

**Middle States Division of the Association of American Geographers
Annual Meeting 2005 hosted by State University of New York at Fredonia**

ABSTRACTS

Avgerakis, Stephanie, The United States Military Academy | “Status of Women with Regard to Applied Shari’a Law in the Middle East”

Islamic law, shari’a, has developed over thousands of years, its original texts being interpreted and applied by human beings through various cultural contexts. In recent times, some Arab countries in the Middle East have made transitions from a state ruled entirely by shari’a to a more secular state. In these countries, separate civil and religious courts have been formed to deal with different cases where different laws preside. This research paper explores those Middle Eastern countries that execute some form of shari’a in their judicial system and examine their education opportunities for women. It was expected that those countries with strong enforcement of shari’a would have poor educational opportunities for women. Research into the Middle Eastern countries’ Human Development index (HDI), Gender Development Index (GDI), female literacy rate, and enrollment ratios yielded results that did not support the original thesis. Overall, there was not a consistent relation between countries ruled primarily by Islamic law and countries with little educational progress of women. Other possible factors surfaced, during the research on this topic, which may have an influence on women’s advancement in Middle Eastern countries. For example, a country’s Gross Domestic Product (GDP) and economic progress factor into its ability to provide better education for its women.

Barron, Elizabeth, Rutgers University | “Beyond Green Capitalism: Providing an Alternative Discourse for the Environmental Movement and Natural Resource Management”

In its role in the capitalist economy, the U.S. government promotes unimpeded and unlimited economic growth and expansion built on labor exploitation and natural resource extraction. In its role in the management of federal lands and natural resources, it promotes conservation and preservation based on concerns about limits, scarcity and national identity. Given the power of the Capitalist economic model in the U.S., since the 1980s the mainstream environmental movement has moved away from more “extreme” approaches such as deep ecology and bioregionalism, and towards compromise through green capitalism. This approach reduces

the possibilities for environmental conservation imaginings because it forces conservation to justify itself within the context of capitalism, a discourse for which it is not well suited. In order to provide an alternate discourse for the environmental movement, I utilize Marx’s fundamental class positions to theorize the class processes around mushroom hunters. By recognizing this theoretical space outside the dominant discourse of the capitalist economy mushroom hunting and related gathering of nontimber forest products opens a new space for environmental issues to be discussed. This in turn allows for the separation of capitalism and the federal government in regards to natural resource management through the inclusion of these diverse economies.

Blumler, Mark A., SUNY Binghamton | “Dispersal Control of Invading Organisms”

Invading species are a major conservation concern. Management currently focuses on biological control and other ecological control methods, and on quarantine at state and federal borders (a type of dispersal control). Relatively little attention is paid to preventing or slowing dispersal of the invading organism once it is well-established.

Using an approach similar to GAP analysis, one can predict the likely eventual range of an invading taxon, and the strength of barriers to its dispersal. If, based on this information, dispersal control seems feasible, practical steps can be taken to slow or prevent its spread. Several examples from my own research, on purple loosestrife, lyme disease, and slender wild oat, illustrate the potential utility of dispersal control.

Boorstein, Margaret F., C.W. Post College of Long Island University | “Environmental Management Quandaries in Kakadu National Park, Northern Territory, Australia”

Kakadu National Park in Australia is a place of environmental management contradictions. Currently listed as a world heritage site, its history is filled with complexities of cultural conflict, questions of ownership, overlapping of authority, ecological quandaries, both literally and figuratively, and international political dealings. For about one-fourth of the year, during The Wet, much of the park is almost inaccessible. Although a national park, it is a

home to about 500 people. And those residents have had enormous influence on the use of a valuable mineral found in or just outside the park, uranium. The park's existence and management are of vital importance to indigenous peoples, large corporations, national and territorial governments, international organizations, and the tourist industry. Its environmental protection and economic advances have waxed and waned in response to and attacks from outside interests. An investigation of Kakadu National Park shows how these conflicting players and their battles have led to preservation, to some extent, of a unique part of the Earth, not necessarily to the pleasure, much less satisfaction, for all. It shows how shifts in power and public attitudes and perceptions over thirty years have led to changes in human-environmental interactions.

Boyajian, Donald and Adam Burnett, Colgate University | “Great Lakes Ice Cover Variability and Its Influence on Lake-Effect Snowfall”

Several authors have noted significant increases in Great Lake-effect snowfall in recent decades. Among the reasons that have been proposed for this increase include changes in lake surface temperature, lake ice cover, air temperature, wind direction, or some combination of these factors. This study examines Great Lakes ice cover variability since 1973 as a possible mechanism in lake snow enhancement using data from the NOAA Great Lakes Ice Atlas. We are most interested in the question of whether Great Lake ice cover has changed significantly in recent years, the timing of these changes, and the degree to which these changes are consistent with increased lake-effect snowfall. Daily ice cover percentages for each lake from 1973-2002 were used to derive the dates of the first and last occurrence of 15% ice cover, ice season duration, and integrated ice cover each winter. These data were compared to winter snowfall and air temperature records from several sites across the Great Lakes region. The ice cover climatology reveals a significant decrease in the length of the ice season since 1973 for all lakes. These decreases reflect significant changes in the first date (later) and the last date (earlier) of 15% ice cover. Ice cover is negatively correlated with winter air temperature, which is also negatively correlated with snowfall at many sites. The ice cover-snowfall relationship reveals mostly positive associations throughout the Great Lakes, even in lake-effect snow areas, and appears to reflect a shared association with air temperature.

Buonanno, L. and Ann K. Deakin, SUNY Fredonia | “Geographic Scale & Its Implications for Identity in the European Union”

Since the Treaty of Maastricht in 1992, there have been numerous theoretical and empirical studies focusing on the national identity of the EU members and candidates and the supranational identity fostered by the EU. Typically, what is at issue is the strength of attachment of EU citizens to their nation and to Europe. Many studies have come to the conclusion that there are different theories of identity, which can be used to describe this attachment – cultural, instrumental, civic, affective-symbolic. The definition of identity used in much of this work as been based on the concept of *national* political community and structure (see, for example, Easton 1965). This definition is then applied to *supranational* identity – being European, for example (see, for example, Jiménez et al. 2004). There is, however, a wealth of literature from the field of geography that concludes that identity operates at many different scales. The focus is primarily on *place* identity. Identity has been defined by relationships to others from the same place, connections to local history and the natural environment, the communication of the place to those outside, ‘having roots’, a sense of reality and a measure of empowerment related to territory, and so on (Galston & Baehler 1995, Muir 1997, Paasi 1996, Shammas 1996). Each of these authors was writing about identity at scales ranging from the national to the individual. It is suggested that a study of identity at scales at these local levels may reveal insight into the connection between national and supranational identity in the EU.

Caggiano, Michael, SUNY Geneseo | “John Cobb and the Visual Record of Alaska, Circa 1900: A Content Analysis”

The period between its purchase in 1867 and the close of the nineteenth century marked the expansion and creation of Alaska's settlement geography, highlighted by communities associated with the salmon fishery, codfish, and whaling. John Cobb, founder of the Washington College of Fisheries, left an extensive photographic record based on his Alaskan travels. The 211 images analyzed for this presentation spanned 42 identifiable locations and a half-dozen principal topical themes. Analysis of this early record reveals the striking concentration (and specializations) of commercial fishing in the Alaskan panhandle as well as its southwestern peninsula and archipelago.

