

Poster Abstracts

Faculty and Professional Poster Abstracts

Peter Galvin & Lucinda Woodward, Indiana University Southeast

Globalizing the curriculum through cuisine: Historical geography of selected foods

Following a directive from Indiana University's Office of International Affairs to internationalize the campus and curriculum, the authors devised a topical course in historical geography to showcase the origins and diffusion of various foods around the world. Each student selected a food and researched its historical beginnings and geographical spread, its cultivation and preparation, as well as its modern production and consumption patterns. In addition, each student prepared for the class and visitors a dish featuring the researched food. The course's instructor provided a model using the potato. Presented here are student-generated maps of origin, diffusion, production, and consumption of the following foods: avocado, black pepper, cardamom, chocolate (cacao), cinnamon, coconut, coffee, peanut, pistachio, potato (*Solanum tuberosum*), rice, sweet potato, tomato, and vanilla. After presentations, tastings, and discussions, participants reported a heightened awareness of the global significance of everyday foods.

Graduate Student Poster Abstracts

Adam Christopher Ereth, CSU Fullerton

"Pacific Island Atoll Vulnerability to Sea Level Rise, and Adaptations to the Changing Environment"

In light of the fact that many islands seem to be disappearing as a result of climate change that is predominately associated with sea level rise, Pacific island atoll vulnerability has attracted many researchers from all disciplines who aim to assist in finding solutions to this problem. By drawing upon literature that spans many fields of academia, I aim to bring to attention some of the disparate features associated with climate change vulnerability research, and to illustrate some of the adaptive techniques that have been employed by both islanders and researchers alike to mitigate the effects of sea level rise. By exploring this topic, it serves to illustrate what some of the challenges are to deal with climate change issues, and to question the level moral obligation among all human beings to help assist Pacific islanders living on atolls who are currently facing one of the most impending climate change adaptations to date.

Rasheed Hislop, UC Davis

Race & Class in the NYC School Garden Movement

New York City is home to the largest community gardening program in the U.S. however, surprisingly a program specifically designed to facilitate and support school gardens at public schools throughout the city was missing until 2011. A groundswell of activity and support by parents and teachers, many whom are middle class white females, as well as agencies both non-profit, private and municipal have come together to reinvigorate and transform barren or under-utilized spaces along with thousands of elementary, middle and high school students -- mostly students of color. As a New York City public high school graduate of color and subsequent rural and urban farmer and gardener and an outreach coordinator in Green Thumb, the community gardening agency - I examine the racial positionalities and power dynamics at play in the recent New York City School Garden movement from an insiders perspective.

Erica Jones, UC Davis

Challenges of Implementing Climate-Friendly Land Use Policies at the Local Level: A California Case Study

California's Sustainable Communities Climate Protection Act of 2008 (SB 375) mandates greenhouse gas (GHG) reduction targets for metropolitan regions. Meeting these targets will require emissions reductions in multiple sectors. This study deals with reducing emissions related to the housing sector. A national history of the relationship between housing and environmental policies and trends from 1960-2011 is coupled with a case study to illustrate how entrenchment in formerly innovative policies and practices can hinder the ability of new energy efficient housing projects to be built, particularly if previous innovations comingled energy conservation and character preservation. This study highlights the need for innovative policy and practices as well as the evolving nature of innovation. The finding is that if cities are to promote innovative, energy efficient housing development they need to be willing to continually update related policies and practices to allow for it.

Veronica Roach, CSU Fullerton

Southern California's coastal sage scrub ecosystem

"Southern California's coastal sage scrub ecosystem is located within the California Floristic Province, one of the world's 34 biodiversity hotspots. The coastal sage scrub is found in a limited area, has high rates of species endemism, and is threatened by human actions. The direct threats from human actions such as habitat loss from urban sprawl, and the indirect threats from fire, air pollution, and invasive grasses are addressed as major impacts to the remaining open space in southern California. The impacts and threats of urbanization and human activity on the endangered, coastal sage scrub in southern California are discussed based on current scientific literature and research.

Romi Rosen-Teeple, UC Davis

Adopting Grounded Theory for Humanistic Geography: A Biogeocultural Iconography of the Global Environment

Humanistic geography – as practiced by Yi-Fu Tuan, Edmunds Bunkse, and others – strives to capture the human element of geography. The emphasis is on identifying and richly describing the meaning that places (ranging in scale from a favorite chair to the entire globe) have for both individuals and groups. Through this approach, humanistic geographers have made and continue to make contributions to understanding of the global environment. However, humanistic geographers have been criticized for a lack of methodological rigor. In this poster, I will argue that grounded theory – a qualitative method developed in sociology – offers a valuable supplement to the goals of humanistic geography. I will identify the key concepts and methods of grounded theory research, and provide an illustration of its application to humanistic geography through a case study of images of the global environment circulated in popular media.

