Geography Student Presentations Night
Los Angeles Geographical Society
May 6, 2011

ABSTRACTS

PAPER PRESENTATIONS

The Accumulation of Salt-rich Dust from Owens Lake Playa in Nearby Alluvial Soils of the Sierra Nevada
Dayna Quick – UC Santa Barbara (Graduate PhD Candidate)
Geosystems First Place Graduate, California Geographical Society

Over the last century, Owens Lake playa has been one of the largest sources of PM-10 dust in the United States. To evaluate the spatial impact of the salt-rich playa dust on the alluvial soils of Owens Valley, we sampled soils on alluvial fans of the Sierra Nevada piedmont to determine soluble salt and specific ion concentrations. One site directly north of the playa has significantly higher salt concentrations as measured by electrical conductivity (EC) compared to other soils sampled, an average pH of 10 and a sodium adsorption ratio (SAR) greater than 15, suggesting a strong impact of dust as a result of local topography and wind patterns. Although EC, pH, and SAR of other sampled soils fall into normal ranges, soils closer to the playa show greater salt and sodium impact than those further away, suggesting a spatial effect of dust on the alluvial soils.

Follow the Leader – The Advancement of Native Shrubs Into Non-native Grasslands in La Jolla Valley CA
Jade Dean – CSU Long Beach (Undergraduate student)
Geosystems First Place Undergraduate, California Geographical Society

The current state of the California Sage Scrub (CSS) plant community is poor. Only 10-15 percent of the original habitat remains and is highly degraded due to invasion of annual grasses and landscape fragmentation. As a result, there are restoration efforts underway to recover lost habitat. La Jolla Valley in the Santa Monica Mountains is representative of an area where type conversion from CSS to grasses occurred due to cattle grazing. Grazing ended in 1970s and since this time CSS has advanced into the grasslands in some areas while in others, grasses have remained dominant. The study examines advancing boundaries of CSS, as determined by analysis of historical aerial images. Results are analyzed from transects taken perpendicular to the boundaries. Preliminary analysis suggests that advancing species are not representative of the surrounding CSS habitat indicating that certain CSS species are better able to colonize grassy areas.

Segmented Assimilation and Neighborhood Attachment Among Latinos in Los Angeles
Omar Mere – CSU Northridge (Graduate student)
First Place Undergraduate, California Geographical Society

Since the turn of the century, Latinos have accounted for more than half of the overall population growth in the United States. Many of these Latinos live in the same cities or towns that they first lived in regardless of changing conditions in areas such as education, employment, or safety. In many cases Latino families have lived in these same cities through generations. There are indicators, however, that some of these cities and towns operate as enclaves or many of these Latinos pushing them towards segmented assimilation of the American culture. Current literature, census and primary data are used to analyze a predominantly Latino area of Los Angeles and finds signs of such enclave behavior and of assimilation among its residents.

Three Beats, Two Crimes, One City: Place-based Distribution of Property Offences in Atlanta GA
Crystal English – CSU Northridge (Graduate student)
Second Place GIS Specialty Group, Association of American Geographers

The City of Atlanta experienced its highest rate of residential burglaries in 2008, up 24.5 percent from the previous year. In 2008, thefts from motor vehicles also peaked at nearly 28 percent above the prior year. The purpose of this study was to determine not only where clusters of offences were occurring, but temporal frequencies of the crimes and what, if any, environmental factors influenced criminal activity. Research analyzed hot and cold spots of residential burglaries in 3 police beats which comprised 2 distinct locations of the city: urban and suburban. It then compared thefts from motor vehicles in the same areas. The results indicated a marked difference in socio-economic status of inhabitants and the frequency of the crimes between the two areas, each having a comparable population density and beat size. The research also revealed environmental issues that contributed to crime. Each area experienced different rates of property crime for selected categories, and that neighborhood design was an important consideration; and although urban beats were subjected to higher crime rates per capita than the suburban beat, both selected areas shared a similarity in temporal occurrences of property crime incidents.

