This journal highlights the work produced in the City and Regional Planning department, Cal Poly, San Luis Obispo.
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Journal of the City and Regional Planning Department
College of Architecture and Environmental Design, California Polytechnic State University

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Here we are again! Second year, second issue. Everybody was right in telling us that we would have a hard time getting the first issue of FOCUS published last year. What we didn’t expect was that it would be as harder to keep it running in 2005, in the midst of the busy Cal Poly academic schedule! Yet again, the active group of students who helped with this issue and the supportive environment at both the department and the college were fundamental to get FOCUS out and in a good shape. So, if you are a prospective student keep this in mind: CRP has a great environment with a lot of synergy where you will feel comfortable and part of a greater whole, and encouraged to reach out for the best of you always. Except for minor changes in the graphics, FOCUS 2 basically follows the same format from last year. The works that feature in this issue are of a scope and depth that are good indicative s of why CRP is considered California’s premier professional planning program.

The Special Events section starts with an article by CRP students on the first Dean’s Invitational Symposium, an important college event for the discussion of experiences in infill housing developments in California. The article that follows is a transcription of a presentation at CRP by planning expert and best-selling author William Fulton. Discussing the possibilities of regional planning in California, Fulton pointed out the various available mechanisms, the politics, and the difficulties of changing prevalent visions about development control. Next, guest speaker Bishwa Pandey, from the Japan International Cooperation Agency, synthesized his presentation on setting a GIS model for disaster prevention planning in Caracas, Venezuela.

The different contributions in the Essays section show the range of research interests in CRP. Department Head Bill Siembieda and MCRP student Jerry Sturmer collaborate in discussing contemporary practice in master-planned communities, pointing out that success is generally linked to the ability to adapt implementation strategies. Paul Wack writes about model community Village Homes in Davis, California, an early example of sustainable design and a laboratory for planning education. D. Gregg Doyle discusses the difficulties for the production of affordable housing in San Luis Obispo, despite recent changes in state and local policies. Sense of community and travel behavior in new urbanist settings are the themes of an article by Krasnove, Javid, del Rio & Levi, who discuss a recent research in the San Luis Obispo County. In the last essay, visiting professor Roberto Rodriguez writes a historical account on the influence of the Law of the Indies on the morphology of the city of Barcelona, Venezuela.

The International Exchanges section brings the personal accounts of CRP students who spent a quarter in New Zealand and in Australia, where exuberant natural settings and interesting cities show a mix of European and US planning models. Next, Carlos Leite, a visiting professor from the Mackenzie University in Brazil, with my help and that of undergrad student Karlo Felix, comments on a CRP course he taught in the fall of 2004, where students worked on a sustainable redevelopment project for an inner-city brownfield in São Paulo.

The section on Student Work is loaded with top quality writings and projects. In two different essays, CRP graduate students Ann Whyte and Elizabeth FitzZaland discuss urban design concepts and methods. Corinne Rosenblum, another graduate, describes her participation in a series of GIS community visioning workshops for the San Luis Obispo Council of Governments. Faculty member D. Gregg Doyle describes CRP’s involvement in the Bank of America’s Low-Income Housing Challenge. Undergraduate work is represented by a second year urban design project for the revitalization of the southern area of downtown Paso Robles, and an article by Christopher Jordan on the Community Plan for San Miguel, developed by the fourth year community planning lab, which has received state and national awards. Finally, two senior projects are discussed by their authors Sierra Russell and Noah Christman: a project for incrementing tourism in the port of Rio de Janeiro, and the redesign of Monterey Street in San Luis Obispo.

In Spotlight, FOCUS presents the abstracts of theses and projects defended in the past year at CRP’s Master of City and Regional Planning program, as well as interviews with some of our alumni. They comment on the reflections and effectiveness of their CRP education in their professional lives, and on their thoughts on what the younger generation of planners should need in the very near future.

Lastly, I would like to thank all my colleagues and readers who voiced their opinions and helped us to improve our editorial project. I am also grateful to our donors, past and present, who believe in the pedagogical value and informational power of FOCUS. I hope you will enjoy this issue.

Vicente del Rio
PhD; Associate Professor
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This past year students from the City and Regional Planning Department were honored with important regional, state, and national awards. Faculty and students in Cal Poly’s City and Regional Planning Department have a long-standing tradition in assisting local communities in their planning and urban design efforts. CRP work in these areas have received numerous awards and commendations, and CRP students have been recognized among the best in the US.

BEST STUDENT PROJECT, AMERICAN PLANNING ASSOCIATION AND AMERICAN INSTITUTE OF CERTIFIED PLANNERS

The American Institute of Certified Planners (AICP) has chosen the Community Plan for San Miguel, CA as the best example for “Applying the Planning Process” of student work in the country. Last year this same work was awarded by the California’s Central Coast Session of the American Planning Association, and also received the Award of Excellence from the California Chapter of the APA.

The project, which appears in this issue of FOCUS was the final product of a six-month study conducted by the undergraduate Community Planning Lab lead by faculty advisor Professor Zeljka Pavlovich Howard. The study was designed to emulate the process of preparing a community plan and expose students to state-of-the-art technology, methods and techniques used in “real-world” planning situations. The Community Plan created a vision for San Miguel in cooperation with the residents and the San Miguel Advisory Committee, which will use it to guide future community development and revitalization of the downtown.

The Award Program jurors commented that the student’s work provides “an interesting reflection on urban design; a guide for growth and design; a model for other jurisdictions to use; it recognizes the ‘Jewel’ of California missions; and is very comprehensive.” They also mentioned that the quality of the student work approaches that of many professional firms.

AMERICAN PLANNING ASSOCIATION, DISTINGUISHED LEADERSHIP AWARD FOR A STUDENT PLANNER

The City and Regional Planning Department is especially proud that two of our students have received the American Planning Association’s Distinguished Leadership Award, one in 2000 and one in 2005. In the history of this national competition, CRP students have won more than any other program in the country.

The first APA Distinguished Leadership Award for a Student Planner was made in 2000 and it went to Alison Pernell, who graduated with a bachelor’s degree in City and Regional Planning. The APA declared that “her list of planning-related projects, undertaken while a student, reads more like the credits of a planner in the field for several years. Pernell exceeded academically; she was named to the Dean’s and President’s honor rolls.”

In 2005, the sixth APA Distinguished Leadership Award for a Student Planner goes to Elizabeth FitzZaland a second year Master’s student in Cal Poly’s CRP Department. She was honored at APA’s national Planning Conference, and Planning magazine highlighted her accomplishments in its March 2005 issue. “Ms. FitzZaland is a uniquely talented student,” said APA Awards Committee Co-Chair Carol Rhea, “her academic achievement is remarkable, as is her dedication to improving the urban condition through planning.” Another co-chair of the Awards Committee Bruce Knight, declared that “Ms. FitzZaland’s accomplishments
as a student demonstrate her uncommon potential as a future leader in the planning field… the combination of her academic accomplishments and experience in the field points to someone destined to have a meaningful career.”

REASONS FOR SUCCESS

The number of awards granted to CRP is an unparalleled record given the size and resources of the department, and proves the importance of faculty and student engagement and real-world challenges as a student learning laboratory. The judges consistently remark that the work done at CRP looks as though the students have had many years of professional practical experience. They are reflecting on the high standards achieved, and the level of engagement established by the faculty. Being a teaching centered professional planning program, theory is used to inform the work while always seeking to have students provide professional level solutions based on the limits of the world presented to them. The learning outcome of this solutions-focused approach, provides students with skills, values and knowledge relevant to professional practice on an applied level. The prestigious APA and AICP awards tell the world that engagement of faculty, at a deep level with the student, does produce educated and talented soon-to-be professionals.

William Siembieda
PhD, Department Head
City and Regional Planning Department
Cal Poly San Luis Obispo
ARCHITECTURAL ENGINEERING DEPARTMENT
THE FRATESSA TOWER

With the assistance of alumni and practitioners, the Fratessa Tower in memory of former department head Paul Fratessa was built in Poly Canyon by students Mike Braund, Justin Wei, Tanya Worotko, Rachel Martin, and Eric McDonnell (see figure 1, back row L-R, McDonnell not present). “We chose this project in order to gain hands-on experience in designing a difficult, experimental system with sustainable materials and in assembling a structure from start to finish,” Martin said. They received generous donations from people and companies such as Alan Hanson of Simpson Strong-Tie and Jim Decoursey of Ultra Merchandising, Inc. (see figure 1, front row L-R). Visitors to this year’s Open House are invited to view the tower and a series of other new structures in Poly Canyon such as the Tensile Structure and a recently rebuilt Concrete Blade Structure.

ARCHITECTURE DEPARTMENT
ARCHITECTURE PROGRAM AGAIN RANKS “BEST IN THE WEST”

A national poll of practicing architects ranked Cal Poly’s five-year architecture program as one of the best in the United States at producing “graduates most prepared for real-world practice.” The survey, conducted for the architecture and engineering journal DesignIntelligence, rated Cal Poly’s program no. 3 in the nation in 2004 among Bachelor of Architecture degree programs and the best bachelor’s program west of the Mississippi. Cal Poly also scored as practically the best value in architecture education in the nation, one point behind a school that charges no tuition. It received the highest scores given in the survey for ranking selectivity, resources such as technology and studios, and the quality of its dean, faculty and students. This was the second year in a row that Cal Poly’s architecture program has been rated best in the West. It is estimated that one of every five architects in California comes from Cal Poly.

ARCHITECTURE STUDENTS WIN AWARDS AT NATIONAL DESIGN COMPETITION

Two teams of Cal Poly architecture students won awards for designs entered in the interdisciplinary 2004 National Low-Impact Development Student Design Competition. The subject was water and runoff, and students were asked to submit integrated site designs to address impacts to the environment normally associated with conventional land development on college campuses. The competition was sponsored by the Environmental Protection Agency (EPA) and administered by the Landscape Architecture Department of the University of Maryland and Prince George County, Md.

The winning entries proposed designs for student housing as infill development in the central campus core, with 30-40 small housing units to be constructed on top of the Architecture Building. A team of fourth-year students, Trixie Castillo and Cheryl Lipang, won the third-place design award, and a team of fourth-year student John Ambert and second-year student Nick Leone earned sixth-place honors. Cal Poly’s was the only program in the competition to win multiple awards.
CONSTRUCTION MANAGEMENT DEPARTMENT
STUDENT TEAM WINS FIRST PLACE AT
NATIONAL HOMEBUILDERS COMPETITION

Cal Poly’s construction management team topped 27 other universities to earn first place at the National Association of Homebuilders (NAHB) Student Competition on January 12-15. The “Polytex” team spent more than 200 hours developing the winning plan for a 90-unit, moderate-priced housing development, “The Village,” at Charleston, S.C. The team was formed by CM students Quincy McNames, Korey Carroll, Christian Edwards, Michael Crocker, Froy Gutierrez and Aaron Amchastegui; it was assisted by professors Barbara Jackson and Paul Weber, and Cal Poly’s NAHB Student Chapter officers Jeremy Johnson and John Parnell. The first-place award included $2,000, a plaque for the department, and a traveling Legacy trophy.

TEAM TAKES FIRST PLACE AT ASC REGIONAL
COMPETITION

CM student team composed of Scott Chappelle, Jared Mettee, Jimmy Picard, Matt Sutton, Garret Tomforde, and Tina Webb finished first in the Commercial Division of the Associated Schools of Construction Far West Regional Competition in Reno, Nevada. Their task was to create a plan to build a research building at Los Alamos, New Mexico, and they will advance to the National Competition in Las Vegas, Nevada. Cal Poly’s CM students also placed well in the Residential, Design/Build and Heavy/Civil divisions. The teams took home two, second place awards and a third place award respectively.

LANDSCAPE ARCHITECTURE DEPARTMENT
AWARDS IN ASLA STUDENT DESIGN
COMPETITION

Recent Landscape Architecture Cal Poly graduates Brooke Saavedra and Michael O’Connell have been recognized for an entry they completed as students in the 2004 American Society of Landscape Architects (ASLA) student design competition. Saavedra’s design “The Gardens at St. Joseph’s Health and Retirement Center: Exploring the Garden as a Healing Center” was part of a remodel of a senior care facility set among native trees, orchards and formal gardens in Ojai, CA. O’Connell’s designed a “California Center for Native Plants and Wildlife” on a 130-acre parcel, converted from an existing ranch, and it to create change by exploring restoration of native Californian plants while responding to historic cultural conditions.

WAYNE GRACE MEMORIAL STUDENT DESIGN
COMPETITION

Bronwen Mastro from the LA Department was one of the winners of the fifth annual Wayne Grace Memorial Student Design Competition, sponsored by the Landscape Architectural Registration Boards Foundation, a nonprofit charitable organization actively engaged in advancing licensure for landscape architects. Mastro’s entry “Synergy: Culture and Ecology Converging” balanced ecology, sociology and aesthetics principles to a master plan for a site situated along the San Joaquin River in one of the most productive agricultural regions of the country.
Special Events
In 2004, Dean Tom Jones initiated an important symposium series to discuss current issues related to environmental design. The first of the series was on infill residential development, an increasingly important approach towards making cities more sustainable and energy efficient integrated, more walkable and less automobile dependent.

During the Fall of 2004, the Dean’s Invitation Symposium Series took place at Cal Poly in San Luis Obispo. This event was organized by the College of Architecture and Environmental Design (CAED) with the theme, “Infill Residential Development: A Spectrum of Approaches.” This event presented a range of housing and community types that are attractive, livable, and foster community, while being economically feasible as well.

The four sessions of the symposium covered recent important experiences in California, and were presented by professionals who were directly involved in their implementation. Each session was covered by a student from the City and Regional Planning Department for this edition of Focus.

The symposium started with Erik Schaprio, the Housing Chief for the County of Santa Cruz, presentation on an approach in tackling the challenge of providing affordable housing in an area that is becoming increasing more unaffordable to live in. In the case of Santa Cruz County, it was important to provide affordable housing for local farm workers who represent a sizable portion of the worker population who find it increasing hard to live in the area.

Next, Fran Wagstaff, President and Executive Director of the Mid-Peninsula Housing Coalition, gave a first person account on the challenges of providing affordable housing in the increasingly expensive peninsular section of San Francisco Bay Area, and satisfaction received in accomplishing this difficult task. More than simply presenting a know-how in developing affordable housing, Fran Wagstaff makes the argument for why it is so critical and in the best interests of the community to promote these types of projects.

The River Oaks master planned mixed-use community in Paso Robles was presented by Dick Willhoit, the sole proprietor of Estrella Associates, the project developer. This was a very good example of a private developer producing a high-quality project based on various research inputs and a good end design. The company worked with the target population group for this development (in this case they were retirees) to determine the types of homes and amenities that they would be interested in a planned community.

In the final session, Rob Elliot, senior vice president for urban planning and design of the Irvine Company, Jeff Larsen of MVE Architects, and landscape architect Bill Burton of Burton & Associates, presented their experience with the Irvine Center Village currently under development in Irvine, California. This is a major effort in designing an infill development that would bring housing into the center of Irvine, in what was a typical suburban area with shopping malls and surrounded by highways. The design response included many features such as the creation of four unique districts and underground parking as a method to maximize build-out densities and create a more walkable community.

BUILDING COMMUNITY, NOT JUST REAL ESTATE (REPORTED BY RYAN POTTER)

If anyone in the state of California knows how to make affordable housing work, it is Fran Wagstaff, president and executive director of Mid-Peninsula Housing Coalition, a non-profit developer located in Redwood City, California.1 Wagstaff described to an eager audience the successes and struggles that come with providing affordable housing to a diverse metropolitan area. In her lecture, she not only explained strategies for developing such projects, but also why these developments are essential elements of an inclusive and healthy community.

1. The work of the Mid-Peninsula Housing Coalition may be seen at www.midpen-housing.org
The Mid-Peninsula Housing Coalition was started in 1970 to serve the San Francisco Bay Area residents who were not being served by the for-profit development community. The coalition not only develops housing projects, but also manages these properties and provides a growing list of services including technical assistance and academic and career advancement programs at some properties. The MPHC provides housing not only for low-income families such as for farm workers, but also for senior-citizens, the disabled, and the homeless.

Wagstaff explained that the MPHC is a self-supporting organization that uses a variety of means to finance projects including federal, state, local, and private resources. Rather than only creating units for residents to live in, the coalition strives to create life-changing environments for their clientele. MPHC’s mission, stated Wagstaff, is “to provide safe, affordable shelter of high quality to those in need; to establish stability and opportunity in the lives of residents; and to foster communities that allow people from all ethnic, social and economic backgrounds to live in dignity, harmony and mutual respect”.

Two particular projects, representative of the Mid-Peninsula Housing Coalition’s work were discussed at great length. The first was Moonridge in Half Moon Bay. This development was created to house agricultural workers employed by local floriculture jobs and their families. Built in two phases, these 160 affordable units were developed despite political opposition and issues regarding the supply of necessary utilities. Fran Wagstaff showed us images of this project, notably showcasing a community center, gardens, and a computer center.

A second project, City Center Plaza in Redwood City was also discussed (Figure 1). This mixed-use project in an urban setting has a retail component along with 81 family housing units. Fran Wagstaff emphasized the design process of this development, including the avoidance of interior corridors and the MPHC’s insistence on outdoor entrances. Rather than creating a separate parking area, the parking for this project was tucked under the housing units and behind the retail space. Residential space was organized around courtyards and the units were designed to reject the building typologies normally reserved for low-income housing. Instead, the coalition (city, MPHC, and retail partner) made sure this project was a place of residence that its inhabitants could be proud of. From the pictures shown to the audience, it was clear that City Center Plaza is a development that not only fits in with its context, but also raises the bar for the treatment of affordable housing.

The hard work and dedication done by this organization to create inclusive communities has not gone unnoticed. MPHC has won awards for almost all of its properties and continues to be recognized as a leader in its field. By forging public/private partnerships to create high-quality projects, and by staying committed to its mission, the Mid-Peninsula Housing Coalition is an example of how good planning practice can accommodate those left behind by the for-profit development community. These types of organizations fill a distinct niche in the community, ensuring that the needs of low-income families and other special-need populations are met.

Wagstaff’s lecture focused on the details of developing and providing affordable housing. She described in great length financing schemes, resident screening processes, and good design. But the greatest insight that Wagstaff gave the audience was a look at her philosophy on the creation of community, as when she said how “beautiful buildings lift the spirits”. She was alluding to the heart of why the development community must provide quality housing for low-income and special-needs families; the fact that these people, like everyone else, have a right to live in places where they feel healthy, fulfilled, and part of the community.

Fran Wagstaff also said that the coalition is “building community, not just real estate”. This is what makes her and...
the people of her organization good planners. They realize that the design and development of buildings is not only the creation of built objects, but of places that people experience every day. We can choose to simply create housing that will bring in the highest short-term revenues, or we can create quality places for people to live and interact, regardless of their life’s circumstances. Fran Wagstaff and the Mid-Peninsula Housing Coalition have clearly chosen this second direction. They serve as a model for good planners working to meet the needs of California’s low-income and special needs populations.

SEEKING AFFORDABLE HOUSING: A SANTA CRUZ COUNTY CASE STUDY (REPORTED BY SUSANNA DIAZ)

The pristine coast and the rugged mountains are typical of Santa Cruz County, as is the rich soil ideal for agricultural uses. A setting that makes it one of the most expensive areas in California and, consequently, one where the demand for affordable housing is rising. This convergence of high home prices and optimal agricultural soil brings forth an ongoing issue: Where can local farm workers live while tending to one of the most agriculturally rich producing areas of California? One development in particular reaches out to these farm workers. The San Andreas Community proves that affordable housing is a practical goal for Santa Cruz County.

The Santa Cruz County Redevelopment Agency is undertaking the effort of placing low income residents into housing units which coincides with housing codes and provides a relatively safe environment. Issues facing the Agency include workers sleeping in cars and the “doubling up” of families in a home, where as many as 22 people will reside in a single family house. This is an issue heard time and time again. Skilled laborers that fundamentally feed our livelihoods are struggling with mediocre wages and are essentially kept from successfully renting, let alone owning, a unit in the housing market of today. California, a place that some refer to as the “bread basket of the world,” is dealing with a constant struggle of preserving agricultural land from being developed. Victims of this struggle include the farm workers who may migrate from farm to farm in order to make ends meet.

Pajaro Valley, located in the Southern part of Santa Cruz County, is an area where farmers have settled for some time. The City of Watsonville, the residential and commercial hub of the Pajaro Valley, is an area full of crops including strawberries, apples, lettuce, cauliflower, broccoli, and artichokes. This area alone accounts for about 90 percent of Santa Cruz County’s agricultural income, and has a need for farm worker housing. In an effort to provide workers with housing opportunities, the San Andreas Community project was developed.

Located in a rural part of Watsonville, San Andreas Community is representative of the strong need for affordable housing in Santa Cruz County. History of the site includes health and safety violations when the “bracero” – a Spanish term for manual farm worker – families started to be housed in illegal sub-standard housing. In 1999 the MPHC, non-profit organization geared at developing attractive affordable housing, purchased the land with hopes of developing some much needed housing in the county. In 2000, MPHC burned the exiting structures, and with collaboration with the Santa Cruz County Redevelopment Agency and other funding sources such as Investor Capital Contributions Tax credits, the new facilities opened in July 2001 (Figure 2).

The project exemplifies the feasibility of widening housing opportunities to those who typically cannot afford. Built in a 1.19 acre site, the San Andreas project is a residential community which has 43 rental units of high quality affordable housing for very-low income families. Units average around 1,000 square feet and range from one to four bedrooms. In fact, this rental project is targeted at those who earn at least 50% of their income from working in agriculture. Special infrastructure include wastewater treatment for irrigation, and on-site amenities include a playground and a

Figure 2. The San Andreas Community housing project, in Santa Cruz (photos courtesy of Mid-Peninsula Housing Coalition)
community center providing for programs such as English as Second Language and job skill classes, meetings, and health programs such as Dientes and Salud para la Gente (Teeth and Health for People) (Figure 3). There is also a sheriff’s substation on the premises.

![Figure 3. The community center at San Andreas Community, Santa Cruz](photo courtesy of Mid-Peninsula Housing Coalition)

### Table 1: Project Housing Component

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### RIVER OAKS COMMUNITY IN PASO ROBLES (REPORTED BY KARLO FELIX)

The River Oaks Community was planned and developed by Estrella Associates, a local company based in Paso Robles, California. The company has been developing residential land in the area for twenty years striving to offer products what are well accepted by the community and that are affordable to their target markets. As a small volume developer, EA often teams with larger land developers such as Midland Pacific and Centex homes that they feel can best bring their products to consumers.

The River Oaks project was presented by Dick and Was Willhoit. Dick Willhoit has been the sole proprietor of EA for 20 years, and since starting the company his goal has been to create a team approach to the development and building industry. One of his the ways he has approached this has been through his association with the Home Builders Association of the Central Coast. Was Willhoit, Dick’s son, has a background in real estate development business and is project manager, overseeing all site development.

River Oaks is a master-planned mixed-use community located in northern San Luis Obispo County. The 196-acre site was originally farmland and under the 1989 Borkey Area Specific Plan, 481 homes were allowed for a mixed-used masterplanned community. In developing River Oaks, a list of 11 goals were defined in order to mold a unique and cohesive community. They wanted to create a pedestrian friendly, well landscaped, and balanced multi-generational community, with a diversity of architectural styles. A place where home buyers would be eager to live which would also offer shopping, recreational, and educational opportunities within walking distance.

As a small developer, Dick Willhoit stresses the importance of doing research before developing a project. In order to determine which services and amenities consumers would be interested in purchasing, Estrella Associates employed four research groups to assist in defining the housing product and amenities to provided in River Oaks.

The Whitney Group was employed to define the feasibility of a mixed-used community at River Oaks. The Whitney Group’s eventual work product was a River Oaks Master Plan, which defined the eventual product mix of the community.
The Master Plan developed a mix of products which met Estrella’s Goals and Mission Statement. With a growing population of retirees entering San Luis Obispo County, Whitney group also suggested the possibility of including an active adult lifestyle community as part of River Oak’s product mix.

Spurred by the idea of an active adult community, the ProMatura Group was hired to study the active adult market. ProMatura Group determined homes sizes and styles as well as the price range that would appeal to this market. Part of the research included desired neighborhood services, such as a restaurant, bank, and medical offices. Desired amenities included trails, a swimming pool, a golf course, and healthcare programs.

The Cal Poly Market Research Team came onto the projects with 150 units already built. The Cal Poly Team was hired to survey the extensive inquiry list which had formed. The Cal Poly team was able to develop a program, which defined the type of cuisine and hours of operation for the restaurant, and the amount of play area for the golf course. What was unique about the Cal Poly Market Research Team was the rate in which they received responses to their survey. An 8% response rate in 30 days is an industry standard, but the Cal Poly team was able to surpass the industry standard with a response rate of over 40% in 30 days.