Conley, Jamison, The Pennsylvania State University | “A Historical Geography of Industry in Canton, Ohio”

This paper is a broad examination of the economic history of Canton and the impact of manufacturing industry on its growth that is based on aggregate census statistics, historical atlases and county histories, and published corporate histories, rather than an in-depth analysis of individual census records or corporate archives that are not available for this initial research. This overview is given in three sections. First, literature on industrial development is examined, and it is then applied to a brief economic history of Canton to analyze the growth of Canton’s industry and the transition from agricultural machinery to other steel products. Lastly, some of these influences are examined in greater detail through a discussion of three company histories: Dueber-Hampden Watch Works, the Timken Company, and Diebold, Inc. The primary influence for Canton’s early economic growth was the arrival of the Pittsburgh, Fort Wayne, and Chicago Railroad, and as industry grew, more railroads were routed through Canton, further improving Canton’s comparative advantage over neighboring towns. This dynamic, however, failed as lower labor costs elsewhere in the world and cheaper global transportation undermined Canton’s advantages. Companies that have survived this economic downturn have either moved most of their manufacturing plants outside of Canton, as the Timken Company has done, or have changed their focus to more modern technologies, as Diebold has done.

Creighton, Emily, SUNY Geneseo | “Drive-In Mythology and Drive-In Realities: The Case of Texas”

Although the drive-in movie theater as a landscape element dates back to 1933, most drive-ins were established between the 1940s and 1960s. Stagnation and decline reduced the number of drive-ins from over 4,000 to 500 by the 1990s. The total disappearance of drive-ins in some states, notably New Jersey, prompted the argument that land development pressure, most marked in metropolitan regions, was a key factor in the decline of the drive-in, reinforcing the impacts of cable television, the VCR and video rentals, sexual mores and permissiveness, Cineplex diffusion, and the physical decay of many drive-ins. This paper explores the trajectory, scale, and local demographic context of 100 Texas drive-in theaters. Early closures were more apt to be small theaters in small urban markets, while the late closures were characteristically large theaters in metropolitan settings. It is very unlikely that land

development pressure was a key catalyst for the disappearance of the drive-in.

Dewey, Dorothy Ives, West Chester University | “Transfer of Development Rights: Hope or Hype?”

Transfer of development rights or TDR programs are often proposed as an effective land use tool to discourage sprawl forms of development. It is widely postulated that TDR programs provide the proper economic incentive to preserve undeveloped land while allowing development to occur. As a market-based technique, TDR programs are designed to encourage the voluntary transfer of growth from the places where a community would like to see less development (called “Sending Areas”) to areas that are more appropriate for development (called “Receiving Areas”). With this process, development pays for preservation. TDR has a firm basis in the land planning community nationwide. This paper looks at the experience of TDR programs in the suburban Philadelphia region. A number of TDR programs have been enacted in recent years by local municipalities in suburban Philadelphia locations. In many, if not most, cases, the programs have proven to have had minimal, if any success. Recent actions in a number of communities have seen the repealing of TDR programs. Using a case study in West Brandywine Township, Chester County, of an initiative to implement a TDR program to influence the design of impending development, this paper explores the practical obstacles to enact and utilize TDR programs. Findings indicate that spatial scale, socio-political context, and institutional design are important determinants to the success of TDR programs.

Diamond, Adam, Rutgers University | “Market Stimulation or Environmental Regulation: The State and Organic Standards”

Niche economies benefit from market distinctiveness, which can be generated through a combination of public and private means. In the case of the organic food industry, federal standards have played a crucial role in promoting the industries growth. However, the implementation of Federal standards in 2002, superceding a patchwork of state and private standards, has been accompanied by much controversy. Critics have accused the standards of simply paving the way for the entry of large corporate players into what was previously the domain of a multitude of small businesses. This is seen by many as corrupting the original intent of Federal organic foods legislation, and certainly going against the social movement

origins of the organic movement. The promulgation of Federal standards presents a paradox: the government is seeking to promote a particular form of agricultural production without denigrating the vast universe of agriculture which does not conform to the exacting requirements of organic standards. It is precisely its niche character that makes organic food production a highly profitable market, one so profitable that multinational food companies are rushing to take advantage of this new opportunity. However, another view is that government sponsorship of this new ecolabel, enforced through third party certification, constitutes an innovative and politically popular form of environmental regulation. State theory helps us navigate these complexities and understand the contradictory impulses governing the promulgation of ecolabels such as organic.

Doyle, Brian J., The United States Military Academy | “Social Reproduction Among The Roman Catholic Hispanic Population In Chapel Hill And Carrboro”

The focus of this paper is to examine the dynamics relating to the practice of Roman Catholicism currently affecting the population of Hispanic immigrants living and working in the cities of Chapel Hill and Carrboro, North Carolina. The paper will primarily address how the Church is assisting this population with regard to health – both physical and mental – and the role that this plays in acculturation. Many activities and traditions rooted in Mexico have been transferred to Chapel Hill through the influence of the parish of St Thomas Moore. A relationship has been established with Parroquia de Santa Cruz de Juventino Rosas in Mexico which has had repercussions both north and south of the border. The result has had a unique impact on the health of both parishes and has a further role as an enabler of Katz’s version of vagabond capitalism.

Dudley, Peggi, SUNY Oneonta | “Main Street Oneonta: A Dying Downtown or Sustained by College Students?”

Retail along Main Street is negatively impacted by the big-box trend in the Southside region of Oneonta. However, retail is still thriving along Main Street. In this paper, I analyze retail changes on Main Street since the consumer shift to the Southside region. Vacancies/shop closings, long-term successful shops, and college-oriented retail are all examined to understand the geographical trends of retail shopping in Oneonta. Is Main Street Oneonta slowly dying, or will it be continuously saved by the college students?

Fair, Linda S., Rutgers University | “Impact of the Spatial Dispersal Policy on Refugees in Denmark”

Several Western European countries have enacted spatial dispersal policies for refugees and asylum seekers within their borders. In spite of the fact that Denmark has had policies of spatial dispersal since 1986, little research has been conducted on the efficacy of these policies. Filling a gap in earlier research, my work concentrates on the impacts on refugees (from the refugee’s point of view) of the current spatial dispersal policy in Denmark. Preliminary results show that refugees are placing a lack of importance on the spatial dispersal policy in principle but are questioning, and suffering from, the manner in which the spatial dispersal is being implemented.

Ferremi, Jason, SUNY Oneonta | “A Railroad Town Transformed: Urban Development in the Downtown Section of Oneonta, New York”

The city of Oneonta has seen significant changes as it has transitioned from a railroad town to a modern urban landscape dominated by sprawl development and the automobile. Main Street, in the downtown section of Oneonta, has undergone continuous modifications as retail shops have adjusted to consumer and development trends. Fundamental structural changes have also impacted the spatial layout of downtown Oneonta. In this paper, I discuss the urban development along Main Street, specifically at the Broad Street intersection, which no longer exists. Broad Street shops and a streetcar line have been replaced with parking lots and a major chain hotel.

Frothingham, Kelly M., Buffalo State College, “Determining the Impact of Ice Scour on Stream Channel Morphology in the Buffalo”

Ice jams and subsequent flooding of neighborhoods are events that routinely occur on Great Lakes tributaries. These events invariably cause streambank collapse and loss of riparian land; however, there is little quantitative information in the scientific literature on the effect of ice scour on channel erosion. Moreover, the type of bank stabilization engineering implemented here in the Buffalo River watershed is currently based on the effect of ice scour on riprap, rather than on the effect of a particular design storm discharge on an untreated bank. The objective of this study was to determine bank erosion due to ice scour in two stream reaches located in the Buffalo River watershed. The sites were set-up and surveyed at the USGS gage stations on Cazenovia and Cayuga Creeks during the summer

of 2004. These sites were re-surveyed in the spring of 2005. Contour maps for the surveys were generated and spatial variability of channel morphology within the reaches before and after ice cover was evaluated qualitatively by visually inspecting variations in bed elevation on contour maps. Sediment dynamics were quantified in terms of net sediment accumulation or removal by volume within each reach between channel surveys. In addition, temporal variability in channel morphology was defined by changes in the profiles of surveyed cross sections. Results indicate that ice scour does have a significant impact on channel morphology in these reaches in terms of changes in channel morphology (i.e., bank erosion) and sediment dynamics.