The Digital Economic Geography of Hollywood: Film/TV Distribution and the Internet
Luis F. Alvarez – UCLA (Graduate PhD student)

The potentially global reach of the Internet and its capacity to carry a diversity of non-excluding content on demand brings new opportunities for the expansion and re-creation of Hollywood. With changes in mode of distribution comes the creation of new geographies. The digitization and online availability of commodities produced by the film and TV industries have consequences for the Internet as well as the creative industries. New possibilities of low-cost storage and potentially worldwide distribution of media demand infrastructural requirements and present legal challenges that expose the geographic nature underpinning the information economy. Markets are segmented by geographic region and legal jurisdiction, and areas differentiated by the risk of piracy and illegal distribution. Similarly, the Internet cannot support/enable the distribution of media catalogs in the same way in all places – due to its uneven geography. The paper explores the digital economic geography of Internet film and TV distribution, its commercial viability, legal and infrastructural requirements and challenges for the U.S. film and TV industry.

Ghosts & Guts in Rangoon, Burma: Oblique Views on Urban Violence
Rick Miller – UCLA (Graduate PhD Candidate)

This paper presents the low-angle oblique view as more than a perspective on the landscape. I argue that its use has been instrumental in shaping the fabric of the urban landscape. But in doing so, I acknowledge that the low-angle oblique view has a tainted history of fostering a distant refuge above the city. An elevated eye provides a safer platform to witness urban violence, but this viewpoint may also foster the conditions in which urban violence takes place. Investigating the particular site of Rangoon, Burma (Yangon, Myanmar), an understanding emerges of how urban spaces and the violence associated with these spaces both construct and are constructed by sight. Two ghosts – first, of colonial policeman Eric Arthur Blair, who represents Burma through his nom-de-plume, George Orwell; and second, of contemporary videographer Kenji Nagai, who embodies recent violence through the wrong end of the lens – assist in exploring the city and its intermingled relationship with violence and view.

Local Food Production, Farmers Markets and Urban Gardening in Irvine CA
Alexis Stavropoulos – CSU Fullerton (Graduate student)

This study explores the increasing popularity of local food. Organizations and movements have formed around promoting local food, however the term local is left undefined. To explain what local food is, this study examines a local grower, farmers' markets, and home gardens in Irvine, California. Qualitative data for the local grower and farmers' markets was obtained through participant observation and interviews. Results indicate local urban farmers rely on a nomadic style of farming due to displacement because of development and high-risk leases. For the farmers' markets, maps were created to show location of farms for each produce vendor. A quantitative analysis on home gardens was used to show relationships between who, what, and why participants garden. By examining the results, I suggest that local food in Irvine can come from up to 400 miles away.

Plenty of Trash in the Sea: Garbage, Animals, and Ocean Space
Aleksandra Ilicheva – CSU Northridge (Graduate student)

Destructive human activities have led to widespread recognition of the crisis of the oceans. Yet not much attention has been given to the predicament of fish and other marine non-mammals. Because animal ethics are not created equal across space I want to examine human relation to the ocean-space as a way to forge better relations with its animals. Because water creates a barrier to our understanding of the marine, the ocean is seen as both empty and abundant. I question whether human perception of ocean space and the difficulty of conceptualizing oceans spatially lead to the devaluation of nonhuman life. I discuss oceanic garbage and artificial reefs as two instances where hybrid space is created within the ocean. These are contrary to the perception that oceans are empty of social process; they also challenge the linearity of our interaction with ocean space and marine non-mammals.

Sense of Place, Performance Art and Pedestrian Malls: Third Street Promenade, Santa Monica CA
Kalli Fullerton – CSU Long Beach (Graduate student)

Third Street Promenade, a high end, mixed use pedestrian mall, in Santa Monica, CA is visited by thousands of people a year from around the world, as well, an important nucleus for residents of Santa Monica. Perhaps the most dynamic aspect of the Promenade is the presence of street performers. The creation of the sense of place on Third Street Promenade in relationship to the presence of street performers is the main focus of this paper. Through conduction of 100 surveys, participant observation, and interpretative ethnography this study will address: (1) do street performers add to the creation of a sense of place on the Promenade, (2) do visitors identify street performers as a fundamental element to the Promenade, and (3) assess the experiences and relationships between street performers and visitors to the Third Street Promenade.