Meyers Group was employed to confirm the position and product mix of River Oaks. Their work product identified key market trends which would allow for further developments. In addition to matching a product mix with buyer profiles, the Meyers Group was able to identify a product mix which was amenable to local incomes. Based on this data Estrella Associates provided varying housing types aside from the age restricted active adult community. Additional markets identified included entry-level renters and first-time buyers.

From these four research groups came a body of knowledge which allowed for the development of a community which was truly in tune not only with its surroundings but with its neighboring residents as well. Using the information provided by the research firm River Oaks evolved into one community with seven distinct neighborhoods. Four concepts advanced River Oaks: residential, recreational, commercial, and education. All four areas were key components of River Oaks. Master design was provided by the IDB Design Group of Newport Beach, CA.

In developing the site plan, careful attention was paid to ensure that these separate components were well integrated into River Oaks. Residences are divided into seven neighborhoods ranging from 90 units of rental to larger semi-custom homes. The mix of housing opportunities allows for a variety of families with differing lifestyles and incomes to live at River Oaks. The “MarketPlace” provides River Oaks with basic

Figure 4. Illustrative master plan of the River Oaks Community in Paso Robles, CA (courtesy of IBA Design Group, Inc)

Figure 5. The Promenade, River Oaks Community in Paso Robles, CA (courtesy of IBA Design Group, Inc)
neighborhood services such as a cleaners, a restaurant, and groceries. The recreation component of this development is divided between passive and active open space. The eastern edge of the site remains as an oak forest with natural trails running along the length of the Salinas River. Although Estrella Associates did not originally intend to create a golf-course community, their research found that providing the amenity of a golf course was essential to the success of River Oaks. By planning with the Paso Robles Joint Unified School District, Estrella Associates was able to provide land for an elementary school within the development.

Despite being a small local developer, Estrella Associates has been able to broaden housing opportunities in San Luis Obispo County. Researching the market capabilities of the site showed that mixed-uses communities would be well received by the public. The mix of housing types provides attractive opportunities to homebuyers. Integrating retail, services, recreation, and education within a single master plan has allowed the residents of River Oaks to enjoy Estrella’s vision of a multi-generational and diverse community.

**INFILL OPPORTUNITIES FOR IRVINE: THE VILLAGE APPROACH (REPORTED BY GINO MACALUSO)**

Where is Downtown Irvine? Probably no one who is familiar with the City of Irvine would have a definitive answer to this question. In this city with a population 140,000 and growing, there is a need for a unifying hub at the center of town. Moreover, when one thinks about Irvine they tend to picture a fast growing city with many different single-family residential neighborhoods. But what is missing the need for a sort of connection between different residential neighborhoods in order to form a community identity for Irvine. So what does the Irvine Company (one of the largest remaining private landowner groups in California) have planned for creating infill development opportunities in Irvine’s Downtown in order to create this sense of community?

In the final symposium presentation Rob Elliot (Group Senior Vice President, The Irvine Company, Irvine), Jeff Larsen (MVE Architects, Costa Mesa), and Bill Burton (Burton Landscape Architecture Studio, San Diego) spoke on developing Irvine Center Village, an infill high-density mixed-use (predominantly residential) project. The proposed village site is adjacent to The Irvine Spectrum, a regional shopping center comfortably located in an area bordered by Interstate Highways 5 and 405, and the 271 Toll Road (Figure 6). This shopping center has become more than your average commuter draw for bonus tax revenue to the city of Irvine. It has developed over recent years as the de-facto downtown for the city. The Irvine Company’s plan for the Irvine Center Village consists of 1,550 units of high-density (48.99 dwelling units/acre) residential, 6,731 sq. ft. of retail, multiple recreational amenities, and a parking structure of 3,000 plus spaces. Expected to open in 2007, the Village will offer a wide range of housing opportunities with the intention of attracting a diverse group of households. The residential breakdown for the project is 43% and 57% of the residential units to be Luxury and Mid-market respectively. These units will range from 563 square feet to 1,440 square feet. Additionally, there will be 46 town homes, 1,504 Flats, and 1,550 elevator apartments.

The Village is divided into four unique districts, each with a different architectural theme and range of residential/mixed-use units (Figures. 7 & 8). The architectural design of District One (502 units) is influenced after the California Mission and Spanish Colonial Revival style architecture. District Two (350 units) is reminiscent of the courtyard style housing prevalent in Los Angeles during the 1920’s and inspired by the Andalucia region of Spain. District Three (509 units) is influenced by Italian and Romantic architecture, specifically the Italian Renaissance Villa Sienna in regards to detailing and massing. The last district, District Four (349 units), is influenced by the Villas at Blair Island, with massing organized as a series of residential villas along the street and asymmetrical facades. The stakeholders and designers of this project have hopes of emulating these styles to provide a distinct sense of place within each district.

One of the several positive aspects of the project would be the placement of parking underground, rarely done in California due to Seismic-Hazard standards and engineering and design difficulties. This is important design aspect promoted a dense core district and a walkable neighborhood, a “new urbanist” qualities that the stakeholders hope to make a reality.

The Irvine Center Village is a classic example of bringing dense housing options to a city attempting to prevent sprawl, leapfrog development, and low-rise buildings. The intent to bring retail and recreation opportunities in addition to
housing is important for achieving a balance of uses and fostering community. External factors play a great deal in the relative success of this project. The location of the project is one such external factor that leaves much to be discussed. Although the project area is wedged between three major freeways, each adding access, they act as constrictions to the project area neighborhood. In a sense, the project would exist as an isolated island of development completely cut off from adjacent land uses by freeways, solidifying dependency on the automobile.

There are some negative sides to the Irvine Village project though. One is the surrounding context, which is in desperate need of help. Rob Elliot, in stating a major concern of the project said, that “there was a strong need to create a critical mass of 1,000 or more units to achieve what we’re after.” This project may be on the right track as to providing a denser Irvine, but if they ever aspire to make significant changes, changes to the current surrounding zoning are needed. In answering questions from the audience the presenters said the Irvine Company’s long-term goal is to replace surface parking with a more close-knit grid and office buildings.

Another question raised is that as interesting as the architecture choices are at the Irvine Spectrum Village, they do not necessarily guarantee a recognizable community. Is the sense of place achieved in this village representative of the other communities in Irvine? Another issue that will certainly deserve more attention is affordable housing, planned to be implemented outside the project are on the other side of the freeway in a currently blighted, underdeveloped zone.

Figure 6. The Irvine Center Village, nested between interstate highways and the Irvine Spectrum shopping center in Irvine, CA (courtesy Irvine Co.)
Figure 7. The Irvine Center Village site plan. Note the distinct four districts, the careful design and common amenities. (courtesy Irvine Co.)

Figure 8. Rendering of the main street at district three of the Irvine Center Village, with its architecture influenced by Italian and Romantic references (courtesy Irvine Co.)
In 2004, Drusilla van Hengel’s Regional Planning and Analysis class received a distinguished guest for a presentation. Planner William Fulton, author of three best-selling books including the classic Guide to Californian Planning, spoke about his experiences and his views on the current state and the future of regional planning in California. Mr. Fulton has recently been selected to the Ventura County City Council.

I happen to be in town for training at the Cal Trans-San Luis Obispo office, and I work this lecture into the regular curriculum for Cal Trans, while at the same time talking in a different span on city and regional planning. I will try to do both these things miraculously at the same time, which I hope will be easier than it looks.

“The Structure of Planning – Decision-Making” is the title of my regular land use planning classes that I teach at the UC Extension, and it is what we are doing for Cal Trans. Part I is “Local Government”, which is what we just did over at Embassy Suites, and “Regional Planning” is part II, which I will be talking to you about today. I hope it will not be a problem that you are reading different books than those I use in my classes. But allow me to back up and do a little bit of framing about regional planning, which is necessary to complete the process.

One of the things I have come to realize is that there is no such thing as a city or a suburb. The census bureau says there are cities and suburbs, but there really aren’t. What there is, and this is what I talk about in my book “The Regional City”, is what I call a “metropolitan constellation.” Those can be more densely packed, as they are in L.A., or pretty detuse in a combination of urban, suburban, and rural communities, as they are in San Luis Obispo County.

The idea and basic premise behind a regional city is that economic, ecological, and social systems operate at the regional or metropolitan level. Therefore, we must attempt to try to tackle the growth problems at that level more effectively than we have in the past. This necessarily means redefining what we mean when we talk about metropolitan growth patterns. I just finished telling the Cal Trans students in our class, now that I’m an elected official on Ventura city council since November, I’m abandoning the whole regional thing and becoming more narrow-minded everyday. I really don’t care about Oxnard or anything else. The other thing that you need to know at this particular moment is that I’m really mad at Cal Trans. It turns out a two-month closure is not worth telling anybody in advance because it is too short of a period of time.

Regional planning, in reality, is a very diffuse, and always will be (in my opinion) a diffuse and decentralized system that consists of many many different things and many many different pieces; which, I talk about when I do my drawings. Bear in mind that basic land use permitting decisions are made by local governments, which in California are cities and counties. But there are lots and lots of other players, such as LAFCOs, COGs and the Coastal Commission.

One of the problems in California is that, from the regional planning perspective we are just so darn big. As I said, earlier today in the other class, we operate like a nation. Another one of my favorite factoids is we are the same size as Italy. We have half the people, and everybody loves Italy – right? So we should all move there! I was saying, Italy’s like California only older. Italy is basically state-of-the-art urban sprawl from the 12th Century. This is what we all love now. So, I am almost figuring by 2850 we are going to flop California for the coastal post-war settlement.

We are a very diverse state, and we are governed by a government which operates a lot like a Federal government. The next level of government down that people believe can do something and trust is the city. It is a long way down from
the state to the county or the city level. This is particularly a problem in Southern California. I mean the five-county metro-L.A. area which has about 17 million people there, not including San Diego, which is south of Southern California. It is a real problem there, because if the California government operates like the Federal government, metro-Southern California ought to function like the state government. It ought to in order to effectively address the problems that are dealt with that arrive at the regional level.

So the problem in California, from a regional perspective, is that you have no way to structure that conversation in a very effective way. What I want to do is fly through some of the slides – from my other class- just to give you an idea of who some of the players are.

A lot of people think that regional planning requires a centralized regional government for planning to occur. The fact of the matter is that regional planning and regional policy strategy occurs whether it is occurring at the Council of Governments level or not. It occurs somewhere. In fact, a better way to describe it is that it occurs everywhere all the time. It occurs in large part where local government and state agencies interact.

In my city, the auto center is located adjacent to the next town at a bridge and a river where Cal Trans is doing a five-year reconstruction project. Cal Trans just announced they are going to close the northbound on and off ramps, which provide access to the auto center, for the next two months. They didn’t tell anybody in advance, and they are going to do it in a week. Their view was that later on they are going to have to close the southbound off ramps for a year. They do want to have a public meeting for that, but this was such a minor thing that they didn’t feel it was necessary to discuss. Cal Trans has a vast effect in the transportation industry in general. They have a vast effect over regional planning. A lot of the actual policies are driven in California by the MPO’s, by SCAG, by the FCC, by state COG, and increasingly by the county transportation system which administers most state and local funds. So there’s a vast transportation apparatus that operates at the regional level and state level but in a funny indirect way.

Part of the problem of regional planning is no one is elected to represent a whole region. You are elected to represent state, or your district, or your local constituency. So, regional problems get dealt with in a collaborative or competitive way among players who are at the table for another reason. Hardly anybody is elected at a regional level. The board members in Portland are elected at the regional level. Metro is the regional land use and transportation department. The only regional agency that has elected board members in California is the Bay Area Rapid Transit (BART). One of

Figure 1. Conventional suburban development (photo V. del Río)
the consequences of that fact is that it is a big specialized regional agency that only does one thing. The elections are pretty much hostage to the contractors and the unions which are the only people who give money. So, it’s nice to think that at the regional level you think for the region. The truth of the matter is you get elected by the constituency who are motivated to have an impact on the outcome of the elections. Obviously, the department of water resources and the California Department of Housing and Community Development (HCD) has a major impact on the region, and so on and so forth.

There are some state agencies that deal with regional issues. The most obvious of which is the Coastal Commission, which is a regulatory agency that governs land use across the entire California Coast. That power was taken away from local governments by the voters and given to the Coastal Commission more than 30 years ago. The Coastal Commission is a good example of an agency that is focused on a special geographic region and has a particular state mandate of goals which are mostly open space, visitor-serving uses, access, affordable housing, and also protection of coastal resources. Again, this is an agency that has a regional focus, but has a pretty narrow mission. So the economic impact or the population impact, all that stuff, is really not part of the Coastal Commission mission. It’s not a comprehensive planning element.

These agencies, as well, have an increasing role to play at a regional level. For example, at the state level, the Department of Fish & Game, and at the Federal level, the Fish & Wildlife Service, which administer the state and federal endangered species act. The federal agencies throughout much of California have turned into essentially a regional land use agency.

Again, the basic structural problem is that a state government of 31 million people is at the top, and underneath that you only have local government. Occasionally, you have regional agencies that do have a regional goal, but they have this peculiar structure, such as the air pollution control district. There’s a regional pollution problem. That regional pollution problem is supposed to be solved regionally, except pollution standards are set by the Federal government. The federal government has delegated the power to deal with this regional problem to the state. The state has in turn delegated part of that power to a regional agency whose board is made up of local elected officials, like me, who are extremely narrow-minded and conventional, and don’t want to pull the trigger on each other if they don’t have to. Again, here’s the Federal government with this over-arching responsibility. In this case, it is a regional environmental policy but the apparatus is such that the final decision makers are made up of local elected officials like me who don’t want to do it because it would be bad for my narrow self interests. So, you have these state and federal agencies and you have these local agencies. They interact and sometimes they interact in sort of a collision course with each other and you get these different worldviews.

The first thing I want to do is talk about how these agencies view each other suspiciously when they come together. Local governments, local planners, and local elected officials view State and Federal bureaucrats as being bureaucratic. They resent the fact that they have separate power centers - like you can come and do something without consulting me. They also perceive them as being remote. That is, like if I’m trying to get something done in my town and doing an EIR. You are the district office and you comment on the EIR on the last day. You say just enough to hold it up but not enough to make a useful contribution. In addition, it has dawned on the state and federal agencies, who are working on regional issues that local communities, local governments, and local planners exist. It’s kinda annoying to them. They wish it weren’t true, but it is true. They realize that increasingly there needs to be partnership between higher levels of government and these lower levels of government in order for things to happen.

State and federal agencies come to the general planning table and do so by interacting with local government. The idea of these councils of government is that they provide a regional framework to provide these conversations, but as I said before, the actual process is much more diffuse and subtle. It is at a very ad-hoc basis.

Regional problems arise from the fact that economic, ecologic, and social systems are regional in nature. They really are. Generally speaking, one of the premises of “The Regional City” is that the true scales at which economic, ecologic, and social systems operate are at the regional and the neighborhood, which are the only two scales that we don’t have governmental agencies. All the government agencies are basically in between the region and the neighborhood.
That’s where people get elected and that’s where they have constituencies and that’s where they have a vested interest in retaining.

When it comes to regional planning, my observation would be in dealing with the status quo biased against it. In Ventura, where I am an elected official, we are revising our General Plan. Every single scenario we are looking at calls for much greater job creation than housing and home production. So far, not one person in public or in private, including myself, has mentioned anything about a job-housing imbalance. If I don’t say anything about it, nobody is ever going to say anything about it. There will be a silent, unstated assumption in our General Plan that all of our housing problems will be solved by the neighboring city of Oxnard.

So, the vested structure does not recognize this. There is no obligation under General Plan law in California to acknowledge that anything exists outside your own city boundary. The only place where that happens is within the CEQA review. I want to talk about CEQA as a tool of regional planning in a minute. What generally happens is there are carrots, there are sticks, or there is nothing. That’s how regional planning gets done. When local communities and local constituencies recognize that they have something to gain by working together, which generally has to deal with the federal transportation money, then they will work together. When local vested interests, local constituencies, and local elected officials realize that if they don’t work together, they are going to get beaten up, then they will work together. In most cases the stick is the instrument of Federal environmental policy. The benefits of working together tend to be economic; they tend to have to deal with transportation and jobs. The sticks tend to be environmental. You will find regional, economic alliances that are unified in their desire to bring more jobs to a region, and then the local entities can fight about how those jobs get split up.

Federal environmental policy creates a large number of very important sticks like the Endangered Species Act, the Clean Water Act, the Clean Air Act, and the Urban Storm Water Runoff Regulation. The Runoff Regulation is going to drive, I think, a whole new generation of regional operations in local governments in certain parts of California. Orange County’s 34 cities, and they all hate each other, have decided there is somebody they hate more than just each other, and that is the federal government. That is why they are going to work together for probably a pretty effective storm water solution in the end. I want to come back and talk about Atlanta in that context in a minute.

The third one is if there is no carrot and no stick, there is no motivation to do anything. If there is no economic benefit to voluntarily working together, and there is no regulatory consequence on the environmental side, there is no reason for working together. There is one issue in the state right now where there is a crisis. As a result of our regional patterns, there is a carrot and no stick and therefore no motivation to do anything. That issue is housing. Home prices have doubled in the last four years. Almost everybody in this state can’t afford to buy their own house. I can’t. Nothing happens, or else you have a regulatory mechanism such as the State Housing Element Law, which attempts to do something but doesn’t have a strong enough constituency. It therefore does nothing as I like to say...just strong enough to be annoying and just weak enough to be useless. That is the best solution that all the different lobbyists and negotiators come up with, but they don’t have any motivation to make it stronger or weaker.

Affordable housing has just enough power to be annoying, and the local government lobbyists have just enough power to make it useless. It is interesting to see what happens with the sticks. It depends on whether the Federal environmental policy is implemented directly by the Federal government or is implemented indirectly by middle agencies, which are basically controlled by local elected officials. In the case of Atlanta, the MPO didn’t do anything about the growing air pollution problem, which was pretty much the result of sprawl. As many of you know, Atlanta is growing faster than any human settlement in history. Atlanta, in a few years, will be a loose term to describe anything from Charlotte to Birmingham. As Turner likes to say, thank goodness for the Pacific Ocean. What happened in Atlanta was, the federal environmental protection agency finally took the trigger pulling power away from the local officials and said we are going to pull it ourselves if you don’t do something. As a result, the Georgia legislature created the Georgia Regional Transportation Authority. It’s a very powerful entity that was granted veto power over major projects in metropolitan Atlanta, through a regional transportation authority. This was under Governor Barns, a democratic, and around Atlanta, this was generally called “Good Roy Total Authority”.
Similarly, when you look at the regional habitat conservation plan, done in San Diego, and in other parts of California, it is the result of direct federal control over environmental policy. You essentially have federal biologists negotiating with local politicians and local planners over which land has to be preserved and which doesn’t. And in so doing, these regulators, serving as the regional planning directors, decide what land is off limits and what land will be developed. They do it from a narrow perspective, which is produced on purpose, and humans get what’s left over.

In the case of CEQA, the California Environmental Quality Act, when we have a General Plan in Ventura, we just assume that Oxnard will build lots of homes forever, so that people can work in Ventura. The only way that Oxnard’s going to get any control over us is to sue us under CEQA. They can’t intervene in our General Plan process. They have absolutely no leverage there, so they are going to have to participate in the EIR and eventually sue us under that. What’s going to happen in that case is that there will be a superior court judge who will serve as the adjudicator of those disputes and in that sense serve as the regional planner. Who are we selecting in our society as regional planning directors; Superior court judges, who probably used to be prosecutors, and federally employed wildlife biologists, everybody except planners.

The reason for that is that we don’t want to admit that we do regional planning. The regional discussions and the regional decisions drop back to some level of power or authority that already exists and that is shoe-horned, by circumstance, into becoming a regional planning process. The Endangered Species Act is quite accidentally set up as a regional land use planning process: CEQA quite accidentally has set up a regional land use dispute mechanism known as the superior court. What we find, over and over and over again, is how regional decisions get made. There is sort of an inside out and backwards method, and this is how these three things are dealt with on a regional level.

I am not an academic. I don’t have a PhD. I used to be a reporter, and when you write stuff, people think you know something. Academics love to draw schematic diagrams that then become associated with them. You have the “van Hengel Theory” that goes down in history, and that’s how you get tenure. I really have created two of these. Since I have never published them, they will never be known as the Fulton Theories. Here is my theory of regional planning. Local governments are broad and shallow, that is to say they deal with absolutely everything in a specific geographic area. This is why I like being a local official, because by nature I am a broad and shallow person. Which
is why I was a reporter, and is now why I am a local elected official, because those are jobs that lend themselves to being broad and shallow. Cities and counties, and in other states, townships and other local entities, deal with absolutely everything in a specific geographic area. Regional, state, and federal agencies, and this is why I have never worked for one, except an unfortunate six months at South California Council of Governments (SCAG), are narrow and deep by nature. They only care about one thing, but they care about it everywhere. It could be wildlife, it could be water, it could be transportation, it could be housing, it could be jobs, you can just go on and on and on and on. I would assume the typical CalTrans engineer, I just assume, they sit at their desk, they get a cup of coffee, they get up and they think, how will this affect the statewide roadway network? If I increase the demand for coffee in my office, there will be more coffee deliveries to the office, which means it will require that the goods move. You know what I mean? Specialists are trained to think very narrowly about how everything affects their world. What we have at the state and federal level, and at the regional level, are many people who are narrow and deep, and incredible in their expertise about one thing. So what’s regional planning?

One of the things I always say, imagine your local planning director reading the daily mail. In the first letter from the Department of Fish & Game, which says, “We have found an endangered species in your community and therefore we demand that you set aside 80% of the land in your community as a wildlife refuge for this endangered species.” The next letter is from the Department of Housing and Community Development, which says, “we have determined that there is a housing crisis in your community and we demand that you set aside 80% of your land for high-density multi-family affordable housing.” The next letter is from Cal Trans, which says, “We have determined that there is a congestion crisis in your town on a statewide roadway network and therefore we will be consuming 80% of you land in your town to expand our highways.”

The problem for the local planner is that your job is a balancing act. What you have to balance is all these pesky state and federal bureaucrats who devoted their whole lives to one thing and won’t compromise on that one thing no matter what. Yet you have to balance them all next to each other. Regional planning is really the place where all these explosions occur, and eventually where all these deals are made. The cities and counties of San Diego County make a
deal with the official outline service and the department of Fish & Game about wildlife preservation. Those deals have land use consequences and set part of the land use pattern for San Diego County.

Monday night, in April of 2004, my city council finally approved the housing element for the years 1998-2005. We are ready to roll now on that after the result of painstaking negotiations with HCD. That is another deal that was made where the state essentially represented the state’s interest in more housing, which has a regional impact. We represented our city’s interest in what we consider quality of life, which usually means less housing or less housing for other people anyways. There is another point where the regional plan has been created in an ad-hoc way by the collision of state and federal against local. Regional planning is kind of like this chalkboard. If you look at the laws, the laws have standards in them. The standards tend to be a kind of force field that bounds the deal making of each individual topic, so that you can’t just make any deal. In housing, totally shutting down housing or not meeting the housing need is theoretically not an option under state law, but the state law has lowered the standards, unlike wildlife.

So that’s my theory on how regional planning really gets done. You have to ask yourself, do you really want to do good metropolitan planning, or do you want to create a regional city that also acknowledges the interdependency; acknowledges that regions in a metropolitan area are apart of a whole no matter what. Then how do you adapt this thing to that? About that I have some good news and some bad news. The good news is that all over the country we are finding more interest in doing this. All over the country we are finding efforts that seem to be successful in creating more consensus about what the regional division should be. I will get to the bad news. The bad news, not surprisingly, is over here with us narrow-minded people. In the regional city, the main case study was a regional planning exercise for Salt Lake City.

Systems are regional. Human and natural systems get managed by a three-legged stool. The three legs are the government, private business, and community organizations. At various times in our history, we have placed great faith in business to solve all the problems in the marketplace, government to solve all the problems through regulation, and in community non-profit to solve all the problems through rampant do-gooders. Which is where we are now. At various times in history, we have attempted to do regional planning through one of these three things. The whole COG idea and regional MPO idea was a governmental idea; if we could just get all the governmental officials together in one room to knock heads together, something will happen.