Nicole Stotz, CSU San Diego

Usability, functionality, and performance of cloud computing based web GIS framework: Fusion Tables

There is a growing preference for web based maps and web based GIS over traditional desk based GIS software. GIS is moving away from the domain of ‘experts’ and into the realm of the novice user. This has led to an interest in easy to create and readily accessible maps. Fusion Tables, a Google service, combines data management, collaboration, and visualization. There has been little research on the effectiveness of Fusion Tables relative to traditional GIS web based frameworks, like ESRI’s ArcServer. This study will test the usability, functionality and performance of Fusion Tables versus ArcServer.

Tamara Wagner, CSU Fullerton

CSU Fullerton Comprehensive Campus Sustainability Assessment Project: the STARS Tool California State University,

Fullerton has responded to sustainability-related State mandates by conducting a comprehensive campus evaluation to measure its environmental, social and economic Sustainability performance. The method chosen by the campus is the Sustainability Tracking Assessment and Rating System (STARS), a tool that was developed by the Association for the Advancement of Sustainability in Higher Education (AASHE). The STARS survey was developed by members of the Higher Education community, thus STARS was designed specifically for Higher Education institutions. The institutional data collection process is estimated to take one year, and is slated to be publicly available upon completion.

Tara Zagofsky, UC Davis

Civic Engagement Unbound: Social & Spatial Forms of Inclusion/Exclusion in Marginalized Communities

According to the normative literature, civic engagement practices inclusive of historically marginalized groups are critical to promote justice and contribute to the health of American democracy. Empirical studies meanwhile reveal a grim report of participation from low-income families and/or persons living in ethnically fragmented communities in decisions that affect their lives and livelihoods.

Is this a paradox we must accept? What if a “disengaged” community—low-income and also one of the most ethnically diverse in the United States—had millions of dollars invested into it for several years with the explicit goal of increasing civic engagement to improve the community's health and well-being?

This research is situated in such a site, also held up as an example of resident engagement to replicate. The case study analysis is based on data collected from three years of ethnographic fieldwork investigating the social and spatial boundaries influencing civic engagement ideals, practice, and outcomes."

Undergraduate Student Poster Abstracts

Rebecca Batzel, CSU Humboldt

The effect of climate on butterfly (Lepidoptera) abundance and distribution

Numerous factors including climate, resource availability, and habitat diversity, act as determinants of global species diversity. Species geographic ranges are expected to shift in response to global climate change, particularly ectothermic species in colder, higher altitude environments. To gain a further understanding of how butterflies will respond to long term climate changes, I collected baseline species richness data at three sites along an elevation gradient in the high Rocky Mountains of Colorado. During the observation period, data was collected on the richness and evenness of butterflies with respect to the abiotic variables; temperature, wind speed, relative humidity, and solar radiation. Increased temperature and solar radiation resulted in increased butterfly abundance; no relationship between relative humidity or wind and butterfly abundance was observed. While the temporal scope of this study was limited, these abiotic determinants of butterfly abundance and range will have long term impacts as global climate changes.

Breeanna Bergeron-Matsumoto, Helen Burke, and Dylan Thomas; Irvine Valley College

Anaheim's Disneyland: "Green Washed" or A Potential Leader in Corporate Environmental Sustainability?

The term "green washing" is applied to businesses seeking to profit through exaggerated "claims of sustainability or environmentally friendliness" (Dahl 2010). Critics have identified the international Disney Corporation as "green washed." The Anaheim Disneyland Resort (ADR) exemplifies many of their concerns. For example, although the company releases annual corporate reports on environmental responsibilities, critics believe many negative environmental impacts are overlooked. In particular, critics cite heavy firework use, high lead levels and disturbed ecological zones (CEH 2011). While they argue that ADR's environmental reports are publicity schemes, others contend that Disney's efforts to reduce environmental degradation are genuine. This project examines both perspectives of the debate and dissects ADR's corporate report. It also attempts to assess current environmental implications of the ADR to devise environmental improvements for theme parks and corporations in the U.S."