A Spatial Study of the Different Armenian Subgroups Living in Glendale CA

Avo Nersesian – CSU Northridge (Graduate student)

Armenians from Armenia, Armenians from Iran, and Armenians from Arab nations living in Glendale CA are compared and contrasted. These are the three distinct subgroups of Armenians living in Glendale, each speaking a different dialect of the same language, and each containing a somewhat different cultural background. A survey of 198 Armenians was conducted. The respondents were asked about English literacy, college graduation, employment status, housing status, and zip code. Maps were generated, displaying the spatial distribution of the three subgroups. It turns out that segregation does actually exist among the Armenians of Glendale. The Armenians from Arab nations are living in the more affluent neighborhoods of North Glendale. The Armenians from Armenia are living in the less affluent neighborhoods of South Glendale. The Armenians from Iran are living in West Glendale, where economic conditions are somewhat in between.

Wildfire Flame Mapper: An Interactive Fire Monitor Tool to Analyze Wildfires in the Santa Monica Mountains

Shea Broussard – CSU Northridge (Graduate student)

The Santa Monica Mountains are historically known to be a staging ground for deadly wildfires. With the growth of the wildland urban interface, it is essential that we continue to strive to better manage these wildfires. A vast amount of research is available pertaining to wildfires in the Santa Monica Mountains and the effects the fires have on the chaparral community, but there is as yet no comprehensive and systematic way to evaluate, or compare these diverse research findings. Although various models have been generated to track wildfires, it has proved difficult to effectively apply and utilize these existing models due to their complex user interfaces, their limited interface compatibility, and their inability to interpret the data swiftly. This project, therefore, examines the best approach for simplifying these models into one visual, interactive, and web-based tool that stakeholders and land managers can use to obtain a general understanding of wildfire: the Wildfire Flame Mapper. Wildfire Flame Mapper (WFM) is a visual tool that uses both the JavaScript object-oriented scripting language and the Google Earth API (application programming interface), providing a three-dimensional platform that supports a variety of wildland fire-related data, from basic Geographic Information System (GIS) data-sets to complex fire simulation models. WFM provides a user-friendly, interactive, and web-based repository of wildland fire history, fire characteristics, and various fire models all integrated in one georectified location with the simple click of a mouse. The goal of the project is to help mitigate damage to life and property by providing a prototype of what could be the future of managing wildland fires: a technological, comprehensive and systematic visual tool for analyzing and monitoring wildland fires called Wildfire Flame Mapper.

POSTERS

Abstractions of Activism: Editorial Cartoon Portrayals of Egypt During the 2011 Revolution

Stacie Townsend – CSU Long Beach (Graduate student)
First Place Poster, California Geographical Society

This case study is a discourse and visual analysis (via editorial cartoons) of the 2011 Revolution in Egypt. The research focuses on editorial cartoons published in American-based newspapers and their depictions of Egyptians and American actors during and following the revolution, particularly the activists involved. This project contributes to the wider geographic community by employing a popular method of examining perceived geographies (media studies) to further elucidate the significance and consequences of a recent, highly-publicized geopolitical event. The research project catalogs common themes, representations, symbols and dialogue involving both the human and non-human actors significant to the event. From this, an analysis is produced of the predominant American-driven geopolitical messages being relayed about the participants involved.

Distribution and Accumulation of Biomass Along the Kalahari Transect

Seth Wing – UCLA (Undergraduate student)

Landsat imagery data is used to understand vegetative change and photosynthetic production in Western Botswana from 1985 to 2010 for four study areas along the Kalahari Transect. Using normalized difference vegetation index (NDVI) analysis, areas are identified with particular vegetative growth and changes due to aridity during the 25-year time span. Analysis shows that there has been a net increase in vegetative cover along the Kalahari Transect in all four locations studied, which is probably correlated to increased precipitation in the region, which has fluctuated over the last 25 years but has seen episodes of increased precipitation at various times. As well as satellite data, fine root distribution, density and accumulation was investigated to better understand how below ground biomass along a strong precipitation gradient reacts to varying climatic factors. On a generally deep, homogonous soil, the Kalahari Transect serves as a prime location to study rhizospheric fine root variance with changes in precipitation and temperature. Individual plant species had six separate core samples taken from near their base, allowing maintenance of a constant volume of soil in which to acquire fine roots; these would then be weighed and tabulated. The data gained from this showed that correlation between fine root mass and canopy size are poorly linked. Tshane became an interesting site for this reason, as it also happens to be the site with the lowest average temperature and has the highest root density along the Transect. It is speculated that Tshane has many of the correct variables for increased fine root production, not hyper-arid yet not too much precipitation, and generally high potential evapotransporation.