Particularly in the economic area, we have seen in history the same theory about businesses. For example, when Pittsburgh had extremely bad air pollution, all the business leaders who were getting rich off the air pollution got together. They formed a delegating conference. The first economic development entity which solved the smog problem and which partly included closing down the steel mills. It is possible to do the same thing here. The way to make regional change is through the groups and coordinating their efforts on a regional basis. In my opinion, no one leg of the stool has enough credibility to do it alone. What you have to have is a civic collaboration of all three groups in order to have a process that has enough credibility so that people will buy into it. To the credit of an administrator in the Bush administration, he figured this out. He said we have to do something about it, but I am the governor, so if I create a governors task force, that’s not going to work. What I have got to do is create a 2-legged group with business guys and non-profit. That’s what he did.

So envision Salt Lake City, Utah, like many other regional cities, it went about creating a regional plan. It would become visionary and big picture in nature and of course, it has no legal pin. They did it in a really interesting process, which is described in great detail in “The Regional City”. They did a bunch of things in Salt Lake, one of which was to gather all the leaders from each sector in Salt Lake. Simulating growth patterns, Governor Lebith began by stacking post-its next to each other until they were all gone. Afterwards he realized he had consumed all of the farmland in the greater Salt Lake area, and probably really angered some people. Then he started to do something different. He took the post-its and started to stack them on top of each other. A plan was worked out, among all of the leaders that called for a concentration of development along the central spine of the freeway and railway, thereby protecting agriculture land and natural land along the edges of the metropolitan area. Everybody said this was great. Everybody bought into it conceptually. The governor got recognized nationally. Then came the process of going back to each separate city, the elected officials,
the individual land owners, and the individual community groups, all with narrow concern, and selling them on the idea. That has turned out to be very very difficult to do. Once you try to take it down to that scale, it is almost intolerable. “Envision Utah”, to their credit, funded demonstration products on how to make on the ground decisions work and implement the plan. And in their even greater wisdom hired my firm for one of them.

It’s not that hard to reach conceptual consensus. What is really hard is to make the decision stick in the absence of a really, really strong carrot or stick. Now consequently, we attempted to do a similar exercise in Los Angeles. They made two mistakes: the first mistake was, and they were responding to the requests, the interest to do the exercise came only from here. Mistake number two was, they were working with Southern California. When you sit down, and have a bunch of stickies, it’s not too hard to put all the stickies in Riverside County, which is not too far away. The other problem that people in California have is to simply put some of the stickies in their pocket and pretend that they don’t have them. This is pretty much how our housing elements are done, particularly in San Luis Obispo.

So what I would say is that there are a bunch of mechanisms by which local officials and state and regional agencies can reach agreement on individual topics, which essentially add up to a regional plan. There are ways in which regional leaders can work together to come up with consensual agreement. How you operationalize this kind of thing, particularly with these pesky folks, which have local constituents, is the hard part. One of the reasons that this is so hard is that the politics at this level is so much gnarlier than the politics at the regional or state level. So, if I participate in this kind of an exercise, which requires then for me to go back and make this deal about housing, I have to do that on a Monday night on cable TV, in a town, where if people don’t like what I am saying, they will tell me. There are people who have walked through the door in the city council chambers in their pajamas at 11 o’clock at night and have stood up and said “I was watching TV and I had to come down here because I could just not stand what you were saying”. Great democracy! But it also puts a great deal of pressure on the people here who ultimately have to operationalize and pay the political price for our decision.
The author based this paper on his presentation at the BCRP program in the Spring quarter 2004. He shows us the importance of incorporating Geographical Information Systems in planning for natural disasters through a project in Caracas, Venezuela, a city constantly exposed to the risk of earthquakes, floods and mudslides.

THE EXISTING CONDITIONS IN CARACAS AND THE PROJECT

Caracas is the capital city of Venezuela with the population of 3.1 million and area of 303 sq. miles. It experienced several large scale earthquakes since its modern history began in 16th century. There are two large earthquake that hit Caracas: in 1812 an earthquake with magnitude 6.3 killed around 10,000 of the population, while the most recent earthquake occurred in 1967, where about 1,800 buildings were damaged and 274 people died. Caracas also has a history of frequent sediment disasters. In December 1999, Caracas was hit by a heavy rainfall caused by cold weather front from Caribbean Sea and debris flow was generated in the mountain streams which caused death of around 100 people. Similar debris flow had occurred in February of 1951.

Despite the frequent and devastating natural disasters there is lack of resources and planning for natural disasters both among population as well as response agencies. As a significant part of the Caracas low income population live in high density conditions, and many people live in the same household, in case of natural disaster this could lead a large number of casualties even when only a few buildings collapse.

In this presentation I will describe how a Geographic Information System (GIS) was designed and put in place as part of the mitigation and disaster preparedness plan effort for the metropolitan district of Caracas. The purpose of the GIS system was to develop risk vulnerability maps for present conditions and to permit new information to be added on to update them (see figure 2).

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<th>Geographic area</th>
<th>Population</th>
<th>Housing Units (HU)</th>
<th>Total Area Sq. miles</th>
<th>Pop Density</th>
<th>HU Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bogota, Colombia</td>
<td>6,437,842</td>
<td>955,991</td>
<td>488</td>
<td>13192</td>
<td>1959</td>
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<tr>
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<td>498</td>
<td>7877</td>
<td>2852</td>
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<tr>
<td>Caracas, Venezuela</td>
<td>3,162,759</td>
<td>684,643</td>
<td>303</td>
<td>9118</td>
<td>2260</td>
</tr>
</tbody>
</table>

Source: US Census Bureau ; National Census, Colombia ; National Census, Venezuela
GIS APPLICATION IN THE PROJECTS

The GIS implementation in the project was challenging tasks as there were following implementation issues were at stake.

- Too little compatible data set
- Few resources (Economic/ Human)
- High expectations
- Immediate result seeking
- Poor system maintenance
- Poor system continuity

On May 7 2003, the project started with two months’ deadline for data collection and their incorporation in GIS. The following opportunity and risk were present at that time.

OPPORTUNITY

- Risk Map Project was done recently by the National Cartography Institute
- This project was a grant project from Japan
- Recent Disaster event in Dec. 1999 has led awareness

CHALLENGES

1. Too little GIS development in Govt. Sector
2. Private sector (utilities companies) were not ready to share data with any outside agencies
3. Fragile political situation led to little or no coordination among national and local governments
4. No universal GIS standards and process were in place
5. The available data were in many different formats
6. There were huge requirements of data for a disaster management project
7. Data paradox: Too little data and sometimes too many data but little information

Looking at this scenario, the study team first elaborated GIS and database standards to be applied for the projects. These standards included system platform to data input as well as output formats. These standards were discussed with counterpart Venezuelan agencies.

The data collection phase was geared up to have the following data base and GIS subcomponents.

DATABASE COMPONENTS

- Building Inventory
- Population Distribution
- Social Vulnerability
- Damage Estimation
- Public Facilities
- Open Spaces
- Road Networks
- Bridges

GIS COMPONENTS

- Base Map (1:25000) -26 layers/15 sheets
- Working Base Map (1:5000, 1:1000) -26 layers/ 45 Sheets
- Scanned Basemap (1:5000, 1984) – 45 Sheets
- Aerial Photos(17) / Satellite Images (6)
- Boreholes
- Lifelines (Water Supply/Telephone)
- Road Networks
- Evacuation Places
- Open Spaces
- Public Facilities (8)
- Landuse
- Microzone
- Administrative Boundaries (6)
- Important Facilities
- Hazard Map (9+2 Sediments, 2 Earthquake)
- Risk Map (9 +1 Sediments, 2 Earthquake)
Different GIS analysis was performed and more than 200 map layers were produced. Some of them are outlined below.

**EARTHQUAKE DISASTER SIMULATION**

Damage scenarios for four hypothetical earthquakes were simulated and shake maps were produced. Also, risk maps such as building damage, human injury and death, damage to utilities networks and damage to infrastructure were simulated.

**SEDIMENT DISASTERS SIMULATION**

For the sediment disaster, three components were analyzed: landslides, potential risky slopes, and flood and debris flow. Landslides and potential risky slopes were mapped using aerial photos and field visits, and they were analyzed with existing building and population distribution to determine the risk. Past hydrological data were carefully analyzed and two dimensional water and debris flow were calculated using the simulation software Flo-2D. Calculation results were expressed in flood velocity and depth. Large part of existing urban are were found to be vulnerable to flooding. Flood risk map was created by overlaying existing building distribution and flood damage due to flood velocity and flood depth.

**SOCIAL VULNERABILITY STUDY**

The aim of the social vulnerability study was to find the vulnerability and resilience of the population for natural disasters. This study was conducted for 15 homogenous sub-areas in the study area where 4,800 houses were surveyed...
and 38 different questions were asked regarding social vulnerability.

These survey results were sub classified among five different categories: Knowledge, Demography, Economy, Facility and Community Organization. GIS maps were produced for each of these indices as well as combined social vulnerability index and overlaid with earthquake hazard maps. The combined result was expressed as integral vulnerability index.

Also simulation was done for the building damage with or without master plan implementation as well as evaluation of resources (like open space/ evacuation routes).

FINAL GIS IMPLEMENTATION

All of these input maps as well as results were grouped in a single ArcView project and a custom user interface was developed (using Avenue programming) for easier viewing and printing of these maps. ArcView 3.2 was chosen as it was the software used by almost all of the government agencies at that time. A training course was performed for the GIS users in Caracas. A detail Metadata was created in FGDC format and web-based HTML maps were also produced for the users who otherwise do not have access to ArcView system.

These GIS data were placed in a central server and the participating institutions were connected to it through VPN. Data can be shared in this secure private network. A blueprint for Disaster Management Information System (DMIS) in Caracas was elaborated based on the information gathered on this project and with the anticipation of the future participation by different institutions.

Figure 7. Integral Vulnerability (Social and Physical Vulnerability)
The authors discuss an on-going research on the planning and implementing of master planned communities in different countries, and their implications for contemporary planning practice. They show that the developers’ goal is for the MPC to become the place “of choice” for residents and employers over the long term, and that success is directly linked to the ability to adapt implementation processes and strategies that meet market and social needs.

City planners and community designers have always had a fascination with the concept of master planned communities (MPC). The MPC ideal was used by Ebenezer Howard to organize his design for the ‘garden city’ the designers answer to the environmental and community problems arising from the industrial revolution in Europe. In the United States MPC concepts, influenced by Howard, were tried in our own garden cities movements, as well as the federally sponsored “new towns” efforts during the 1970’s. The MPC remains, especially, in the western United States a powerful ideal to create more livable environments. The contemporary MPC of today is not a “garden city” in the sense of meeting all employment, housing, cultural, public transport and recreational needs for a population of 50,000 people as was the case for Ebenezer Howard. Today’s MPC are attempts at providing some balance between housing, recreation, security, employment and cultural within the given boundaries of a single land use plan that is built in phases as a response to market demands and regulatory requirements.

So, how would you go about designing for a land parcel of 10,000 acres? To better understand the contemporary MPC process and what it produces we examined a group of master planned communities and new towns that have been built over the past 40 years. We wanted to understand the major elements related to the land planning, the urban design, and the implementation of these projects and how these elements influence a project’s overall success.

To obtain a more global perspective MPCs nine projects located in the United States, and five outside of non-US (Brazil, Singapore, China, Spain and Vietnam) were examined. While all the US projects are all privately sponsored, those in China, Spain and Vietnam have some form of government participation. MPCs tend to locate at the urban fringe, not far from a major metropolitan area which provides them access to jobs and potential residents.

In order to understand what MPC were, and are, we established some common elements that help define them as creators of urban form. For the US the composite MPC profile is about 5,000 acre plus land area, 40% of which is in recreation/open space uses. The basic unit of design is the ‘village” of 300-400 acres. Villages are linked together by road hierarchies and recreation systems, with groups of villages forming the demand for localized (not neighborhood) retail. The MPC provides substantial employment opportunities in its office and business parks. Social and cultural amenities are present in the form of churches, clubs, and civic associations. Establishing a ‘sense of community’ is an active part of the establishing viability for an MPC. Constructing a “sense” of community” is part of the developers’ “social design” process. The homeowners associations bind people together at least in terms of maintaining their common areas and roadways. These “micro maintenance” districts are critical to the long term viability of MPCs as they establish special interest groups that support the MPC internally and externally.
For the non US cases (except for Brazil, which replicates the US model) the projects build vertically, using 6 to 12 story apartment towers, organized in groups to form neighborhoods. Local retail is provided to the building block groups, as is local recreation. In China, Vietnam and Singapore, long term land leases are provided for residential and commercial uses to private developers. The local or provincial governments provide substantial off-site infrastructure support. In the Spanish case, an independent government development corporation was established that sold land to builders and users. In all of these projects the government objective is to provide incentives to the private sector to build housing and employment centers using private capital. This is a public-private partnership model.

As in the case of the US, the concept of village, or cluster of activities, is a leading urban design concept. People are brought together spatially, and then the other elements, such as parks, transit, schools, employment centers are put in place.

UNITED STATES CASES

There are common elements for the United State cases. These are:

- Open Space - Large percentage of land being devoted to recreation uses and open space. This ranges from 37%-53% of the overall project area. Irvine Ranch in southern California has about 50,000 acres of dedicated open space (53%) which includes 10 miles of off-road bikeways.

- Village - The use of villages as organizing urban design concepts, with the average village size being between 300-400 acres. Village size does vary depending on landform and typography and recreation amenities. Ladera Ranch, also in southern California, is composed of 6 villages and 3 dense urban-themed residential districts. Summerlin, Nevada is currently composed of 17 distinct villages (30 are planned).

- Design Guidelines - Design Guidelines and controls over land uses are important to maintain the character of a planned land use. Design guidelines can be imposed on an entire project, a village, a neighborhood, a commercial center, office park, industrial park, and public uses such as schools and medical clinics. The developers of The Woodlands, Texas (north of Houston) specified design guidelines for each of its 8 villages in order to maintain high standards for housing, shops, offices and other structures.

- Associations - Owner, renter, and resident associations are used to generate revenue, to control design types, to maintain property, and organize social activities. Associations are formed for major land use activities, residential, commercial, office. They charge fees by the month or by the assessed valuation of the property. The Woodlands began with two resident associations, The Woodlands Community Association and the Woodlands Community Services Corporation, that were initiated.
by the developer. Mature MPCs, such as Mission Viejo, Irvine, and Columbia, have become incorporated cities with elected governments providing services.

• Home Building Companies - Most master planned communities sell lots to many different home building companies who actually do the construction at the neighborhood level. This also occurs for apartment buildings, but this is not as frequent as for single family homes. At Weston, in southeast Florida, for example, the major builders were Lennar and Centex Homes. Summerlin, utilized 8 major builders including Pulte Homes.

• Cultural Amenities – Contemporary master planned communities’ seed (initiate) many cultural and social activities and amenities in their projects. This is done to build the social fabric of the community, the places where people meet, where they go to church, where they join social service clubs, and where they engage in cultural and recreational activities. Constructing a sense of community and belonging is a challenge for all MPC projects. Building community participation and social fabric is important to obtain long term financial success. Ladera Ranch Community Services, founded by the developers, purpose is to “facilitate, support, and promote community relations and neighborhood activities” as well as foster clubs, special interest groups and manage a community intranet.

• Security – Making people feel secure is important to the overall success of any project. Security is designed into project through the use of “Gated Community Design”, private security patrols, and active resident associations. Weston, Summerlin, and Poinciana (central Florida) feature gated neighborhoods within their overall development.

• Infrastructure Finance – Paying for street, roads, water treatment and drainage systems, and public recreation is carried on through a public-private partnership where bonds (long term debt instruments) are sold by the local government (or special assessment district) to pay for infrastructure. These bonds are repaid by property owners, or building occupants through assessment districts or owner association fees. Rancho Santa Margarita (southern California) initially financed infrastructure through bank loans, but eventually floated community facility (Mello-Roos) bonds for additional infrastructure, and schools.

• Commercial – Over time commercial uses (retail, office, and light industrial) begin to provide larger portions of the overall project cash flow. The Irvine Company, for example, sold land for residential development, but owns and operates over 40 retail, office and business/industrial centers.

Figure 3. Performing Arts Pavilion, Woodlands, Texas (from Gause, J., ed. “Great Planned Communities”. Washington: ULI, 2002).
ASIAN CASES

For the non-US cases there is great variation in development practice. In the Asian cases, the central government plays a major role in location of the projects because there are overall public-interest objectives sought by the central governments. Asian projects are built very quickly, and their absorption rate is high. This means that MPC are built out or populated in short periods of time, and that a much higher level of importance is given to the initial placements of building and roads and the need for support uses such as schools. The residential projects are usually multi-story housing blocks, with a group of blocks making up a district or a neighborhood. Most developments are joint ventures between private and government capital, with private capital being much larger than government investment. The Asian cases demonstrate the strong role of government in deciding where the MPCs will be built, and how they fit into an overall scheme to provide housing for expanding urban populations. Sometimes, the government will change its own policy in order to promote the project. In Vietnam, the government changed land tenure rules to allow for long term land leases to residential and commercial uses that allowed foreign participation.

BRAZILIAN CASE

For the Brazilian case, on the outskirts of Belo Horizonte, the 7,900 acre master planned community replicates that of a US project with the use of strong separation of land uses, and gated communities. The project uses phases focused around a central water element. Each phase will have its own separating walls. There is significant efforts to design in the development elements that support middle-class values and life styles and desire to live in less a less crowded environment than the large city. A private school was established early in the project, as well as a business park, creating elements of community life at the outset. The Brazilian case is a private project, by a company that develops this type of community in other parts of the country. The infrastructure financing is provided through pre-development lot sales.

SPANISH CASE

Tres Cantos, located at the edge of the Madrid Metropolitan area, is Spain’s only new town project. It began the late 1970’s as a means to accommodate urban growth in the region. Originally planned for 150,000 people, it has been scaled back to 40,000 people, living in primarily six story apartment towers, and a lesser number of townhouses. Tres Cantos is now an independent city with the metropolitan area and the town council controls land use. There are 40,000 jobs located in different technical, industrial, and office parks zone where many foreign companies have operations. The principle urban design concept is locating development in sectors. In these sectors are apartment buildings of 6-8 stories and
associated a variety of services. The industrial parks are located in three parts of the city. And there is a big park in the centre of the city. The city is connected to metropolitan Madrid by public transport, train and coach, and a large divided main highway.

**CONCLUSION**

Contemporary MPCs are “semi-new towns”, providing many elements that people desire in a non-center city location. Their location, not too far away from a major metropolitan area, allows them to develop a distinct life-style of that is in contrast to the older more “urban” areas. There is a real “new versus old” appeal in them. As MPCs develop and mature over time, problems of early design flaws, changing tastes, and “middle-age” creaps in. They are challenged to make adjustments to new requirements. Progressive MPC developers such as the Irvine company organize themselves to respond to change in land use design and in product mix.

MPC design themes and implementation strategies vary around the globe. In the United States MPC’s are lower density, use a horizontal approach and provide a wide mix of housing tenure choice, while the Asian MPCs are denser, use a vertical approach and focus on apartments and condominiums. This is due in part to land availability, government control, and infrastructure costs. In the US infrastructure costs are passed on to the local residents through various funding mechanisms and resident associations.

The defining feature of contemporary MPCs is the focus on building a sense of “community” for the residents. Although some MPCs may function like a bedroom suburb the developers goal is for them to become the place “of choice” for the residents and employers over the long term. The continued use of the “village” as a defining unit of urban design also tells us that Ebenezer Howard was on the right track in his search for the “Garden City of Tomorrow”.

Figure 6. Multi-story Apartments in Tres Cantos, Spain.
Built in the 1970s, Village Homes is an extremely successful housing development in Davis, California, and considered a model of sustainable community design. Energy-conscious houses are organized around a system of pedestrian-friendly streets and open spaces, with community facilities, shared gardens, orchards, and vineyards, all managed by residents. Professor Paul Wack, a founder of the Sustainable Environments minor in the College of Architecture and Environmental Design, has been adopting it as a case-study for his classes for several years.

Village Homes is a special place, born out of a tomato farm in the 1970’s on the western end of Davis, California, not far from the state’s capital where innovation and vision are in short supply. Like an island, Village Homes represents the achievement of a dream that many visitors have had the good fortune to experience, albeit briefly via tour, and commonly share the question: Why are there not more Village Homes?

This question, combined with the many lessons learned over the years as the community matures, provides a wonderful opportunity for our students to experience the implementation side of planning. In fact, the MCRP graduate course on Plan Implementation (CRP 525) has made a field study of Village Homes an annual pilgrimage for several years. For balance, the field day also includes site visits to Aggie Village, a mixed use development in downtown Davis, a tour of infill projects in downtown Sacramento, and concludes with a brief tour of the flawed new urbanist development, Laguna West in Elk Grove.

The field trip is part of a major assignment that includes preparation through readings and research and is completed with a thinking paper submitted by each class member the following week, which is usually rewarding reading for the instructor. The excitement and discussion among the class members at the follow up seminar reflects an enthusiasm that gives a flicker of hope for the future of planning, seasoned with the knowledge that Village Homes is hardly perfect. It reminds us that there are options to the current pattern of “piecemeal planning” as argued by the founders of Village Homes, Michael and Judy Corbett.

Village Homes predates the evolution of smart growth, new urbanism, sustainable development, and green buildings, among other contemporary causes or “flavors of the month”. However, Village Homes contains components that many advocates have claimed as part of their alternative development agenda to the status quo. Only the Corbett’s can claim legitimate bragging rights to the success (and a few failures) of Village Homes. In addition to the notion that Village Homes offers ideas for sustainable development, the Corbett’s have clearly connected Village Homes to the New Urbanism banner through the Ahwahnee Principles, which promote a sense of community, respect for regionalism, and the importance of effective implementation (Corbett and Corbett, 1999)

VILLAGE HOMES: THE SETTING

This predominately residential 68 acre development is a clearly defined community easily visible from the window of a plane approaching the Sacramento airport. It is surrounded on three sides by conventional subdivisions with agricultural research acreage of the University of California to the immediate south. A significant highlight of Village Homes is its hierarchy of streets, dominated by cul de sac alleys that connect to a system of bicycle/pedestrian paths. Integrated into the development is a diverse scale of open spaces that range from the central village green, orchards, and community gardens to smaller communal parcels of vineyards and small areas for passive recreation and neighbor interaction.

The density of Village Homes is consistent with adjacent developments, although the design of the open spaces suggests otherwise. In addition to some multiple units, the development includes a community center, day care facilities, swimming pool, small offices, apartments, and a restaurant with an outdoor eating area blessed with shade trees to protect diners from the summer heat. Automobiles do not dominate the setting. In fact, when the students visit Village Homes, they are more likely to give way to a jogger, bicyclist, or a group of small children being guided by a couple of adults on their way to some destination on the site with little sense of urgency.
The residential structures suggest sustainability. The units face south for solar advantage to provide space and water heating, reducing energy costs. Roof overhangs block summer sun but allow winter solar access. Residences are commonly clustered in groups of seven, with the alley cul de sacs in the rear for cars and eclectic landscaped pathways in the front for people. Missing are traditional gutters and related infrastructure to channel water runoff, including spill over from adjacent developments. Many residential pathways parallel drainage swales that are part of a system designed to protect the entire development from flooding, which has yet to fail.

VILLAGE HOMES AND THE PLANNING PROCESS

Common sense and the spirit of an innovative idea for the public good suggest that a development with the amenities offered by Village Homes would potentially sail through local planning review, especially with a perceived liberal community like Davis. Unfortunately, the history of the Village Homes development review process represents a classic confrontation between the status quo of conventional zoning standards and a development proposal without the benefit of precedent.

In their book “Designing Sustainable Communities: Learning from Village Homes”, Judy and Michael Corbett relive their struggle in the early 1970’s in which they had to go political to achieve their vision. With friends, and the spirit of the evolving environmental movement, they formed the Greater Davis Planning and Research Group, dedicated to stopping urban sprawl and the loss of agricultural land. Three candidates for city council at the next election adopted the platform developed by the group, and they won. With the development proposal consistent with the new general plan and a supportive council majority, Village Homes was approved over the objections of city staff, including the planners.

This experience contributes to the learning value associated with Village Homes. Class discussion of innovative zoning techniques (i.e., planned unit developments, specific plans, etc.) suggest how a proposal similar to Village Homes could
successfully achieve discretionary approval, assuming the general plan contains goals, policies, objectives, and implementation programs that provide the “consistency” required for this type of development. It is noteworthy that Michael Corbett is now involved with a controversial 413 acre infill development proposal (Covell Village) at the north end of the city, which incorporates many of the features contained in Village Homes, and ultimately will be subject to a vote of the people within the city. This recent proposal contributes to the dynamic learning opportunities provided by the Village Homes field study.