Eric Bohn, University of Nevada, Reno

The California Gold Rush, 1848-1874

The California Gold Rush of the mid-19th century was an influential event in the development of the Western United States due to the massive migration of people and the effects of such rapid population growth which it subsequently caused. This poster addresses geographical components of the Gold Rush including the changes in nationwide demographic distributions, the travel routes to Northern California, and the locations of major mining towns and dig sites of the 1800s in relation to present-day cities.

Matthew Conway, Foothill College

Measuring Urban Mobility and Accessibility Using OpenTripPlanner Analyst

Measures of urban mobility and accessibility are useful in many situations, from real estate to urban planning. Some methods of measuring and visualizing mobility and accessibility include making travel-time isochrones, measuring travel time effects of network changes, measuring accessibility using opportunity data, and creating time-space prisms. Transit, walking and cycling are more important than driving in many urban areas. This poster examines how the open-source OpenTripPlanner Analyst software can be used in conjunction with open transit agency and street network data to create visualizations of multimodal mobility, accessibility and changes in travel time.

Anita R Cowley, University of Nevada, Reno

Basques in the United States

Basque émigrés to the United States routinely settled in the west. Reasons for this are varied but generally more land and job opportunities were available in the American West than in the native Basque territory between France and Spain. Opportunity brought chain migration, as Old Country Basques followed family or friends to an area or town thought to be welcoming. The Basque presence grew more distinct and commercial opportunities followed, especially with the establishment of Basque hotels that were important gathering places for the diaspora community. Hotels took in new immigrants, gave them a place to stay, a familiar language and meal, and most important gave newcomers ideas of where to find employment. While residential hotels faded away with time, restaurants associated with the Basque remained even now as a strong identifier of the Basque community. Basque clubs, festivals, and restaurants support the maintenance of strong ties with the homeland.

Jeffrey J. Erwin, University of Nevada, Reno

Examining the Importance of Using Agricultural Weather Networks to Estimate Crop Water Demand.

With the exception of Nevada Integrated Climate and Evapotranspiration (NICE) Net stations, nearly all meteorological stations in Nevada are located in non-irrigated, arid environments. The lack of water around the meteorological stations is reflected in elevated air temperatures and reduced humidity levels, a stark contrast to the climate surrounding irrigated lands. This dry land aridity causes the computed reference evapotranspiration and estimated crop water demand to be in error by as much as 30% when compared to estimates derived from irrigated climate data. This research will illustrate the importance of using climate data derived from agricultural areas for estimating irrigation water requirements.

Nick Gailey, Dylan Thomas, & Martin Yribarren; Irvine Valley College

Disaster Preparation Among College Students

Disaster preparedness varies from region to region. Surveys were drafted, and then conducted by geography students with the goal of accurately assessing the disaster preparation efforts of students at Irvine Valley College, CA. Questions regarding personal and campus emergency plans were posed, along with collection of demographic information. The surveys were targeted to determine community awareness and the level of preparation for both natural and anthropogenic disasters. Due to the diversity of community college student populations, survey results showed a high degree of variation. An important contributing factor to this study was the fact that 60 students from two lab classes were tasked to give five surveys each. This resulted in a large sample size, providing a broad, accurate vision of student preparation and awareness. Following a summary of results, recommendations will be made to campus administration and facilities, to aid in developing improved safety protocol.

Aldo Garcia, CSU Stanislaus

An Analysis of Declining Use of Public Transportation in Turlock, California

The city of Turlock is located in the San Joaquin Valley of California and has a population of 68,711 (2009 Census). The city operates a public transit system named Bus Line Service of Turlock (BLST), which provides four fixed routes. BLST has seen a fluctuation of riders over the past 10 years, and is currently experiencing a decline in ridership. This project examined possible causes of declining ridership by conducting surveys directed at public transit users. Surveys were conducted on the bus, at bus stops, and at high density use areas. The surveys asked questions about rider experience and bus operations. The results were analyzed, compiled into a database, and a map was produced in a Geographic Information System. BLST is an important resource to the community, and problem areas must be identified and addressed to ensure that services continue to be provided for the community.

Sarah Honeycutt, University of Nevada, Reno Why Kids aren't graduating in Nevada Washoe County School and the social-econ reasons that kids aren't graduating.

Skyler Irish, CSU Fullerton

Cycling in the Inland Empire

The poster is a cartographic representation of various bicycle routes I did in spring 2011. I collected data and captured photos while on the bicycling treks. My work is not theory driven, but more focused on the gathering of data and sharing my experience I had while working on the project.

Lynne Higgins, CSU Fullerton

Infill After an Oilfield

The poster I am presenting shows how an abandoned 35 acre oilfield in Brea, California has been infilled with development. I will show what the property looked like in 1942, 1972, then in the present, after the completion of the project. I will address issues such as abandonment, offsite improvement, traffic mitigation, and a park easement.