Earthquake Shaking Potential in San Francisco

Nobuko Kojima – CSU Northridge (Undergraduate student)

In 1994, the Northridge Earthquake occurred and caused natural hazards, like landslips. The next large earthquake may happen in San Francisco where, historicallly, there are devastated areas surrounding the San Andreas Fault. This created a dangerous place where large amounts of population have gathered in the San Francisco Bay Area. This area includes three rock types which may cause landslips within the San Andreas Fault, as shown by ArcGIS. In ArcGIS, a united buffered result shows the faults as shapefiles and clipped the result of the rock types.

Modeling Snowpack in the Sierra Nevada Based on Projected Climate Change

Brandi Gamelin – CSU Los Angeles (Graduate student) & Jennifer Becker – CSU Pomona (Undergraduate student)

California relies heavily on accumulated snow on the Sierra Nevada Mountains and the gradual release of stored water in the snow-melt runoff. Historically, April 1st has been considered the snowpack peak and is used in this study to gauge elevation and available water runoff. The Intergovernmental Panel on Climate Change (IPCC) has generated four greenhouse gas emissions scenarios, for this work, the A2 (medium-high emissions) and B1 (low emissions) are incorporated into the Parallel Climate Model (PCM) and the Geophysical Fluid Dynamics Laboratory Model (GFDL) to produce projected snow-melt and elevation changes in the Upper Tuolumne and Upper Merced Watersheds within the Sierra Nevada Mountain range. This study employs a GIS-based (geographic information system) temperature-driven snowpack model to predict potential snowpack changes using a PRISM climate group model as an input for the averaged winter temperatures to produce four maps that illustrate the potential percentage of change in snowpack elevations for 2035, 2069, and 2099. When determining snowpack shifts based on climate change, elevation becomes the most important factor when applying Climate Models and Emission Scenarios to the Sierra Nevada Mountain snowpack. For every 1 °C rise in temperature the snowpack shifts approximately 140-170 meters, and because the increase correlates to temperature change, the Southern Sierra's will be least susceptible to excessive snowpack loss due to higher elevations there.

Muslim Activism Strategies Post 9/11

Alfonso Martin – CSU Long Beach (Graduate student)

Since the attacks of September 11, 2001 on the World Trade Center in New York City, Muslims across the United States have been dealing with increase acts of violence, discrimination, stereotyping, and oppression due to rising xenophobia. A central point of the heated confrontations have been around proposals to build mosques in cities across the United States. In order to address anti-Islamic sentiments, Muslims have adopted a number of strategies with the purpose of engaging and educating non-Muslims and addressing misconceptions about Islam. This poster analyzes the activism strategies implemented by Muslims in order to address xenophobic sentiments. Following analysis from newspaper and magazine articles, two dimensions of activism were identified: local social movements and individualistic activism. These strategies have a spatial quality and are critical to understanding interconnected social movements in the face of anti-Muslim actions.

Palisade Glacier Since the Little Ice Age

Gregory Ziolkowski – CSU Long Beach (Graduate student)