Gaylor, Lindsay, SUNY Geneseo | “Distance, Isolation and Tourism Development: The Case of Scotland”

Scotland’s tourism industry is valued at close to £ 5 billion a year and employs over 200 thousand people in a total population of close to 5 million. Population and tourism alike are concentrated in the southern lowlands, most notably Edinburgh, a hundred miles from the English border. But tourist settings abound in the rest of Scotland in increasingly remote destinations from the Highlands and the inner and outer Hebrides to Orkney and Shetland Islands, the latter over 500 miles from northern England. Documented tourist accommodation facilities include hotels, bed and breakfast establishments, hostels, and campgrounds. The island destinations are typically reached by vehicle and passenger ferries rather than scheduled commercial flights. Analysis of Scottish tourism and its related accommodation reveals the changing profile of the latter as distance and geographical isolation constrain overall tourist numbers and help to fashion the profile and preferences of visitors. The results also indicate that, as absolute tourist numbers diminish, dependency on tourism tends to increase.

Gould, Joseph and Stephen Vermette, Buffalo State College | “Characterizing the Beach Morphology of San Salvador, Bahamas”

San Salvador is a carbonate island located 640 km ESE of Miami, Florida on the eastern edge of the Bahamas Bank. The island is where Columbus arguably made first landfall in the New World. The island is noted for its carbonate dunes and karst geomorphology, as well extensive sand beaches. The objective of this study is to survey a subset of island beaches to characterize their

morphology and to provide a base line for future studies. This paper presents a series of maps and profiles characterizing beach morphology, linking this morphology to likely formation processes as suggested by beach position and shape, geology, climate, currents, as well as near shore environments. Survey methods are discussed, as well as steps to include the beach maps in an existing GIS database.

Grant, Michael Lee, The United States Military Academy | “Urbanization and Traffic Congestion: Analysis of the Problem and Several Solutions”

The focus of this paper is to examine the current problem that cities are facing today, in regards to traffic congestion, and evaluate several of the possible solutions to this problem. The paper also delves into the heart of the traffic congestion problem, the “rush periods.” In order to gain an understanding of the current problem cities are being forced to deal with, the paper discusses the historical events leading up to today’s dilemma. These events are centered around the emergence of the highway system and the expansion of the privately owned automobiles. Vehicles helped lead to the creation of the suburbs, however, they have lead to one of the biggest problems that city-dwellers are currently facing – traffic congestion. The paper then discusses the significance of the problem today. Lastly, this paper analyzes and discusses several solutions to the problem of traffic congestion. The paper asserts that there is not one solution that will fix the problem of traffic congestion; however, with a combination of several different solutions, cities would be able to effectively reduce the amount of time people are traveling on the highways to and from work.

Hardy, Jeffrey, East Stroudsburg University | “A Climatology of Tropical Cyclones Affecting Pennsylvania”

Although much of Pennsylvania is located north of 40°N, the state has experienced significant damage from hurricanes, tropical storms and the remnants of tropical systems. Flooding is the primary type of tropical cyclone damage in Pennsylvania. Connie and Diane in 1955, Agnes in 1972, and Ivan in 2004 are some of the more notable examples of tropical systems that have produced copious downpours and flooding in the Keystone State. Strong winds from tropical cyclones such as Floyd in 1999 have also caused significant damage in the form of downed trees and power lines and power outages in Pennsylvania. Using National Hurricane Center data for the 1851-2004 time period, this study first

identifies the tropical systems that have affected the following Pennsylvania cities: Philadelphia, Harrisburg, Pittsburgh, Erie, Williamsport and Scranton. These cities were chosen based on population characteristics and to ensure proper geographic coverage in the state. The monthly and interannual frequencies of tropical systems are analyzed for each city. The paths of the tropical systems and the flooding and high wind impacts they have on Pennsylvania are also examined.

Hathaway, James T., Slippery Rock University | “Recent Trends in the Environmental Sector in the United States”

This paper provides a preliminary look at recent trends in the environmental sector of the United States from the perspective of the geography of services. For my purposes, the environmental sector includes two private subsectors, one private/public subsector, and a public sector

- the environmental industry (companies whose primary function is to supply environmental goods and services, e.g., environmental consulting firms),
- non-governmental organizations (e.g., environmental interest groups),
- environmental management (e.g., water supply, wastewater treatment, waste management),
- and government (e.g., environmental protection agencies at the federal, state, or local level).

My data comes from private groups, especially Environmental Business International; the Economic Census; the Department of Labor; and personal interviews. This data shows the number of establishments, revenues, size of the workforce, and degree of concentration (within the private subsectors) for the four subsectors listed above. The environmental sector is complex and in flux. My elucidation of this sector shows its broad features and its peculiarities and provides insight into the forces driving the growth of services.

Henderson, Keith, Villanova University | “The Environmental Geography of Pennsylvania’s Growing Greener Program”

In December 1999 Pennsylvania enacted the Environmental Stewardship and Watershed Protection Act, more commonly known as ‘Growing Greener’. The Growing Greener program provided \$650 million over a five-year period for grant funding aimed at improving the state’s environmental condition by restoring natural resources and preserving open space. Specific goals included preserving farmland,

maintaining state parks, restoring watersheds, and cleaning up abandoned mines. Funding was issued through competitive grants overseen by four different state departments. This paper examines how these funds were used, and more specifically, how they were distributed geographically across the state. The ways in which Growing Greener funds were utilized differed considerably from one region to another. In May 2005 voters approved a second round of Growing Greener funds, totaling \$625 million, by a large 60.5% majority. However, support for the bill varied considerably, with overwhelming support in the south and east, and little support in the central and northern regions. The paper concludes by comparing public support for Growing Greener to the patterns of how previous funding was used, as well as to patterns of population growth and political affiliation.

Hernández Corchado, Rodolfo Alejandro, City University of New York (CUNY) | “No human being is illegal/*Ningún ser humano es ilegal* – Producing the spaces of social justice: Mexican Immigration in New York City and the *Asociación Tepeyac de New York*”

This paper discusses the emergency of undocumented Mexicans immigrants who have been incorporated into the *Asociación Tepeyac* of New York. *Tepeyac* – as a political agent – is focused on defending the human rights of the immigrant Mexican population in the city of New York. The use of the streets of New York as a space for the political representation of undocumented Mexican immigrants is explored.

Since Easter 1997, the streets of downtown Manhattan have been used by the *Asociación Tepeyac* to represent the Passion of Christ, through the *Viacrucis de los Inmigrantes* (The Passion of the Immigrants). The streets are used as a political instrument to denounce and contest the exploitation of Mexican undocumented immigrants, and global capitalism and neoliberalism that have contributed to a mass migration from Mexico to the East Coast of U.S under circumstances of social and political injustice. These “invisible” meanings of the spatial and temporal experience of a social group are transformed in a visible experience throughout urban space by the *Viacrucis*. Consequently, two main questions that arise in this space are: Who is part of the nation? Who has the right to the space?

