

# Theses and Professional Projects Abstracts

## Master of City and Regional Planning

### City and Regional Planning Department, Cal Poly San Luis Obispo

*For fulfillment of the MCRP degree, the CRP department offers the student a choice between a final comprehensive planning studio, a thesis, or a professional project. The following abstracts represent master's theses and projects approved during the 2013/2014 academic year. The complete works are available from Cal Poly's Kennedy Library at <http://digitalcommons.calpoly.edu/theses>.*

#### **City of San Luis Obispo Open Space Vegetation Management Plan**

*Danielle Rose Althaus*

This Master's Professional Project is focused on the development of a draft Vegetation Management Plan for the City of San Luis Obispo Open Space properties. The purpose of the plan is to provide a comprehensive document which identifies how the city is addressing wildfire preparedness in city-owned open space properties. Methods used in plan development include a literature review, content analysis, geographic information systems (GIS), a course audit, and consultation with city staff and other stakeholders. Each open space property is identified in the plan, describing its location, vegetation, topography, assets, access points, water supply, evacuation routes, historical fire data, predominant risk exposure, current wildfire preparedness plan, priority ranking, and a proposed implementation plan.

URL: <http://digitalcommons.calpoly.edu/theses/1235>

#### **City of Los Angeles Arts District Form-Based Code**

*Ryan Jupiter Banuelos*

Los Angeles is experiencing a loss of inventory with Industrial land due to adaptive reuse and property conversion. The primary factors behind the conversions are inconsistent land use regulations and a strong market demand for residential property. In an effort to streamline land use regulation, the city will create a new zoning code. In conjunction with the zoning update, the purpose of this project will be to develop a form-based code for the Los Angeles Arts District.

This project proposes new land use regulation to preserve job producing industrial space and accommodate the growing residential market. The assessment of the Arts District includes an investigation of circulation patterns, economic factors, development profile, community input, and an investigation of its history, land use policies, and regulations. The study indicates that the Arts District, though primarily industrial, contains multiple residential nodes. It also reveals that industrial jobs and building stock are at risk from new development. The

purpose of The Arts District Form-Based Code is to create a predictable development pattern that improves the quality of the built environment.

URL: <http://digitalcommons.calpoly.edu/theses/1226>

#### **Draft Environmental Impact Report: City of Clearlake General Plan Update**

*Hannah Cha*

The City of Clearlake in northern California initiated its first General Plan update in 2012 and decided to do an Environmental Impact Report (EIR) in order to fulfill California Environmental Quality Act (CEQA) requirements. The author wrote the Agriculture and Biological Resources sections of the EIR. She explains the CEQA process for a programmatic-level EIR, and summarizes the lessons learned and recommendations for CEQA.

General CEQA issues include fear of litigation and vague requirements for thresholds of significance. Additional CEQA issues include difficulty applying the same level of analysis to programmatic projects when the Environmental Checklist is more applicable for small-scale projects, difficulty identifying the extent of analysis needed, and the cost and time burdens of preparing programmatic-level EIRs. Recommendations for future programmatic-level EIRs and CEQA reform conclude the work.

URL: <http://digitalcommons.calpoly.edu/theses/1198>

#### **Cayucos Community Health Plan**

*Jennifer Joyce Franich*

This project examines the relationship between the built environment and public health, and explores ways planning professionals are beginning to address health issues through infrastructure, land use, creative zoning, and planning strategies that promote health and active living in policy. In collaboration with the SLO County Health Agency and the Health Commission, we have written a Healthy Community Plan for the unincorporated communities of Cayucos, California. This research and the accompanying plan were greatly informed by the community through input from outreach, interviews, surveys, and personal interactions.

The planning documents, modeled after health elements currently included in general plans throughout California, have integrated the fields of planning and public health to provide Cayucos an assessment of its residents' health, a description of the current built environment conditions that may be helping or hindering physical activity and access to nutritious food sources, as well as establish goals, policies, and implementation strategies that will set a course of action toward healthier communities.

URL: <http://digitalcommons.calpoly.edu/theses/1249>

### **Climate Planning in Politically Conservative Cities: A Case Study of Seven Climate Action Plans**

*Coleman Moore Frick*

The potential risks associated with human-induced climate change are likely to increase in frequency and intensity. In the past decade in the US, local climate action plans (CAPs) have emerged as a planning solution designed to reduce greenhouse emissions (GHGs). Previous studies have examined CAP attributes, but no research has focused solely on climate planning in politically conservative jurisdictions. This research finds that of 245 CAPs completed to date nationally, approximately 90 percent are in communities identified as politically Democratic. In order to expand climate planning in politically conservative communities, it is important evaluate the characteristics of CAPs in these communities.

