

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Patricia Bass** (Macalester)

### "Selling the Farm": Place Marketing in Rural America

With a history of property speculation spurring the growth of the nation, the United States is built upon place marketing and imagined place. In discourses exploring this place marketing, however, rural communities have often been overlooked. Larger cities and industrial sites that promote themselves to commerce, tourism, and residents are given greater academic attention than rural areas, which have only recently shown the agency and will to manipulate their own image.

To explore rural place promotion, I examine a case study of rural central Minnesota, where I have chosen twelve towns that have shown signs of conscious promotion through their use of traditional marketing techniques. Using a framework of semiotic analysis developed by geographer and sociologist Jeffrey Hopkins, I look at slogans, logos and promotional literature as building blocks of a symbolic cultural landscape.

Unlike Hopkins, however, I do not focus upon the idealized imaginary landscape created by marketers for tourists to commodify, but one imagined by residents for future residents with only a small focus upon commercial and tourism interests. In my study of rural Minnesota, place promotion is not a marketing "ploy" as other theorists have described it, but an idealized manifestation of residents' lived sense of place.

Tropes found within this promotional discourse include community ties, opportunity, intergenerational unity and spiritual fulfillment. I attribute differences between these tropes and those of previously-studied rural tourism marketing to the unique Midwestern dynamic of residents/consumers advertising to and for their own demographic.

**Andrea Blake** (Macalester)

### Turkey Production in Minnesota

Did you ever wonder what kind of work goes into getting that delicious turkey on your Thanksgiving dinner plate? Did you ever stop and think about how the turkey breast in your sandwich was turned into that strange looking but oh-so-good lunch meat? In my presentation, I hope to answer those questions and more about the turkey growing and processing industries.

Minnesota is the largest turkey producing state in the country and is home to some of the most economically successful turkey processing plants in the world. Like other growing and processing industries in agriculture, turkey growing and processing has become highly industrialized and specialized. Throughout the semester, I interviewed a number of individuals involved in the turkey growing and producing industry throughout Minnesota, and analyzed various newspaper and journal articles, census data, and other materials on the internet regarding turkey growing and processing in Minnesota and elsewhere. Based on my research, I aim to explain outline how these industries operate and work together to produce and sell a final product. Additionally, I will briefly compare turkey growing and processing in Minnesota to the rest of the country and internationally. Finally, I will draw specific attention to the impact of turkey producing in the Elm Creek and Crow River Watershed Area.

**Katherine Bristol** (Macalester)

### Diversity and Crow River Schools: Overview of ELL Programs in the Watershed

With the recent development of large-scale industries, many towns within the crow river watershed have seen an increase in immigrant and ethnic populations. The main purpose of my research project is to evaluate how the children in these communities are being acknowledged and served. The purpose of my project is to evaluate the ELL programs within 5 major high schools to compare how well the programs reflect the populations they serve. This comparison will be based on program type, teacher number, and number of ELL students within the school, ranging from sparse numbers in Litchfield, to higher rates found in Buffalo. Pairing data from the Minnesota State Education website, and interviews with school administrators and ELL teachers, I hope to gather information as to how these programs function within the school. I will also collect qualitative information from outside service providers as to how the school and community feel about the role of ELL students. These interviews will also give me information as to problems within the ELL programs, such as funding, teacher training, and parental involvement. I will also highlight aspects of ELL programs that have worked particularly well for respective programs. Hopefully, the project will result in information that can correlate and guide the communities' ELL programs.

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Julie Commerford** (University of Minnesota - Twin Cities)  
**Brown County, Minnesota: The Land and its People**

Rows of corn and soybeans that stretch on for miles are a common sight in southern Minnesota today. In the last century, there have been some remarkable changes in farming that have modified the way the landscape looks. These changes in farming correspond not only with changes in the landscape, but also with changes in population. Brown County, Minnesota, clearly exhibits these changes and is a prime example of a rural county in which the farm population has declined in recent years. In this manner, the landscape in Brown County gives us insight into the relationship between the people and the land.

We can gain insight to how Brown County has become what it is today by examining patterns of land use, agriculture, and population. Because of the importance of agriculture in Brown County, a large part of this paper focuses on characteristics of farms in Brown County. First I discuss the land, and factors that affect it, such as soil and climate, to make it conducive to farming. The next section of this paper focuses on farming. I discuss cropping systems, machinery, livestock, the farmers, and other important aspects of the farm and the people who run it. In addition, I refer to the Trebesch Farm, in Leavenworth Township, to explain the multiple aspects of farming and to serve as a proxy for some of the changes that have occurred. In the final section, I discuss population changes in Brown County in the 20th century.