The paper also argues that the *Viacrucis de los Inmigrantes* can be considered an example of the politics and geographies of the representation and resistance of the subaltern groups. Throughout the *Viacrucis*, the hegemonic representations produced and legitimized by the State as the “illegal alien”

are contested and denounced under the statement: “No human being is illegal/*ningún ser humano es ilegal.*”

Hilferty, Christopher M., The Pennsylvania State University | “Applying Geography to Sendero Luminoso”

Geography and Spatial Analysis contributes tremendously to studies of conflicts around the world. “Applying Geography to Sendero Luminoso” hypothesizes using literature of political, historical, economic, and sociological perspectives about the Sendero Luminoso movement. Based on these studies, one could better analyze this situation through the use of geographic concepts, because this revolution is not easily defined within the parameters established by past revolutions. Utilizing historical evidence provided by published works, one is able to see that the goal of Dr. Guzmán and his students was to give native peoples of Peru a voice in the Peruvian system. Most historical conflicts are dissimilar when compared to Sendero Luminoso in that most revolutions have utilized the global community to perpetuate the conflict. This movement is not about toppling the system, resource wars, territoriality, or usurping power—it is about not allowing the inalienable rights of certain human beings to be extinguished. This is the vision of Dr. Guzmán, his students, and the Amerindians of Peru—a vision that Geography explains well.

Justice, R. and Kim Irvine, Buffalo State College | “Survey of Pesticide and Fertilizer Use in Cambodia’s Stung Chinit River Watershed – Preliminary Results”

The misuse of pesticides and fertilizers in developing nations is a growing concern in terms of water quality, human health, and sustainability of farmlands. In this study, farming practices were documented by on site interviews with Cambodian farmers in the Stung Chinit watershed, Kampong-Thom province. The survey questionnaire, applied through an interpreter, covered such topics as: fertilizer use/storage; pesticide use/storage; crops (type grown, yield, value, time of planting and harvesting); irrigation; water supply; health; and farm life. Interviews were conducted in different highland and lowland villages in the Stung Chinit River watershed area to investigate possible differences in crop types, pesticide, and fertilizer use related to different physiography. Farmers of varied economic backgrounds were interviewed to gain insight on how much pesticide or fertilizer product per growing season is purchased, based on income levels. Preliminary results indicate that

chemical fertilizers are mostly used by upper income farmers and natural (manure) fertilizers are used by lower income farmers. Proper chemical fertilizer application based on N-P-K ratios and soil types appears to be non-existent. Fertilizer selection is based on what neighbors use, what is least expensive, and what is available from the market. Pesticide use is similar to fertilizer use in that the knowledge of use mainly comes from neighbors and market dealers. Typically, the pesticide labels are in Thai or Vietnamese so most farmers are unable to read instructions for proper application and safety. Personal protection equipment while applying pesticide is rarely or never worn, due to limited knowledge of adverse health effects. Both pesticides and fertilizers are stored in or under homes where the entire family eats and sleeps. Further work must be done with through N.G.O. groups and distributors of on farm chemicals to promote safer environmental conditions and proper product use for Cambodian farmers.

Kelly, Jessica J., Rutgers University | “Forest Transition Trajectories: A Case Study in El Salvador”

Recent studies have demonstrated that the human and environmental landscape in El Salvador is changing drastically in recent years. Two of the most visible changes are 1) the increase in international out-migration and rural to urban migration and 2) the increase in forest cover in the rural areas experiencing such out-migration. The forest transition theory, originally developed to explain landscape changes in the industrializing societies of the 19th and 20th century Europe, has recently been applied to Latin American landscapes undergoing urbanization and industrialization. A comparative analysis of gender-specific migratory patterns and land use decisions in rural communities of El Salvador demonstrates the dynamism, variability, and vulnerability of forest transition in industrializing states.

Knigge, LaDona, SUNY Buffalo | “Exchange Value versus Use Value: Establishing the ‘Value’ of Community Gardens in Buffalo, New York”

Current policies of the City of Buffalo regarding community gardens allow five year contingent leases for community gardens on city owned vacant land that has been deemed to have no other ‘higher use’. While this definition is not specifically defined, ‘higher use’ is commonly interpreted as *economic value*. The current (dismal) economic climate in the City of Buffalo would make the decommissioning of a community

garden unlikely. A situation has just emerged in which an existing garden site as been slated as the site of a Hope VI in-fill public housing structure, thus challenging the validity of the community gardening lease. While past considerations of the security of a contingent community garden lease in Buffalo seemed fairly secure due to the grim economic picture within the City of Buffalo, this paper will discuss the definition of 'value' and will be instrumental in documenting and establishing the *use value* versus *exchange value* and discuss the *benefit* of community gardens to residents and neighborhoods within the City of Buffalo.

Kory, William B., University of Pittsburgh at Johnstown | "Who Are We: Looking at the Ancestry of the People in Pennsylvania"

There was a question on the long form of the 2000 US Census of Population which asked for the ancestry or ethnic origin of the respondent. A vast majority of Pennsylvanians replied with an array of answers ranging from "Arab" to "West Indian". Although only 1/2 million people in the state were foreign born, over 13 million ancestries were reported on the questionnaires. Since this figure is more than the total population residing in Pennsylvania, many people reported multiple ancestries.

This presentation will focus on the size and composition of ethnic population in the state by counties and compare these figures with the foreign born population. The counties will be ranked by the size of foreign born population and by the largest ethnic group in each. The spatial distribution of these groups will also be examined to determine the general location and "clusters" of various ancestries.

LaLonde, Tara and Peter Scull, Colgate University | "Examination of Reforestation in Eaton, New York"

Reforestation has been occurring in Madison County, NY since the mid 1930s, when farmers began to shift agricultural production away from unsuitable lands. This presentation examines the reforestation of abandoned agricultural lands in Eaton, NY, Madison County. Agriculture has been the primary land use in Madison County, NY; however, there continues to be a decline in the number and acreage of farms, which enables the regrowth of forests. Soil quality plays a role in a farmer's decision to cultivate or revegetate the land. In order to examine reforestation, aerial photographs were analyzed by GIS to investigate the land cover/ land use changes across the years of 1936, 1955, 1975, 1994, and 2003. The aerial photographs were interpreted by the land cover/

land use classes (e.g. forest, coniferous plantation, shrub, developed, agriculture, and water) to quantify the changes in acreage. Furthermore, agricultural capability classes from the Madison County, NY Soil Survey were used to determine the agricultural quality of the reforested lands. Preliminary results indicate the reforested lands occurred on soils with limitations to agricultural production. An understanding of the timing and extent of reforestation in Eaton, NY aids in forest management policies.

Lawrence, Henry W., Edinboro University of Pennsylvania | "The Cultural-Historical Geography of Street Trees in American Cities, 1700 – 1900"

Most American cities and towns have many streets lined with trees. How did this arboreal urban landscape form develop and what are its cultural geographical patterns? My research traces the history of city tree planting in America from the early eighteenth century to the late nineteenth century. European precedents were influential but not determining forces. By 1700 most French cities had various forms of linear promenades, Dutch cities had tree-lined canals and British cities had green squares. Almost all of these were planted by government or by aristocratic landowners. But the American pattern of city trees began with individuals planting trees in front of their houses. The most important early plantings appeared in New York City around the turn of the eighteenth century. By the turn of the nineteenth century many cities had street trees and by the middle of the nineteenth century they had become ubiquitous. The Lombardy poplar played a crucial role at the end of the eighteenth century and paved the way for other species later. The study of city tree planting can be used to trace the development of culture regions and the diffusion of urban cultural landscape forms. The spread of the practice followed both hierarchical and relocation diffusion patterns, and is closely associated with national culture regions up until the middle of the nineteenth century when cosmopolitan influences were being felt everywhere.