Courtney Kollasch , University of Nevada, Reno

GEOTHERMAL SYSTEMS OF THE TRUCKEE MEADOWS

The 'mining' of the heat of a geothermal system can provide a naturally renewable resource of energy for the use of generating electricity, space heating, and aquaculture. There is a high concentration of geothermal systems within the Great Basin in general, but specifically the Truckee Meadows which lies on the eastern side of the Sierra Nevada. There are currently 5 direct uses of these geothermal systems and one major power plant complex, the Steamboat Power Plant Complex, which is owned and operated by Ormat Nevada, Inc. since 1986 with a capacity of 89MW. Geology surrounding a geothermal system is relevant and plays a crucial role in the heat and longevity of a system. With the proximity and accessibility of geothermal resources, the Truckee Meadows could set a great example of a responsible approach to the use of a renewable energy and the feasibility of reducing use of fossil fuels and depending more on alternative energy sources.

Michael Machado, CSU Stanislaus

Hydro-Geomorphic Characteristic of the upper Tuolumne Watershed

The conservation of the Tuolumne Watershed (TW) is of great importance to the San Joaquin Valley of California. However, decades of agricultural cultivation and urban development may have exerted profound impacts on hydro-geomorphic characteristics of the watershed. Understanding these impacts is important for the livelihood of those who depend on the TW. This study investigates some hydro-geomorphic characteristics of the upper TW in order to assess the effects of human modification. Various data sets including topographical maps, digital elevation model (DEM), soil, national hydrographic data, and land cover for the TW were obtained from the U.S. Geological Survey, Cal Atlas, and National Resources Conservation Service. The data were analyzed using geospatial and hydrological tool sets in ArcGIS 10. The result shows some degree of degradation of the upper TW above Hetch Hetchy dam

Michelle Machado, CSU Stanislaus

Using GIS to Visually Understand the CSU Stanislaus Education Pipeline

California State University Stanislaus is located in the mid-sized city of Turlock, California. The Fall 2011 enrollment census showed 9,246 enrolled students. Each semester the University's Office of Institutional Research collects data on the incoming and currently enrolled students. The term "education pipeline" is a metaphor for understanding the key transition points through which students progress from primary school to secondary school to higher education. An important use of enrollment

and trend data is to understand where students come from and their level of college preparation. Applying GIS to enrollment data permits a visual display of the institutions of origin of students from high schools, community colleges, or other universities. This is an ongoing study that intends to show the morphology—trends and changes—in the enrollment patterns of students from “sending” institutions to CSU Stanislaus.

Jason Man, University of Nevada, Reno

Reno Cycling Commute

Abstract Not Provided

Dan Martinez, CSU Fullerton

A Comparison of Bicycle Transportation Policy and Planning in Long Beach, California and Portland, Oregon

Abstract Not Provided

Jacqueline M. Moore, CSU Sacramento

California Particulate Matter (PM₁₀) Emissions in 2008: Natural VS. Anthropogenic

Particulate matter (PM) is a complex mixture of substances that includes elements such as metals, dust, and soils. California and its Air Resource Board (ARB) regulates and inventories PM due to the potential harmful health effects. This map provides a visual reference of the 2008 estimated average of natural and anthropogenic PM₁₀ emissions, particles having an aerodynamic diameter of 10 microns or less, which are represented in tons per day. ESRI’s ArcMap and ArcScene were utilized to illustrate, in a 2-D form, the differences between natural and human derived emissions. A tension spline interpolation approach was used to create a PM concentration surface based on reported values for county centroids. The variances can be attributed to sources like wildfires, road dust, and construction. The natural and anthropogenic images and stacked profiles prominently demonstrate the staggering differences.

Nicholas Joseph Murphy, University of La Verne

The Rise and Fall of the Cucamonga Valley Viticulture Area

The objective of this poster is to illustrate the rise and fall of the viticulture industry in the Cucamonga Valley. The Cucamonga Valley is an American Viticultural Area in San Bernardino County, California, about 15 miles west of San Bernardino. Grape cultivation began in the valley in 1838, and quickly became a major agricultural crop for the area. When Prohibition began in 1920, the Cucamonga Valley produced more wine grapes than Napa County and Sonoma County combined. Following Prohibition, the wine industry and other agricultural endeavors in the Cucamonga Valley faced increasing pressure from the urban expansion of Los Angeles and Orange County. I have examined, documented, and interpreted landscape change in the Cucamonga Valley from 1940 to present day.