**Laura Cullenward** (Macalester)  
**Analyzing Spatial Mismatch in the Minneapolis-Saint Paul Metropolitan Area Using GIS**

Much literature has been written regarding the shift of jobs and housing from the urban core to the suburban fringe in metropolitan areas of the United States. The Spatial Mismatch Hypothesis (SMH) asserts that the suburbanization of jobs and involuntary housing market segregation have acted together to create a surplus of workers relative to the number of available jobs in metropolitan areas. This study analyzed the existence of Spatial Mismatch within the Minneapolis-Saint Paul Metropolitan Area using datasets from the US Census, DEED, HousingLink, and the Metropolitan Council. Through a variety of GIS mapping and analysis techniques the study examined the spatial disparities between affordable housing, jobs and access to public transportation.

**Andrew Cutler** (Breck)  
**Ethnic Festivals in MN**

This project examined Minneapolis festivals and fairs as cultural indicators. Specific festivals that best represented various culture groups within the area were identified. Geography, ethnic and economic history as well as political enfranchisement are central themes in the study. Tensions between rural folk festivals and urban popular fairs are evident. Each festival studied is defined by this tension and reveals valuable insight into the culture groups in and around Minneapolis.

The inclusion and exclusion of various ethnic and cultural groups in Minnesota fairs and festivals was researched. Through interviews, historical research and extensive participation, the focus of research was on the components of these community events as important cultural activities that shape our community.

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Elana Dahlberg** (Macalester)

### **Sense of Place in the Crow River Watershed**

Learning how local residents perceive and react to the changes happening in the Crow River Watershed in Central Minnesota is a crucial way for discovering and confronting problems that arise from urbanization. Mental Maps and Spatial Behavior in the Crow River Watershed by Elana Dahlberg is a senior seminar project for Macalester College Geography Department. The approach to this project was to work with students in the Crow River Watershed to understand their sense of place and how their perceptions will impact the impending urbanization on the area. A class of twenty eighth and ninth grade students from Hutchinson, Litchfield, and Rockford were chosen as participants. These informants participated in drawing mental maps, informal interviews, questionnaires, and logging time diaries for two weeks. This information provided evidence that the students support both the growing population and commercial activity of their towns. Yet, as demographic characteristics of their towns continue to change some issues may occur with these students accepting a more diverse community in regards to race and income. Also, this information showed a lack of the students' sense of understanding for the environmental and historical degradation occurring because of the growth of commercial activity. Continued research on this topic and interactions with local individuals is an important step to help understand and tackle present and future concerns in the Crow River Watershed.

**Robert Fuller** (Breck)

### **Food: Production and Consumption**

This project examined Minneapolis festivals and fairs as cultural indicators. Specific festivals that best represented various culture groups within the area were identified. Geography, ethnic and economic history as well as political enfranchisement are central themes in the study. Tensions between rural folk festivals and urban popular fairs are evident. Each festival studied is defined by this tension and reveals valuable insight into the culture groups in and around Minneapolis.

The relationship of food as a focus of community festivals was analyzed in this project. The politics, economics and history surrounding food festivals and fair food were researched through work with the University of Minnesota, oral interviews, lots of tasting and analyzing local recipes.

**Emily Gerteis** (Macalester)

### **Competitive Charity: Effects of Healthcare Ownership in Hutchinson, Minnesota**

Healthcare is in many ways perceived as a social service for all citizens; however, it is treated as a market good for individual consumption. In this sense, the healthcare industry is like no other industry—it is perceived as a charitable entity, but has high costs and requires a substantial amount of capital input (Gray and Schlesinger 2002, 75). The tensions between non-profit and for-profit forms of hospital ownership have been apparent from 1965 with the creation of Medicare and Medicaid. Public and non-profit hospitals now have to compete against for-profit hospitals for patients, physicians, technology, etc. Therefore, in this paper I aim to illustrate the meanings of healthcare ownership by examining the case of Hutchinson, Minnesota, a town whose hospital recently converted from a public to a private, non-profit entity. Through local press sources and interviews with local officials, I investigate some of the impacts of this change on the residents of Hutchinson, and their perceptions of place. This analysis will add to the discussion of healthcare ownership by adding the important dialogue surrounding space and place identity.

**Emily Goodman** (Macalester)

### **Commercial Real Estate in the Crow River Watershed**

The location of commercial estate centers in the Crow River Watershed is correlated with four primary factors: availability of utilities, population density, consumer spending power, and the location of other retail establishments. In this presentation, these factors are elaborated on and illustrated with maps. The conclusion of this presentation uses projections of these four factors to hypothesize about the future of commercial real estate in the Crow River Watershed.

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Andrew Green** (Breck)

### **Culture Festivals in the Twin Cities**

This project examined Minneapolis festivals and fairs as cultural indicators. Specific festivals that best represented various culture groups within the area were identified. Geography, ethnic and economic history as well as political enfranchisement are central themes in the study. Tensions between rural folk festivals and urban popular fairs are evident. Each festival studied is defined by this tension and reveals valuable insight into the culture groups in and around Minneapolis.