Lord, Robert, Niagara County Community College | "A Trail Along the Niagara Escarpment in Western New York"

Canadians, particularly those in Ontario, have been establishing hiking trails and heritage driving routes for over forty years. Hiking paths like the Bruce trail bring in over \$100,000,000 each year from ecotourism. In the State of New York we have the same geologic and geomorphic

features but have neither established a trail nor submitted our landform for recognition, as a world-class biosphere, to UNESCO. As a result western New York is foregoing the economic benefits of the growing ecotourist industry. This presentation is designed to stimulate interest in working with Niagara County Community College in designing an optimal route for both vehicular and pedestrian traffic along an escarpment trail from Lewiston to Rochester.

Mano, Jo Margaret, SUNY New Paltz | “Paradise Lost? Smart Growth, ‘Takings’ and Oregon’s Measure 37”

For over 30 years, Oregon has been a stellar and unique example of wise, statewide planning in the US. Innovative and sweeping legislation passed in the environmental 1970s decade led to effective urban growth boundaries dividing rural farms and forests from cities. Anti-sprawl advocates and new urbanists have long celebrated Oregon and particularly Portland as models of how strong land-use regulations can support vibrant downtowns with public transit systems, as well as preserving rural areas from suburban intrusions. These actions promote the major principles of the smart growth movement.

However, in November 2004, Oregon voters passed Measure 37 by 61% to 39% statewide. This carefully crafted property rights ballot initiative was cleverly marketed to exploit a growing divide between haves and have-nots, elitist urban environmentalists and rural citizens irked by land-use restrictions. Measure 37 requires “just compensation” payment for equity loss caused by regulations enacted after the owner acquired a property, or a waiver. This ballot measure drew on the US Constitution’s Fifth Amendment clause which prevents “Takings” of private property without compensation. This study reviews Oregon’s leadership in smart growth principles, the story behind the passage of Measure 37, its relationship to the “Takings” clause and the implications for the smart growth movement.

McGrath, Emily, Colgate University | “Evaluating Sustainable Development Trends in El Salvador: The Case of the Guazapa Project”

Concern over the intersection between social, environmental, and economic conditions has given rise to the concept of sustainable development. Sustainability science uses indicators to measure societal progress towards a sustainability transition. The research presented here evaluates the impact of the Guazapa Project in fostering sustainable development in the Salvadoran community, La Mora. The project is a

fledgling community-managed ecotourism enterprise, which hopes to provide jobs for community members, create a market for local produce, and introduce waste disposal practices and improved agricultural techniques.

Select sustainability indicators from the years 2002-03 and in 2004-05 are compared. Quantitative and qualitative data was collected via archival research of community records and interviews with both project participants and community residents in June and July of 2005.

Results suggest that the project has not had a community-scale impact in its first year. While a small number of people employed directly by the project benefit significantly, the community’s social, environmental, and economic conditions remain largely unchanged. The project’s marginal impact is due to its small size, and its failure to inform and include the residents of La Mora in basic decision-making processes. Recommendations on how to address these weaknesses include involving more stakeholders in planning and implementing the project, and expanding its scope to address a broader range of environment and development issues.

McNair, Sarah, The United States Military Academy | “Status of Women in Indonesian Education”

Education in Indonesia, rooted in the Dutch colonial tradition, has truly developed over Indonesia’s half century of independence. For both men and women, constitutional idealism as well as significant government efforts have increased the number of students and their level of schooling over the years. Increased funding during the 1970s, and new regulations in the 1980s and early 1990s, as well as economic improvement all contributed to these trends. For women, education has become more accessible, and as more students attend school, the percentage of females among them grows. Beyond the primary level, however, equality has still not been achieved, and a numbers of cultural, societal, and geographical factors continue to stand in the way. This paper will seek to examine the state of Indonesia’s educational system, focusing particularly on the status of women. By comparing it to the rest of the world, as well as other countries in the region and other Muslim nations, Indonesia’s progress will be examined. Factors of Indonesia’s vast, insular geography, distribution of population and wealth, religion and traditional lifestyles, and cultural practices and expectations will be evaluated to explain why and how education for women continues to follow certain patterns.

Michelson-Correa, Stephani and Peter Scull, Colgate University | “The Impact of Reforestation on Soil Temperature”

As the world’s largest source of organic carbon, soils play an important role in the cycling of carbon in our atmosphere. The amount of carbon stored in the soil is dependant on the rate of photosynthetic uptake by plants and the rate of plant and microbial respiration, which are in part a function of soil temperature. Areas of Central New York are succeeding from fields back to forests. How this change in land cover will impact the underlying soil temperature is an important question to consider as our global climate continues to change as a result of increasing greenhouse gases (e.g. CO₂) in our atmosphere. Using the land around Colgate University as a case study, our research attempts to determine the differences in soil temperature between forests and fields. Preliminary results show that during the fall (Nov-Dec 25) and winter (Dec 26- Mar 31) forested soils were warmer than field soils. The spring (Apr 1- May 31) showed an opposite trend with field soils being warmer than forested soils. The field soils also show greater temperature variations than the forest soils. These results suggest that during the fall and winter the soil in the forests release more carbon than the field soils. As succession occurs on abandoned fields in Central New York soil temperatures will change, which will affect their capacity to cycle organic carbon.

Milner, Daniel, Hunter College | “Occupational folk Song as a Reflection of Historical Geography in the Atlantic Northeast”

When people build civilization, they alter their natural surroundings. The occupational folk songs of the Atlantic Northeast are largely the oral testimony of 19th century North Americans who first reshaped their environment. These songs detail the work methods, living conditions and innermost concerns of their composers. They were preserved by 20th century collectors, often devoted amateurs working to remarkably high standards.

Lumbering was to northern New England and Canada’s Maritime Provinces what cotton agriculture once was to the South. Loggers paid little attention to the political border as they moved through forests cutting first-growth trees. They lived a communal existence and entertained each other by singing on Saturday nights. Sailing, including the harvesting of sea life was the second most important pursuit in the Atlantic Northeast. Mariners endured great hardships under constant threat of danger. They sang two types of occupational songs: chanteys to coordinate work

efforts such as pumping, raising sail and lifting anchor; and off-duty songs sung strictly for amusement.

Due to the seasonality of their work, the woodsmen and sailors of the Atlantic Northeast were sometimes the same people or relatives or neighbors. Many maritime songs were diffused to lumber camps and some were adapted to detail work in a forest setting. Mariners and lumbermen of the region were typically of British, Irish and French stock, and their cultural heritage is reflected in their musical poetry. This paper examines these and other occupational folk songs of the Atlantic Northeast in relation to the geographic realities they reflect.

Mitteager, Wendy A., SUNY Oneonta | “A Historical Analysis of Urban Development and Social Structure Since the Railroad Era: Oneonta, New York”

In this paper, I discuss the overall land-use changes in Oneonta and relate these changes to technological advancements in transportation, the growth of two colleges, urban sprawl, and retail trends. Remnants of its past can be found in the architecture and organizational structure throughout the city, reflecting phases of its urban development. These phases will be described using transportation modes and subsequent changes in retail development as a framework. Information gathered from store owners and city officials will give insight to how these changes have influenced the social structure of the city. Points made in the previous 3 papers will be brought together to cohesively illustrate how different sections of Oneonta have co-developed and to show overall consumer shifts, development trends, and impacts on the Oneonta community.