California relies heavily on accumulated snow on the Sierra Nevada Mountains and the gradual release of stored water in the snow-melt runoff. Historically, April 1st has been considered the snowpack peak and is used in this study to gauge elevation and available water runoff. The Intergovernmental Panel on Climate Change (IPCC) has generated four greenhouse gas emissions scenarios, for this work, the A2 (medium-high emissions) and B1 (low emissions) are incorporated into the Parallel Climate Model (PCM) and the Geophysical Fluid Dynamics Laboratory Model (GFDL) to produce projected snow-melt and elevation changes in the Upper Tuolumne and Upper Merced Watersheds within the Sierra Nevada Mountain range. This study employs a GIS-based (geographic information system) temperature-driven snowpack model to predict potential snowpack changes using a PRISM climate group model as an input for the averaged winter temperatures to produce four maps that illustrate the potential percentage of change in snowpack elevations for 2035, 2069, and 2099. When determining snowpack shifts based on climate change, elevation becomes the most important factor when applying Climate Models and Emission Scenarios to the Sierra Nevada Mountain snowpack. For every 1 °C rise in temperature the snowpack shifts approximately 140-170 meters, and because the increase correlates to temperature change, the Southern Sierra's will be least susceptible to excessive snowpack loss due to higher elevations there.

Police Brutality: Activism and Social Geography

Ryan Goodner-Belli – CSU Long Beach (Graduate student)

Solving the root problem of crime in a community is one of the core issues for social geographers. In the City of Los Angeles, political activism surrounding how police deal with criminals is always in the spotlight. There are three groups that need to work together to reconnect police with the people they serve: activists, the media, and the police. Activism addresses the flaws and failures of the police, the police reorganize their operational structure, and the media propagates or disregards what may be said. The overall goal is to solve the criminal problem and social geographers have the capacity to bridge gaps between these groups to work for and promote safer communities.

So What's the Big Deal About Plastics?

Siegrun Storer – CSU Long Beach (Graduate student)

Plastics have become a widely used consumer good in American culture. In the last few decades, we have started to realize the environmental repercussions of our uses of plastics. As a consumer, I wanted to know more about environmentally responsible choices. Living in a beach community in Southern California, a variety of resources are available that influence me to make greener decisions when it comes to plastics. Information, campaigns and activism associated with more sustainable living and specifically related to reducing the use of plastics is widely available in my community. This project researches the activisms related to plastics that are communicated to various types of consumers in Redondo Beach and the greater South Bay area. The aim of this research is to identify methods of activism, themes and content which are related to consumer plastics in my community of Redondo Beach as well as the greater South Bay area.

Spatial Analysis of the Tort Reform Debate

Carin Tabag – CSU Long Beach (Graduate student)

The purpose of this study is to determine the influence of spatiality in the tort reform debate. By focusing on the spatiality of scale, research attempted to distinguish the presence and influence of public and private scales embedded within the debate surrounding the California tort reform legislation entitled the Medical Injury Compensation Reform Act (MICRA). Research ascertained that MICRA advocates position their arguments in a more public scalar spatiality, whereas opponents position their arguments in a more private scalar spatiality. Research shows advocates actively manipulate scale in their arguments and that this has led to their success in preventing MICRA from being overturned.

Spatial Distribution of Tanning Salons in Los Angeles City
Natasha Zaldivar – Pasadena City College (Community College student)

The use of tanning beds has increased in the last two decades, despite the increased awareness of the population of skin cancer risks and the effects of UV light (1). Previous research found a relationship between the locations of tanning facilities and females, adolescents, whites, and median income in various areas of the United States. This study will examine how tanning facilities are distributed in the city of Los Angeles CA. After spatial analysis, the findings suggest that there is a correlation between the distribution of tanning salons and young non-Hispanic white females in LA City, as well as a higher density of tanning salons in the white upper median income population. Further research may explore analysis of High School and Colleges locations in correlation to the distribution of tanning facilities, comparison of other regions of the US, and analysis of the upcoming 2010 census data to determine temporal variation in tanning salon distribution.

The Tea Party: An Imagined Community Maintained by Emotional Labor
Kalli Fullerton – CSU Long Beach (Graduate student)

While there are six nationally recognized Tea Party activist groups, a strong sense of unison and community between those who recognize themselves as Tea Partiers is evident regardless of geographical location or which individual group, if any, they have contributed to or are members of. This study sought to find evidence of a collective imagined community, maintained by emotional labor, within the larger and diverse Tea Party movement through a content analysis of 150 photographs of Tea Party signs.