The inclusion and exclusion of various ethnic and cultural groups in Minnesota fairs and festivals was researched. Through interviews, historical research and extensive participation, the focus of research was on the components of these community events as important cultural activities that shape our community.

**Megan Grinde** (Macalester)

### **Small-hold Alternatives for Land Redistribution Projects in the Western Cape, South Africa**

After the official end of apartheid in South Africa, land reform was one of the most highly prioritized items on the new ANC government's agenda, both as a matter of economic restructuring and redressing past injustices. Although numerous land reform programs and initiatives have been implemented since 1994, they have largely failed to reach any of the redistribution goals set forth for them. There is a high rate of failure among land redistribution projects, which are often managed by up to one hundred people. This complicated co-management situation is necessitated by the combination of the small grant size available to individual applicants and the high price of agricultural land and implements. In addition, the grants are often contingent upon the participants' adherence to a large-scale, chemically- and mechanically-intensive farm business model with which they have little, if any, experience.

In light of the problems with the current land reform programs in South Africa, I assess the viability of small-hold farming as an alternative to the current focus on large-scale commercial farms using a political ecology framework. As very few small-hold redistribution projects exist, my project focuses on examining one such project in depth. I examine the economic and environmental sustainability of the farm, in addition to the level of satisfaction of the beneficiaries. The assessment of these factors gives an indication of whether land redistribution programs in South Africa could improve their success rates by offering the option of small-hold projects to land grant applicants. It provides a narrative of the many obstacles encountered in the beneficiaries' struggle to make a farm of their own—a narrative that reveals many shortcomings in the government's land redistribution policies and support infrastructure. This research aims to contribute to the body of critical literature on land redistribution that is constantly working towards improved land reform strategies for all previously disadvantaged populations in South Africa.

**Victoria Harris** (Macalester)

### **Land Use and Water Quality in the Crow River Watershed**

The project examines the relationship between land use and water quality, in terms of pollutants, with respect to the specific hydrological and human elements of the Crow River watershed in central Minnesota through geographical and statistical analysis with the goal of discovering whether the Crow River watershed follows traditional patterns of land use and water quality and thus water clean-up efforts can be based upon traditional methods and practices or whether the specific circumstances of the Crow River necessitates the use of unique clean-up methods. Initial research indicates major hydrological differences between the North and South forks, and suggests these differences are at least partially responsible for the variance in pollution in the two forks.

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Matt Horton** (Gustavus)

### **A Quantitative look into the Social and Economic Effect of High Percentages of Hispanics in Minnesotan Counties**

The U.S., as well as Minnesota, is experiencing an explosion in Hispanic immigration over the past 15 years. This reality is especially relevant to rural, previously homogenous communities in greater Minnesota. In this research, a quantitative look will be given to how counties with relatively high percentages of Hispanics differ from those with low percentages. Factors like poverty, family size and crime rate in the 10 highest percent Hispanic counties in Minnesota and the ten lowest will be compared using correlation coefficients to shed light and hopefully dismantle some prevailing stereotypes that inhabitants in these communities hold. A look at where the immigration is most relevant as well as why these places are attractive for immigrants will also be discussed. The data and coefficients imply that the presence of high percentages of Hispanics does not have a negative quantifiable impact on these counties and actually may have a positive economic effect.

**Julie Landkamer** (Gustavus)

### **America's Northern Heartland Revisited: Continued Population Shifts**

Expanding on the work of John Borchert, an updated geodemographic analysis of the upper midwest evaluates population changes through 2006. The study breaks down the counties by categories of rural, micropolitan, small metropolitan, and large metropolitan. The county-level investigation displays the trends toward urban centers while also noting geographic outliers.

**Matt Malmberg** (Macalester)

### **Comparative Analysis of Development in 3 Urban Centers of the Crow River Watershed**

**Jessica Mowles** (Macalester)

### **That's Women's Work: Availability of Child Care and Women's Workforce Participation Rates in the St. Croix River Watershed**

Over the past thirty years, Minnesotan women have consistently recorded one of the highest workforce participation rates in the United States. In 1999, for example, 69.9% of Minnesotan women participated in the formal workforce, ranking them first in the nation and outperforming the national average (60%) by nearly ten percentage points. The long-term nature of this comparative data suggests fundamental, enduring socio-economic, political, and/or cultural factors at play. The St. Croix region provides a particularly valuable case study through which to analyze aspects of women's decision to enter the workforce. A previously rural area, the watershed continues to develop into exurbs for the Twin Cities region, meaning its employment patterns are of special note to urban planners and economic analysts alike.