Myers, James R., Rutgers University | “A Conceptual Model for Exploring the Impact of Open Space Preservation on a Changing Landscape”

Open space preservation programs play an important role in shaping landscapes in many urbanizing areas in the United States. These preservation programs have arisen partially in response to real or perceived landscape change, and will have permanent consequences on the structure and function of the landscapes they affect. However, the conceptualization, planning and implementation of these programs often disregard the nature and impact of continuing landscape change. Furthermore, the impacts of the programs themselves on the landscape are also usually ignored. In order to understand the full

relationship between open space preservation and the landscape in which it operates, the interactions between preservation programs, the landscape and landscape change must be considered. I propose a conceptual model that describes the relationship between preservation programs, their implementation and the landscape. The model explicitly separates the programs' conceptualization and goals from their implementation, and postulates the necessity of examining how both of these elements interact with the landscape. The model also postulates that the relationships between the elements are bi-directional, therefore the possibility of feedback between the elements must be considered. I explore the consequences of this model for studying the interaction of landscape change and open space preservation, and examine the possibilities of generalizing the model to study any environmental management activity which impacts landscape structure or composition.

Norris, Darrell and Jason Weaderhorn, SUNY Geneseo | "Bush Bedrock: Contexts of Bush-Cheney Landslides in Retropolitan Settings"

The immediate post-mortem of the 2004 Presidential election attributed the republican victory to the impact of morals-based voting and turnout among religious conservatives. Our analysis focuses on the circumstances of the Bush-Cheney victory in contiguous clusters of rural counties in six states from Pennsylvania to Missouri, clusters in which the Bush-Cheney ticket commanded at least 70 percent of the popular vote. The geographical, economic and social commonalities of these settings are explored. They are not generally bastions of evangelical Protestantism. Nor are they quintessentially rural, exhibiting instead impressively high levels of manufacturing employment. They are (our term) retropolitan. Regression analysis of the Bush-Cheney victories suggests that income, its distribution, and regional demographic security were strong associative factors. Shifts since 2000 indicate other factors at work, notably the presence of military veterans. Retropolitan America tipped heavily Republican on the basis not of moral values but on what appears to be a blend of economic self-interest, individualism, and leadership in a post-9/11 world. To some extent these factors echo Blue-Red thought.

Nyamwange, Monica and Pin-Shou Liu, William Paterson University | "Variables Affecting the Extent to which African Immigrants Achieve their Objectives of Seeking Employment in the

US: A Case Study of Kenyan Immigrants in Jersey City"

The influx of African immigrants to the United States in the last two decades has been phenomenal. According to the figures from Immigration and Naturalization Services, the number of African immigrants to the United States has more than quadrupled in the last two decades from 105,755 between 1961 and 1980 to between 531,832 between 1981 and 2000. Unlike their counterparts in the 1960s and 1970s whose aspirations were to return to their respective countries with an American education and the skills necessary for nation building, many of the immigrants in the last two decades are more interested in seeking permanent residency in the United States and building comfortable lives for themselves and their families. The present study uses a case study of Kenyan immigrants in Jersey City to provide insights about specific reasons why African immigrants seek employment in the United States. The study further examines the extent to which respondents perceive their objectives to have been met. The majority of the respondents feel that their objectives are in the process of being met. There is a positive and statistically significant positive correlation between the extent to which respondents feel that their objectives of seeking employment have been achieved and socio-demographic variables such as respondents' age, level of education and income. The gender differences in the extent to which respondents consider their objectives met are not statistically significant.

Parnell, Darren B., Kutztown University of Pennsylvania | "Growing Season Variability Across the Southeast United States, 1950 – 1999.

This study investigates growing season characteristics during the spring across the Southeast United States for the period 1950-1999. Daily minimum temperature data were collected from the U.S. Historical Climatology Network to examine the variability and trends in last spring frost dates. Weather stations were included if the average last spring frost date occurred between early February and late April (Julian days 40 to 120). Ninety-two stations across the study area met these criteria and were utilized in the study. Considerable year-to-year spatial variability exists in the timing of last spring frost dates with the highest variability occurring in the southern portion of the study area. The occurrence of the last spring frost ranges, on average, from mid February to late April although strong cold air outbreaks can occasionally produce widespread frost extremes. Differences in elevation, latitude,

and proximity to a water source were shown to strongly influence the timing and spatial patterns of last spring frost characteristics. The results do not indicate an overall trend towards earlier last spring frost dates throughout the period, but demonstrate that a trend towards earlier last spring frost dates have been established at many locations since the late 1980s. These findings may have important implications for agricultural activities. They can be used to assist farmers in making optimal planting decisions and also offer a basis for calculating the risk of frost damage from planting early in the season.

Pine, Adam M., Rutgers University | “Flexible Networks, Flexible Cities: Immigrant Networks in the Service of Urban Redevelopment”

Many scholars have noted the various ways that ethnic business owners utilize intra-ethnic networks in order to successfully manage their businesses. For example, these networks allow immigrants (1) to raise funds for business development through intra-ethnic loan schemes; or (2) to find workers by using extended family networks and regional networks from the country of origin. At the same time, many cities are promoting the idea that new immigrants will revitalize urban communities and provide the labor and capital investment needed for economic redevelopment. Proponents of these policies often cite the existence of immigrant networks as one unique ‘comparative advantage’ within immigrant communities which allows them a greater probability of success in urban redevelopment. Yet these networks are fraught with problems because intra-ethnic loan schemes are free to use discriminatory practices such as ethnic, gender and regional biases in their lending decisions, and the use of family and regional labor networks creates conditions for exploitation and work/family conflicts. In this paper I explore the concept of the immigrant networks as a tool for neighborhood redevelopment by analyzing the way Dominican Bodega operators in Philadelphia use networks, the way policymakers in Philadelphia view these networks, and in a larger sense analyze the role that ‘networks’ play within neoliberal urban redevelopment thinking.

Pipkin, John S., SUNY Albany | “Margaret Fuller’s Imagined Midwest”

Margaret Fuller Ossoli (1810-1850), intellectual, conversationalist, Transcendentalist, editor, journalist, participant in the Roman Revolution, and at last shipwreck victim, attained a fame in her own lifetime that dimmed rapidly after her death. The current revival of interest owes

much to feminist scholarship and has tended to focus on her magnum opus, *Women of the Nineteenth Century* (1845). A year earlier she had published *Summer on the Lakes in 1843* in which the free form of travelogue afforded her (as it did to Thoreau in his *Week on the Concord and Merrimack Rivers*) leeway to blend observation of landscapes and people in a “polyvocal” (Stowe) but subtly structured (Adams) collage of learning, anecdote, history, and commentary. The text is particularly attentive to the plight of Native Americans, and also functions to engender “the West” (Rosowski). It is hard to imagine a greater contrast than that between the “Transcendental” landscape of numinous harmony idealized in Emerson’s *Nature* and the dynamic, messy reality Fuller found in Illinois and Wisconsin. This dissonance prompted her to cross and recross the boundary of nature and artifice as she tried, and on her own account failed, to do justice to what she saw, deploying vocabularies of romanticism, determinism, providentialism, utilitarianism, morality, freedom, self-culture, femininity, and proprietorship. This presentation focuses on her search for actual or potential ties between people and places, and attempts to characterize some of the symbolic *landscapes* (“imagined relationships with nature”) that she found.

