropolitan Area"

The geography of urban transportation have been a significant field of investigation as a dominant share of transport activities take place within urban areas. While the approach has mainly focused on movements of passengers and urban mobility issues, urban freight transportation has received much less consideration. The international division of production and consumption has considerably modified the geography of freight transportation in urban areas. As many goods have globally-oriented supply chains, the ensuing movements of freight are putting increasing pressures on urban transport infrastructures with increased congestion and new distribution centers located in the periphery. This paper will investigate contemporary issues of urban freight transportation with a particular emphasis on the New York metropolitan area.

**Roinila, Mika**, SUNY New Paltz: "Fishing for Finns on Lake Superior"

Fishing on Lake Superior has existed for hundreds of years. With the coming of European immigrants, many Scandinavians found the waters of Lake Superior superb for continuing their Old World trade. This presentation focuses on the ongoing research dealing with the development and decline of a smaller Scandinavian groups of Finnish fishermen and their commercial fisheries of Lake Superior. Using maps to document fishing outposts, numerous archival and recent photographs and stories, this multi-media presentation will examine the history, the social context, cultural values and traditions of the Finns encountered on Michigan's Upper Peninsula and the Minnesota North Shore. *Log-roller fishermen* and the eating of *lawyers* (burbot) are among some of the traditions and practices that existed in these areas. With time, fishing villages gave way to other primary industries, government intervention and the sports fisheries that hurt the fishing operations. For some fishermen, relocation to more southern locations was a solution to the declining and eventual closing of commercial fisheries on Lake Superior. The memories of this once-thriving industry is now retained and revived in the collections of local museums, which

have often been influenced by the descendents of former fishermen.

**Saff, Grant**, Hofstra University: “The Walls of Change: Fortification of Post-Apartheid South African Suburbs”

The 1990s witnessed the erosion of formal territorial apartheid in South Africa. Since then, however, *de jure* racial segregation has been replaced by a more fluid class based system of exclusion. The ending of apartheid has also been accompanied by a rapid rise in crime, within South African suburbs. Increasingly, the well to do of all races, live within heavily fortified suburban homes. The physical manifestation of this is high walls, sometimes topped with razor wire, electrified fences, guard dogs, bars on the windows and doors, and signs (sometimes in multiple languages) that highlight that the home is alarmed and protected by a private armed response unit. Having little faith in the local police, the homes in these suburbs are increasingly policed by these private security firms (often staffed by off-duty police officers). The post-apartheid period has also witnessed the rapid growth of gated (and walled) communities. The paper outlines these processes of change and using slides, graphically illustrates the different physical and architectural changes within suburban Cape Town.

**Santoni, Naomi**, Hunter College: “A Geographic Exploration of Primary Health Care Needs and Services within the State of New Jersey”

The objective of this research is to use a geographic information system to explore the geographical accessibility of existing New Jersey Health Resources and Services Administration Community Health Centers in relation to populations in need of primary health care. Primary health care need was evaluated based upon the spatial distribution of premature non-injury adult death rates. Access to primary health care was assumed to be inadequate in areas exhibiting above average death rates. The level of spatial data aggregation was also considered. Physical distance was used as a measure of access to healthcare services. Counties and municipalities with elevated death rates that were located farther than 1.8 miles (walking distance) and 20 miles (driving distance) from existing community health centers were identified as potential candidates for additional community health centers. When the mortality data was mapped to the county, health centers were generally distributed within areas of primary health care need. However, when the mortality data was mapped to the municipality, areas of unmet primary health care needs were identified using distance measures. Aggregating mortality data to the county and the municipality revealed how associations change when boundaries and scales change. The results indicated that for N.J. small area health data more

clearly reveals the health of the community and also more accurately identifies the potentially underserved. However, using smaller boundaries to aggregate health data is not always optimal.

**Smith, Christopher J.**, University at Albany: “From ‘Angry Citizens’ to ‘Happy Consumers’: Commercialization and the Transformation of Culture in the Chinese City.”

Cultural critics are having a heyday interpreting what they see happening in the contemporary Chinese city. Over the last two decades China has become the most rapidly developing and the most rapidly urbanizing nation in the world, primarily as a result of Deng Xiaoping’s reform project. There has been a significant change in the nature of state and society relationships; an alteration in the balance of power between the center and the localities; and the virtual elimination of the boundaries between rural and urban China. While all of this has been underway, many aspects of everyday life in China have also been changing, and one of the most startling differences between China today and China just a decade earlier is in the intensity and the range of consumption: a trend that produced the statement represented in the title of this paper. At first sight, three trends are observable, all of them pointing in similar directions: one is a shift away from the ‘heroic’ and utopian values of the revolutionary era, toward the more banal pursuit of wealth; a second trend involves a movement away from what might be called the ‘highbrow’ to the ‘lowbrow’ end of the culture spectrum in China; and the third is the process of ‘convergence’ with the west, and the forces of cultural homogenization associated with economic globalization. This paper attempts to evaluate these three hypotheses, and in so doing make some sense out of the confusing mix of elements that are coming to define contemporary urban China.