**VILLAGE HOMES AS A LEARNING TOOL**

The bridge between theory and practice is an important feature of our program, and Village Homes serves as an important case study. Additional value to the assignment is the encouragement for our effort by the Local Government Commission (www.lgc.org), in which Judy Corbett is the Executive Director. The LGC provides one of the most popular web sites in the planning world according to Planetizen (www.planetizen.com). Moreover, the tour of Village Homes is hosted by the Local Government Commission, which in recent years has been represented by a CRP alumnus, Alison Pernell (1999), the winner of the 1999 National APA Distinguished Student Leadership Award.

In short, the synergy of Village Homes, available literature/internet sources, the Local Government Commission, CRP alumni, and the energy of the participating students serve as an excellent example of how the City and Regional Planning Department has taken the Cal Poly spirit of “learn by doing” to heart in promoting interdisciplinary education. Expanding this educational ideal is represented by the fact that starting Fall Quarter 2005 the CRP Village Homes field trip will include graduate students from the Bren School of Environmental Science and Management at UC Santa Barbara. Building bridges takes many forms and the opportunity for graduate students from different disciplines and programs to meet on a site and discuss planning issues from diverse perspectives is priceless, and can contribute to positive career preparation and development for all involved. *Carpe diem!*

**REFERENCES**


Figure 3. Images of Village Homes
Passivity Was Not Working: 
Taking the Housing Supply Lag Head-On in San Luis Obispo

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The attractiveness of the San Luis Obispo region reflects in sky-high real-estate prices and a demand for affordable housing that is increasingly harder to meet. Despite recent changes in regional and local policies, much more action is still needed. The author discusses the efforts of the County Workforce Housing Coalition and his own involvement with the issue, particularly through his CRP graduate lab projects.

Everyone knows that real estate prices in California are incredibly high. Eleven of the bottom twelve housing markets in the National Association of Homebuilders’ “Housing Opportunity Index” for the last quarter of 2004 are in the state, and prices tend to outpace the ability of working households to pay the mortgage on - or even rent - a suitable home for one-third or less of their gross monthly income (a standard measure of affordability). Fewer people realize that San Luis Obispo County - the only housing market in the “bottom twelve” not in or adjacent to a larger metropolitan area - is the 8th least affordable housing market in the nation. This is certainly not driven by new workers drawn in by job growth - in 2003-04 SLO County’s was negative, according to the Milken Institute - but by new population and wealth lured into the county by the pleasant environment and large-lot residences that are cheap relative to those in California’s larger metropolitan areas.

While this relative attractiveness may be great news for those buying second homes or retiring in SLO County, it spells disaster for workers and employers in SLO County - including Cal Poly - because housing prices have become unanchored from local income levels. This means that it has become increasingly difficult for working households to afford housing, and thus it is becoming harder to lure both new workers and new employers (read: jobs) into SLO County. As a result, SLO County’s economy has started to stagnate, while those (of us) who work here - particularly those who have not crossed the financial bridge to home ownership - watch hopes of an affordable home, close to work and other activities, slip further and further out of reach. Ironically, not only is this economically troubling, it also has caused longer commutes, more paving, and the recent widening of the Cuesta Grade freeway - thus threatening the attractive air quality and peaceful environment of SLO county through increased car dependence.

While this growing problem had been acknowledged by nearly every politician in the county, and was the focus of an eight-part series in the SLO Tribune in 2002, very little action had been taken. Enter the SLO County Workforce Housing Coalition, a conglomeration of unlikely bedfellows who agree that housing is a top-priority issue that requires proactive advocates. The Coalition includes non-profit housing developers, environmentalists, economic advocates, and builders —hardly the usual suspects. As one might imagine, member organizations do not always agree with all policies or positions of the others; yet the fact that the Coalition is going strong is testament to the cross-cutting importance of housing affordability in SLO county.

The Coalition emerged from the steering committee for a one-time public tour of affordable housing developments in SLO County, organized in 2003 to highlight the quality design and management of a variety of housing types. The idea behind the tour was to demonstrate to public officials, in particular, the fact that perceived design problems with affordable housing —persisting in the public mind due to large public projects such as St. Louis’ infamous Pruitt-Igoe towers, eventually demolished— have long been resolved through better attention to architecture and landscape. The underlying premise behind the effort is that the main problem of housing affordability is not a technical one, solved through design or planning; it is a political one, to be solved through strategy and organizing. Thus, the Workforce Housing Coalition was born to educate, advocate, and research, for the purpose of building public support for affordable housing development.

The tricky part of developing such a coalition was to create a mission statement and criteria that the supporting organizations could agree upon. The result seems rather innocuous —“The Workforce Housing Coalition will use research, public education, and advocacy to encourage the
creation and retention of more housing units in San Luis Obispo County for households earning less than 160 percent of the county median income to buy or rent. We will support residential projects that build communities and use land effectively”—but the number, 160 percent, was subject to long debate. The issue was whether households far above the area median income (e.g., a family of four earning $96,000), should remain within the Coalition’s target demographic. As a political strategy, Coalition members agreed that even such upper-middle-class households are being shut out of home ownership, and are thus political allies.

Even more difficult was the process of agreeing to criteria by which the Coalition would support particular policies and proposed projects; this took a few months of discussion. The final agreement is as follows:

“The Workforce Housing Coalition will encourage and support public policies and developments that meet our criteria for affordability and all or some of the other following criteria:

1. AFFORDABILITY
   • Meet the ownership housing needs of households earning less than 160% of the median income for the county.
   • Provide rental units where the total projected rent for a year does not exceed 30% of the county’s median income factored for the size of the family.

2. PUBLIC POLICY
   • Demonstrate the political will to support higher density.
   • Zone more land for housing, particularly smaller units at higher density.
   • Streamline the planning and permitting process for housing.
   • Make density more livable by, e.g., abating noise, reducing traffic congestion, providing privacy, and enforcing maintenance.

3. COMMUNITY BUILDING
   • Include a variety of housing types and sizes to serve a range of family and economic situations.
   • Include or are near community services, infrastructure and activities (work, shopping, recreation, schools).
   • Promote public transit and alternative transportation choices.
   • Are designed to be pedestrian-friendly.
   • Encourage the involvement of stakeholders early in the planning process.

4. EFFECTIVE USE OF LAND
   • Propose increasing density where appropriate.
   • Are constructed in or adjacent to existing developed areas.
   • Minimize space devoted to surface parking.
   • Mix land uses.

5. DESIGN
   • Build housing that adds to the appeal of neighborhoods and that residents enjoy living in and are proud to call home.”

Figure 1. The Pismo Station family housing project, east of downtown San Luis Obispo.
These criteria represent a careful balancing between environmental concerns and development of denser, smaller housing units in already-built areas. Of particular note is the skirting of detailed design issues - which often obstruct housing construction at the highest zoned density - and the focus on involving stakeholders early while addressing noise, traffic, and building quality issues. Thus, the Coalition hopes to encourage housing development by making it economically feasible and politically palatable at the same time.

The Coalition invites developers to present their projects for endorsement, and offers political support for endorsed proposals. It also presents programs to educate the public on opportunities to increase housing development while adding to the built quality of the region. Recently, the Coalition sponsored a graduate CRP lab project which developed “Infill Housing Strategies” for three local cities - Arroyo Grande, Atascadero, and Grover Beach. These and other documents of the Workforce Housing Coalition can be found at www.slowhc.org.

Figure 2. In western downtown San Luis Obispo, the Carmel Apartments is a successful senior housing project.

Figure 3. A good example of a mid-density mixed-income private development is Villa Rosa, San Luis Obispo.
This paper was first presented in poster format at the 2004 annual conference of the Association of Collegiate Schools of Planning in Portland. It comments on the results of research conducted by the authors with the support of a Community Development Grant from Cal Poly’s CAED and the Orfalea College of Business.

New Urbanism and Smart Growth are relatively new approaches to city planning and urban design that are designed to deal with the environmental problems, housing issues, and community well-being. The central principles of Smart Growth are that land uses should be mixed and higher densities and multi-family housing should be encouraged. New Urbanism includes the principles of Smart Growth, but adds that development should be visually tied together by the use of prescribed historic styles of architecture.

Advocates of Smart Growth and New Urbanism make a number of claims about the value of this approach to planning. By encouraging mixed land-use and higher densities, urban sprawl should be reduced, which encourages sustainable development. Because people will be able to live near where they work, shop, and find entertainment, Smart Growth strategies should encourage walking and bicycle use, use of public transportation, and reduced use of automobiles. Because people will be living closer together and interact more with neighbors on the street and in commercial areas, Smart Growth should also encourage a heightened sense of community. New Urbanism advocates the use of consistent design themes, especially the use of historic design styles, to encourage increased sense of community due to stronger identification with one’s local environment.

THE RESEARCH

Although there has been research on the social and psychological impacts of Smart Growth and New Urbanism, this research has primarily focused on new developments that were designed based on these principles. There is a problem with such research approach, because new residential developments tend to attract people with similar characteristics that are related to the development’s marketing approach. Consequently, it is difficult to tell whether New Urbanist communities encourage a sense of identity, or whether an increased sense of identity is caused by higher level of social homogeneity. Also, do people walk more in New Urbanist communities because of higher densities and mixed-uses, or because New Urbanist communities attract environmentally-oriented people who walk and ride bikes more.

The main goal of the investigation reported here was to examine two of the main social and environmental impacts of New Urbanism / Smart Growth. These impacts are a) increased sense of community, and b) increased walking, biking, and use of public transportation (and reduced automobile use). Rather than trying to study new developments that have been designed and marketed as New Urbanism communities, our study used the Smart Growth and New Urbanism principles to identify existing developments that although not designed “New Urbanist” meet these criteria. This will allow a comparison study to determine whether designs using these planning principles create the hypothesized social and psychological effects of New Urbanism and Smart Growth.

Therefore, the focus of our study was to examine the potential impacts of urban form on travel behavior and sense of community. For travel behavior, the goal was to determine if neighborhood design features promoted by New Urbanism influence mode of transportation choices, by encouraging more walking and fewer automobile trips. For sense of community the goal of the research was to determine the type of influence New Urbanism design principles have on neighboring activities and sense of place within the study areas. Based on the methods and earlier findings of Talen (1999), Lund (2002, 2003), and Keith (2003), we studied residents’ attitudes toward sense of community and travel behavior in two local neighborhoods. These two case studies were the Village of Arroyo Grande and the Laguna Lake Neighborhood in the City of San Luis Obispo, CA. Both these areas reflect New Urbanist qualities as they
both contain dense residential neighborhoods that are within walking distance of schools, commercial, civic, and recreational uses.

This research, although social in nature, is a quantified approach to answering the questions posed by the New Urbanism critics. How can neighborhood design influence travel behavior, and how is community established through the presence of civic spaces and pedestrian-orientation?

**EVALUATION CRITERIA AND DATA GATHERING**

The evaluation method allowed consideration of which New Urbanism criteria the neighborhoods were lacking. Because New Urbanism criteria were being utilized to evaluate local neighborhoods, a mechanism was needed to measure the neighborhoods against each other. The 13 principles developed by Duany and Plater-Zyberk provided a comprehensive inventory of the planning concept’s community design standards.

The features of the Village and Laguna Lake were tested against the “Traditional Neighborhood Development” criteria, and were awarded a numeric score between 3 (High), 2 (Medium), and 1 (Low). The criteria were broken down into two categories: 1. Neighborhood Amenities and 2. Design Features. The Neighborhood Amenities category consisted of criteria requiring a combination of uses within ¼ mile of residences and the existence of a town center. The Design Features category included street design and reduced setbacks to ensure pedestrian orientation. The two neighborhoods scored equally on Neighborhood Amenities, but the Village scored higher in the Design Features category. The scores show that both neighborhoods have facilities for a combination of uses, but the Village has greater New Urbanism design features than Laguna Lake.

Basic information about the two study areas, such as demographic and housing tenure data, was obtained from the U.S. Census Bureau. A survey questionnaire was used to gather data about residents’ attitudes toward neighborhood design characteristics and its impact on sense of community and travel behavior. Similar to the one employed by Keith (2003), the survey was based on past studies which used specific indicators to evaluate sense of community and travel behavior. Surveys were distributed following a random sampling process, delivered door-to-door and attached to door knobs in the study areas. The return rate from both communities was 35% or greater.

**CONCLUSIONS**

The GIS data indicate that Village of Arroyo Grande and the Laguna Lake Neighborhood both meet the neighborhood design qualities that the two urban design movements advocate; however, the Village of Arroyo Grande meets more of those criteria. Our survey results suggest that residents of the neighborhood containing more New Urbanism principles, the Village of Arroyo Grande, experience superior sense of community, as they know more of their neighbors and participate in neighboring activities more often than Laguna Lake Neighborhood residents. Its greater overall sense of community was attributed to neighboring indicators, but the reason why residents were acquainted with more of their neighbors was surprisingly not attributed to the pedestrian activity.

Findings indicate that in both neighborhoods pedestrian activity is low and the automobile is the most used mode of transportation. Considering the relatively short distance between the homes and a variety of uses in both neighborhoods, New Urbanists might have predicted that the drive-alone trips would be more moderate. Although the two neighborhoods meet New Urbanism guidelines by providing a variety of uses within ¼ to ½ mile of each other, the lack of pedestrian activity may be attributed to limited pedestrian facilities and connectivity, and the lack of adequate links between the residential uses and commercial and recreational areas. In addition, the inability to control demographics in the study areas makes it difficult to conclude that design features and not housing tenure, length of residency, and median age have combined to influence the sense of community results.

The form of the built environment does not seem to cause a direct impact on the way inhabitants travel within their neighborhoods. However, residents within the study areas reported that essential pedestrian-oriented amenities are lacking, which may influence their travel behavior. No significant difference in automobile dependency exists between the two neighborhoods.

Residents in the Laguna Lake Neighborhood do not find it important to live near schools, although there is an elementary school centrally located in their community and two other
schools on its periphery. The college students living in the area may have influenced this outcome as many of them drive to school. Consequently, the results from the survey suggest that in both neighborhoods, an automobile was used for the majority of school trips.

Although the majority of residents elect to drive alone, residents in the Laguna Lake Neighborhood reported that the most common destination for walking trips was to go grocery shopping. That is not surprising considering the location of the Laguna Lake Shopping Center, but again the potential for walking trips could be greater if the areas had better physical connections for easy pedestrian use.

Residents in both neighborhoods also chose to walk to visit family and friends and for leisure and recreation. Handy and Clifton (2001) found that trips for leisure or “strolling trips” are a good indication of the comfort level residents have within their community as pedestrian-friendly streetscapes generally encourage more walking trips. Therefore, pedestrian amenities such as the wide sidewalks in the Laguna Lake Neighborhood may have influenced some of the walking trips.

A test of the walk variable as an indicator of the impact of the neighborhood design features on travel behavior, specifically pedestrian activity, produced results that would generally support the claims of New Urbanism. In both neighborhoods, it is apparent that those residents that walk to local destinations also value living in close proximity to the grocery store and community parks and open space.

The amenities available in the Village of Arroyo Grande and the Laguna Lake Neighborhood, afforded residents the opportunity to choose to walk to some of their destinations. Similarly, those who walked more also reported that the location of parks and sense of community are important factors in their decision to locate to a particular neighborhood. This suggests that those who rely more on active modes of transportation are likely to interact with their neighbors and feel a part of their community. In addition, this result can be an indication of self-selection, where respondents may have chosen to move to these areas due to the availability of pedestrian-oriented amenities and existing community cohesion.

There are many factors that may have influenced the results of the survey, which include personal preference and behavioral characteristics of residents that are not impacted by neighborhood design. Overall, the findings from an evaluation of two study areas did not show a significant relationship between the layout of the built environment and the way people travel through it. Although the study found that a greater sense of community was experienced by residents of the more “New Urbanist” neighborhood, it was not established which of the design features produced the results. Suburban neighborhood design features like those present in both the Laguna Lake Neighborhood and the Village of Arroyo Grande include wide automobile-oriented streets that may be the contributing factor to the lack of pedestrian activity in those communities.

The assumption that compact neighborhood form that places a mix of uses within close proximity will induce pedestrian activity, and therefore a greater sense of community, did not hold true in this study. There was no relationship found between pedestrian behavior and attitude towards community. As alluded to above, walking trips may be influenced by the lack of essential pedestrian access and connectivity in the Laguna Lake Neighborhood, even though the streetscape is generally pedestrian-oriented.

Adequate walkable links to shops and services are present in the Village of Arroyo Grande, however the combination of wide streets and disjointed sidewalks in the residential neighborhood may impact the residents’ transportation choices. In addition, residents in both study areas expressed concern about the size of the streets in their neighborhoods, noting that the streets are designed to accommodate automobile traffic and that speeding has consequently become an issue.

Our findings suggest that the urban design model that Smart Growth and New Urbanism are based on may not produce their intended results in every setting. Keith’s (2003) study generated similar results, suggesting that specific New Urbanist neighborhood design features may not directly impact travel behavior or sense of community. Therefore, the urban design concept is criticized as being inadequate or flawed.

However, as an implementation tool of Smart Growth principles, New Urbanism should be viewed as a strategy that can not stand alone but if integrated effectively through programs such as efficient infill and planned
development efforts, can enhance pedestrian activity and promote social interaction. Although urban design practices may not alter human behavior, they provide the opportunity for choice, which is often lacking in typical suburban automobile-oriented design.

REFERENCES


This essay analyzes the criteria used by the Law of Indies in the settlement of towns in Spanish Latin America using the city of Barcelona, Venezuela, as a case study. This is the first scholarly analysis of the historical evolution of city’s physical structure, and it will help advance the research methods in planning history education.

This study deals with the analysis of the establishment and functional structure of the population centers which were the first in the region during the colonization process of the new provinces in Latin America, and in particular, in Venezuela. This is a valuable attempt at recollecting and understanding information on this phenomenon which marks the beginning of the settlement of these cities (Gasparini, 1991).

At first the colonization of the new territories may not have counted on a pre-established plan, the magnitude of their dimensions and their importance to Spain as source of wealth, required the design of a strategy which would permit them to become coherent places and ensure their continuity.

As a result, the Spanish Crown enacted a series of codes to guide the process of the founding of future populations in the discovered territories. This established the first attempt at territorial codes carried out in these lands at that time. These early territorial codes could be considered as the first record of planning in the Americas that led to the appearance of settlements, which followed a set pattern. They reproduce to a certain extent the characteristics of the peninsular cities, although they followed the organizational pattern of the military structure of Roman cities (Roman Castrum).

On the other hand, although there were certain elements that allowed the homogeneous structure of the population centers. This model had to adapt itself to the geographical characteristics of the newly conquered territories which posed a number of restrictions in the application of the royal ordinances for the settlement of the New World.
urban network (Mendoza, 1887). At that time, the colonizers had made a valid attempt at urban planning through the development of a model applicable to the new settlements considering that the establishment and later expansion of the centers would be determined by the rigorous application of a previously elaborated plan.

The growth of the planned cities were based on a layout in which the exact form of the settlement, the alignment of the roads, the arrangement of the blocks, and the pattern for the division of the parcels among the founding members were defined. Theses cities were subject to modifications in their form, both at later stages in their development as well as at the start, due to topographical adaptations or the territorial interests of its inhabitants.

The model of the semi-lattice city or square plan used by the Spanish had great operational advantages favouring the division of land lots among the inhabitants as well as allowing an easy pattern and division into streets and blocks due to its geometric properties. Such ease, no doubt stimulated the rapid expansion of the urban Spanish network in America and the division of land among the inhabitants ensured in some fashion, the sense of belonging and ownership of the new land.

The morphological background of the reticular model in the Law of the Indies is the product of the tradition of the founding of the Greek colony in the Old World (Priene) which were later adopted by the Romans in the conquered territories, and known as the military camp or Roman Castrum with its two main streets (cardus and decumanus). On the other hand, the layout of the Pre-Colombian American cities (Tenochtitlan and Cuzco) that were designed with a semi- reticular pattern must also be taken into account, as they had an important influence on the colonization process in the New World, at least in the regions where the native cultures were more developed. Undoubtedly, the reticular pattern is the constant element in the founding of Hispano-American cities where even with topographical differences and distinct environments, a vision of a uniformed colonial city of the Spanish crown was achieved.

In comparison to the geometric rigidity which the reticular could entail, the application of this model has shown a great structural flexibility and a multiplicity of morphological variations when put into practice. The reticular pattern of the checker box offered possibilities for controlled expansion, in spite of being inadequate for use in irregular terrain, which allowed it easily to become part of the city.

The variations of the reticular pattern could be produced by the alignment of the roads or through the disparity of the arrangement and the dimensions of the blocks, with which the orthogonal pattern whose regularity in the urban structure is not precise would be called semi-reticular (semi lattice). Generally, these modifications were the products of geographical accidents; but in certain cases, they were the result of the interests of the owners who wielded power over the use and occupation of the urban space.

The process which stems immediately from the founding of the settlement is the continuity of the reticular plan whose natural expansion is through the main streets. However, this only occurs after the termination of the process of the saturation of the initial perimeter, the blocks adjacent to the Town Square which is the geographic and functional origin of the city.

The eventful experiences of the first settlements established the need for the regulating of the process of the creation of new cities in America (except for special cases such as Tenochtitlan, whose reticular layout of its channels were used as a base for the establishment of the city of Mexico). As a result, a number of arrangements to this end were established by the Spanish Crown during the reign of Charles I (1517-1556) who enacted the “General Cedula for the Founding of Cities in the Indies” (1521), the “Instructions to Cortez” (1523), the “Imperial Provision” (1526), and the “Instructions and Rules for Populating” (1529). These documents permitted the elaboration of the “New Laws” (1542) during this period.2

During the reign of Philip II (1556-1598) a number of regulations with more specificity were drawn up for the new settlements. These were the instruments for

the building codes for the human settlements during the colonial period in Ibero-America. These regulations were called “Ordinances of Discovery, New Settlements and Pacification” and were decreed by Philip II in the Segovia Woods on July 13th, 1573.

At the time in which the Ordinances were decreed, the main urban centers had already been founded and in general a large number of smaller cities, among which of greater importance were Santo Domingo, Bogotá, Quito, Mexico, La Asunción, Cartagena, Veracruz, Panama, Potosí, Lima, and La Havana. The majority of these cities would not lose their importance as political and commercial centers and many would even become the capitals of the future Latin American nations from the XIX century onward.

The Ordinances can be found in the General Archives of the Indies in Seville, in the General Indifference Section, dossier 427, book XXIX. The ordinances were included in the fourth volume of the Cedulario by Diego de Encinas, under titles I to VII in his Colección de Incuables Americanos. Torres de Mendoza also published them in 1887 in the unedited collection of documents on the Indies related to “Discovery, Conquest and Organisation of the Old Spanish Possessions in America and Oceania”.

The Ordinances comprise a number of normative principles and procedures for action which are described in the 148 chapters or articles subdivided, in turn, in three large groups in the following manner: a) The Discovery (32), b) The New Settlements (105) and c) The Pacification (11).

THE HISTORICAL DEVELOPMENT OF THE SPANISH CONQUEST AND SETTLEMENT IN EASTERN VENEZUELA.

Two stages can be identified in the process of the establishment and consolidating of the Spanish settlements in the coastal sub-region in Eastern Venezuela. The first occurs from the first insular settlement until the final establishment of the city of Cumaná in 1569, the capitol city of the province of Nueva Andalucía (Martínez, 1980). From this moment, the second stage of the conquest began which covers the entire functional development of the lands in Cumanagotos, and culminated with the establishment of Barcelona one century later in 1671.

The territorial occupation during the first stage began in 1510 with the founding of Cubagua, which was uninhabited at that time. The first settlement was due to the presence of large pearl resources on the island.

The exploitation of the pearls led to the spontaneous appearance of a newly founded centre, without a pre established urban plan, from 1517 on, which was called Nueva Cadiz and which from its start was dependent on water, food and labor from the less rugged territory. The survival of Nueva Cadiz forced its inhabitants to obtain basic supplies from the continental coast or from the neighbouring island of Margarita. At this time, the first incursions (raids) were being made on the mouth of the Cumaná River with the aim of establishing a permanent supply of potable water to fill the needs of the new city (Menéndez, 1989).

In 1528, the settlement of 1,000 people was firmly established and granted the title of City by Carlos V. However, in 1539 it began decline as a center for territorial occupation and commerce because of the emigration of the majority of its inhabitants to newer sources of wealth due to the premature exhaustion of the oysters. By 1543 Nueva Cadiz was completely abandoned, and its inhabitants transferred to the neighboring island of Margarita.

The territorial occupation of Margarita was dispersed and barely consolidated when the island was handed over to the Villalobos family in 1528, and therefore not subject to royal decree. As a result, the majority of its inhabitants settled the area in a dispersed manner, rural in nature, with houses not organised in villas or cities, but distributed individually throughout the territory. Nevertheless, the island is the only stable territorial reference during the first years of the conquest and was a point of departure and operations base for the new expeditions to the nearby continent and the following territorial occupation of Eastern Venezuela, which would culminate as previously said, with the founding of the city of Cumaná in 1569 (Martínez, 1965) and Barcelona in 1671.