I begin this paper by introducing perennial academic debates on the nature of work and its formal and informal manifestations. I take a distinctly feminist methodological approach by interviewing women from the area, and utilizing feminist geographers' perspectives on the gendered nature of work and work places. Barriers to entry for women exist as a central theme within these discourses on the formal workplace. Because various aspects of reproductive labor, including child care, are tasks traditionally reserved for women, accessible, affordable child care exists as one way for women to overcome this particular barrier.

In this paper, I focus my discussion around the variable of child care as it affects the percentage of women in the formal workplace in the Croix River Watershed counties. Utilizing data from the Minnesota Department of Employment and Economic Development coupled with census data, I find the percentage of women's workforce participation for each watershed county. I then employ geo-coded data on all licensed child care centers in the region to perform a spatial analysis of centers relative to women's employment rates. My conclusions provide insight into one of the many factors – availability of child care – which influence women's decisions about whether to work in the formal workplace in the developing St. Croix watershed region, as well as contextualizing this case study within the larger feminist academic literature on women and work.

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

Ashley Nepp (Macalester)

### **Make It Happen: Fundamentals of Cooperative Community Development Projects**

Urban redevelopment has been a big trend in cities throughout the United States for the past half century, and even more recently the green movement has encouraged cities to adopt "green" architecture and planning into their redevelopment strategies. These strategies seek to increase economic development and encourage healthy living, environment and community through design and architecture. Even small exurban cities are striving to beautify and create an inviting living environment through cooperative community development projects. Most projects incorporate local, state and sometimes even federal organizations to improve the project area. By interviewing community development leaders I learned how a successful cooperative project is coordinated. Every community development project is a unique experience within the specific context of its own community, but there are several general themes in successful cooperative projects, including: a clear vision for the future of the community, transparency in planning and execution, community support and involvement and finally, close professional relationships between the cooperative organizations. To illustrate these themes I will use the recent Crow River dam replacement project in Hutchinson, Minnesota. This decade-long project was a part of a vision that a few government officials had for their community and the waterfront area near the downtown. The city government wanted to increase recreational use of the river and waterfront area and to increase the safety of the dam site; they also wanted to clean-up and beautify Hutchinson's portion of the river and waterfront. They decided the best solution would be to replace the existing dam with a fish ladder, which is more environmentally friendly and aesthetically pleasing. The project coordinators tried to involve as many government departments and officials as possible to maintain the transparency of the project to promote trust and cooperation within the city government. This transparency also helped get the surrounding community involved, and smoothed the way for the new fish ladder construction. Close professional relationships between the city officials, cooperating organizations and the greater Hutchinson community made this enormous project manageable and affordable.

Petra Norlund (Macalester)

### **Affordable Housing & Employment Opportunities in the Twin Cities: A Spatial Mismatch?**

This paper analyzes the existence of spatial mismatch between the location of affordable housing and that of low-skill employment opportunities in the Twin Cities. Previous studies suggest that affordable housing is often located in the inner city, while new employment opportunities are frequently placed in the suburbs. Affordable housing is an important area of study for housing policy due to the influence of housing on quality of life in the United States, and the lack of affordable housing persists as a major problem, as shown by the recent increase in foreclosures. The analysis primarily relies upon GIS, utilizing data for 2006-2007.

Joseph K. Parilla (Macalester)

### **Bridging the Gap: An Analysis of the Buffalo, MN Commuter Bus Line**

The decentralization of population has been the defining trend of American metropolitan areas over the past half-century. The Minneapolis-Saint Paul metropolitan is no exception, as population growth rates in suburban and exurban areas have far outpaced the core; resulting in increased development, job growth, and traffic congestion (Luce et al, 2006). This outward pressure has been especially concentrated in Wright County, where the City of Buffalo has increased its population by nearly 50% since 2000. As a reaction to congestion along east-west highways, Clinic Cab, a private bus operator introduced a commuter bus line traveling from Buffalo to downtown Minneapolis. In January 2008, this commuter bus line shut down. This paper attempts to explain why by examining commuting patterns for residents living in Buffalo and working in the urban core through both quantitative and qualitative analysis. This study contributes to the growing body of literature on the interaction of rural fringe towns and expanding metropolitan areas through the lens of transit and commuting patterns in Buffalo, MN.

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Matthew Petcoff** (Macalester)

### **Lyme Disease in Minnesota: A Geographically Weighted Regression**

Lyme Disease is the most reported arthropod-related illness in the United States. Affecting more than 18,000 people in the year 2000, it has serious public health ramifications. In Minnesota, 918 cases were confirmed in the year 2005. Lyme disease is a disease associated with the *Borrelia burgdorferi* bacterium inside the *Ixodes scapularis*, or the black legged tick. This paper describes the disease ecology and geographic distribution of Lyme disease, ecological habitats, and risk. Using GIS to predict habitats for both host and vector and to track suburban development and forest fragmentation will be useful in describing the risk of Lyme disease infection. Geographically weighted regression will be used to show the variation and importance of variables weighted across the Minnesotan landscape including but not limited to soil type, temperature, and other variables. The dependent variable will be Lyme Disease reports by county by year. This model will be useful for assessing human and environment interactions, especially on the urban fringes where both tick habitat and human habitat meet.