Rengert, George F. and Jerry Ratcliffe, Temple University | “Threatening Places in Prisons: Perceptions of Prison Staff”

Perception of danger by staff in correctional institutions can lead them to exercise more care when handling inmates. If this increased care is authoritarian in nature, hostility may result from the inmate(s) creating violence that otherwise might not occur. Perceptions of threatening environments were identified using a mapping exercise. The place and nature of the last two threatening incidents were identified from a questionnaire administered to prison staff. Finally, staff identified the area they are responsible for in the prison. Results illustrate how closely perceived risk, actual incidents and are of responsibility are related.

Reth, Kimly, Buffalo State College, **David J. Fredericks,** WHO Philippines, and **Martin Leithfield,** UNICEF Cambodia | “Assessment and Mitigation of Arsenic Contamination in SFKC Water Supply Project”

Cambodia is now known to have a large area where arsenic concentrations in groundwater exceed the National Guideline value of 50ug/L and therefore represent a threat to human health if consumed regularly. Social Fund of the Kingdom

of Cambodia (SFKC) supported some 1181 village water supply projects over all 23 provinces of Cambodia between 1995 and 2003 and these were not tested for arsenic contamination before commissioning.

The objective of this program was to locate and test all SFKC community wells for arsenic levels, inform the affected communities of the arsenic contamination at the time of testing, and undertake a follow-up community awareness campaign.

Of the 696 wells which were working at the time of testing 347 wells (50%) were contaminated with arsenic, and 349 wells (50%) were safe. At least 17% of the wells were not used for drinking water because of poor quality. In particular, groundwater in the lower Mekong River valley is often high in dissolved iron which results not only in poor taste but also in discoloration of cooked rice and vegetables, and therefore the water is less desirable.

Awareness teams which visited each contaminated well informed the villagers of alternative safe water sources that they should use in place of the contaminated wells. Unfortunately, experience showed that there were limited alternative water sources, all of which had drawbacks. In essence, none of the affected villages had an acceptable, sustainable, year round alternative source of safe drinking water.

Riemersma, Justin and Janet Kerwin, SUNY Oneonta | “Using Aerial Photography to Analyze Recent Land-Use Changes and Urban Development in the Southside Region of Oneonta, New York”

The Southside region of Oneonta, NY has seen rapid development in the past decade, drawing away business from other sections of Oneonta. In this paper, we analyze land-use changes prompted by road construction projects and changes in consumer preferences. Oneonta has seen a transition from downtown shopping to the dominance of big-box stores in the Southside region. We will focus on the evolving urban landscape of the Southside region in Oneonta and illustrate some of these land-use changes using sequential aerial photography and GIS overlays.

Saladyga, Thomas M., Michael T. McGeehin and Joan M. Welch, West Chester University | “Forests Lost: Invasive Vegetation and Implications for Native Habitat Restoration Through Oak Regeneration”

Large-scale fragmentation and habitat conversion cause shifts in forest composition and structure by altering disturbance regimes thereby

promoting growth of early-successional and invasive species. The fragmented rural landscape of western Chester County, Pennsylvania is no exception. Hibernia County Park, the research site, is located in this region that was once dominated by oak-hickory forests. The short-term goal of this research is to assess the current vegetation species composition of five burn units located in the vicinity of an historic iron furnace. A prescribed fire management plan will then be implemented to initiate oak regeneration and promote restoration of native habitat.

Collection of baseline data yielded interesting results. Japanese honeysuckle and Multiflora rose dominate the understory, while the abundance of six other invasive species varied across the five burn units. Vulnerable native herbaceous and woody species have been choked out of critical resources favoring proliferation of invasive plants and red maple, tulip poplar, and American elm in the overstory. Native plants of the woody understory include spice bush, black cherry, and blackhaw. Due to dense patches of invasive shrubs and vines, herbaceous diversity was low for an upland forest habitat.

Of note is the relative absence of oak seedlings observed across the established sample plots. It is hypothesized that this trend can be reversed through implementation of a prescribed fire regime in order to restore native habitat by discouraging invasive plant growth and encouraging oak germination and resprouting.

Schoenberg, Tatyana, SUNY Buffalo | “Landscape Photo Perception: Cross-Cultural Analysis, Based on Interviews with American, Russian and Spanish Speakers”

The study of landscape perception has a long history, beginning in the mid-1930s, with further development in the 1970s. Almost all previous research has involved preferences analysis, which uses a rank-order approach. The research being proposed here is different, for it is based not on preferences, but on the combination of visual perception and language.

The specific research questions are:
1. What differences and similarities can be found in landscape perception between different groups of people from the American, Russian and Spanish cultures?

2. How do people from three different cultures, using their native languages, conceptualize and communicate about the landscape?

Research will show the importance of the cultural factor in perception. It is also designed to test theories based on classic works on perception

by Grano (1929), Gibson (1979), Lynch (1960) and Tuan (1974).

The research combines interviews with a statistical analysis. The set of photos includes landscapes that are familiar and unfamiliar to all three cultures. Subjects are asked to write down what features they see in the order in which they see them, as well as what regions of their native countries they grew up in, and whether they grew up in urban or rural environments.

The research is an attempt to do cross-cultural comparison in perception, which contributes to cultures by sharing information and knowledge. Landscape photograph perception can imply a new theory of cognition in general.

Shoemaker, Samantha and Ann K. Deakin, SUNY Fredonia | “Identifying the Boundary between GIS and Licensed Surveying in New York State”

The boundary of GIS (Geographic Information Systems) and the surveying profession has become increasingly blurred over the last five years. Just as GIS has made it increasingly easy for anyone to make a map, surveyors are concerned that GIS – and its related technologies – are making it easy to do survey work. Perhaps the most famous manifestation of this heightened interest has been legal action. There are court cases leading to the revision of state laws. The NCEES (National Council of Examiners for Engineering and Surveying) recently updated its Model Law, including the GIS/LIS (Land Information Systems) Addendum. Professional magazines and journals are publishing articles on a number of topics related to the GIS – Surveying “divide”, including the potential implementation of the Model Law at the state level, the identity of surveying as a profession, the health of academic surveying programs, the aging membership of surveyors. This paper looks at the specific experience of New York State within the context of how other states have responded to the increasingly blurred boundary between GIS and surveying.

Tang, Tao, Kim Irvine, Stephen Vermette, Buffalo State College, Mickey Sampson, Resource Development International – Cambodia, Tom Murphy, Environment Canada – National Water Research Institute | “Teaching GIS Applications in a Developing Country: Workshop Experiences in Cambodia”

Cambodia is one of the poorest developing countries in the world. Internal conflict for over 30 years, including genocide during the Khmer Rouge period, has damaged much of the

physical and societal infrastructure for sustainable economic development. An issue of particular concern in Cambodia is water management. A tool that may guide Cambodians in bringing about sustainable development in water management and other issues is the application of Geographic Information Systems (GIS).

Two GIS workshops were conducted in Cambodia by the authors. The first (July 2004) focused on water quality in river systems, and the second (July 2005) focused on drinking water quality. Each workshop was linked to GIS applications. This paper explores various issues that were encountered while preparing and presenting GIS training in a developing country. Issues include the availability and preparation of computer facilities, availability and type of GIS software, level of instruction and sequencing of workshops, collaboration with appropriate agencies, the educational background and willingness of the workshop participants to learn, and provisions for developing a spatial database infrastructure. Most importantly we show through our experience how GIS has been eagerly accepted by the workshop participants and how it has been successfully implemented by Cambodians.