THE FUNCTIONAL AND MORPHOLOGICAL STRUCTURE OF BARCELONA, VENEZUELA

The historical development of the functional structure Barcelona, Venezuela is based on three basic premises. In
the first place, the city was formed as a new urban center the result of the merging of two previous settlements; San Cristóbal de Los Cumanagotos (St. Christopher of Los Cumanagotos) and Santa Eulalia or New Barcelona. This created a differentiation and spatial segregation of its inhabitants, which was evident from the moment the city was founded. The former inhabitants of Santa Eulalia, who were greater in number, inhabited the central plots and were located near the buildings and spaces, which represented the public and religious powers (Zawisza, 1989). On the other hand, the former inhabitants of Cumanagotos were located in the peripheral area on the Western border of the Neverí River due to their lesser political weight.

The spatial separation caused the informal co-existence of two ecclesial parishes, although the parts would not be definitely installed until the end of the XIX century. Paradoxically, both newly founded parishes were given the name of the patron saint, which corresponded to the settlement. Therefore, the parish of the present cathedral was consecrated to Saint Christopher although its inhabitants were from New Barcelona and the peripheral parish, presently devoted to Our Lady of Carmen, was consecrated to Santa Eulalia, although the majority of its patrons came from the old settlement of Cumanagotos.

The importance of this segregation is reflected in outstanding spatial and functional elements, since the difference in nature of the two groups of inhabitants generated a relatively distinct urban dynamic from the start. Two types of tendencies in the process of the expansion of the city can be identified: one is the density and solidifying of the original central area, and the other is the expansion toward the river. The latter tendency was an attempt to stimulate port activities and was pushed by the inhabitants of Cumanagotos, whose settlement was older than that of Santa Eulalia, with an important commercial and maritime calling.

At this point, it may be relevant to begin the discussion of the second premise of this analysis, the implementation of the Ordinances of Phillip II. As a matter of fact, the initial forming and future expansion of the city was carried out formally by the construction of a perfectly grid and orthogonal plan with an un-built block at the center as the main open space or squared in form, and looking toward the West, in accordance with the urban concept found in the Law of the Indies (Instituto del Patrimonio Cultural, 2000). This main square become the city core that unifies the government, religious, and trading activities.

The morphology of the main square from where all the streets spread out at a right angle, in an East-West direction showing the inclination of the river to the city bears the names of the religious patron saints, and showed the typical arrangement of the Spanish square, even more so when the dimensions of the square are seen to be the equivalent of two blocks that are divided into four square plots of similar dimensions.

The reticular urban pattern of Barcelona is found in the expansion which the city underwent from 1671 to 1884 at which time the urban structure suffered considerable modifications. However, this process cannot be understood unless the third premise, which deals with the geographical space over which the settlement would be founded is analyzed.

The city of Barcelona was initially located on the West border of the Neverí River, a natural border, which was relatively isolated until 1793, the year in which the construction of the first bridge was completed. Similarly, to the South of the city the Arroyo River which today has been channeled, but at the time the city was founded it was an important barrier to spatial growth, particularly due to the presence of large marshy areas. However, even though the Arroyo River was a barrier for urban growth, the Neverí on the contrary, represented an attraction due to its potential for commercial communication.

Based on these three previously explained premises, and the elements that modified the city in time and space, it has been considered that the functional analysis of the city can be divided into four chronological periods. The first period began in 1671 when Barcelona was founded, and extends toward the beginning of the XVII century. The second period covers the first half of the eighteenth century while the third continues to the year 1800. Finally, the fourth historic period covers the XIX century. It should be pointed out that from this moment, the physical expansion of the historic center of the city had been completed and the changes that were observed were mainly with regard to the use of the land and not its urban function. Nevertheless, at the end of this section a brief description of the more important morphological modifications shall be made.
During the first period development of the city was slow and evolved around two main east-west focal points, a third focal point to the north, and five transversal (cross) streets which made up a total of fifteen blocks arranged in a concentric form around the Main square (Figure 1).

In particular, during these twenty-five years of urban existence, the city solidified the presence of fifty lots of houses, which housed a population of four hundred inhabitants. Thirty of these homes housed families that came from the City of Santa Eulalia, while the other twenty homes housed families that were originally from the town of Cumanagotos.

The previous paragraphs dealt with describing the original urban structure, it should be noted that during this period the city only had three important buildings: the church, the Town Hall and the house of the Guipuzcoana Company. Thus, the three main powers of the colonial regime were political, religious and most importantly the economically based at the beginning of Barcelona.

In its usual manner and as stated in the codes found in the ordinances, the church was located at the side of the Main Square with access from the East. This first building was of a provisional nature and served the two parishes coming from the cities which had been merged. This was maintained until 1720 when one of the priests’ benefits was withdrawn and the differentiation in the two parishes was practically eliminated until the end of the XIX century.

The Town Hall, for its part, was located in one of the first four houses built, and particularly in one that had a balcony and doorway that still exists today. It is particularly interesting to note that this building was the exact duplicate of another opposite and both buildings flanked the larger church. This morphological accuracy shows, without doubt, the representative nature of the municipal and religious functions, maximized if, in both cases, they are found in the vicinity of the Main Square in accordance to that established in the Law of the Indies.

Finally, it should be pointed out that during the first period Barcelona reached a population of one thousand inhabitants. Its conjunction with its geographical conditions that supported defense and communications, led to the installation of a representative of the Guipuzcoana Company in the city.

This no doubtless had a noticeable effect on growth and marked from its initiation the growth and importance of this commercial venture.

The Guipuzcoana house was located for commercial reasons, in the proximity to the Neveri River and was the nearest lot to this fluvial and the newly founded port area of Barcelona. The location of the Guipuzcoana House in conjunction with the commercial experience of the former inhabitants of Cumanagotos led to the main line of initial expansion of the city coinciding with the extension of the San Cristóbal and Santa Eulalia streets which bordered the Square to the South and the North respectively.

This expansion in an East-West direction slowed during the second period due to the irregular course of the Neveri River and the start of the construction of the L’Hospice or convent in the North of the city, which was definitely an important element for the city over the next fifty years.

During the second period, which reached the year 1750, Barcelona experienced rapid demographic growth and intensified development of urban activities, which were spatially evident in the doubling of the occupied surface area. As a matter of fact, the city was now comprised of twenty three blocks of which seventeen were completely built-up (Figure 2). During this period, it is important to note the construction of the L’Hospice (a hospital for the poor) or convent of the Franciscans on the outskirts of the city on the way to Cumaná.

The construction of the convent in Barcelona in honor of Saint Francis of Asis began in 1739 and the chapel in 1744. The vestry and two annexes were built for formal use by members of the order. In this same period, during the year 1748, the San Cristóbal Church was permanently built on the Southwest corner of the Main Square on the same spot as the first chapel of the city.

Parallel to the consolidation of the religious power, there was a strengthening of commercial activity with the implementation of the ports of Barcelona and La Galera on the banks of the Neveri River. This led to the creation of the Royal Company of Catalan Commerce that held a monopoly of the productive and commercial activities in the city for the first years along with Guipuzcoana.
These changes produced significant modifications in the urban pattern and dynamics of activities in Barcelona. The axis of the Real Street (High Street) formerly known as Salle San Cristóbal, the road to Cumaná, and the areas near to the fluvial ports and mainly along La Galera street all had increased commercial significance. Therefore, the occupation and urban expansion trends and the productive activities toward the North and toward the river continued, thereby increasing the demand for new residential areas.

During the second period, the city did not extend toward the El Arroyo sector. This was due to the marshy ground and other previously mentioned factors which together led to the city’s growth in other areas.

By 1761, the city reached a population of three thousand inhabitants, a population six times larger than its original ninety years earlier when it was founded. By the beginning of the 19th century approximately forty years later, the city had quintupled its population, surpassing fifteen thousand inhabitants in its independence period.

During the third period from 1750 to 1800, the city underwent accelerated growth. At this time the occupation of the present historical center was practically completed (Figure 3).

By 1777, the fourth cloister of the Franciscan hospice had been inaugurated. In 1783, construction of the upper floors was completed with the termination of the missionary work. Around the same time in 1774 the construction of the San Cristóbal Church, which had been temporarily halted between 1766 and 1768 as a result of a strong earthquake that destroyed its sidewalls, was completed. During this period, commerce in Barcelona continued to maintain a certain amount of importance, both on a local
and regional level. This was evident by the construction of huge mansions by the Creole oligarchy that would later play an important role in the historic events of the independence period. Among these buildings, were the residences of the Cajigal, Freites, Urbaneja, Anzoategui, Arquidegui, Dominici, and Salavarria families.

With regard to the functional structure of the city, the construction of the Portugal Bridge over the Neverí in 1795, stands out. The bridge generated intense urban growth on the right bank of the river over the port quarter of Barceloneta or Portugal. In this sector, the public city jail (which was partially destroyed by the construction of the bridge) was sited. It served as a government house for a brief period.

Due to the construction of this bridge, the commercial activities on Santa Eulalia Street developed in a parallel fashion to the dynamics of High street. Both streets, along with La Paz Street (the old route to Cumaná) represented the main corridors of urban activity during this period, maintaining its importance in the structure of the city to even the present day.

In the same vein, the expansion of residential activity led to the creation of the El Resbaladero quarter in the North of the city in the vicinity of the Franciscan hospice. Parallel to this, the bank of the Neverí was occupied while the El Arroyo River continued being the Southern limit of the city. At that time Barcelona was made up of forty-four squares or blocks divided following the colonial reticular pattern. It should be pointed out that the size of the Main Square continued being reduced in favor of religious and commercial activities at the same time as a slight distortion in the square pattern in the El Resbaladero quarter began.
In the fourth and final period identified, that reaching 1900, the expansion of the city spans the era of the War of Independence and the first half of the Republican Regime (Figure 4). In the first twenty years of this period, war wrought huge destruction on the structure and morphology of the city. In the Battle of Barcelona, patriots used the Franciscan convent as a fort for defense, as a result this building now lays in ruins, but would later be christened Casa Fuerte in 1817.

Other important elements in the urban landscape of the time are the enlarged San Cristóbal Church and the Municipality Building over the old Main Mayor, called Plaza Principal in the first Republican Period, this space was substantially reduced and ended up in the form of a square. The other square which remained in the city is known as Libertad (Freedom). It is the former Hospice Square considering that the present Rolando Square was not built until the demolition of the block, which it presently occupies at the beginning of the present century.

On the edge of Rolando Square the National Theater, today known as Cajigal, and the Church of El Carmen were built in 1895 and toward the end of the nineteenth century respectively. It should be mentioned that the church of Ermita del Carmen serve as the new parish in Barcelona (an ambition which as we have seen stems from the first years of the founding of the city).

During the fourth period, the final solidification of the historic center was completed as well as that of the first peripheral quarters such as El Resbaladero in the North, Cayaurima, Dos Caminos and San Pedrito or Buenos Aires in the West, La Aduana and El Arroyo in the South, and Guamachito, Portugal and la Barceloneta on the right side of the river. The emergence and consolidation of the quarters on the other bank of the Neverí prompted the building of the San Felipe Church in the vicinity of the public jail.

In the same fashion, the access roads to the city at the end
of the century were improved by the construction of the Guzman Blanco Road connecting Cumaná, the Anzoategui Bridge on the road to Piritu, and the Pozuelos Road on what is today Cajigal Avenue. These improvements in the access routes were accompanied by maintenance work on the infrastructure of the fluvial ports of El Pasaje and La Galera, and by the remodelling of the bridge over the Neverí, which was rechristened Bolivar after the War of Independence.

The economic surge of the city in the second half of the nineteenth century, in conjunction with its standing in government in the new republic as well as with the improvements in the city’s communication infrastructure substantially changed the structure and dynamics of its
urban activities. This can be seen by the erection of a casino in the city, the inauguration of the cemetery in 1892, the running of a university college between 1885 and 1893, and the construction of public buildings such as the Municipality and the government building.

**ANALYSIS**

The analysis of the urban structure of the City of Barcelona should be undertaken both from the perspective of its physical and spatial structure, and from the typology pattern of the buildings and the layout of the roads. These are compatible with the conditions established in the Ordinances for the New Settlements. This means that the location of Barcelona in an extensive fluvial plain where the only immediate border is the eastern bank of the Neverí River rendered the possibilities for the continuing of the semi-lattice pattern.

These geographical characteristics permitted the formal implementation of the stipulations contained in the Ordinances of Philip II without any notable resistance posed by the physical terrain. This statement can be asserted by the fact that this reticular pattern remained unaltered in Barcelona until the end of the XIX century (when a bigger expansion came in). In this case it can be observed that the norms established in the Law of the Indies could be fully implemented due to the geographical factors that determined the possible physical expansion in the initial years and to a slow growth dynamics of the time (one of the few examples of a perfect grid founded by the Spaniards at that time on a hill is in San Francisco, California).

It is important to mention that toward the end of the Eighteenth Century the population of Barcelona managed to overcome the physical obstacle of the Neverí River by constructing its first bridge. This permitted permanent and vital communication with the other side of the river and constituted the first important structural modification of Barcelona. This new communication link was the first step in spurring on the development of other peripheral areas and led to stabilizing diverse activities for the storage, exchange and distribution of products coming to the interior of the country via the port area.

Thus a trend of urban growth was revealed, first in the traditional city center of Barcelona and from there towards the outskirts. The peripheral quarters on the outskirts of Barcelona were comprised, until the beginning of the Twentieth Century, an extension of the central area. The morphological traits of the outskirts are very similar to those which are present today in the central area.

Geographical location is not the only element which determines spatial growth. Cultural patterns unique to the region and patterns that impart special characteristics to the city should also be kept in mind. From the beginning, Barcelona was an important point in linking the East of Venezuela with the Captaincy General of Caracas. This role was reinforced by Barcelona’s proximity to the port of Cruz (today known as Puerto La Cruz) which, like other ports in America such as la Verdadera Cruz (today Veracruz in Mexico) comprised access and exit ports for indigenous products. This strategic position acted as a link between the governments of New Andalucía and Venezuela and turned Barcelona into the main commercial center in the East of Venezuela.

Cumaná arose similarly, since it was the first populated settlement for advance military and religious entities on the continent. Its position as the first city and its early consolidation quickly made it the leading military and political center of that provincial area. This led to the construction of permanent forts and castles, which gave it an important cultural legacy. However, the distance from the Captaincy General and the discovery of a nearer, alternative port gave Barcelona the edge as an important location in the region.

It is useful to note that the dynamics of the activities in Barcelona took a concentric form around the Main Square. The churches, along with the squares, determined the organizational structure of the city, giving a sense of permanence to the activities that brought the urban morphology of the present city.

**CONCLUSIONS**

Barcelona retains the conditions set out in the Ordinances of the Law of the Indies for New Settlements which constituted a model for developments adaptable to local topographical conditions. Barcelona’s geographical location on a regional level was also key, facilitating the political function which it carried out within the sphere of the strategies for territorial occupation and colonization of the East of Venezuela.
In addition, Barcelona’s proximity to the Captaincy General of Caracas made it complementary with regard to the latter. On the other hand, Cumaná played a role as a link with respect to the East of the country. For this reason the development of Barcelona would flourish within the parameters of commerce and a unique geopolitical position.

Therefore, it is important to highlight the validity of the 1573 Ordinances of Philip II, its influence is found in the present urban structure of Iberian American cities. Barcelona constitutes as one of the clearest examples of the implementation, and the worth of the regulations emitted from the Spanish Crown for the control of the process of establishing new cities in the newly discovered territories.

These regulations for the new settlements were based on a number of urban planning morphological and sanitary principles. These principles in turn fostered order and organization over the arc of the urban settlement process in Spanish Latin America, and left their mark on the cultural symbiosis between the traditions in the Old World and the new population centers.

These principles, conceived more than 400 years ago, are still prevalent as ordering concepts in modern urban planning. The most famous is the centrality principle, which permits flexibility in the reticular plan and is the embryo of the segmentation of uses. All in all, the Ordinances of Phillip II most definitely marks as the planning process of the twentieth Century.

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The authors report on a quarter-long work produced together with colleague Abby Bankson for CRP’s graduate seminar Principles of City Design in Spring 2004. The discussion of urban design concepts led to the study of some of its dimensions in the Cal Poly campus, leading to a better understanding of its role as a generator of livable places within the larger context of city planning.

Urban design is an all-embracing term used for describing the urban environment. While those who work in the design and development professions may have a more acute understanding of what urban design specifically describes, the term itself remains largely ambiguous. For a group of first year graduate students in the City and Regional Planning Department, the journey to discover a more profound understanding of urban design began with an exploration of the subtleties that differentiate one urban environment from another.

PROJECT DESCRIPTION

In the spring of 2004, students in Professor Vicente del Rio’s “Principles of Urban Design” graduate seminar were asked to engage in an investigation into the visual, perceptual and social dimensions of urban design. For this investigation the class was divided into small groups. Each chose a public area of San Luis Obispo to study. Guided by assigned readings and class discussions, each group undertook multiple methods of observation, documentation, survey and analysis in order to gain a more profound comprehension of and appreciation for the complexities of urban design within their chosen areas and within the greater city context.

AREA OF STUDY

We chose to study an area of the campus, starting at South Poly View Drive, south of the Engineering East building, and ending at the hot dog stand, northeast of the Computer Science building on North Poly View Drive. This area is rarely more than 50 feet wide, is often less, and has a length of approximately 300 yards. It takes approximately 5 minutes to walk through the space along its central pathway. We chose this area primary because of its diversity of design elements, its secluded atmosphere and its unique meandering central pathway.

VISUAL DIMENSION

Mimicking study techniques used by notorious urban design experts, such as Cullen, Lynch, and Spreiregen, we created several maps, site plans, diagrams, and photographs that illustrated and inventoried the visual dimension of the space. We identified 9 station points along the central pathway that represented the study of ‘serial vision’, ‘existing views’ and ‘emerging views’ (Cullen, 1961) experienced by pedestrians as they traverse the space. We developed and mapped symbols depicting significant environmental and experiential features of the space. We also mapped the distinct areas of the space and created a photographic inventory of elements that contributed to the character of the space, such as reflections, textures, street furnishings, landscaping and buildings.

Unlike many spaces on campus, we found this space to be conceivable, enclosed, solely pedestrian orientated and human scaled. All of the buildings abut the main pathway and have entrances onto one or more of the paths within the space. None of the buildings stand over two stories tall, and many of them seem scaled-down amongst the many trees and plants. Though most of the buildings are old, ugly and uninviting, the extensive, lush landscaping and meandering pathways soften the hardness of those buildings and create a more visually interesting place.

The space and pathway of our study contains a huge diversity of colors and textures that combine to create a visually stimulating and intriguing place. There are many shadows and reflections (in the windows of the buildings) that add further depth to the space and extend the landscape past its immediate physicality. Despite an overall lack of continuity, we found the space and central pathway to be visually enjoyable. The courtyard may be the most balanced and appealing area of the space, but the different, distinct areas throughout the space make it interesting and unique.
Figure 1. Views of different gathering spots along the path analyzed.

PERCEPTUAL DIMENSION

This portion of our investigation was aimed at gathering and analyzing people’s impressions, expectations, and environmental preferences of public space in order to understand the perceptual dimension of our area of study and of the greater campus context. We divided our study into three parts. The first was an image survey involving a cognitive map. A one-page questionnaire asking students about their feelings toward the campus was distributed to students from several different majors. The students were also asked to draw a mental map of the campus indicating the elements they find most important.

For second part of our investigation we administered a visual preference survey by presenting three photographs of landscaping and three photographs of architecture from our study area. We asked respondents to indicate the appropriateness of the examples for future projects on campus and to indicate which images they liked and disliked about each image.

The third portion of our study into the perceptual dimension of our study area was a memory and cognition survey, which required participating students to draw a map of the path they had traveled in the previous five minutes. The purpose of this exercise was to study the respondents’ memory of their journey through a public space.

The results of our inquiries found that most of the respondents considered our area of study to primarily be a thoroughfare from one part of campus to another. A handful of the respondents use the seating in the space to take a nap, read a book, or to sit and eat lunch. The surveys showed that most students hold a negative opinion of all the old buildings on campus, including the modernist buildings within our study area. The respondents preferred contemporary architecture and lush green landscaping. Our findings seem to indicate that the majority of students hold a positive view of campus as a whole but find more negative than positive attributes when they look at the campus’ individual areas.

SOCIAL DIMENSION

Throughout the term, our class discussed how urban design is about making places for people. We became increasingly aware of the importance of understanding how people behave in and interact with public space. Through observations, mapping, and discussions, we investigated the social dimension of our study area.

We identified opportunities to better accommodate observed behavioral patterns in the study area. For example, the elevated area of the courtyard directly in front of the Center for Engineering Excellence would be a suitable place for benches. These benches would allow people to look out over the courtyard while physically and psychologically remaining close to the building. Additional seating and thoughtful landscaping in the area adjacent to the courtyard might make it more appealing. Removing some barriers might also help make the space more social. The large bushes in front of the only lawn in the space make it inaccessible and uninviting.
With their removal, perhaps people would use the grass area in this space in similar manners that grassed areas are used elsewhere on campus.

While there are definitely opportunities for interventions that may stimulate increased social activity in the space, those amenities would not guarantee such behaviors. The existing benches are never full.

**PROJECT SUMMARY**

The most overarching impression left on us from investigating this space is one of diversity. Visually, there is an enormous variety of buildings and landscaping, hard surfaces and soft surfaces, all contained in this fairly small public space. Perceptually this variety both appeals and displeases. Some users felt a desire for a more unifying architectural theme. While many different social behaviors take place in this space, its primary function remains that of a thoroughfare – a nameless middle ground between here and there.

The space would become more inviting with several design improvements including: signage, a pathway name, a unifying theme between the buildings and landscaping, and street furnishings such as benches with views and access to the grassed area. Adding shaded areas, incorporating the second story balcony into the visual dimension, and brightening the area by the wooden A/C box with wider sidewalks, removing the blind corner, and decreasing the noise would also enhance the space. These improvements might encourage users to stay a little longer and enjoy the ambiance. However, the space is pleasant as it is. The quiet, calm, low traffic atmosphere has a distinct appeal, and making changes risks compromising the subtle niche the space now fills.

**CONCLUSION**

As students on the verge of stepping out into the world as professional planners, it is important for us to understand the different dimension of the urban environment. Soon, we will be making decisions that affect the characteristics of both the public and the private realms. While there will always be obvious consequences to our actions, it is crucial for us to realize the impact subtleties and nuances have in the creation of a place. If we want to preserve, improve, and encourage successful urban environments, we must give attention to the details and recognize the complexities of urban design.
Definitions and paradigms for urban design are studied in Principles of Urban Design, a seminar at the graduate program, and Anne Wyatt observes that good urban designs are like romances: although they can just happen by chance, both of them have to be well nurtured.

Good urban design might be compared to a modern day romance. Unexplainable chemistry, maybe without comprehension or effort, leads to a match. Timing, mood, the moon and the winds come together and allow the romance to happen. At some point, however, more than chemistry and the winds become necessary to sustain the romance. What once worked magically, effortlessly, inexplicably, works no more. Times change. Moods change. The winds change. Some kind of understanding of the relationship dynamics, involving skills and effort, becomes required.

Good designs, like romances, can just happen by chance. At some point, however, what worked once may no longer work. When the hangover or general euphoria or marketing blitz ends one may realize in fact it never even worked to begin with. So the more thought the designer has given to context and interrelationship between design and other realms—social, economic, political, and ongoing management of the designed space -- the better chance the design will have of succeeding in being good design, of serving the people it is meant to serve, and of being maintainable over a long term.

Nasar (1998) refines the environmental perception realm, introducing terms for the gradual process of understanding a place: preferenda (which are sensory pre-perception responses), perception (which is capturing the information), and cognition (which involves some degree of mental processing). Understanding of this process is useful in the process of distinguishing between identity—what places and people are actually like and how they are different from other places— and image which is a place or person’s identity plus people’s perception of it. It is difficult, in reality, to distinguish between the two, as the identity of a place is always subject to different perceptions of it.

But it is important to look for and understand the distinction, because the reason many urban designs, as well as many romances, fail is because of the dichotomy between identity and image; what people and places pretend to be and what they are often differ. It may take some time, but eventually the person –and the place-- get found out.

The contemporary paradigm for urban design as we now know it has several design mandates (Madanipour, 1996). It is multi-scale, looking at both the small and large picture; inter-disciplinary, but has a physical result; pertains to both visual qualities and management of the built environment; involves spatial forms and interrelations between spaces and society; is process over product oriented; is both rational and subjective, joining science and art; and is an ongoing collaborative public and private sector activity.