**Eli Popuch** (Macalester)

### **Analyzing Spatial Mismatch in the Minneapolis-Saint Paul Metropolitan Area Using GIS**

Much literature has been written regarding the shift of jobs and housing from the urban core to the suburban fringe in metropolitan areas of the United States. The Spatial Mismatch Hypothesis (SMH) asserts that the suburbanization of jobs and involuntary housing market segregation have acted together to create a surplus of workers relative to the number of available jobs in metropolitan areas. This study analyzed the existence of Spatial Mismatch within the Minneapolis-Saint Paul Metropolitan Area using datasets from the US Census, DEED, HousingLink, and the Metropolitan Council. Through a variety of GIS mapping and analysis techniques the study examined the spatial disparities between affordable housing, jobs and access to public transportation.

**Claire Reuning** (Macalester)

### **Patterns of Latino Immigration in the Crow River Watershed**

This project explores the current spatial and demographic immigration patterns of Latino people within the Crow River Watershed in central Minnesota. Latinos from the southwestern United States and Latin America have a long history of seasonal migration to the Watershed to do agricultural work. Over the last 20 years, though, this pattern of movement has changed from seasonal migration to permanent settlement. This project seeks to understand what this change in Latino migration patterns looks like in cities and towns across the Watershed, and in the Watershed as a whole. The analysis uses quantitative census data to depict the Latino community's rapid growth, as well as its demographic structure. The numeric data is then supplemented by quantitative information with qualitative data gathered from interviews conducted in the Watershed. Interviews with professionals who work closely with the Watershed's Latino communities shed further light on the history and current situation of Latinos living in the Watershed. Analysis of the combined quantitative and qualitative data describes the spatial and demographic patterns of permanent Latino migration, and points to Latinos as serving a vital economic role within the Crow River Watershed.

**Stacie Rominski** (St Thomas)

### **UST Student Housing Location**

This project was a remake of two previous projects for the University of St. Thomas, as well as University of St. Thomas Public Safety Department, and the City of St. Paul. The task was to create a map identifying student-housing locations, by type, on and around the St. Thomas campus. Given that the original project documentation was unable to be duplicated, it was necessary to re-create the project using model builder so that any future projects could be re-created with in a matter of minutes rather than a couple of weeks.

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

Leah Roth-Howe (Macalester)

### **Downtown Revitalization of Watertown, MN: Does Size Matter?**

Cities and towns are increasingly advocating downtown revitalization in order to create pedestrian-friendly places conducive to social interaction, thereby instilling a unique sense of place throughout the built environment. The dominant paradigm on downtown revitalization provides valuable insight guiding downtown socio-spatial transformations. However, many scholars ignore how size and scale relate to general downtown revitalization processes. For instance, the majority of scholarly research on downtown revitalization uses the terms "small town," "small-city," and "suburban town" interchangeably, without providing definitions to distinguish one from another. How effective are universal downtown revitalization plans if they are not regionally, politically, economically, and socially contextualized?

In attempt to answer this question, my research analyzes the downtown revitalization plan of Watertown, MN in order to explore the unique and common challenges that the historic small-town faces in their quest for downtown revitalization. My research uses data from Watertown Community Surveys, Watertown's 2020 Comprehensive Plan, as well as images mapping Watertown's future development. Despite its small population of roughly 3,000, Watertown's revitalization plan adapts the main tenets of large-scale downtown revitalization methods to fit their specific needs. Principle components include: increasing connectivity of spaces between the waterfront, streetscapes, and open spaces; maintaining historic preservation and architecturally sound renovations; transforming the Crow River into a community asset; and utilizing integrative planning approaches that emphasize the design of the built environment, pedestrian-friendly spaces, promotion of a positive downtown image, and public collaboration to enhance perceptions of downtown.

While Watertown's planning strategy closely aligns with general guidelines of downtown redevelopment, the leading principle guiding Watertown's revitalization plans is its commitment to increasing economic development while maintaining the "small town feel" that is central to Watertown's collective identity. Therefore, my research seeks to explore how Watertown plans to accomplish this difficult task.

Alexandra Rued (Breck)

### **The Festival Queen Pageant: A Role of Signification in a World of Objectification**

This project examined Minneapolis festivals and fairs as cultural indicators. Specific festivals that best represented various culture groups within the area were identified. Geography, ethnic and economic history as well as political enfranchisement are central themes in the study. Tensions between rural folk festivals and urban popular fairs are evident. Each festival studied is defined by this tension and reveals valuable insight into the culture groups in and around Minneapolis.