Water Quality & the Relation to Fish Kills and Wind-driven Upwelling in the Salton Sea
Vena Chu – UCLA (Graduate PhD student)

Addressing the declining health of the Salton Sea CA requires an understanding of the nature of water quality features that pervade the sea and their drivers. Water quality features such as phytoplankton blooms and gypsum precipitates are explored in response to wind-driven upwelling events that have been related to massive fish kills. Moderate Resolution Imaging Spectroradiometer (MODIS) imagery are analyzed a week before and after upwelling and fish-kill events for the presence of visible water quality features. In situ measurements of water quality and field spectroscopy are used to develop an empirical model relating MODIS radiances to visible water quality variables. These data are used to better understand the subsequent chemical and biological response to upwelling events in the Salton Sea.

MAPS

The Population's Exposure to Flood Hazard in Southern Los Angeles County
Flavio Mercado – Submitted from El Camino College (B.A., CSU Long Beach)
First Place Paper Map, California Geographical Society

In January 2010, the southern portion of Los Angeles County was hit with major storms that inundated several coastal cities such as Long Beach, San Pedro, Wilmington, and Harbor City. Perhaps, the most devastated city was Long Beach, where even a portion of California State University, Long Beach was flooded. As a local resident I was startled by the flooding in my neighborhood. I wondered just how much of Los Angeles County's southern coast could be flooded and who would be at risk. I incorporated the 500-year flood inundation zone from FEMA with data from the recent 2010 Census. The resulting map reveals the Los Angeles County's southern coastal cities substantial population at risk.

Alternative Energy in California
Michelle Olsen – El Camino College

California has been praised for its trendsetting uses of alternative energy sources and its relatively low carbon dioxide emission rate per capital. However, California is still the second highest polluter (by state) of carbon dioxide, expelling about 390 million tons of carbon dioxide per year. To remedy this issue, California has put in place several measures to reduce emissions and long-term solutions to reduce our fossil fuel dependency. Among the most popular are biomass, hydro, wind, solar, geothermal and nuclear. Shown are net carbon emissions by county and existing hydro, geothermal and nuclear facilities. By 2020, California is targeting a goal of 1/3 of energy originating from non-fossil fuel sources. Mapping California's major alternative power plants reveals how much more California needs to accomplish.

Amusement Parks in our Backyard
Rene Fernando – El Camino College

My map looks at the relationship between theme parks and the surrounding areas by comparing and contrasting different locations with amusement parks: Los Angeles/Orange County (Disneyland / Disney California Adventure), swamp lands of Orlando (Disney World), and Arlington/ Dallas area (Six Flags Over Texas). My final product shows the areas around each amusement park that either affect or are affected by the park being in that location.

Clean Air Action Plan in the Ports of Long Beach and Los Angeles
Bobby Borders – El Camino College

Is it working? The Port of Los Angeles and the Port of Long Beach are the nation's busiest ports. In 2006 the Ports of Los Angeles and Long Beach approved the Clean Air Action Plan (CAAP). The CAAP is a strategy to reduce air pollution admissions caused by trains, trucks, ships, and heavy equipment for cargo movement operations within the two ports. This program is to be a "living document" that can be applied to new pollution control technologies. The data will be taken from six air quality monitoring stations located within the two ports. Data will be pulled from 2006 and compared to the most recent data of 2010. Diesel particulate matter (DPM), nitrogen oxides (NOx) and sulfur oxides (SOx) data are displayed and compared on the maps. The maps reveal the improvements of air quality in the ports since the implementation of the Clean Air Action Plan.

Earthquake Risk In Los Angeles County
Matthew Lujan – El Camino College

The location of public high schools, colleges/universities, and major hospitals/medical centers in Los Angeles County are shown with their proximity to local fault lines. The goal is to show which ones may have a greater risk of damage caused by an earthquake and/or other earthquake related occurrences due to their location.