This paradigm has evolved over time, building on and learning from mistakes of past paradigms, including: classical/romantic, order/control/Napoleonic, socialist utopian, and modernism. Le Corbusier, who viewed the house as an utilitarian machine de vivre, and the greek planner Doxiadis, whose ekistics, or science of settlements, epitomized the modernist rational perspective, glorified the designer and the plan itself, without much regard for the social and cultural contexts —for how local communities and circumstance related them to design and place.

Modernism underpinned the urban renewal efforts of the 1940s and 1950s, which failures were criticized by people such as Jane Jacobs in her landmark book “The Death and Life of Great American Cities” published in 1961. Several decades later, designers seem to realize the necessity of considering the users of their designs but many still struggle to overcome compromising their grand designs, making our urban spaces user-friendly.

By reasserting site and context, post modernism opened the way to contemporary urban design. Presently urban designers recognize and demand a respect for context,
and by focusing on the process as well as the product, the social realm, people and their relationship to spaces, are back into the equation. Carmona et al (2003) note that this is not just an altruistic effort; it can bring many rewards: increased returns on investment; creation of new markets; helping deliver more leasable area by increasing densities; decreasing management, maintenance energy and security costs; increasing contentment of workers; and allowing for a place-marketing dividend (by making place unique and sellable as distinct from other places). Still many people argue that quality design is not necessary, that it is a luxury item, too expensive for everyday development.

Thus, challenges for contemporary designers are formidable and include, to name a few, low awareness, poor information, unpredictable markets, high land costs, fragmented land ownership, uncoordinated development, lack of choice, combative relationships, short-termism, perceptions of cost and negative planning, identity vs. image confusion, placelessness, exchange vs. use value differences, occasional over-emphasis on environmental determinism, and ongoing issues of quantity vs. quality and efficiency vs. equity.

In order to overcome this list of challenges, urban designers must do many things. They must see constraints as challenges; have a passionate concern with achievability; be able and willing to argue convincingly, asking for what they want; have an astute financial awareness; be idealistic but also realistic; be highly imaginative; and be willing and able to involve the public in the process, working toward public/private partnership. Further, successful designers must understand political process and be able to balance collective and individual interests.

Unlike paradigms of the past, the paradigm of the day and into the future must be that urban design be undertaken to provide people with choices, with opportunity, as opposed to denying them these things. This will not be easily accomplished. The path is not and will likely never be clear. Complexities, including fear of change and the reality that not all situations can be win-win ones, will make progress slow. There will be ongoing need to balance collective and individual interests, and to realize that perception is distinct from reality. Also, current realities of people being more mobile, less attached
to places, and the vast difference between exchange and use value demand that good environments will have to be adaptable ones, and the designers who create them and the people that use them may be well advised to see themselves as stewards of rather than masters over such environments.

We might look at and work toward Kevin Lynch’s utopian vision, where public participation is encouraged for all, and “everyone is trained to read a place, just as everyone is trained to read a book” (Lynch, 1981: 313). A place where:

“…people are trained to have an understanding of process and to understand underlying interconnections, as effective strategy requires a deep analysis of the present, the construction of an integrated future, and a grasp of the dynamics of some social and environmental change which might connect the two” (Lynch, 1981: 315).

REFERENCES


Student participation in professional competitions play an important part in the learn-by-doing pedagogy promoted by Cal Poly. Since the early 1990s, the CRP department has spearheaded an interdisciplinary team with participants from other departments to participate in the Bank of America Low-Income Housing Challenge. The author has led the CRP department in the last challenges.

Each year, students from several Cal Poly departments—and across two colleges—band together to compete in the Low-Income Housing Challenge, sponsored by the San Francisco office of the Bank of America. The Challenge pits Cal Poly’s team against the likes of UC Berkeley, UC Davis, and Stanford, in a contest to craft the most feasible and creative approach to the housing needs of local households. The purpose, of course, is to help students educate themselves about the realities of developing affordable housing, in order to inspire challenging and rewarding careers in the field.

To that end, students involved on the Bank of America Team come from Architecture, City and Regional Planning, Construction Management, and Finance. Not only does each student learn how to apply the skills and knowledge in his or her field to the development of affordable housing, but team members also learn a great deal about what their colleagues have to contribute to the solution. For many students, this collaboration is the best emulation of their future professional careers that they will experience at Cal Poly.

The 2004 Bank of America Team took on a challenging project, and developed a proposal that would do great things for both the residents and the surrounding community. The project has few pre-determined elements:

- Students must work as a development team to find an appropriately zoned building site;
- A development partner who will construct and operate the buildings; and
- Feasible sources of financing.

The 2004 team found the site and development partner together—the developer father of one teammate was considering acquisition of a site in Old Town Camarillo, Ventura County, and the team decided to take on this challenge.

The resulting project proposed attractively designed affordable housing units above commercial spaces to meet the needs of residents and neighbors alike (see Figure). Since the site is located right on Ventura Boulevard in the historic

![Figure 1. Rendering from the Low-Income Housing Project](image-url)
downtown—and backs up to U.S. Highway 101—it was important to reinforce the existing commercial streetscape and minimize the freeway noise for residents and pedestrians on Ventura Boulevard. In order to maximize buildable area and maintain the streetscape, students proposed parking in 1.5 stories of structured garage below the building, utilizing the natural slope of the site to minimize excavation. As is so often the case, the team learned that parking requirements drive both the size of the building envelope and the feasibility of construction costs. While the 2004 Team did not win the Challenge, we all learned a great deal, and the development partner is currently pursuing acquisition of the site and development of a project based on the Team’s ideas.

For 2005, the Bank of America Challenge Team has organized itself into four sub-teams selected from the four departments, and at time of this writing is honing in a project to redevelop an existing residential property owned by the Paso Robles Housing Authority. The team is committed to working on a proposal that is economically feasible, socially responsive, makes the best use of existing buildings, integrates green technologies, and has a significant impact on the local affordable housing problem. You can access our website at [http://planning.calpoly.edu/projects/bofa/index.htm](http://planning.calpoly.edu/projects/bofa/index.htm) and watch for the results from this year’s Bank of America Low-Income Housing Challenge jury.
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City and Regional Planning Department  
Cal Poly San Luis Obispo

GIS “Wows” Planners:  
Real-time Analysis of Land Use Allocations Using GIS

The author comments on her participation in a community visioning process as a graduate student and GIS specialist. She shows how integrating GIS technology into public workshops can increase support for database technologies, enhance the community’s planning process, and increase stakeholder involvement.

Embarking on a new path; I arrived in San Luis Obispo August 10, 2003 to begin the Masters of City and Regional Planning program at California Polytechnic State University. What did I know about the planning profession? Not much, but I did know GIS (Geographic Information Systems). I spent the previous four years working for a GIS Consulting firm in Boston. We developed GIS data and trained local municipalities on how to query for parcels, create abutter’s lists, view zoning maps, etc.

Shortly after I arrived in San Luis Obispo, in search of a part-time job and extracurricular experience, I met professor Walt Bremer at the Landscape Architecture GIS Lab. The GIS Lab wanted my help on a contract with the San Luis Obispo Council of Governments (SLOCOG) to assist with the technical aspects of several future visioning workshops. It was the perfect opportunity to earn money and build connections within the community.

PROGRAM BACKGROUND

SLOCOG (San Luis Obispo Council of Governments) received a grant from Caltrans (California State Department of Transportation) to conduct visioning workshops throughout the county using a GIS modeling tool called Place3s, which stands for PLAnning for Community Energy, Environmental & Economic Sustainability. The model was originally developed through the joint coordination of the state energy departments in California, Oregon, and Washington as an extension to ESRI’s ArcView 3.x software (http://www.energy.ca.gov/places/). It has since been migrated to a web version by EcolInteractive, Inc. (http://www.ecointeractive.com/) in conjunction with the Sacramento Area Council of Governments (SACOG) as part of their “Blueprint” project (http://www.sacregionblueprint.org). The web-based software was designed to be used in a public workshop environment. It is simple enough for computer savvy participants to learn, however it’s recommended to have trained computer operators be at each table. These operators input participants’ land use proposals into Place3s during the workshop and provide “live” feedback on the impacts of those proposals. With Place3s at every table, the effects of proposed changes can be viewed, measured, and discussed during the creative process.

TYPICAL IMPLEMENTATION OF PLACE3S

The Place3s model requires several data inputs. Along with a GIS base map, one of the most important inputs for our community visioning exercises was the set of development types. Development types contain numerical assumptions such as density of residential units, employees per acre, floor area ratios, and more. As with any model, more precise information input at the beginning, leads to higher quality information produced from the model.

At the visioning workshops, participants were given a “menu” of development types consisting of existing and potential land uses. Their task was to identify ideal (or likely future) locations for such land uses, as well as development types by placing representative stickers on a paper map. Participants were able to address issues of growth by evaluating whether increasing housing density or revitalizing neighborhoods through pedestrian friendly retail and additional businesses would result in a better future than continuing with current development trends. A computer operator at the table input the development type placements and reported the number of employees and dwelling units added (or removed) throughout the exercise. This allowed participants to gage their progress and understand the effects of their land use allocations. SLOCOG collaborated with Fehr & Peers (http://www.fehrandpeers.com/), a transportation consultant, to integrate a traffic-modeling component with Place3s at the two regional workshops.
WORKSHOP PRACTICE

The original intention for using Place3s in visioning workshops throughout San Luis Obispo County was to assist with updating the General Plan Housing Elements. Unfortunately, by the time the grant paperwork was signed, the jurisdictions had completed the public participation phase of the Housing Element updates. This left SLOCOG with a grant for workshops and no jurisdictions eagerly seeking the kind of thing Place3s could do for them. Shortly after I joined the effort in August 2003, Arroyo Grande signed on as the first jurisdiction to test the model in San Luis Obispo County. The San Simeon Earthquake derailed plans to move forward with the project in Paso Robles and Atascadero as the need to address earthquake recovery consumed staff time and resources.

The workshop in Arroyo Grande was beneficial in that we set up and coordinated the full visioning exercise. Unfortunately, the participants were not residents. They were planners who now know how to integrate Place3s into the planning process. The objective of the Arroyo Grande workshop was to evaluate the East Grand Avenue area for its potential to accommodate low and moderate income housing, as part of a revitalized mixed use corridor, to meet the current Housing Element goals. This proved to be a difficult task because the development types were not dense enough to meet the target population. The largest lesson we learned from the Arroyo Grande workshop is this: Practice the exercise in advance to ensure it meets the goals before bringing it to the public.

LOCAL WORKSHOP SUCCESS

The first real success story of using Place3s in San Luis Obispo County was the series of workshops held in Grover Beach. The City of Grover Beach hired DC&E (http://www.dceplanning.com/) to coordinate three workshops and provide a resulting report of suggested amendments to the General Plan Land Use Element. During the first workshop, participants determined issue areas within the community. They narrowed the scope of discussion primarily to the main commercial corridors of Grand Avenue and North 4th Street as well as the predominantly industrial areas along the railroad right-of-way and south of Farroll Road. At the second workshop, the participants used large maps and stickers coordinated with the Place3s model to designate ideal land uses along these corridors. The provided development type menu used in these workshops is shown as Figure 1.

At each of the ten tables, participants used stickers and markers to indicate on 24”x 36” maps their preferred development types for the issue areas. A computer operator at each table input this information and reported back the change in number of jobs and dwelling units as the participants worked.
At the end of the second workshop, each table presented their maps and ideas to the rest of the group. Figure 2 shows one of the completed table maps. We displayed each group’s total number of jobs and dwelling unit change on a large screen at the front of the room. This allowed the participants to compare their results with those of other tables and understand the impacts of different land use applications. A sample comparison table is shown as Table 1.

![Figure 2. Participant comments from the Grover Beach workshop](image)

After the second workshop, DC&E synthesized the participants’ feedback and developed three land use development scenarios depicting high, medium, and low intensity growth alternatives for the future of Grover Beach. These are shown as Figure 3. These alternatives were presented at the third and final workshop of the series to attain refined feedback from the participants. The feedback from all three workshops was incorporated into DC&E’s final report of suggestions for Grover Beach’s Land Use Element.

### REGIONAL WORKSHOPS

A partnership of regional agencies led by SLOCOG hosted two regional visioning workshops on January 22nd, and February 5th 2005 in Nipomo and Templeton respectively. Both workshops were very well attended by concerned residents of the community. Trained Cal Poly students facilitated the tables and input the proposed land uses into Place3s through laptops and a wireless internet connection.

At these Saturday morning workshops, participants were encouraged to think about growth impacts on a regional scale. Each workshop focused on half of the county in terms of land area, population, employment, and transportation. The development types depicted regional categories such as city, town, and village, rather than specific land uses. Participants discussed whether already urbanized areas should grow up or grow out into farmland and open space. The workshops resulted in an overwhelming consensus to develop near existing traffic corridors. Participants chose development types resulting in compact growth as an effort to preserve the small town character of San Luis Obispo County. A summary session is planned for March 11th, 2005 in San Luis Obispo to present and discuss the results of the two regional workshops. The objective of the summary session is

<table>
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<tr>
<th></th>
<th>Total Employees</th>
<th>Employees per Acre</th>
<th>Employees per Dwelling Unit</th>
<th>Total Dwelling Units</th>
<th>Dwelling Units per Acre</th>
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<tr>
<td><strong>SCENARIO 5</strong></td>
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<td>5.15</td>
<td>1,508</td>
<td>34.22</td>
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</tr>
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</table>
to reach consensus as a community on how to regionally plan for the kind of growth indicated in the workshops.

CONCLUSION

The experiences so far, particularly the series of Grover Beach workshops, demonstrate the usefulness of a technical tool such as Place3s in a workshop environment. Participants enjoyed the exercise and were “wowed” by the immediate results of their land use allocations. They were able to develop a high level of consensus regarding key issues in a short period of time.

Workshops with visible GIS technology can increase support for this and other database technologies. They also have the potential to enhance the community’s planning system and increase stakeholder involvement. It is important to note, Place3s is just a modeling tool. As in Grover Beach, it is most successfully utilized in conjunction with a planned program for public participation. Background information and base data are necessary for the model to operate successfully. Information on all San Luis Obispo County workshops can be found at http://landarch.calpoly.edu/place3s/.

POST-SCRIPTUM: A NOTE TO INTERESTED COMMUNITIES

Several GIS visioning tools, similar to Place3s, are available. Each one serves a different purpose and is useful for different goals local governments may have. I recommend that each locality look at available models and determine the best one for issues particular to their community. Information about technical tools for public workshops can be found at http://www.smartgrowthtools.org/index.php. Information regarding conferences where participants can use and evaluate different tools can be found at http://www.placematters.us/.

Figure 3. Three Land Use Development scenarios depicting growth alternatives in Grover Beach
Rio de Janeiro has mega-city status, and as one of the world’s greatest cities it should possess one of the world’s greatest waterfronts. The revitalization of the port of Rio de Janeiro provides a unique opportunity for the creation of a distinct regional center, which will reconfigure a new and positive image for the city, region, and country, as well as reap a variety of benefits through the attraction of new visitors and investments.

In order to fully understand the potential of tourism in Rio de Janeiro, it is important to understand how tourism can function advantageously for the physical, economic, and socioeconomic enhancement of cities. Tourism consists of a sector composed of attractions, transportation, general facilities and services, information, and promotions that permit persons to travel for business or pleasure, and allows for the reflection of local cultural and identity (Theobald William, 1994). Impacts from such a system can benefit an area through economic diversification, increase in investments, and development of infrastructure.

However, adverse effects may also occur from unmanaged fluxes of visitors with the erosion of local resources, local displacement, and urban congestion and pollution. Tourism development provides the opportunity to plan for and manage tourism so that minimal impacts occur to the local environment and people. Such a system can achieve a sustainable level of growth where development reaches its economic objectives without compromising environmental resources and local culture.

Tourism development includes a variety of techniques stemming from sustainable principles, such as clustering development to buffer sensitive areas, targeting already prosperous market segments, and creating or enhancing attractions. Another important tool of tourism development is place-making, or strategic place-marketing (Kotler, 2004), which addresses a place’s need to administer its image, attract tourists and industry, and find new market opportunities or enhance existing ones.

One example of place-making has been exemplified in waterfront development, a trend which has swept through most of the great cities in the world. San Francisco, California; Baltimore, Maryland; and Capetown, South Africa area all cities which demonstrate excellent examples of enhancing regional image through local waterfront redevelopment.

The Port area of Rio de Janeiro has also reached its pinnacle for revitalization, providing an interesting opportunity to capitalize on and expand the City’s already prosperous yet underutilized tourism industry. At first glance, one would wonder why it is even necessary to implement policies and programs to further stimulate tourism, as it is a firmly established industry and has made the city the major port of entry to Brazil. Despite the 4 million annual visitors Rio currently attracts, there is a clear market potential for expansion. According to RIOTUR’s (Río’s tourism authority) Plano Maravilha, Rio is only absorbing 6% of its market potential for international tourism, and 21% for domestic tourism (2000).

Comparisons between Rio and other equally world-famous cities, such as Baltimore and Capetown, which attract over 20 million visitors annually, also points to a market potential and the ability to provide for a greater capacity of visitors. According to Kotler’s ideas of targeting specific markets, the selection of more promising markets to direct tourism planning efforts, will result in a well-managed and reliable tourism industry more likely to reap greater potential benefits.

Currently, market trends in Rio point to maritime tourism as an up-and-coming market segment with perhaps the greatest potential for expansion. As the world’s fastest growing tourism industry with an 8% growth rate (WTO, 2003), and with the number of cruise ship passengers to Rio having increased by 700% since 1994 (RIOTUR, 2004), the City already possesses a steady flow of visitors patronizing this form of travel. Considering that little development has been done to receive maritime visitors, which continue to steadily increase every year, maritime tourism is demonstrating itself as a very promising market for Rio.

The recent revitalization efforts of the Port of Rio present an excellent opportunity to capitalize on its immense potential for maritime tourism. Development of the port area as a
nucleus for tourism has already been set forth as a major focus in both the Plan for Revitalization (IPP, 2001) and the City’s Plano Estratégico (2003). Both documents provide the policies for promoting maritime tourism, however they are lacking in the creation of an institutional framework with the power to actually catalyze future development in the Port area. Inter-agency collaboration and the establishment of a central authority needs to be established to coordinate revitalization efforts and create development guidelines and regulations, ensuring a more cohesive and unified pattern of development. Such an organization could initiate a set of goals and policies for development that would generate the opportunities for the expansion and centralization of tourism development.

A responsible agency for the development of the Port area could direct development in those areas most suitable for the creation of a viable waterfront area, as was done in the proposal of this project. Stemming from a thorough analysis of the Port area and its context, the proposed development concept focuses on the areas from Pier Mauá to Armazem 7 along the Cais da Gamboa, encompassing two of the focus areas for revitalization where current development efforts are underway. Concentrating development in these areas follows principles of tourism development by preserving sensitive sites such as the Mosteiro de São Bento and Morro da Conceição, and increasing economic gains through facilitating more effective economic clusters.

Goals established for concept development included: to promote maritime tourism with a variety of boating opportunities; to create a distinct and unique identity that is culturally representative and will portray a positive-city wide image; and to provide a comprehensive and sustainable tourism system to support an enjoyable visitor experience without compromising neighborhood quality of life. Features of the proposal include: a new cruise ship terminal, maritime station, and tourism center at Armazens 6 and 7 with a gateway feature signifying the area as an entrance; reuse of Pier Mauá as public open space with a cultural center and revolving restaurant; and the restoration of the existing maritime station as a maritime museum. The Cais da Gamboa is also significantly extended to create a flexible and functional wharf space with mixed use buildings, new marina areas, and two hotel/residential towers terminating in a grand plaza with a distinct central monument and view framing Avenida Barão de Tefé.

The resulting system of urban spaces and uses of this proposed concept aim to transform the Cais da Gamboa and Pier Mauá areas into an attraction for local, domestic, and international visitors of an impressive scale and image. The Cais da Gamboa is an underutilized public good and historical resource. A vast area exists which could be transformed into an intricate system of public spaces that can serve a recreational and cultural purpose, and evoke powerful historical references.

Plans for revitalization of the Port should acknowledge the grander scale and context of the City of Rio de Janeiro. The outcome of development of the Port area will catalyze a series of ripple effects for the coming decades. By capitalizing on its immense potential to draw new visitors and investments through appropriate planning and development, the Port area will be sustained as a historically significant and competitively modern waterfront, and advanced for the greater benefit of the City of Rio de Janeiro.

**SOURCES**


Figure 1. Restoration of Cais de Gamboa and new marina

Figure 2. New cruise ship terminal and view of Central Plaza
Noah discusses his senior project, done with colleague Nai Saephan in spring 2004. Their study allowed them to develop an urban design scenario for Monterey Street, downtown San Luis Obispo, considering higher density and mixed-use development, in a transit oriented pedestrian-friendly environment. His method included the development of elaborate design scenarios in SketchUp, a CAD program increasingly popular among CRP students.

The San Luis Obispo Historic Downtown is, arguably, the city’s primary draw for pedestrian-scale shopping. The area not only attracts residents of the city, but also residents in other parts of the county, as well as visitors from elsewhere in California and the nation.

Long the dominant retail corridor through the heart of the city, Higuera Street plays host to a weekly farmer’s market on Thursday evenings, effectively closing off several blocks of the street to all but pedestrians and creating a dynamically animated atmosphere rarely found elsewhere. However, while Higuera Street flourishes, the rest of the downtown seems to slumber. This lack of vitality is apparent even during daylight hours. None of the adjacent streets in the downtown have been able to properly mimic Higuera Street’s success, but it was not exactly clear how things progressed to that result. Such was the focus of this project; undertaken by City and Regional Planning undergraduate Nai Saephan and myself, to understand why the remainder of the downtown seemed to live in the shadow of the neighboring Higuera Street and establish a proposal to rectify this apparent deficiency.

ANALYSIS AND CONCEPTUAL WORK

A thorough pre-design analysis of the project site was performed, identifying key present aspects of both the built and natural environments, including strategic view corridors, zoning and land use, and pedestrian and vehicular traffic flow. Case studies, including Pasadena, California’s Paseo Colorado, and Bethesda, Maryland’s Bethesda Row, were used to provide a much broader urban design framework in relation to the project area.

The information from these analysis stages was sieved and resulted in a series of principal concepts that would help to relay our vision to Monterey Street and lead into the design portion of the project. These concepts, drawn from the site analysis, case studies, and our own experience/background provided the foundation for design, and included such things as a pedestrian-oriented experience reinforced through traffic calming measures surrounding the project, infill and mixed-use development along the street, and the inclusion of pocket parks and increased street furniture.

FINAL DESIGN PROPOSAL

Perhaps the most conspicuous alteration made to lower Monterey Street in the proposal is the establishment of a pedestrian-only corridor, running the length of the project area. Ultimately replacing all automobile traffic on the street, the pedestrian corridor provides a unique place for those visiting the downtown to experience. Highly influenced by other pedestrian-only projects, such as 3rd Street Promenade...
in Santa Monica, California, the pedestrian paradise provides the basis for the new aspiring character of the area. By shifting the presiding emphasis of the corridor from the automobile to the pedestrian, the area consequentially becomes much more appealing.

Facilitating traffic on the cross streets is achieved by two main design features. The first is the raised aspect of not only the intersections, but also the entire street area within the projects parameters. Raised to sidewalk-level, this promenade effectively acts as traffic calming device in its own right by requiring cars to cross a cobblestone-like surface before ascending into the intersection, thus increasing driver awareness of their surroundings. The second feature, and one that is rapidly becoming more prevalent throughout the country, is the use of motion-activated warning lights which, when activated by a pedestrian, flash and warn oncoming traffic of pedestrians in the area.

Another key factor of the project proposal is the continuing use of the downtown trolley throughout the site. Currently, trolley access to the site is limited to certain days of the week, and accessed much like a bus would through stops along its route. However, the project proposal places much more emphasis on this trolley use, and dedicates the center lane of the pedestrian walkway to its use. According to the design, the downtown trolley would be slowed, allowing for pedestrians to access it at any point along the pedestrian corridor.

Alterations to the surrounding buildings were proposed as well. It was found that a great many of the building façades along Monterey Street were seen as aesthetically unpleasant by the community, and were proposed to be renovated in the project. The present status of the site also called for infill development—two large parcels, which are currently used as parking. These parcels were proposed to be infilled with mixed-use buildings. Additionally, several floors of residential use above ground floor commercial would enhance commercial vitality in the area. The majority of buildings in the area are unreinforced masonry, prohibiting much alteration to the building structure. However, the site directly across from the proposed infill was not, and thusly a residential hotel, used for visiting professors, students, and others in the city for a limited time, was proposed. In addition to this, an overhead connection bridge was proposed.
to connect the development on one side of the street to the redevelopment on the other, allowing for easier access to this residential hotel.