This thesis analyzes CAPs and conducts stakeholder interviews in seven conservative communities. The findings indicate that CAPs created in these communities do not differ substantially from CAPs in general. However, political opposition is heightened in these communities. In addition, in conservative communities economic co-benefits are stressed, cost-saving measures are overemphasized, CAP terminology is altered, business community involvement is crucial, and state mandates motivate CAP creation. The results of this research are distilled into 12 lessons and best practices for planning practitioners, and establish a basis for future research focusing on the political nature of climate action planning.

URL: <http://digitalcommons.calpoly.edu/theses/1221>

### **Quantifying the Greenhouse Gas Emissions of Hazards: Incorporating Disaster Mitigation Strategies in Climate Action Plans**

*Michael Germeraad*

Reconstruction after natural disasters can create large peaks in a community's greenhouse gas emission inventory. Though the hazard itself does not release greenhouse gasses, the demolition and rebuilding process does, and these are the emissions we can quantify to better understand the climate impacts of disasters.

This thesis proposes a methodology that draws data from existing emission and hazard resource literature and combines the information in a community scale life cycle assessment.

Case studies of past disasters are used to refine the methodology and quantify the emissions of single events. The annualization of greenhouse gases caused by hazard events provides a baseline which reduction strategies can be measured against. Hazard mitigation strategies can then be quantified as greenhouse gas reduction strategies for use in Climate Action Plans.

The methodology combines the fields of climate action, hazard mitigation, and climate adaptation. Each field attempts to create sustainable and resilient communities, but most plans silo each discipline, missing opportunities that are mutually beneficial. Quantifying the greenhouse gases associated with recovery following a disaster blends these fields to allow development of comprehensive resilience and sustainability strategies that lower greenhouse gases and decrease risk from existing or projected hazards.

URL: <http://digitalcommons.calpoly.edu/theses/1173>

An online supplement to this thesis is available online at <[www.disasterghg.wordpress.com](http://www.disasterghg.wordpress.com)>

### **City of Merced Bellevue Community Plan**

*Patrick Gary Gilster*

The Bellevue Community Plan (BCP) was developed to be consistent with the Merced Vision 2030 General Plan, and is highly reflective of its policies, illustrative plans, and guiding features, such as providing significant employment generating uses that would benefit from being in close proximity to the UC Merced campus. The BCP establishes a high-level planning framework that strikes a balance between certainty and flexibility by anchoring key land uses while allowing their size to adapt to changing market conditions in response to economic growth and the expansion of UC Merced. While the BCP provides a broad range of uses and densities that could occur throughout the plan area, it emphasizes the foundational building blocks of street connectivity, functional mobility choices, active and passive recreation open space corridors and bikeways, gateway street designs, and attractive business park settings to create a great sense of place with investment certainty.

URL: <http://digitalcommons.calpoly.edu/theses/1274>

### **Latino Rhythms in Downtown Los Angeles: A Case Study of the Social, Physical, and Economic Environment of "La Broadway"**

*Ulises Antonio Gonzalez*

Broadway Avenue between Second Street and Olympic Boulevard in downtown Los Angeles is known as Broadway's Latino commercial strip. *Barrios* have unique physical, social, economic, and political attributes. A new aesthetic, art, symbols, type of businesses, music, community events, and vendors all add to social ambiance and physical design of the neighborhood. In an attempt in inclusive planning, this project explores whether it functions as an ethnic commercial strip, identifies the social, physical, and economic components that contribute to the Latino neighborhood/barrio, and provides recommen-

dations for the preservation of its cultural elements.

This thesis uses a single case study in addition to several research methods: 42 random surveys, literature review and analysis, site observations/pictures, and land use survey. The findings highlight that the majority of the people present at any given time on Broadway Avenue are Latino immigrants from a lower socio-economic background that come from across Los Angeles County to shop, work, and for leisure purposes. Many of the study participants are attracted to Broadway's diversity, architecture, aesthetics, culturally themed stores, and restaurants; showing that this Latino commercial strip possesses deep social, physical and economic significance. Survey results provide valuable information about what study participants would like to be preserved for Broadway's future. This information provides user-driven recommendations for preservation and change on Broadway Avenue.

URL: <http://digitalcommons.calpoly.edu/theses/1259>

### **The Use of Mobile Technology in Professional Planning and Local Government Practice**

*Kayla Gordon*

Advances in web and mobile technologies have begun to change the way local governments understand and interact with their communities. In an effort to evaluate the use of online and mobile technology for government work, this thesis examines the use of mobile technology as a vehicle for local government practice, specifically looking at the field of urban planning. The introduction of Internet-enabled mobile devices has broadened these opportunities, as location-based information is used to increase awareness of user activity, movements, and behaviors in real-time conditions and specific contexts.