Queen pageants and festival royalty competitions and how they shape a community's sense of place and purpose was the focus of this study. The ways these festivals mark life stages for residents, and how expected qualities royal qualities are reflected in the larger community were examined through historical research on individual communities, oral interviews, newspaper research and active participation.



## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Robyn Schindeldecker** (Macalester)

### **Governing Water: Management of the Crow River Watershed**

Unlike areas such as cities and municipalities, water does not follow politically defined boundaries. Thus, it logically follows that natural resources are managed on a watershed basis, composed of actors from multiple agencies. While watershed districts are the main governing bodies that manage and regulate a watershed, there are numerous other organizations that contribute to the oversight of the Crow River Watershed in areas such as water quality protection and improvement and erosion and sediment control. It is thus important not only to discuss what exactly these organizations do, but also to examine the collaborations and conflicts resulting from their overlapping jurisdictions. Accordingly, this will lead to a better understanding of the significance of the presence and distribution of these organizations along the Crow River.

In order to examine the various entities that play a part in the management and regulation of the Crow River Watershed, I will first examine the functions and authority of the different entities, noting both the similarities and differences between them. Next I will describe the relationships between these organizations and the outcomes of the collaborations between them. I will focus specifically on the CROW Joint Powers Board, which coordinates interaction with local, state, and federal agencies in matters related to the watershed. Through this process, the significance and essential nature of watershed districts and water management organizations will become readily apparent. After all, the sustainability and vitality of the Crow River Watershed – like all watersheds – depends upon the existence and interactions of these entities.

**Allison Seiwert** (St Thomas)

### **Senior Citizens and Three Rivers Park Trails**

In order to get the local senior citizens active and on the Three Rivers Park District of Hennepin County, Minnesota Trails, they needed to know exactly how many park benches there are and where they are located. After going out in the field and locating the benches on several trails using a GPS, I took the data I collected and put it on a map, comparing the demographics around the trails. After looking through the correlation of points and the demography around them I wanted to determine whether or not there were enough benches to satisfy the older population surrounding the trails.

**Brad Utecht** (Gustavus) and Prof. Mark Bjelland

### **The Changing Faces and Spaces of Lutheranism in the Minneapolis Synod**

Research abstract: An analysis of selected ELCA congregations in the Minneapolis Synod displayed the diversity of theology and congregation members within the synod. The research included charismatic, multi-racial, and reconciling in Christ churches which differ from the stereotypical Minnesotan Lutheran Church image. Spatially, the old parish model for church members has been superseded by longer commutes as a result of suburbanization and neighborhood change. Church members tended to commute according to the sectoral model of urban migration, driving from suburbs back into the city along sectoral lines. Not all churches were spatially similar however. Significant differences were found between niche churches and more typical Lutheran Churches. Similarly, demographics within each church's trade area and core varied according to distance from downtown Minneapolis and sectoral differences.

**Kurt Wayne** (Gustavus)

### **The Identity and Function of Very Small Towns: Ottawa, MN**

## 2008 Midwest Undergraduate Geography Symposium Presentation Abstracts

**Matthew Wicklund** (Macalester)

### **Preserving the Small Town "Main Street": An Analysis of the History and Preservation of Buffalo, Minnesota's Commercial Center**

During the later half of the twentieth century, the "main streets" of Buffalo, Minnesota experienced commercial decentralization and began to develop around the automobile. Within the past twenty years, Buffalo has attempted to catalog and preserve its historic structures and thereby preserve the character of its "main street." In the late nineteenth century, the commercial center of both Buffalo expanded following the introduction of a railroad line. While the center continued to expand through the mid-twentieth century, peripheral auto-oriented development in the later half of the century began to decentralize the commercial elements and introduced the need for off street parking. Preservation efforts in Buffalo have focused on maintaining the historic character of their "main street" and commercial center through the preservation of both historic buildings and the scale of streetscapes. A method of analysis employed was the examination of historic parcel data for trends in commercial growth. The growth trends contextualize current preservation plans by identifying the historic street scape as a model for future development. The example of Buffalo demonstrates a preservation plan in use.

# 2008 Midwest Undergraduate Geography Symposium

## Poster Abstracts

**Eric Cronin (Gustavus)**  
**Roundabout Mapping**

Roundabouts are a feature of the Minnesota transportation landscape. The city of Rochester had to get a variance from the Minnesota Department of Transportation to build the first one. Now, there are a dozen or so in the state with at least a dozen more in the planning stages. The goal of this poster is to map these roundabouts, both in the United States and Minnesota; to show how roundabouts and traffic circles differ; and to outline their advantages and disadvantages visually.