Land Use and Water Quality in Los Angeles
Kenya Creer – El Camino College

Surface runoff into streams and water bodies provides non-point source pollution in surface water bodies. Tong and Chen (2001) found that streams contaminated with phosphorus, chlorine, and fecal coliform were related to commercial, residential, and agricultural lands. Data is examined from the California Water Resources Board with land use for metropolitan Los Angeles County. The objective was to find patterns of land use in watershed within Los Angeles where the surface bodies of water do not meet water quality standards for coliform bacteria. Sections of the Los Angeles River and its tributaries, which require TMDL standards for coliform bacteria, have similar land uses around them as water bodies that do not require TMDL standards for coliform bacteria. However, the map shows that there might be a correlation between wastewater treatment plants and coliform bacteria contamination.

Mapping Gerrymandering in Southern California

Patrick Pastor – El Camino College

In 2008, voters in California passed Proposition 11, or the Voters FIRST act. This proposition, which was extended by Proposition 20, places the power of redistricting into the hands of an appointed commission instead of the state legislature. The purpose of this act is to prevent Gerrymandering, or manipulating the borders of a district to create a political majority for a party. Several California districts were cited in a *Slate Magazine* article as “The Most Gerrymandered Congressional Districts”. The map shows the most gerrymandered congressional districts in Southern California. But how does one quantify this subjective aspect? The most ideal district resembles a circle, which contains the highest possible area while maintaining the lowest possible perimeter. The amount a district deviates from the ideal district is an indicator of gerrymandering. An algorithm was designed to quantify the ideal district’s ratio of area to perimeter with 1. The amount the ratio deviates from one is shown with a choropleth map.

The Most Common Cause of Mortality in Los Angeles County

Kine Rydjord – El Camino College

People die every year from different causes. Many of these causes are based on their age, sex, race and location. On only one day in 2001, 164 people died in Los Angeles County. Among these deaths, there were five leading causes of mortality that were mapped by California Health Department. The leading causes (that does not include homicide, suicide and car accidents) are heart disease, cancer, stroke, emphysema, and pneumonia and influenza. On my map, I focus on the most common death cause, heart disease. I use the zip codes in Los Angeles County and focus on zip codes with the highest percentage.

Pacaya Volcano

Naomi McClanahan Herrera – El Camino College

Central America is famous for its volcanoes. Along the isthmus there exists a chain of volcanoes that is located along the Ring of Fire. Most of the volcanoes are dormant, but there are a few that are currently active. Near Guatemala City, Guatemala, resides a potentially destructive volcano called Pacaya. Dormant for a century, Pacaya erupted for the first time in 1965 and has continued to erupt since then. Even with Pacaya’s current volcanic activity, you’ll find climbers more drawn to the volcano than geologists. My map of Pacaya Volcano reveals historical volcanic activity and analyzes potential risk for those living in the area.

The Purple Olive Shell of Southern California

Valerie Alviar – El Camino College

In Southern California there has been an extreme disruption of marine life and its habitats. One small victim of this disruption has been the lowly purple olive shell (Olivella biblicata). As a collector’s favorite, this shell has been long adored for its beauty, and treasured as a casual adornment. The Chumash and Tongva Indians of Southern California, and of the Channel Islands, used purple olive shells as beads and money. The purple olive snail shell ranges from Sitka Alaska to Baja California. The map shows the former extant of the California coastal range of the purple olive shell and its remaining habitats.

Toward Mapping Food Deserts in Los Angeles County

Alexander Bradford – El Camino College

A "Food Desert" is an area where access to fresh fruits and vegetables is extremely limited. In an effort to suggest areas for further research, this map shows areas of low access to individual transportation and the locations of supermarkets, highlighting areas where access to markets may be difficult.

Tsunami’s Effect on Japan’s Automotive Industries

Jeffrey Stiles – El Camino College

The recent earthquake and subsequent tsunami has devastated parts of Japan. This devastation has been most evident in north east coastal cities like Sendai where the majority of the town was flattened. The disaster, however, has had a much more broad impact on nearly every aspect of Japan’s population, and economy. This map focuses on the damage done to certain aspects of the automotive industry in Japan. Honda Motor Company, in particular had to suspend large portions of domestic vehicle production due to the disaster. Lack of available oil and the destruction of infrastructure make it difficult for parts to get from the suppliers to Honda’s assembly lines. This map shows the locations of Honda manufacturing plants as well as the locations of their suppliers in relation to tsunami inundation and earthquake intensity.