This work (1) explores how mobile technology is currently influencing planning practices, (2) defines a taxonomy for current mobile applications, and (3) hypothesizes how these technologies will influence the future of the planning profession. Findings from a survey of local planning agencies demonstrate that although many planners own a smartphone or tablet and are aware of existing mobile potential, they are not entirely dependent on those devices for work purposes. Many planners use basic productivity software but do not utilize planning specific mobile applications to support their work. Despite pressure from citizens, elected officials, and younger staff members to integrate more interactive technologies in planning work, there are often numerous barriers to implementing mobile technologies, especially for agencies in smaller jurisdictions.

URL: <http://digitalcommons.calpoly.edu/theses/1280>

### **Public Art: Context & Process in San Luis Obispo, CA**

*Kristin Ann Kiefer*

Public spaces help bring the community together, and beautifying them with public art and good design encourages their use and to empower the users. While the means by which public art populates public spaces has changed, there is no doubt

that public art benefits the public good, acts as a civilizer, provides for a sense of "civic vitality," generates identity and character, and celebrates culture and the environment. The role public art plays in communities is unique in the marrying of two very different sectors of civic life: art and aesthetics with the political planning process. Establishing written policies and programs for the arts solidifies their place in communities, enacting a set of codes and a process by which artistic endeavors are woven into the city. This study examines how political decisions impact the installation of public artwork in cities through the study of the public art installation process in the City of San Luis Obispo, California. The conclusions lead to a series of recommendations to increase transparency, encourage artistic opportunities, and strengthen the already robust city's Public Art Program.

URL: <http://digitalcommons.calpoly.edu/theses/1263>

### **Addressing Childhood Obesity Through the Built Environment: The Guadalupe Case Study**

*Sophia Y. Lai*

This project investigates the impacts of the built environment on obesity in children living in racial and ethnic communities in relation to city planning, using the City of Guadalupe as a case study. Located in Santa Barbara County, Guadalupe is mainly an agricultural town with over 85 percent of residents of Hispanic origin, almost half of them under 17 years of age. The city has complex social, economic, and environmental matters that can contribute to higher overweight and obesity rates among Latino children. Community Assessments and outreach efforts with school children and residents examined the food and physical environments. Responses from a variety of methods such as Community of Excellence (CX3) field surveys, walkability surveys, and a Photovoice project with school children were analyzed and compared to create a list of recommendations for improving children's health in Guadalupe. This project provides an in-depth understanding of the important relationships between children's health and the built environment and provides recommendations for Guadalupe.

URL: <http://digitalcommons.calpoly.edu/theses/1264>

### **Pismo Beach Public Art Program**

*Garrett Tyler Norman*

Public art plays a significant role in communities around the world. It embodies a close relationship between the artist, the space in which it's being exhibited, and the public. The development of this project examined various literary sources that demonstrated the importance of public art and how cities, artists, and community members may benefit from the incorporation of public art. This project included the framework for development of a Public Art Program for the City of Pismo Beach, California, which outlined the critical steps of a planning process and implementation of the program.

URL: <http://digitalcommons.calpoly.edu/theses/1182>

**Confused Spaces: Theatricality as a device for defining different types of public space***Danton Christopher Spina*

Theatricality can define different types of public space. A definition of theatricality based on theater, urban design, and architecture suggests a set of elements that include spectacle, transition, flexibility, and compactability. After attempting to define the validity of these elements the work tries to understand the experience they can create. Theatricality is studied through a historical and theoretical exploration as well as an analysis of three architectural competitions. Concluding principles lead to the exploration of a theoretical large-scale design. The design becomes the most complete visual representation of the core concept for theatricality. In conclusion, it is determined that the principles of theatricality clearly have a significant impact on the public and the pedestrian experience. It is encouraged for the concept to be used as a design device for creating pedestrian-friendly spaces in the future.

URL: <http://digitalcommons.calpoly.edu/theses/1136>

**University Square Development Proposal***Tom Gregory Van Pelt*

This project (USDP) explores a redevelopment scenario for the underutilized University Square, an outdated commercial mall in the City of San Luis Obispo. Its proximity to Cal Poly's campus makes it an ideal location for student housing. The City's General Plan Land Use and Circulation Element has identified it as a "Special Planning Area" and proposes that the site includes a mixture of multi-family housing, retail services, entertainment, and recreation. The USDP explores a development option that accommodates both Cal Poly's objectives by providing student housing, and the City's by proposing mixed-use development. This project includes site assessment, programming, design vision, and financial analysis.

URL: <http://digitalcommons.calpoly.edu/theses/1275>