

## **Paper/Analog and Digital Cartography Abstracts**

### **Graduate Student Paper or Analog Cartography**

Jayoung Koo, UC Davis

Crissy Field an urban national park: where are users coming from?

Crissy Field in the Presidio of San Francisco attracted millions of visitors to the northern waterfront of San Francisco, CA since it opened in 2001. People use Crissy Field for various recreational purposes which was once a military airfield converted into a national park. With the establishment of the Golden Gate National Recreational Area in the 1970s, Crissy Field's shoreline was initially opened to the public. Crissy Field expanded into a 100-acre public open space when the military post was transferred to the National Park Service in the 1990s. From field observations and user surveys, walking, biking and jogging were the most frequent activities identified in the spacious landscape. Survey results also revealed that 46% of respondents came from San Francisco. Including users from the city, 64% of visitors came from Northern California, 10% from other states and 19% from other countries. In conclusion, Crissy Field mostly attracted local and regional users.

David McCarter, CSU Northridge

My goal was to design a decorative wall map that fused fine art with cartography to provide the map reader with a unique and visually stimulating map. Each of the fifty states is represented with a different painting by an American artist. American art was chosen so that each painting would tell a story of American history to the map reader and engage their curiosity and inspire them to learn more about the geography, history, and art of the United States. It is meant to be enjoyed by both adults and children, as well as be used in the classroom as an enjoyable educational tool. A table is included in the map that informs the audience which painting represents which state, and the artist that painted it, so that further research on the significance and meaning of the painting, as well as the artist, can be carried out if desired.

### **Undergraduate Student Paper or Analog Cartography**

Jehren Boehm, University of Nevada, Reno

"Is today worth the wait?"

A proof of concept for temporally dynamic map offering winter backcountry travellers another tool to decide on their mission for the day. This map will display estimated time of rescue for injured backcountry travellers able to communicate with Search and Rescue teams based on snow depth, snow cover, victim location, avalanche danger and weather that affect the ability of SAR teams to use power equipment such as snow machines and snow cats.

Emanuel Eduardo Delgado, CSU Humboldt

#### Depletion of Wetlands of Mad River Slough due to Modern Development

The Humboldt Bay is seen as a pristine area surrounded by forests and estuarine habitats. Viewing this landscape through a historical perspective, we can see how anthropogenic activities have impacted the Mad River Slough. Various maps from the Historical Atlas of Humboldt Bay were used to digitize the wetlands, agriculture and roads of the Arcata Bottoms. A hydrology analysis was conducted and overlaid with the Humboldt County and City of Arcata Parcels to determine the percentage of developed land within the watershed. Finally, the landscape change was estimated in square feet from 1870-2006. This chronological map series shows the depletion of wetlands in the Mad River Slough.

Brittany Gale, Saddleback College & City of Lake Forest

#### Sex Offenders – Lake Forest, CA, USA

Sexual offenders are living closer to parks and schools than one might think, at least in Lake Forest, CA. Jessica's Law states that sexual offenders convicted after the law's enactment (November 7th, 2006) cannot live within 2,000 ft of a park or school. Due to a lack of easily available conviction dates, it is difficult to tell how many sex offenders are in violation of this law. However, it is apparent that our schools and playgrounds are not free from sex offenders living in close proximity. An inescapable observation is that this residential restriction leaves sexual offenders without many places live.

Seth Richard Gorelik, UC Santa Barbara

#### Wildfire Conditions in Santa Barbara County, California

Frequently in the autumn months, Southern California can experience strong, dry offshore winds that increase the risk of wildfire occurrences, and resulting health, safety, and property damage issues. To illustrate environmental conditions that are known to facilitate the formation and propagation of wildfires in Santa Barbara County, this map combines datasets from the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP), the County of Santa Barbara, and measurements collected by micrometeorological towers as part of Innovative Datasets for Environmental Analysis by Students (IDEAS) extending from the Department of Geography at the University of California, Santa Barbara.

Alicia Iverson, CSU Humboldt

Mapping of "Insecure At Last: A Political Memoir" a Memoir by Eve Ensler

In an attempt to explore the intriguing concept of maps as narratives, I have created a series of maps that visually narrate a striking memoir by the creator of The Vagina Monologues, activist, and V-Day Founder—Eve Ensler. The series of maps follow the journey of Ms. Ensler in her worldwide and lifetime search for security. The maps specifically document her travels and philanthropist work in places such as Bosnia, Pakistan and Indonesia. More importantly, the maps relate the stories she uncovers throughout her travels—stories of women held down, scarred, brutalized—and the hope that survives after all else is lost.

Michone Jackson, University of Nevada, Reno

Potential UNR Parking

A map showing potential additional parking for the students of UNR without affecting nearby residents

Ryland Karlovich, CSU Humboldt

The Irish Landscape

Ireland is home to a legendary landscape that is celebrated in Irish film, music, and literature worldwide. From the Mountains of Wicklow to Galway Bay, and to the Hills of Connemara, it contains a wealth of natural features that are distinguished for their beauty. This map, drawn with pencil, pen, and marker, attempts to convey the spatial distribution of Ireland's hills, plains, cities, and lakes, plus its historic county boundaries. Its vibrant colors and expressive style should invoke an appealing image of the Emerald Isle.

Michelle Lam, University of Nevada, Reno

Wildfire, Too Hot To Handle

After a major wildfire event that happen in November 2012 in the Southwest part of Reno, Nevada, a map is made to analyze the degree of wildfire risk towards society. The following data are merged onto a map: residential area, fire departments and fire-prone area (bushes & pre-damaged area).