Lastly, the project sought to create a more unifying character for the Monterey Street area. This was established through the use of increased interplay between businesses and the street front. Examples include outdoor café seating and the utilization of street furniture, larger amounts of trees and landscaping, and cultural activities such as art and jazz festivals connecting the project corridor to the Mission. Culminating four years of planning and design education, the project was able to evoke the visceral experience and vibrant atmosphere San Luis Obispo residents desired through careful planning and design and produce a thoroughly satisfying result.

Figure 3. A major component of the final design is the trolley access—the path remains intact from its current route setup. In this case, however, the trolley is allowed a designated center lane along the pedestrian corridor. This not only continues to facilitate alternative modes of transportation in the downtown, it also serves as a valid means of transporting visitors to the area. This is a bird’s eye view from the intersection of Monterey and Chorro streets.

Figure 4. Modeled in @Last Software’s SketchUp, a portion of the building façade’s detailing can be seen. Located at the north end of the project site, the architectural styling differs greatly among buildings. Even the level of detail can be vastly different between businesses, as seen here between the building in the foreground and those beside it.
Learning by Doing: Community Planning in the Real World

A six-month exercise in advance planning topics teaches students the fundamentals of planning and allows them to hone their craft on a living community – all from the confines of the classroom environment. The experience earns them an award from the California Chapter of the American Planning Association and a national award from the American Institute of Certified Planners.

It is the practice of the University to educate students and empower them with the knowledge that they will need for the rest of their lives. At Cal Poly, the process of scholarship takes the title of Learning by Doing. Students are given the opportunity to “cut their teeth” on projects and tasks that are faced by professionals. For the City and Regional Planning Department, the capstone for this process is CRP 410/411 – the Community Planning Laboratory. This course allows students to solidify their understanding of the purpose, process, and scope of planning at the community scale.

The 2003-2004 Community Planning Lab, under the direction of Professor Zeljka Howard, teamed to generate a new vision for the community of San Miguel in northern San Luis Obispo County. It was an arduous six-month process (September to March) that tested the students’ skills, work ethic, and potential.

THE COMMUNITY

The community of San Miguel is located 40 miles north of the City of San Luis Obispo, along U.S. Highway 101, in San Luis Obispo County, California. It is a community of approximately 1,500 people, nestled between the highway and the bank of the Salinas River. Once a boomtown in the late 1940s with twice the population of the neighboring City of Paso Robles, San Miguel today has receded to bedroom-community status, and with recent development of new residential projects, is striving to become a well-balanced community.

Present-day San Miguel exists on land once inhabited by the Salinan and Chumash peoples. On July 25, 1797 Franciscan missionary Father Fermin Lasuen founded Mission San Miguel Arcangel at its current location, due to its proximity to the indigenous peoples’ villages and equidistance from established missions in San Luis Obispo and San Antonio. During infancy as a European settlement, San Miguel was an agricultural town where crops were loaded onto trains and sent out around the state and country. During World War II the nearby Army base, Camp Roberts, brought thousands of soldiers to the community. Since the conclusion of the war, the role of the Camp in the nation’s defense structure has been lessened, but is still significant for the area.

San Miguel possesses valuable assets from its heritage including archeological remains, one of California’s most authentic Missions, an eclectic mix of architecture, and the railroad. The community’s future development and growth will clearly be enhanced by maintaining these resources to preserve the town’s historical character and unique attributes.

A few small shops line the main corridor, Mission Street, including two markets, a hair salon, and a pump store. The architectural style of these buildings is eclectic yet historic, with the Mission Street corridor maintaining a feel of the community’s boom era in the 1940s when the nearby Camp Roberts was in full active duty. Beyond Mission Street, the area is mostly single-family detached housing. The homes, like the stores, are old and some are in need of repair and repainting.

A periphery of rolling coastal hills frame this town that has one of the most authentic California missions, quaint neighborhoods displaying a high degree of community pride, and a small townscape of limited commercial services. Beyond the train tracks, access is limited and the hills rapidly rise from a plain of open area, creating natural barriers to San Miguel. A variety of multi-family and single-family residential projects are rising out of the dust, rapidly changing the disposition of the strictly rural eastern edge).
Most importantly, there is a strong sense of community from within, and surrounding San Miguel. These people’s drive, determination, initiative, and participation in caring for the community’s development is the town’s greatest asset.

THE PROCESS

In the State of California, Cities and Counties are required to adopt a general plan that lays the groundwork for all future development within its boundaries. It “expresses the community’s development goals and embodies public policy relative to the distribution of future land uses, both public and private” (OPR General Plan Guidelines, 2003). These general plans are broad policy documents. In the case of San Luis Obispo County, it covers an area of 3,326 square miles and more than seven disconnected, unincorporated communities, including San Miguel. It is impossible, therefore for one general plan to include the detailed desires and aspirations of all communities. For this reason, jurisdictions have the ability to adopt community plans—similar to general plans in structure and scope, but more detailed and specific.

In draft a Community Plan for San Miguel, the students followed a path similar to the proven Oregon Comprehensive Community Visioning Process (fig 1). Under the model, students researched the existing characteristics of the community and the potential future given existing trends. These findings were collected over a three month period and published as a background report. The information was then synthesized and used as a basis for a series of visioning exercises that lead to a concrete set of vision statements and an action plan (the Community Plan).
The Community Plan provides guidelines for the future physical development of San Miguel for the next 20 years of development (2004 to 2025). The plan recognizes the social and economic values of San Miguel residents, and translates these values into goals and policies, which will be used to coordinate public and private sector development, creating a vibrant and attractive community. It offers recommendations for future development and establishes development standards and actions needed to bring the community’s vision of the future to fruition. It identifies the community’s land use, circulation, environmental, economic, and social goals and policies as they relate to future growth and development and provides a basis for local government decision-making, including decisions on development approvals and exactions, and provides citizens with opportunities to participate in the planning and decision-making processes of their community.

COMMUNITY INVOLVEMENT

Community involvement and interaction is a vital component of the planning process. To involve the community in the development of the San Miguel Community Plan, a variety of surveys, interviews, community workshops, and planning and design charrettes were conducted. Flyers, newspaper articles, radio and television announcements were among the types of media used to promote community involvement. A “community banner,” an electronic community newsletter, assisted in increasing resident awareness for both the public workshop and the planning and design charrette.

In December 2003, the first Public Workshop was held. The preliminary research of the existing conditions of San Miguel was presented and the community was asked for feedback. The participants were involved in identifying key issues of major concern throughout their community. After the presentation a question/answer session was held and a list of general concerns not necessarily related to a specific part of the research.

A series of surveys were previously conducted in San Miguel in 1979, 1988, 1996, and 2002, providing information which students incorporated into the San Miguel Community Plan. As part of the students’ research, an Environmental Cognition Study and Visual Preference Survey were conducted in January 2004. The purpose of these activities was to involve the community by surveying residents, businesses, and visitors of San Miguel to understand their visual image of future development in the community.

In February 2004, the students held two workshops. The first was a Planning and Design Charrette held on the Cal Poly campus. Charrette participants included representatives from the San Miguel Advisory Body, local property owners, San Luis Obispo County planning staff, and students from a graduate planning class developing proposals for a specific property in San Miguel. The second workshop was held in San Miguel, where the community had an opportunity to discuss and select a concept plan that best reflected their vision of their community.
THE PLAN

The final Draft Community Plan attempted to incorporate many of the community’s needs and desires. It included discussion on several key topics, including land use, housing, economic development, urban design, circulation and public facilities, parks, recreation, and community services, and open space, conservation, noise, safety, and air quality. It also provided a land use diagram that describes the general location of land uses within the community. Central in the plan were six overall goals for community development:

- Promote the stimulation of the local economy through the creation of tourism activities and a vibrant downtown of economic and visual continuity.
- Create linkages between San Miguel’s mission and its historic heritage with all existing and new development, services, and activities.
- Manage growth in a responsible manner addressing resident needs and desires while adequately balancing population increase with the capacity to meet heightened demand for public services.
- Enhance community character through a healthy balance of land uses and adequate provision of services and facilities to improve the quality of life for all residents.
- Centralize, limit, and direct the focus of development to allow for the creation of a vital town center and unique town identity.
- Preserve all resources sensitive to community expansion including natural, historic, or agricultural features that will improve the quality of life for residents through their continued existence.

These goals were the basis for three distinct and interrelated visions: A Vision for Growth; A Vision for Tourism; and A Vision for a Balanced Community.

A VISION FOR GROWTH

County growth pressures will inevitably affect San Miguel significantly by 2025. The San Miguel Community Plan includes a vision for growth to better manage development patterns while meeting community needs. Facilitating growth rather than ignoring it will enhance the environment of the community and channel development to appropriate locations and in an appropriate manner, so that San Miguel may preserve its cherished small town character.

A VISION FOR TOURISM

San Miguel will become a place for tourists. Visitors will be attracted to the historic Spanish Mission and to the many area wineries. San Miguel will undergo numerous improvements throughout its downtown reflecting economic growth based
on a successful ability to attract visitors to the community. As a result, a thriving downtown core will emerge to provide a variety of commercial developments including mixed-use and tourist oriented services. A pedestrian friendly environment will allow easy access to both the commercial and historical features of the community. The benefits of the success of the tourism industry will extend to residents by providing them additional opportunities to live and work in San Miguel.

**A VISION FOR A BALANCED COMMUNITY**

The greatest achievement foreseen for San Miguel in 2025 will be its ability to finally act as a healthy and balanced community. Being healthy means providing people with stores, activities, and, most of all, community facilities and housing opportunities meeting the needs of a diverse population.

After-school hangouts for youth will be provided with a skate park, also containing snack stands and other youth-oriented activities. Recreation will be available for adults too, with an equestrian facility and trails linking the Salinas River to all areas of the community. Not only do these trails attract visitors to the area, they act as a community link, making available the option of walking from the east side of the Salinas River to the west side.

San Miguel community members will frequently choose to walk to town. Spending time with fellow neighbors will be common in San Miguel. With a weekly farmers market and the closure of K Street at the community park on the weekends, community activities will frequently occur further strengthening the bond between San Miguel residents.

**LESSONS LEARNED**

The preparation of the Community Plan provided a valuable experience for the students. It provided them with the opportunity to advance their skills and learn vital planning procedures and techniques for use in the real world in the classroom environment. The course is structured to simulate the professional planning work environment; however it is not a perfect simulation, as the class does not have access to a broad range of information sources nor does it have the well defined management levels of a professional planning office. This process has been, and continues to be, one of learning for the students. Additionally, the short time frame leaves
little room for advanced research and intense community
discussion of ideas as would normally be incorporated into a
project such as this.

Despite these limitations, the final product has won numerous
praise and accolades from the community and fellow planners.
Both the California Chapter of the American Planning
Association and its Central Coast Section have awarded it top
honors for outstanding leadership by an academic institution
and the American Institute of Certified Planners awarded
it Best Student Project at the National American Planning
Association conference in March 2005.

NOTES

Project participants:
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For more information on the San Miguel Draft Community
Plan, contact the City and Regional Planning Department
or visit the project website at planning.calpoly.edu/projects/
sanmiguel.
In the Spring 2004, this second-year BCRP studio class embraced a community outreach project as a response to a request from the Community Development Department of Paso Robles, California. Damaged by the San Simeon 2003 earthquake, the city wanted the class to develop an urban design scenario for the revitalization of an important area of its historic downtown.

In the pursuit of CRP’s continuing community outreach efforts, students of the second-year design studio (Intermediate Environmental Design, CRP-203) faced a very complex challenge in the spring of 2004: responding to a request for help from Paso Robles’ Community Development Department, instructors Zeljka Howard and Vicente del Rio led their sessions together in developing a concept for the revitalization of the area south of the downtown – nicknamed SoDo by the class. Having suffered a major earthquake in December 2003, Paso Robles also desires reconstruction efforts to encourage revitalization, mixed-use development, and a pedestrian-friendly environment in the downtown.

Although highly accessible from Highway 101 and served by the railroad, well located within the city structure, and with a strong development potential; the area suffers from “development blight” – underutilized and vacant sites, low density, and not very noble uses. The studio followed a design process in which the class was first divided into large groups for an inventory and analysis of the city history, infrastructure, assets, problems, and opportunities. In the next phase, groups of students investigated how these reflected on the project area – which included 14 blocks and a major vacant site – its land uses and environmental aspects, and how the area was perceived and utilized by the community.

After the information gathering and analysis the class discussed and proposed a program for the whole area, with sector objectives and design concepts, including the existing Court House project and Paso Robles’ desire for a new City Hall and Theatre. With the analysis and programming in mind, the class was able to discuss urban design concepts for the area and to choose an alternative redevelopment plan for adoption by the whole class. Smaller design teams of 2 to 3 students then focused on how to apply the overall concepts to the streetscape as well as to each of the blocks, what included specific programming, site planning, urban design, and major architectural features for existing and future buildings.

The class overall urban design concept and the individual block designs show a very feasible scenario of how Paso Robles SoDo area could realistically be revitalized into a thriving and pedestrian friendly urban environment with mixed-use development, various housing types, employment opportunities, and new public, cultural and recreational assets. The student proposal turns Park Street into a mixed-use axis that starts at the City Park to the north, and terminates at a new City Hall, a major theatre facility, and a new recreational park to the south. The area would feature pocket parks, town homes, apartments, pedestrian-oriented retail, a children’s museum, two parking structures, and the existing post office would be relocated to Spring Street.

Students were able to experiment with a wide array of information gathering techniques, such as GIS mapping, site surveys, visual preference surveys, mental mapping, and behavioral observation. They also designed using freehand and technical drawings, as well as computer programs such as Photoshop and Sketchup, a new versatile and easy-to-operate electronic modeling which produced incredible imagery.

This was a very gratifying quarter, with results reaching high levels of quality, both in terms our pedagogical objectives for the students developmental progress, and as useful products for the City of Paso Robles. The students did a terrific job and at the request of the Community Development Department they presented their work in the Paso Robles City Library at the end of the quarter in a special session of the Planning Committee. The Community Development Department, the Planning Commission members, and the community appreciated having a well thought concept plan for the area and a number of important ideas which will help them choose among the possible future directions for downtown redevelopment.
Figure 1. Image of the townhomes proposed for the blocks.

Figure 3. View of the project showing its major components and the City Park on the top of the image.
In the Fall of 2004, CRP had visiting scholar Carlos Leite for post-doctoral studies, research and teaching. He offered a course where students from city and regional planning, landscape architecture, and architecture, were able to study São Paulo, a global city with a population of 18 million people. Students were challenged into innovative projects for the sustainable redevelopment of a railroad brownfield in the high-density central city as an opportunity for positive territorial and social transformations.

One of the most important pedagogies in environmental design education is the stimulation of cross-fertilization between disciplines, individual and team work, students and teachers, practice and theory, in-depth research and pragmatic contributions from practitioners. Seminars and studios that allow for debate on and experimentation with contemporary urban design are rare and enriching opportunities. Given this pedagogical concerns, the metropolis of São Paulo in Brazil, is a perfect urban setting for experimental and interdisciplinary studies. With a population over 18 million and in a state of constant transformations, post-industrial São Paulo reflects well the complexity of contemporary design and its importance as a tool for joining the fragmented metropolis and generate positive transformations.

THE STUDIO: RESEARCH AND PRACTICE IN URBAN DESIGN

The opportunity of having professor Carlos Leite visiting for the fall quarter allowed CRP to offer a special joint seminar-studio course for students in the college. This interdisciplinary endeavor attracted 14 students: five undergrads and two grads from CRP, three undergrads from LA, and four undergrads from Arch – three of which were French exchange students. The course was a combination of advanced seminar and studio for the study of sustainable redevelopment in global cities of developing countries. This combination was essentially interdisciplinary and exploratory, relying on the examination of innovative and advanced design issues, and on critical thinking.

Model of a post-industrial metropolis that is constantly mutating and reflecting changes from both the local and global economies, São Paulo was the perfect case study. It is the largest and most important city for the Brazilian economy, ranking as one of the world’s five largest metropolises. Transformations in its dense and chaotic urban structure leave a large number of blighted, residual, and ill-defined spaces, particularly in the central areas where they disarticulate the urban tissue, impede movements, and prevent integrated development. If correctly tackled with a comprehensive strategy for sustainable redevelopment, these areas may be regarded as excellent opportunities for positive territorial and social transformations.

Because present metropolitan problems – from São Paulo and Tokyo to Los Angeles – do not distinguish the scale of the design solution, the studio also experimented in...
dealing with the problems at multiple levels. An approach and an operational scale that may be called “architectural urbanism”, which allowed students to bridge the realms of planning, landscape architecture, and architecture. The class faced multi-dimensional problems with innovative urban catalysts—such as higher density mixed-uses, multi-nodal traffic centers, clusters and technopoles—and opportunities for sustainable redevelopment of the city within in the global network.

PROGRESSION OF THE COURSE

At the start of the course, the concepts of sustainable redevelopment, city innovation, global city-regions, and productive urban restructuring were studied and discussed. Then, by looking at contrasting organizational structures, the class concentrated in the changing attitudes and cultural biases toward “top-down” and “ground-up” planning and implementation strategies. The examination of case studies and significant urban projects allowed the class to understand the cultural, political, and economical forces behind these projects, and the conflicts between plan and implementation. Boston’s Route 128, Silicon Valley, San Francisco Mission Bay, and Montreal’s Multimedia City were taken as case studies by the class, and the presentations by the instructor were followed by in-depth discussions led by the students based on their readings, studies, and findings.

For the design work, the class was divided into three interdisciplinary teams who developed their own strategies and conceptual projects for the redevelopment of a specific site in central São Paulo, for which the instructor had brought all the background readings and materials, including census and city data and Autocad files. The site is an abandoned railroad yard located in the banks of a canalized river, sitting alongside a busy expressway and an old industrial neighborhood. Students had to come up with projects to reconnect the site to the remainder of the city fabric through planning solutions and design ideas that were innovative and socially, economically, and environmentally sustainable.

This represented a huge challenge for students who not only were given a very complex design theme, but one which political, economic, and cultural frameworks were so different from what they were used to. They had to struggle in a little known developmental scenario as if they were facing a real fast international consulting job! The three interdisciplinary student teams developed very different and quite innovative approaches reflecting their different personalities and the leading disciplinary backgrounds, which resulted in interesting—and intriguing—design solutions.

TEAM 1: NOAH CHRISTMAN AND SARA ALBANO (CRP); MEGAN BLENCOWE (LA), AND BILL BRADFIELD (ARCH)

The group envisioned a monumental display for the site, harnessing the influence of technology and the adjacent river to create a development unlike any other in the city. The design was an amalgamation of five main ideas that were produced throughout the course. The first was the concept of a mixed-use spine running the length of the project area, where residential and commercial uses become both a connector and a destination. The second concept provided a pedestrian refuge above the northbound lanes of Avenida do Estado expressway and allowed a connection with the surrounding city. The shopping bridge, perched approximately seven meters above the asphalt, is linked across the river via
Another of the team’s concepts was to have a technopole as an economic catalyst to help revitalize the area. As flooding of the adjacent river poses a significant problem, the fourth site concept expanded the flood control idea to include a permanent water feature on the site: cutting a swath through the site area and allowing for the river path to fill it naturally would not only provide greater surface area to discourage flooding, but also create an aesthetically pleasing element for pedestrians. The final main concept was to implement a system of green corridors on the site that could also be used for pedestrian circulation. The team also proposed lay-outs for innovative “green” high-density apartment towers with floor plans that allowed for “vertical gardens”, and blocks with low density housing that followed American “new urbanist” principles.

TEAM 2: KARLO FELIX, ERIC CROW, AND ANDREA LARSEN (CRP), INGRID STROMBERG AND MATHEW TAYLOR (LA)

Nicknamed the “planning group” because of their composition and approach, this pragmatic group compensated the lack of more thorough theoretical discussions with developing a number of alternative planning and design strategies. When facing a “turning point” near the end of the term the group took the courageous decision to propose something very different and innovative: their design would reveal the site’s territorial transformations through the building typologies and urban artifacts.

Through the interplay of solids and voids, this new urban structure would reflect an “archeological underreading” of the old forgotten railroad tracks. New buildings would stand out as “positive spaces” and stress the “negative space” of open areas and parks which double as flood plains. A tree-lined paseo cuts through the built form and offers a stark contrast as unifying element. The group also made the important decision to locate a new public transit facility at the center of the project, and incorporated current city plans for a monorail along the river and a light-rail along the existing tracks. The project’s territorial inscriptions signalize and indicate the way the new high-dense urban design occurs.

TEAM 3: EUGENIE BLATT, ANNE CLAIS, AND ANISSA KADA (ARCH), ANDY BURSAN AND NATHAN GILBERT (GRAD CRP)

This group, constituted by three French students participating in the exchange program with the Architecture Department and two graduate students from CRP, was the most conceptual. Their effort reflected the French tradition of critical thinking and theoretical inventions, which unfortunately left them with little time to develop the specifics for their response to the site.

Nevertheless, these “thinkers/writers” driving idea was that the intervention should generate a “territory of silence” through a single and strong linear gesture on the existing wasteland. An elevated esplanade would cut through the entire site holding an entertainment center with retail, restaurants, bars, and nightclubs. The rest of the area was to be maintained “unbuilt” with a landscape design dedicated to
recreational uses and which vegetation would be treated with different densities: from a forest buffer along the river to a grid with different densities towards the middle of the area.

CONCLUSION

The end results of this experimental interdisciplinary seminar-studio were extremely positive, and this was an excellent opportunity to expand CAED’s reach. Students responded very well to a challenge that was totally new for them, as few had any notion of a city as dense and as complicated as São Paulo, and they were not used to looking into a complex situation through a multi-level approach. This studio and its design products represent well Cal Poly’s “learn-by-doing” pedagogy, and also opened new professional roads for students interested in international development.

Figure 4. Model from Team 2 showing how the volumes insinuate the old railroad tracks.

Figure 5. The group with profesor Leite
More than Mad Max types, good surfing, kangaroos, and white sharks, Australia has great cities and good CITY planning AND DESIGN. Kaysen took a quarter from CRP to learn about different cultures and also a little bit more about herself.

G’Day mate! Before I left for Australia, I was not sure what to expect. I had heard all the typical stereotypes, like kangaroos are jumping around everywhere, there are large amounts of great white sharks, and everyone is going to act like Steve Irwin. However, after spending 5 months in the country, I found there was much more to it than that. Not only is it one of the most beautiful countries, it is also complemented by an amazing culture.

When I first arrived in Sydney I was in disbelief that I was actually going to be able to live and explore this magnificent city. I was actually going to see the Opera House up close instead of in a picture. It was definitely a dream come true.

I lived out in one of the Eastern Suburbs called Coogee Beach, if you know Australia at all, its about 3 miles south of the famous Bondi Beach. Coogee was a laid-back little beach town. It mainly consisted of college students attending the near by University of New South Wales. I lived in an apartment complex with some fellow Americans who I grew to love. Our days basically consisted of going to class (sometimes), grabbing a bite to eat, laying out on the beach, and going for a swim in the ocean. And if you were wondering, no we did not see a great white shark. It was definitely a great life though.

I went to school at the University of Sydney, which was about a 45-minute bus ride away. The school was gorgeous. It is the oldest university in Australia and parts of it reminded me of a castle. School was much different there. I was taking three classes and had only nine hours of class, but I was not complaining about that. All of my classes consisted of a two-hour lecture with about 200 people, and then a one-hour tutorial, which broke the class down into groups of about 20. It was very interesting to hear the perspectives of these kids from another part of the world. I felt they were much more educated on what was going on outside of their own country.

When I was not in school or at the beach, I tried to travel as much as possible. One weekend, some friends and I went to Brisbane, which is north of Sydney in Queensland. Brisbane is a smaller city but also very beautiful. That is where I held my first koala and fed a kangaroo. Since I was so close to Asia it gave me an opportunity to see parts of it. For spring break (which was in September because the seasons are switched) I went to Thailand. I had never expected it to be as beautiful as it is. It has also been very grounding to see the areas affected by the tsunami, because I was in those same places not too long before it happened. I wish I could tell you more about Thailand, but that would be a whole different paper.