**Sorokine, Alexandre**, SUNY Buffalo: “Mereotopological Integrity Constraints for Spatial Databases”

Databases store information on some part of the real world. There are always many rules that govern relationships between the entities of the real world. In databases such rules are represented as integrity constraints. Integrity constraints can be implicit for database schemata or inherent to the data model itself. In the area of spatial databases integrity constraints can be based on the properties of space like, for example, constraints that are imposed by the topological vector data model. A constraint has to be specified explicitly if a rule exists in the real world but is not reflected in the database schema or is not inherent of the data model. One of the major problems of object-oriented databases is the lack of inherent integrity constraints that forces developers to specify many explicit constraints. The task of specifying integrity constraints can be simplified if the

knowledge of common structures underlying our understanding of the reality is used.

One of the ways to organize objects of the real world is to create hierarchies that align objects along "part-of" relationship. Properties of such hierarchies are studied in the field of ontology called "mereology". Mereotopology extends mereology to handle the notions of continuity, boundedness and connectedness. Mereological and mereotopological relationships have a potential to be used for specifying integrity constraints for spatial databases. Author suggests developing of mereotopological templates and testing databases against these templates. Mereotopological template outlines the structure of "part-of" relations between the types of objects in a particular database. Other relations such as connectedness can be deduced automatically. Mereotopological templates can be implemented in object-relational and object-oriented databases.

**Stern, David I.**, Rensselaer Polytechnic Institute, Troy, NY: "The Rise and Fall of the Environmental Kuznets Curve"

This paper reviews the literature on the environmental Kuznets curve (EKC). The environmental Kuznets curve, popularized by the World Bank Development Report in 1992 proposes that indicators of environmental degradation first rise, and then fall with increasing income per capita. Some took these results to mean that developing countries were "too poor to be green". However, recent evidence shows that: 1) Developing countries are addressing environmental issues, sometimes adopting developed country standards with a short time lag and sometimes performing better than some wealthy countries. 2) The EKC results have a very flimsy statistical foundation. More robust statistical results shows that environmental impacts, and in particular emissions of pollutants, generally rise with income but time effects can reduce emissions per capita across countries at differing levels of income. The EKC idea only rose to prominence because few paid attention to the diagnostic statistics from these analyses. When appropriate techniques are used the EKC is shown not to exist. Instead we get a more realistic view of the effect of economic growth and technological changes on environmental quality.

**Sternberg, Rolf**, Montclair State University: "Perception, Response, and Interpretations: The Urban Aesthetics' Spatial Presence"

The aesthetic refers to the attractive, the beautiful. Perception, response and interpretations are recognition of individuality, and recognition of the urban aesthetic points to multiple recognitions of the urban aesthetic instead of a restricted identification of the same. A study of the urban aesthetic addresses the more general rather than individual recognition of the

attractive, the beautiful. Exploration and interpretation of the urban aesthetic is multi-faceted and global in scope rather than locally confined. The urban aesthetic is an integral part of urban systems. Its distribution is irregularly often discontinuous and varies with building materials used and design of structures for planned functions. Variation in perception of a collectivity of observers, differences in intensities of perceptual responses, and dissimilar reading of the urban aesthetic enhance the identity of urban ensembles identified as aesthetic. The urban aesthetic can be considered a range of attributes to enhance the urban morphology, partly reflecting the enlargement of technological skills of designers, builders and crafts people. This points to a changing level of the urban aesthetic. Wealth, power, ego, these serve to illustrate the influence of builders and property owners and the perception of the self in fostering the aesthetic. The presence of the urban aesthetic manifests itself in its wide acceptance globally. It is possible to identify the urban aesthetic with palaces, villas, theaters, churches, government buildings, museums, railroad stations and bank buildings, to cite examples. Building materials can serve in comparable ways. Since the urban aesthetic is an amalgam of the abstract and the material arts, the visitors who seek out these places provide the quantitative measure to assess the urban aesthetic. The buildings or complexes popularly recognized as aesthetically attractive serve to draw visitors into their orbits. The urban aesthetic contributes to shaping urban morphology and therewith contributes to shaping urban systems. It is difficult to model the urban aesthetic, it is something that exists. Another way to approach the subject is in the perspective of how it "possibly" influences surrounding areas in transition. At that juncture it turns into an element of influence, fostering spatial coherence and enhancing the transformed setting.