Tang, Tao and Melissa Wannemacher, Buffalo State College | “GIS Simulation and Visualization of Community Evacuation Vulnerability in a Connected Geographic Network System”

During the event of evacuation in natural and human made disasters, congestion of motor vehicles may occur in some geographic locations on a street and road network. This research simulates and visualizes the accumulations of vehicle population in a street network system during an evacuation event. City of Buffalo was applied as the study area. US Census population distribution data of 2000 at block group level were used as the input source. Network analysis in ArcGIS was applied for the simulation. Vehicle population for each of the block groups was calculated using a simple estimation formula $V_{pop} = Total_Pop / 5$ referring the standard vehicle capacity. Values of vehicle population were converted to the weights of the street segments in the street network geodatabase. Network flows were simulated in the five community districts that related to major egress routes.

The results indicated that vulnerability of quick evacuation is highly related to population distribution density and availability of fast access to high speed exit route. The study shows that hot spot, which reflect the highest vehicle accumulation is the northeast section along the main street of the city. By contrast, the southwest

part of the city where is close to the water front with less population density has the lowest vehicle accumulation. GIS network analysis, simulation, and visualization can be a valuable aid for emergency evacuation planning. However, some constraints exist with current analytical tools built in the GIS software.

Vermette, Stephen, Buffalo State College | “Cyclical controls on Tropical Climates: Examples from Cambodia”

The climate of Cambodia, located in Southeast Asia, can be characterized as tropical, or more precisely, monsoon or tropical savanna. The migration of the Intertropical Convergence Zone (ITCZ) provides for the cyclical reversal of winds, associated with a change in seasonal rainfall – a wet and dry season. The recent installation of a number of weather stations and rain gauges in Cambodia offers an opportunity to explore cyclical climatic controls in more detail. While not a climatology of Cambodia, this paper does characterize the cyclical controls that influence Cambodia’s climate. In particular, diurnal heating as a cyclical control on climatic elements such as temperature, relative humidity, and wind speed; a semi-diurnal cycle evident in atmospheric pressure associated with atmospheric thermal tides; as well as the cyclical control of the monsoon and typhoon seasons.

Vermette, Stephen, Kim Irvine, Tao Tang, Buffalo State College, **Mickey Sampson,** Resource Development International – Cambodia | “Developing a Drinking Water Quality Index for Cambodia: Results from our Workshop Experience”

Cambodia is among the poorest countries in the world, as reported by the United Nations. It is a country that has suffered many challenges, including the decimation of the skilled/educated sector of society during the Khmer Rouge genocide (1975-79). Mortality due to waterborne diseases is high in Cambodia, a situation that can be improved through better drinking water quality. Working with the Khmer, we have initiated a drinking water quality assessment project that includes the development of a drinking water quality index (DWQI), educational outreach, and the application of GIS mapping as a management tool.

The objective of this paper is to describe the development and application of a DWQI for use in Cambodia. The DWQI translates individual water quality tests into a single index number on a scale from 0 to 100 (nearer 100 indicates better quality), readily communicating water quality

information. A Water Quality Index (WQI) is most commonly used to compare the quality of rivers and lakes. The development of a DWQI offers some unique challenges. The DWQI was developed under a workshop setting with participants from various universities, ministries, and NGO’s located in Cambodia, and is used in educational outreach, and in mapping problem areas. ArcView GIS was applied to interpolate and visualize spatial distributions of DWQI in the study area in order to provide suggestions in improving the drinking water quality.

Western, John, Syracuse University | “One City, Two Europes: Strasburgers Old & New?”

The ancient Rhineland trading city of Strasbourg, or Strassburg, capital of Alsace, has been perhaps best renowned in the modern historical period for its being a bone of contention between the contending nationalisms of France and Germany. Yet since 1945, the successes of "The Construction of Europe" -- what has become the EU project -- have created a Franco-German amity that is virtually taken for granted. The sting has thereby been taken out of the Alsatians' complex Frenchness-cum-Germanness, their "Double Culture." No longer is one being forced to take sides in a succession of unwished-for armed conflicts. Strasburgers -- with their city itself chosen as a resonant symbol of reconciliation (the seat of the EU Parliament and of the European Court of Human Rights) -- have become Europeans.

But with the solving, or at least the profound assuaging, of one Strasburger identity dilemma -- is one properly German or French? -- another has arisen. For, what's does being "European" mean? Contemporaneous to the Construction of Europe, the end of European colonialism and the coming of globalization have brought a novel multiculturalism to Strasbourg over the past 50 years. Typical of larger French cities, immigrants have arrived from colonial territories in Southeast Asia, West and central Africa, India (Pondicherry), the Caribbean, and especially the Maghreb (notably Algeria and Morocco). Intriguingly, Strasbourg also is typical of German cities too, in that it has received the highest proportion of Turkish immigrants of any French city. Both the Maghrebians and the Turks are Islamic, and in the present international climate, there is unease among the ‘Old’ Strasburgers concerning their ‘New’ fellow-citizens. By now all these groups mentioned, and more (e.g., Mauritians, ex-Yugoslavs) have settled and have had Strasbourg-born, thus French, children. And many of the latter are unemployed,

and feel aggrieved and unjustly discriminated against. There is racism in this beautiful city.

Winkler, Katherine, Buffalo State College | “The Effect of Temperature and Discharge Rates on the Concentration of *E.coli* Present in the Buffalo River Watershed”

Escherichia coli has the potential to cause human health problems as well as serving as an indicator of water quality. Temperature and flow rates of streams and rivers potentially impact the levels of *E. coli* present. The majority of research on *E.coli* levels has been conducted in warm weather months when the waterways are often used for recreational purposes. Bacterial input to stream sediments may occur during cold weather months and the sediment may act as a bacteria pool that can be resuspended by snowmelt or rainstorm events. The objective of this research was to determine the impact that temperature and discharge rates have on the levels of *E.coli* during cold weather months. *E.coli* levels, temperature, and discharge rates were measured once daily at three sites in the Buffalo River Watershed during early spring 2005. Enumeration of *E.coli* colonies was done using the Coliscan Easygel method. Results showed that levels of *E. coli* were lower (0-500 cfu/100ml and geometric mean of 32.19 cfu/100ml) than traditionally observed in the Buffalo River watershed (up to 38,000 cfu/100ml during storm events) during warmer months. No correlation was found between the levels of *E.coli* present and temperature or discharge rates. Since these results are in contradiction to previous findings for the watershed, this study indicates that the water temperature, which averaged 5°C, was low enough to suppress levels of *E. coli*.

Yoon, Hyunshin, Rutgers University | “Korean Communities in the New York Metropolitan Area”

Along with the economic growth of South Korea in the twentieth century, the numbers of Korean immigrants have increased phenomenally in the United States. Korean immigrants tend to concentrate primarily in large cities like New York and Los Angeles. Those areas continue to attract a tremendous number of Koreans immigrants, which makes the Korean community one of the fastest-growing Asian groups in the United States. More particularly, it is noteworthy that suburbs of these cities have emerged as new sites of concentration for Korean immigrants during the last two decades. Focusing on the New York metropolitan suburban county with the largest Korean population, Bergen

County, New Jersey, this paper examines the characteristics of a suburban Korean community via the analysis of the demographic profiles and socioeconomic characteristics. In this paper, I also highlight the role Korean immigrant communities play in the spatial mosaic of the New York metropolitan area.

Ziolkowski, Michael F., SUNY Buffalo Canada – United States Trade Center | “Perceptions of Border Security Along the Canada – US Border, Grand Island, New York”

This paper investigates perceptions of security among residents of the Canada – US border at the west branch of the upper Niagara River, Grand Island, New York. The results of a survey of residents are presented. The data suggest that some residents perceive security to be a concern yet have not witnessed illegal activity nor changed their personal security practices to any great extent. A key finding is that male and female perspectives on border security differ. The paper concludes with a brief discussion of the implications of the empirical findings for future work on border security.