Towards the end of my time there, my family came to visit me. It was nice to share with them the experience I was having. They stayed in Sydney for a few days and I showed them around there. Then we headed up to Cairns where we were able to scuba dive and snorkel on the Great Barrier Reef. Then we went to the Whitsunday Islands, which are a set of...
islands on the Reef and stayed there for a few days. Then we went down to Melbourne and saw the Great Ocean Road. From there we went to New Zealand for a week, and like I said about Thailand, I could write another paper just about New Zealand. But I will say it is some of the most beautiful landscapes I have ever seen in my life.

Overall, my study abroad experience was easily the best time of my life. I was able to experience a different culture that I fell in love with. The people are so nice and very laid back. In addition, I made some the greatest friends that I know I will continue to keep in contact with. Not only was I able to learn a lot about another culture, I learned a lot about myself too. I did things I never thought I could do. It taught me to open my mind up more about the world and it has definitely made me want to travel and see as much as I can. People always say; I wish I would have done this or I regret not doing this, but I cannot say that about my time there. I saw things many people will never see in their lifetime and I made memories that will last forever. I would recommend studying abroad to anyone. It is something that will change your life forever.

Figure 2. The Main Quadrangle at the University of Sidney. (Photo by Kasen Brennan)
Three colleagues from CRP and long time friends had a great time in New Zealand, taking classes at the University of Auckland and enjoying their time in a country of picturesque towns, beautiful landscape, temperate rain forests, giant ferns, cascading waterfalls, and the natural settings used in the Lord of the Rings.

Remember what it was like that first semester in college? Remember how it really was the time of your life, because everything that happened was new and exciting? Well, that’s what our semester at the University of Auckland felt like all over again. Our adventure in New Zealand was well worth it to say the least. We made some life long friends and had ourselves a ton of “once in a lifetime” experiences that we will never forget.

When the three of us first decided that we wanted to go abroad, we really didn’t know where we wanted to go. We looked into London and Australia, but those programs were too “popular” for our tastes. For those of you who know CRP’s professor Paul Wack, you may also know of his obsession with the country of kiwis. He was the one that pushed New Zealand, and got us into contact with universities down there.

When the time came to make the decision about where to go, New Zealand was unanimously the choice for all three of us. We have been friends from CRP for the last 2 years. We all got along, and knew that this would not only be a good opportunity to meet new people, but also to get to know each other better. The ball was rolling finally but the only problem was that Cal Poly didn’t really have much information on studying in New Zealand. In fact, the study abroad information center really had nothing to do with our getting down to NZ to study for a quarter. We owe a great deal of thanks to our mentor, Paul Wack, who helped us tremendously in getting all the initial info on the University of Auckland for us. From this, it was up to us to set up the rest of the trip: flights, housing, application, enrollment, passports, visas, etc. The understanding of this process is in and of itself gratifying. We made it down to New Zealand without the help of an abroad program. Although, we hope that in the future it will be a lot easier for CRP and Poly student to go and visit kiwi-land just as we did.

We left for New Zealand on July 10th 2004, and the three of us were anxiously waiting what was in store for us 10,000 miles away. When the plane landed at 7:30 in the morning that first day, we really didn’t know what was going on. We had just flown for 13 hours, 10,000 miles, and went from summer to dead winter in half a day’s time. We were taken to the Railway Campus, where we would be staying. This was an off campus international dormitory with a twist. It was an old railway station that had been converted into a dormitory, so the whole building had great architecture. Those first few days were a blur of settling in, meeting dozens of new people, and acclimating to the time change.

We spent getting to know Auckland, its streets, entertainment options, and surrounding areas during the first week or two. The Railway Campus is located right on the harbor about 10-minutes walking distance from both the University of Auckland campus and from downtown. We were in close proximity to everything that we needed and wanted: food, school, bars, transit, and friends. As a harbor city, Auckland has the feel of San Francisco with its windy streets, waterfront, and nautically themed character, although it was much smaller in scale. The suburbs of Auckland are quite spread out and are connected by city streets as opposed to freeways like we have in the States. Almost exclusively, our transportation was by foot in Auckland, and by car when we left the city on the weekends.

New Zealand has a temperate not tropical rainforest climate, so if you can imagine a plush prehistoric-esc landscape equipped with giant ferns and cascading waterfalls, then you’ve got a good picture. Some of the most beautiful landscapes in the world are in New Zealand, and it was amazing. It got to the point that after a while, we had to stop taking pictures, because pretty much every time we looked out the window, it was the most beautiful thing we had ever seen; it would have been ridiculous to document it all. The
pictures that are permanently etched in our minds will be sufficient enough. We did, however, manage to accumulate upwards of 3,000 photos and a couple hundred videos.

Fashion in New Zealand was something worth noting as well. The style of dress had the essence of the Euro look; the style was Metro-sexual to say the least. It was obvious as we walked the streets trying to assimilate the culture that our subtle differences would peg us as foreigners. There wasn’t too much different about the fashion for woman in comparison to the US, but male fashion was a different story.

Our trip to the South Island during semester break was amazing. We had planned out a trip that would allow us to see all the key features of the island as we drove around in a camper van that we had rented. We had ourselves four days of snowboarding at the beginning of the voyage. The snow was powder, the views were epic, and the crowds were non-existent. One of the days we were there, only 38 people besides us were on the mountain, something that is truly unheard of here in the United States.

Over the course of the two weeks, we managed to see most of what we wanted to see on the South Island. We headed from Christchurch down the east coast, and cut across at Dunedin over to Te Anau. We took a ferry ride on Milford Sound from there (one of the sites of the Lord of the Rings movies), where we saw snowcapped sea cliffs, penguins, and giant mile-high water falls. The place was almost too much to take in. As we headed north up the west coast, we made stops in the picturesque towns of Wanaka, Queenstown, and Franz Josef.

Being the thrill seekers that we are, we participated in some of the legendary activities that New Zealand had to offer. Jet boating, skydiving, white water rafting, and driving the closed single lane gravel mountain passes of Banks Peninsula were just a few of the heart racing experiences we took part in.

Driving in New Zealand was an adventure in and of itself. Being a British colony, the Country is orientated with the driving being on the left side, which made for some interesting road trips early on during our time there. Most of the time we didn’t feel that the challenge of driving on
the left was enough, so we added manual shifting to the bewilderment. After a while though, we all really started to become quite comfortable with the driving. New Zealand loves traffic circles and roundabouts. These are very efficient traffic flow measures, but also can be confusing at times for those who don’t use them everyday (not naming anyone specifically). At times, we felt like a rally car racing team cooped up in a little egg with wheels, shouting directions and turns at each other as we whizzed around a foreign land. The hardest part of driving was Jamie’s tendency to drift to the left, and also the lack of country crossing highways. The road network is inefficient to say the least. Without straight access, we had to jog north to go east, or west to go north, or any other such combination.

The people in New Zealand were some of the nicest we’ve ever met. With the exception of some Auckland residents, Kiwis are always willing to walk up to a confused looking traveler and lend a hand. We had tons of in depth conversations with the owners and managers of hostels. It amazed us that Kiwis know as much as they do about the United States, especially when it comes to politics. Traveling as a backpacker in New Zealand is a piece of cake. It is legal to park along side the roads overnight almost everywhere in New Zealand, so finding a place to rest for the night was pretty easy. There are hostels absolutely everywhere, and backpackers are always willing to give tips on where to go and what to see.

Our semester in New Zealand was full of eye opening experiences. We met dozens of people that we will remain in touch with for rest of our lives. All three of us have plans to go back as soon as we can afford it, and have friends coming to visit us this summer from New Zealand, Denmark, and Germany.

We are using our experience as the basis for a senior project to set up an exchange between the Cal Poly CRP department and corresponding departments at multiple universities in New Zealand. It is our pleasure to recommend the study abroad experience to anyone who is interested. Our time there changed our lives, and as we reflect on our experience it will continue to inspire us to “think globally,” and “act locally” as our careers take flight.
This section will always feature work by CRP alumni. For this issue, we conducted interviews with four alumni - Phil Dunsmore, BSCRP Class of 1999; Carrie Loarie, BSCRP Class of 2000; Nichole Narhi, BSCRP Class of 2004; and John Sholas, BSCRP Class of 1987.

Describe your current job.

Phil Dunsmore: I work as an Associate Planner with the City of SLO in the current development review division. I review and prepare staff reports for development applications, subdivisions, zone change requests, exception requests, prepare environmental documents, and make weekly presentations to the Planning Commission, Architectural Review Commission, Cultural Heritage Committee, and City Council on such projects. A lot of time is spent discussing property and development options with clients at the Community Development Department counter and in meetings. The job also includes meeting with neighborhood groups and working towards citywide goals. Other duties include preparation of documents such as subdivision and zoning regulations.

Carrie Loarie: I work as a Project Manager for KTGY Group—Architecture and Planning. I primarily work with developers and builders who are interested in creating new residential neighborhoods and communities. My work extends from the Las Vegas Valley to the hills of Northern California. From an acre infill piece to thousands of acres waiting to be Master Planned, I design it all!

Nichole Narhi: I am currently a Design Planner for KTGY Group Inc. I work closely with the Planning Manager and Mike Mckay (BSCRP 2004) on projects throughout the Inland Empire and Las Vegas. I work through projects with clients and other consultants from initial site design and planning to client/city presentations.

John Sholas: In 2003, I started JP Shoals Associates. JPSA is a small firm specializing in municipal planning services to local agencies. The firm also provides project management and environmental services to public agencies and private landowners. My other job is the Grover Beach City Council. Elected in 2002, I am currently the Mayor of this coastal community. Grover Beach is in the midst of some major planning efforts to revitalize the Grand Avenue Corridor. Significant projects include a beachfront lodge/conference center at the entrance to Pismo State Beach, a transit-oriented development near the Grover Beach Train Station at Highway 1 and Grand Avenue, and mixed-use (commercial and residential) developments along the Grand Avenue Corridor. My planning education has been a great asset in these efforts.

Describe your previous jobs.

Phil: I previously worked for the City of Atascadero (three years) as an Assistant Planner with similar duties. A part of the Atascadero job included code enforcement. In such a small community you end up doing a little of everything!

Carrie: I have been with KTGY for the past five years. Prior to that, I interned with the City of Morro Bay, RBF/Urban Design Studio, and Calthorpe and Associates.
Nichole: During my junior and senior year at Cal Poly I worked as a planning intern for the City of Morro Bay. This was the perfect school internship as the people were wonderful, the hours were flexible, and it supplemented my education beyond what I was absorbing in the classroom. That job built my public planning process foundation by allowing me to work with projects to get them through the system. Basic plan checking, permitting, writing staff reports, and making Planning Commission presentations solidified my understanding of public sector planning. Now that I work on the other side of the process, I feel more competent to work with projects, as I understand the process my clients must navigate before a project gets built.

John: I have worked for public agencies and a private civil engineering firm. I worked for the cities of Atascadero, Santa Maria and San Luis Obispo, and EDA-design professionals. While with the public agencies, I performed both advanced and current planning duties, including preparing and administering General Plans and specific plans, preparing environmental reports, processing subdivision maps, and evaluating projects for compliance with federal, state and local regulations. My job with EDA involved project management on development projects in both San Luis Obispo and Santa Barbara counties.

How does your education reflect in your work?

Phil: My education is an exact reflection of my work. I started working as a City Planner just after graduation. I commonly use all of my Cal Poly skills such as teamwork, design skills, GIS, and professional writing.

Carrie: Prior to enrolling in the CRP department, I spent my first year as an architecture undergraduate at Cal Poly. When I realized that I wanted to be a designer—on a larger scale—I was fortunate to have the opportunity to work with Linda (Nikki) Day and Zeljka Howard. The community design labs further helped me to develop and embrace my design skills.

Nichole: I recently was working on a project where I was the novice of the group. I was surrounded by lawyers and developers who had been in the business for 20 plus years. I felt out of my league, however in the formation of the master plan document, my knowledge and experience in forming and applying planning principles and process allowed me to contribute insight into the necessities of such a comprehensive planning document. My experience of theory, practice, and application of planning has allowed me to be a valuable contributor to my team. The CRP program at Cal Poly is designed to turn out public sector city planners. However, as a planner in the private sector I find that the design of a site or community cannot be done in a vacuum. Without my contemporary knowledge of the planning process and its application, my design and planning abilities would be useless.

John: I gained a strong understanding of General Plan and Zoning Ordinance preparation and implementation. The classes and skills that I learned at Cal Poly were very applicable to my first internship and job. In fact, my job with Atascadero was assisting in a comprehensive update of the City’s General Plan. So, I got to utilize my skills in my first professional job. I would definitely say that the CRP program gave me a good foundation to build upon in my career.
Which do you think are the strengths and weaknesses of the CRP program?

Phil: Weaknesses- Not enough experience working with the everyday duties of analyzing a project and writing a professional analysis of it for compliance with a particular code- Being able to create logical findings and conditions. Not enough exposure to the CEQA document and checklist in a genuine project. Strengths- Good design background, good computer skills, good planning and architectural history knowledge, good understanding of working with a tough crew!

Carrie: I strongly encourage the CRP department to continue growing the design courses for planning students. There are few universities in the United States that offer a design based planning program—most are leaning towards policy. I have found that in my profession, I offer a unique skill—the ability to bridge the gap between site planning and architectural design. I hope Poly’s Planning Department can do the same for future CRP graduates.

Nichole: The greatest strength of the CRP program are the professors. Their experience and dedication to planning and the classroom generates practical and invaluable knowledge. Zeljka Howard and Vicente del Rio have left indelible marks on my professional and personal life. Now that I have had brief experience in both the public and private sector, I understand how important the public planning process is. The CRP program is excellent in laying this foundation that is balanced with theory and application. Unfortunately, the focus is so heavily on the public sector practice that community design has fallen at the wayside. We only get a brief taste of this in the second year. Vicente del Rio is such an excellent designer and professor; I feel that the program could really capitalize on his presence by increasing their offering of classes geared toward community and site planning.

John: The strength is that CRP students enter the profession with the technical skills to be productive planners with minimal additional training. The Cal Poly motto of “Learn by Doing” could not be more evident than in the CRP program. I would also have to include the instructors as an asset. As a proud alumnus, I would have to say that there are no weaknesses. However, I would like to see more emphasis on planning theory and community design.

How is the mix between theory and practice in the CRP program?

Phil: Need more practice, practice, and practice. Theory is relatively easy to learn from a few APA workshops.

Carrie: While I believe that it is important to understand the theory and policies involved in planning, it is also important for students to be able to apply what they are learning to real world experiences. From my experiences, the real world does not lend itself to theoretical solutions. That is why I think the community planning laboratories, amongst others, is an imperative component of the planning program. This course is the true test of the ability to apply theoretical knowledge to a real world exercise.

Nichole: I’m not sure I could repeat planning process and application much more. The mix perfect for generating a solid foundation. Professionally you lean on the practice and application, and question theory more intently. CRP has prepared me with the perfect starting point to build and improve both areas of the profession.

John: When I attended Cal Poly, I would say it was 70% practice and 30% theory. I would like to see something closer to 50/50. I think it is important that CRP graduates are creative problem-solvers that can think and plan on a regional, national and global level. I am concerned that in the development community planners are perceived more as regulators than problem-solvers.

What are the critical knowledge areas for planners entering the field?

Phil: CEQA, CEQA, CEQA, Map Act, Planning and Zoning Law, Real Estate basics.

Carrie: I believe that planners play an important intermediate role in the creation of communities. Therefore, a broad understanding of all the different planning components is important. By no means do I think it is necessary to be the guru of all disciplines. Rather, I believe that a well-rounded planner has the ability to converse about planning law, the environment, social issues, economics, design, architecture, business and marketing—so that they can coordinate ideas and make informed decisions.
Nichole: Land use law, zoning, and public planning are of utmost importance. It would be impossible to work in the public or private sector and not understand these fundamentals as they are used everyday. In the private sector I wish I knew more about the fiscal matters related to housing and land development.

John: CEQA and land use regulation. A planner must know the CEQA process, and understand its effects on community plans and individual projects. Understanding how land uses interface will be important as many communities plan and promote mixed use developments with increased densities to protect open space and agricultural lands.

**What are the critical skills/tools for planners entering the field?**

Phil: GIS, Professional technical writing, and of course COMMUNICATION!

Carrie: Since I am a design planner, I believe that basic drawing skills are key. While computer graphics are impressive, the ability to free hand a design in front of a client is often worth more than a Photoshop presentation board. Furthermore, good basic graphic skills and lettering is also crucial if you plan to share your ideas with others.

Nichole: Presentation is a key skill in the private planning sector. Client meeting are basically project presentations.

Your understanding of the project, its strengths and weaknesses and its correlation to the local planning process are showcased every time you meet with a client. The practice I gained at CRP prepared me to deal with both discussion and criticism.

John: I believe that planners should have good research, writing and presentation skills. These skills are important whether you work for a public agency or a private firm.

**What computer applications should planners entering the field know?**

Phil: Microsoft PowerPoint, Word, and Excel. As well as ArcView, Photoshop, or similar products.

Carrie: We use AutoCAD and Photoshop on a regular basis.

Nichole: Thankfully my company puts all new hires through an AutoCAD training session. I usually spend 5-7 hours a day, designing and redesigning site plans on AutoCAD. The planning program did not prepare me for the importance of this program. It did prepare me for Photoshop use. As David Stanfield (BSCR 2004), Mike McKay (BSCR 2004) and I came into this job, our Photoshop skills far exceed those of our colleagues. We often use the program to render site plans on the computer rather than by hand, and to create presentations. It is a useful program to enhance hand drawings.

John: With the ever expanding role of technology in planning, I would strongly recommend students get experience in GIS and computer-based design before entering the field.

**What was the most challenging aspect of moving from the CRP program to professional practice?**

Phil: Reality Check- the political process and the difference between good planning theory and political reality.

Carrie: I would argue that the transition was easy—similar to the design labs, I work with innovative and fun personalities everyday and most of my day is spent designing/drawing/rendering. The only difference is that I am getting paid to do something I love! Who can beat that?
Nichole: I guess my biggest challenge was the transition from a “public process city planner” mind frame to a private developer site designer. I struggled at first because I just did not have enough experience in design. Now that I am hitting my six-month mark, I’m feeling more acclimated to the bottom line driven, deadline hitting, site designing niche. Plus, going from the comfort and praise of the academic world to the entry level professional life has quite a few reality checks. Working with amazing people with decades of experience behind them is a humbling thing. It is also an amazing opportunity to continue growing as a planner and as a professional.

John: The most challenging aspect is understanding the “political realities” that often influence the planning process and decision-making. While the CRP program does a very good job of introducing students to social politics, it is nearly impossible to simulate the political atmosphere and influences that come into play in most communities. My advice to anyone entering the profession is to not get emotionally attached to a project or recommendation, but rather to be objective and understand your role in the planning process.

What do you see as planning’s big challenges over the next 5-10 years, and what does Cal Poly need to teach students so that they may successfully engage these challenges.

Phil: Dealing with the public sectors ravenous appetite for revenue in the wake of continuous funding reductions. The demand for revenue can sometimes get in the way of good community planning and design. Planners must be able to work within the political reality that is facing us. And additionally affordable housing. The creation of affordable housing for the masses continues to be an incredible challenge for planners. More methods of implementation and neighborhood palatability need to be explored. Poly need to teach students so that they may successfully engage these challenges.

Carrie: Good question. I will say world peace—the constant battle of the haves/have nots, humans/environment, left wing/right wing, etc. If I knew an answer to that, the world wouldn’t still be fighting these dilemmas.

Nichole: The challenge is fighting homogenous development. New Urbanism is exploding in the public and private sectors. Cities are requesting it and builders are exploring it. However, the benefits of New Urbanism have the potential to become the plague of suburbia without ingenuity in design and architecture. As planning begins to take its place in the development world, it is a daily battle to legitimize the professional and help architects and developers understand the vital benefits of good planning and design. A Cal Poly professor once described a colleague of his as a “recovering architect”, meaning he had come around to the “enlightenment” of planning in architecture. This is the challenge facing planners, to find the balance of design ingenuity in an architecture/developer dominated market that is tempted by the rising tide of New Urbanism. A cookie cutter new urban community could be just as bitter as the suburban tract home. We as planners may be tempted to rest on our laurels as the tide turns toward our champion, New Urbanism. However, we have to continue to infuse this concept with good planning that makes sense for the place, the community, and the time.

John: I believe that regional planning is one of the biggest challenges facing planners over the next decade. Housing, transportation and employment need to be addressed on a regional scale to ensure efficient use of resources and protection of the environment. Cal Poly should continue teaching smart growth principles, and how to effectively implement those principles in urban and suburban settings. There should also be an emphasis on regional planning practices. I am an advocate for smart growth on a regional and local level.
This section brings a reference list of all MCRP theses and professional projects that have been defended in the City and Regional Planning program since the last issue of Focus published in April 2004. They represent the research and professional interests of faculty and students. These works may be consulted in the CRP department, at Cal Poly’s Kennedy Library, or through inter-library loan.

**Socioeconomic Status and Water Quality: Does the Environmental Kuznets Curve Theory Apply to Watersheds in Central California Coast**  

The Environmental Kuznets Curve assumes an inverted U-shaped relationship between environmental damage and per capita income. It represents a linear relationship in developed countries. This study examines the correlation between socioeconomic status and water quality in a statistical test for a linear relationship. The presence of a linear relationship between socioeconomic status and environmental degradation is a concern for environmental justice. This relationship is applied to three water quality variables and three variables representing socioeconomic status in the Central California Coast. Results of a bivariate regression analysis show that educational attainment has the strongest correlation to water pollution.

**Measuring the effectiveness of farmland protection using conservation easements: GIS measurements of land use change adjacent to agricultural easements**  

This thesis utilized GIS and land use information collected by the Farmland Mapping and Monitoring Program in California to compare the placement of conservation easements on farmland and changes in nearby land use between 1984, 1992, and 2000. Six study areas located in three coastal California counties – Monterey, San Luis Obispo and Sonoma – were utilized in order to determine if easements placed on farmland near developed areas lead to continued agricultural use of farmland located beyond the easement from exiting urban areas. The findings suggest that easement placement does affect adjacent land uses by directing development away from farmland located beyond easements. This implies that conservation easements on farmland can be effective in protecting adjacent farmland.

**If you build it, will they walk? An evaluation of the impact of New Urbanist Neighborhood Design Features On Mode of Transportation Choices**  

Advocates of Smart Growth and New Urbanism suggest that compact pedestrian-oriented neighborhood design can induce pedestrian activity which provides an opportunity for social interaction and encourages sense of community. This thesis tests those claims through an analysis of two neighborhoods that meet New Urbanist criteria yet were not designed as such. The focus of this study is to examine the potential impacts of urban form on travel behavior and to determine if neighborhood design features promoted by New Urbanism influence mode of transportation choices, by encouraging more walking and fewer automobile trips. The two case studies used in this research are the Village of Arroyo Grande and the Laguna Lake Neighborhood in San Luis Obispo, CA. Both of the study areas contain dense residential neighborhoods that are within walking distance of schools and commercial, civic, and recreational uses.

**Communicative Action in Practice**  

This research addresses the question of whether stakeholder participation in a neighborhood planning process exhibiting more principles of communicative action produces outcomes more satisfactory to a wider group of those affected by the process than one that exhibits fewer of these principles. The
thesis tests the theory at a neighborhood scale, analyzing two traffic calming cases in Santa Barbara, California. The findings from two neighborhood case studies validate the theory. Based on the interview and document data the process in the St. Francis community exhibited more evidence of a communicative process and resulted in a higher level of overall satisfaction with the outcomes, than the process in the Ontare Road neighborhood.

Testing the Community Claims of New Urbanism: A Comparative Study of Two San Luis Obispo County Neighborhoods


The New Urbanism is a relatively new planning concept designed to promote compact, mixed-use neighborhoods that bring people closer to the street, promoting pedestrian activity, therefore, fostering sense of community. This thesis explores the relationship between the New Urbanism principles and sense of community by evaluating two neighborhoods containing prominent New Urbanist design principles. The goal of this study is to determine what type of influence these principles have on neighboring activities and sense of place within the study areas. The village of Arroyo Grande in Arroyo Grande, California, and the Laguna Laje neighborhood in San Luis Obispo, California were selected as two local neighborhoods containing New Urbanism planning principles.

Downtown Housing Strategy for the City of San Buenaventura


This work proposes a Downtown Housing Strategy as an essential component of the City of San Buenaventura’s renaissance effort to revitalize its Downtown and create a lively and livable downtown district that respects its unique attributes and historic legacy while offering enhanced economic and lifestyle opportunities. The goal of this Downtown Housing Strategy was to create an Incentive Package to facilitate the production of well-designed, quality mixed-use and residential development in the Downtown that is affordable to a broad range of local residents, builds strong neighborhoods and strengthens Downtown living.
This journal highlights the work produced in the City and Regional Planning department, Cal Poly, San Luis Obispo.

Special Events
Essays
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