**Tang, Tao, Linhua Song, and Fuyuan Liang**, SUNY Buffalo: "Characteristics of limestone dissolution in Stone Forest Park, southern China"

This study analyzes the characteristics of limestone dissolution underneath soils and by rainwater on the surface of limestone pinnacles in the Stone Forest Park, southern China. The dissolution intensity underneath soils was tested by limestone tablets during the two-year period. The results suggest that the sub-soil dissolution intensity increases from the slope to the bottom of the karst basins. The distribution pattern of dissolution intensities is similar to that of soil CO<sub>2</sub> concentrations. Subsoil dissolution intensities at different soil depth are positively correlated to the logarithmic P<sub>CO<sub>2</sub></sub> concentrations. The correlation coefficient R is 0.93236. Water samples were collected and analyzed from various micro-landform positions on the limestone pinnacles. The results of water chemistry in dissolution pans indicated

that the dissolution intensity decreases from leaf litter covered pans to that of bare surfaces. Runoffs in rinnenkarens were sampled using a pipette during rainfall storms. The results indicated that quantities of measured parameters, namely TDS,  $\text{HCO}_3^-$ ,  $\text{Ca}^{2+}$ , and  $\text{Mg}^{2+}$  are higher at the bottom than that on the top in the rinnenkarrens. This suggests that dissolution occurs during rainfall storm along rinnenkarrens. The results of this study support the sub-soil origin and rainwater modification hypothesis proposed by previous studies.

**Treves, R. Valeria**, Hunter College: "Operation Atlas: Is New York City Condemned"

This paper examines the NYPD's 'Operation Atlas;' an operation of heightened security for the duration of the United State's attack of Iraq. In this paper I explore Operation Atlas as an example of the nation-wide trend towards the blurring of the boundaries between national security and local law enforcement. Further, I examine Operation Atlas within the social geography of New York City itself and argue that the neo-liberal character of the city and its revanchist social order are part of the re-definition of national security encompassed by the blurring boundaries between national security and local law enforcement.

**Vermette, Stephen and Timothy J. Fay, Buffalo State College, and Wayne Gall, NYS Department of Health:** "Exploration of Scoby Dam Cave, Western New York" Poster

This poster highlights the discovery and mapping of the Scoby Dam cave. The cave forms a single passage set in shale beds. The cave's geologic setting is described, along with a possible explanation of its formation. A cave map is presented, drawn from compass and tape survey methods. A number of the cave's features are described. Of particular interest was the discovery of thousands of over-wintering mosquitoes, thought of as possible West Nile vectors, and the discovery of a rarely documented helemyzid fly within the cave.

**Yu Zhou**, Vassar College, "The Making of a High-tech Region in a Transitional Economy: Institutional Evolution in Zhongguancun Science and Technology Park in Beijing."

This paper examines Zhongguancun (ZGC), China's first and the most prominent science and technology park in the northwestern part of Beijing in its pursuit of China's own "Silicon Valley". Since the mid 1980s, ZGC has experienced dramatic transformation from a quiet Beijing suburb designated for national level scientific research and higher education into bustling hub of high-tech business, "world newest cultural Mecca," labeled by Newsweek International (September, 2 2002). Originated in the

planning economy, lift by the sudden arrival of information technology revolution, besieged by multinational giants, and always under the watchful eyes of China's powerful central state, ZGC have traveled on a trajectory radically different from world most high-tech regions. Its evolution illustrates the possibility of alternative institutional arrangements, and intricacy of institutional transformation amid tremendous internal and external forces. After tracing the institutional evolution in ZGC, I will also analyze its current institutional configuration for fostering innovation. The attention will be paid not only to the formal organizations such as the public and private entities and their relationships in the regions, but also to the informal social networks prevailed in the region. Studies on ZGC will yield rich lessons on the interaction between multinational firms and local technology firms in developing countries, the global diffusion of high-tech technology, and the strength and peril of local institutions.

**Zolnik, Edmund**, Binghamton University: "Town-Gown Unlimited Access Transit Services: A Case Study on Mansfield Connecticut and the University of Connecticut"

Universities and communities often face similar issues in providing parking and transportation services for students, faculty and staff as well as for residents of the community. The pressures on universities as well as communities to moderate traffic volumes on main arterials and provide adequate parking within a reasonable distance from campus, in the face of land use constraints, have lead many universities and communities to cooperate in the provision of public transportation. Such town-gown efforts to solve mutual transportation problems have become financially feasible given the increases in public transit capital available through the 1991 Federal Intermodal Surface Transportation Efficiency Act (ISTEA) as well as the Transportation Equity Act for the 21<sup>st</sup> Century (TEA -21). State funding has also followed federal dollars and lead to the expansion of unlimited access services beyond the confines of campus to the surrounding community. But recent budget deficits at the federal and the state levels have lead universities and communities to reconsider their involvement in cooperative efforts which provide services to constituencies other than their own. This case study recounts the efforts of interested parties in the Town of Mansfield, Connecticut as well as at the University of Connecticut to rejuvenate a successful unlimited access transit service that lacked the organizational strength to withstand budgetary pressures at the federal, state and local levels.