**Amanda Lindholm (Gustavus)**  
**Hispanics in Minnesota: A Locational Analysis 1980-2006**

The goal of this research is to gain a greater understanding of where the Hispanic population of Minnesota has settled and why they have chosen those specific places. Through the use of Geographic Information Systems, census data, county employment statistics, and the location quotient formula I was able to determine the areas of high and low concentration of the Hispanic population. Several counties were found to have the highest location quotients on a consistent basis. Upon further exploration into these areas of the highest concentrations, corresponding factors between the counties were found. These factors were that of existence of manufacturing, namely of food processing and even more specifically animal slaughtering and processing. The counties with the highest location quotient of Hispanics had high concentrations of animal processing plants. It is my hope that through these discoveries in settlement patterns that perhaps in the future we will be able to produce a model able to predict possible areas of increased Hispanic settlement in Minnesota and even in other states.

**Andrew Liska (Gustavus)**  
**Defining the Northern Heartland**

John Borchert looked at many facets when defining Americans Northern Heartland many years ago. This poster will define Americans Northern Heartland today by looking at the Federal Reserve Bank regions, radio broadcasts of Minnesota sports teams, cell phone coverage, as well as many other aspects.

**Jim Moen (St Thomas)**  
**Mapping for Political Action: Hezbollah Rocket Launches and Israeli Cluster Munition Strikes**

The aim of this project is to examine the relationship between where cluster munitions strikes are known to have occurred in Southern Lebanon and the points where Hezbollah rocket launches are known to have occurred during the Hezbollah conflict of 2006. Ultimately the relationship between launches and strikes proves to be quite interesting. Some areas where hundreds of launches occurred have fewer strike points than areas where between one and ten launches occurred. This calls into question the reasoning behind the use of cluster munitions in this particular case. Cluster munitions have been a controversial warfare weapon because of the high numbers of civilian casualties they cause as well as the high number of dormant munitions it leaves in civilian areas. Was Israel using cluster munitions as an act of defense or to terrorize civilians and ultimately subdue the Hezbollah rocket launches? Those are just two questions that we have been trying to answer in this ongoing project.

## 2008 Midwest Undergraduate Geography Symposium Poster Abstracts

Miki Palchick (Macalester)

### Agricultural Transformation and Livelihood Struggles in South Africa's Western Cape

South Africa's post-Apartheid land reform programs redistribute previously white-owned farmland to a small percentage of blacks, and provide these new farmers with agricultural extension services that promote large-scale agriculture. Due to the national legacy of racial oppression and an international pressure for neo-liberal development policies, there is scant infrastructural support for small-scale agriculture. Despite the government's vision, most black farmers produce for local consumption because competing internationally is unfavorable, especially since the removal of agricultural subsidies in 1994. The shortcomings of the agricultural transformation program are apparent in the village of Genadendal, a former mission reserved for coloureds\* and a historical agricultural community in the Western Cape. The author's field-based research conducted over the past two years evidences that while valuable resources such as land, water, and farming knowledge are locally available, gardeners cannot put them to full use. Genadendal's rich resources are unique in South Africa, its problems, however, stem from the national legacy of Apartheid.

The case study of Genadendal demonstrates that a national agricultural transformation program for an elite class of black commercial farmers does not address the real problem. South Africa's land reform programs fall short of dismantling the inherited structures of economic and power inequality, while it creates a façade of racial equality in land ownership. This paper shares the specific challenges faced by South African small-scale farmers, argues that these problems can be overcome with a new government vision for small-scale agriculture, and, in a broader sense, enumerates the advantages of small-scale farming over the industrial model.

\* In the South African context, the term 'coloured' does not have the same negative connotations that it does in the US context and refers to a mixed race or mulatto group.

Nathalia Roberts (St Thomas)

### Population Distribution and the Creative Class in the Rural West

#### Background Information:

The vast expanses of open space are a defining characteristic of the West. More than half of the region's land is in public ownership and managed by the Bureau of Land Management, U.S. Forest Service, National Park Service, and U.S. Fish and Wildlife Service. In mountainous regions, some counties are 80 percent publicly owned and in states like Arizona and Nevada, federal public ownership is as high as 90 percent.

Another distinguishing characteristic of the West is the heated debate over how these lands should be managed. Some people prefer that public lands be set aside and protected for their scenic and recreational value. Others prefer that they be used for resource extraction, in the form of oil and gas development, mining, and logging. These debates – between preservation or extractive uses of public lands – are most passionate in the rural West, where jobs are few and space is plentiful (2)

#### Research Questions:

Does the local economy benefit the most if the lands are managed for resource development, such as mineral, coal, oil, and gas development, logging, and mining?

Or, is the economy stimulated the most if the land is protected from industrial uses and designated as national parks, wilderness areas, wildlife refuges, national monuments, and other forms of permanent protection? (3)

How close are people to buffers and what difference does that make?