Akiko Nakahira, CSU Chico

Historic Preservation and Development in Kanazawa City

In Kanazawa City, Japan, the balance between development and historical preservation forms the identity of the city. Since the 1960's, the city council has implemented many activities to promote the city's development and historical preservation, which are strongly connected. For example, historical preservation has made the city a sightseeing area. A few decades ago, Kanazawa was not a popular tourist destination. However, today, many people visit Kanazawa from all over the world. The increase in visitors has had a positive impact on the economic growth of the city. Normally, the most serious conflict between development and preservation is destruction of landscape. To solve this problem, the city has set specific standards regulating development. Kanazawa combines history and innovation to create a sustainable and distinctive city, where preservation is part of development and promotes economic growth. These efforts have endeared the city to both locals and visitors for many years.

Richard Olson, CSU Humboldt

Successional Recovery on Old Growth and Second Growth Decommissioned Roads in Redwood (Sequoia Sempervirens) Forest Ecosystems in the Headwaters Forest Reserve

In unnaturally disturbed forests, management goals are often aimed at accelerating recovery in order to improve forest conditions. Our study objective was to quantify the type and relative abundance of understory plant composition regenerating on decommissioned roads in old-growth and second-growth redwood forest ecosystems within the Headwaters Forest Reserve in northern California. The sampling design followed a stratified-random approach in which 50m long belt transects ran along decommissioned road sections stratified by forest type and decommission year. Species were recorded in 2-1m² plots along each transect. In both forest types, as time since decommission year increased, the percent cover of rapidly regenerating plant matter, e.g. forbs and fine litter, increased as expected. However, plant composition varied by forest type and decommission year. Results will be used to inform future restoration actions in the Reserve and will be disseminated to other land managers engaged in similar watershed restorations activities.

Kirstyn Pittman, CSU Chico

Impacts of Changes in Precipitation and Temperature Due to Climate Change in Chicago, Illinois

The impacts of climate change are gradually cropping up as the 21st century progresses and the greenhouse gas emissions from the life-changing innovations of the last century come to haunt us. One major component of global climate change is the changes in mean annual temperature and precipitation, which are co-dependent aspects of climate. The city of Chicago, Illinois is an emerging leader in combating climate change as it has already begun and is predicted to experience major environmental, economic, and societal impacts. Similar and related impacts are expected to affect places all over the world, and this case study provides an example of the steps that other cities need to take in order to determine risks and develop plans for mitigation and adaptation, such as the Chicago Climate Action Plan launched in 2008.

James Rosenberg, University of Nevada, Reno

Future Water Stability in the Truckee Meadows

My proposed topic is on the Truckee Meadows and is focused on it's ability to provide water supplies to its residents in the near and far future as it's growth progresses. The poster will focus on answering the question of when the area will start to have trouble with water due to overpopulation as well as show the steps that are currently in use to postpone this threat. In doing so it will question if these steps are the correct actions that could be taken and if any change is necessary.

Madelinn Schriver, CSU Humboldt

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restoration actions in the Reserve and will be disseminated to other land managers engaged in similar watershed restorations activities.

Laura Nicole Scott , CSU Humboldt

Gentrification in Portland, Oregon

Upon becoming a state in 1859, the Oregon State Constitution prevented African-Americans from becoming citizens. It stayed on the books for over 60 years. The dot-com boom of the late 1990s brought an influx of talent attracted to cheaper rents and plenty of opportunities with companies such as Nike, Addidas, Intel and Doc-Martens. When this boom became a bust, it left a large population of creative and predominantly white middle-class. The King Neighborhood is a traditionally African-American part of Portland that has been targeted by the city for urban renewal projects. The traditional residents are finding themselves displaced by the influx of affluence with few alternatives for relocation.

John Williams, CSU Stanislaus

Land Change After Haiti Earthquake

The goal of this study is to compare and contrast the land use/land cover (LULC) of Haiti before and after the earthquake that occurred on January 12, 2010 using Google Earth imagery. LULC data was compiled from the interpretation of 2009 and 2011 images and analyzed in ArcMap 10 to determine the change of LULC before and after the earthquake. This was done using four specific LULC categories: buildings, roads, green space, and agriculture. The results showed changes in the green space and buildings. Before the earthquake thirty-nine percent of the land was covered with green space while the building only occupied twenty-four percent. After the earthquake the green space coverage was thirty-three percent. The building coverage went up to thirty-four percent. Throughout the entire event the roads and agriculture coverage stayed the same.