Gary Nagle, University of Nevada, Reno

#### Education, Obesity and Depression: An Analysis of Correlation

This map hopes to demonstrate a correlation between the rate of occurrence of Depression (Major Depressive Disorder diagnoses), Obesity (Prevalence in percent of Obesity) and Education rate (percent of population over 18 with at least a high school diploma) on a national scale. Data were gathered from the United States Centers for Disease Control and the United States Census Bureau. Each state was assigned a 1-5 index per attribute based on each respective criterion in order to normalize the data. The resulting state indices were then applied spatially in the form of a choropleth map in order to better demonstrate correlation. The analysis found that those states where the Education Index was high showed a greater propensity of high Depression and Obesity Indices.

Daniel Skaggs, CSU Sacramento

#### Tornado location and frequency

Tornadoes affect this country on a massive scale every year. My goal in creating this map was to display where tornadoes have touched down and to begin to explain their location and frequency. To show this, I collected data from the National Weather Service on the location of every tornado that touched down in the United States in 2010. After entering this data set into ArcMap, I ran a density analysis using Spatial Analyst and displayed the spatial pattern in ArcScene. I found that this pattern depicts the presence of what is known as "tornado alley." Additionally, the two air masses that play a major role in the formation of supercell thunderstorms, which can generate tornadoes, were modeled in Google Sketchup and imported into ArcScene.

Daniel Takacs, CSU Chico

#### Wine Regions of Argentina and Chile

I will be presenting an analog cartographic map detailing the wine regions of Argentina and Chile with an emphasis on drawing in tourism. The different regions will be compared while also showing volume of production and different popular varieties.

Aaron Taveras, CSU Humboldt

#### Exploring Place: Humboldt State University's China/Tibet Field Studies Program, 2010

Cartographers have often dealt with the challenge of graphically representing humanity where complexity is not demoted. Common Western cartographic methods of representation are not structured to allow human life-worlds, or human experiences, to be holistically shown. Nevertheless,

explorations into the map as narrative have illustrated new ideas in human-place representation, expressing the importance of the two in allowing the map user a better idea of related cultural and physical geography. However, there is still much room within this area of cartographic interest for more ideas of how human-place representation can be accomplished, especially within print. This map attempts to show how human-place representation may be achieved in print cartography, with the overall goal of giving the map-user a greater connection with map-content and place.

### **Graduate Student Digital Cartography**

Nick Burkhart, UC Los Angeles

“Locatestreet”: Teaching Landscape Interpretation Using Web-Based Mapping and Gaming

Recent developments in Internet-based geographic information technology enable the development of innovative and immersive digital pedagogical tools. “Locatestreet” is an interactive web-based game taking the form of a cartographic and photographic mash-up, driven by a Python- and PHP-based implementation of the Google Maps API and a PostGIS geodatabase server. This application, accessible using any current Web browser, presents the user with street-level photographic images, maps, and high-resolution orthophotos of randomly selected locations within user-defined areas. The user’s task is to correctly identify the location of the randomly selected images, relying only upon visual characteristics of the landscape imagery. In the process of interacting with the mash-up, the user develops not only a more complete understanding of the presented landscapes, but also her ability to identify and critically interpret the visual characteristics of landscapes more broadly.

### **Undergraduate Student Digital Cartography**

Melissah Ball, CSU Stanislaus

CSU Stanislaus Online and Interactive

An online, interactive map of the CSU Stanislaus campus was created to allow users clickable access to university buildings, departments, photographs, and other campus features. The campus facility Computer Aided Drafting map was used as a starting base layer. This base map was digitized and rubbersheeted using ArcGIS. Student-mapped GPS points of objects, such as trees, were added. The new map will allow users to digitally explore the campus from any location with internet access, and appeals to individuals who would prefer to search for locations electronically rather than physically. This map will also aid in connecting CSU Stanislaus with the local community, and display the university as an interesting place to visit. This project is supporting CSU Stanislaus’s mission and activities with innovative cartography and geospatial technology.

Li Ju, CSU Chico

### The First Crusade

The First Crusade (1096-1099) is one of the most remarkable episodes in European history. It was military expedition by Western Christianity to recapture Jerusalem from Islam in the name of the Christian God. This digital map primarily represents the movement of knights and peasants from many nations of Western Europe travelled over land and by sea in a digital cartographic way. The time line can be easily depicted by using digital mapping techniques.

Amy Lippus, CSU Chico

### A California Tragedy: The Shocking Story of the Donner-Reed Party

This interactive map tells the tragic story of the Donner-Reed Party as they headed west to California and became stranded in the Sierra Nevada Mountains during the harsh winter of 1846-47. The party gained notoriety when they were forced to resort to cannibalism in order to survive the freezing conditions. The map follows the route taken by the party and provides descriptions of the immigrants' accounts. The Donner-Reed Party is an important, yet somber, piece of Californian and American history that brings us back to a time of discovery and exploration, however fatal the results. This map combines technical skills from computer programs such as ArcGIS, Illustrator, Flash, and Photoshop to display and communicate a complicated journey over several thousand miles.

Garin R. Wally, CSU Chico

### San Francisco Earthquake and Fires - 1906

The city of San Francisco was severely wrecked by an earthquake that struck Wednesday April 18, 1906 at 5:13 a.m. The resulting fires burned for four days destroying what little was left of the city. Of those fifty fires, the Hayes Street or Hayes Valley fire -- more commonly known as the "Ham & Eggs" fire -- burned the most area. This map combines technical skills from computer programs such as ArcGIS, Adobe Illustrator, Flash and Photoshop to display and communicate the complex movement of the fires across the city of San Francisco.