How far away from protected land are they?

Is the Creative Class in the rural west growing? Is it growing higher than the urban west counties? (1)

(1) County– Level Creative Class Codes 1990-2000. 2007 Economic Research Service, U.S. Department of Agriculture.

[www.ers.usda.gov/Data/CreativeClassCodes/](http://www.ers.usda.gov/Data/CreativeClassCodes/)

(2) Rasker, Ray; Alexander, Ben; van den Noort, Jeff; and Carter, Rebecca. 2004. Sonoran Institute: Prosperity in the 21<sup>st</sup> Century West, The Role of Protected Public Lands.

(3) Rasker, R. and Glick, D. 1994. Footloose entrepreneurs: Pioneers of the New West? *Illahee*. 10(1):34-43.

## 2008 Midwest Undergraduate Geography Symposium Poster Abstracts

**Amanda Varley** (Gustavus)  
**The Geography of Coffee**

Coffee is the second most traded legal commodity in the world. This poster demonstrates the spread of coffee from its origination in Ethiopia. The poster also conveys quick facts about coffee that depict how important the crop is in the global market.

**Ideal Locations for Environmentally Friendly Recreational Expansion in Itasca County, MN**  
**Stacie Rominski** (St. Thomas)  
**Allison Seiwert** (St Thomas)

**Mapping the Crow River Watershed**  
**Namara Brede** (Macalester)  
**Christine Chung** (Macalester)  
**Hannah Gelder** (Macalester)  
**Robert Heyman** (Macalester)  
**Stephanie Kleinschmidt** (Macalester)  
**Carolyn Loeb** (Macalester)  
**Gautam Mani** (Macalester)  
**Wade Miller** (Macalester)  
**Lauren Morse** (Macalester)  
**Elise Pagel** (Macalester)  
**Anna Waugh** (Macalester)

The Macalester Geography department collaborated to produce a comprehensive atlas of the Crow River watershed. This area is located directly west of the twin cities metropolitan area and encompasses a spectrum from high density suburban landscapes on the fringe of the twin cities to low density rural areas in west central Minnesota. This area includes at least parts of: Pope, Stearns, Sherburne, Wright, Meeker, Kandiyohi, Renville, Sibley, McLeod, and Carver counties. Studying this area allows insight into processes of growth and development in suburban, exurban, and rural communities in Minnesota. In doing so we explore both social and environment elements of the area.

Our areas of study within the watershed fall in to two major categories: natural features & human-environment interactions, and socio-demographic characteristics. Within these groupings we have chosen to focus on a number of topics relevant to people living and working in the watershed. These include: land cover and use, pollution and environmental impacts of industry, education and public welfare issues, and social capital.

This atlas will provide a gateway for both academics and residents alike to have a better understanding of their communities as they exist now and their collective futures. To that end we hope that this work can be used in future studies of areas similar to this, by providing a baseline study, and also in public determinations of how to deal with social and environmental issues.

## 2008 Midwest Undergraduate Geography Symposium Poster Abstracts

### The Most Valuable Habitat for White-Tailed Deer During the Winter Months in Itasca County, MN

Abigail Krause (St Thomas)

Scott O'Donnell (St Thomas)

White-tailed deer are an abundant animal in Minnesota, with their population near a million. However, during the colder winter months of Minnesota the deer are at a higher risk than during the other seasons and it becomes a dangerous and critical time for them. For this reason we decided to create a map showing the land in Itasca County that is the most valuable habitat for the white-tailed deer, but only show it during the tougher winter months. During the warmer months of the year, deer are less picky on the type of habitat they need, but when the colder months approach their habitat gets cut apart and specified to certain types of forest cover. Deer need conifers as winter cover because they act as a shield against cold weather and deep snow which can tire the deer throughout the season. However, white cedar forests are more important for buyers to preserve because they provide an excellent habitat for deer but do so without jeopardizing their important summer habitat like too many conifers can. If cedar is unavailable, then a mixed forest is important, which will provide blocks of evergreens and mixed trees to allow for adequate winter cover. Without adequate cover, the deer will not survive the winter. Like their preference on trees, deer habitats change during the winter. Unlike the summer and fall when a deer will eat large amounts of food, the winter is a time of storing energy and only eating smaller amounts of food only to sustain them through the winter. If they do not store enough fat, or if the winter season extends too long, the deer population would suffer due to deaths or malnutrition would make reproduction less successful. In order to best preserve the deer, we created the best habitat possible, but focused more on forest cover because that is the essential variable for deer in the winter. The deer rarely leave the thermal cover, but when they do they look for food such as acorns, dogwood, white cedars, and mountain maples. Although maybe not the most nutritious for them, woody browse that is close to their cover will help them maintain their fat storage without wasting energy by having to travel long distances for food.