Table of Contents

Journal of the City and Regional Planning Department
College of Architecture and Environmental Design, California Polytechnic State University

Note from the Department Head  2
William Siembieda

Note from the Editor  4
Vicente del Rio

Cartoon Corner  6

Special Events  7
Design of Public Spaces Symposium: A Summary  9
Christina Batteate & Jennifer Venema

Changing Travel Patterns of Older Women: Policy, Safety, and Mobility / A talk by Sandra Rosenbloom  22
Geiska Baker

Essays  29
Steps Towards a New Suburbia: The Benefits of Comprehensive Planning  31
Colin Drukker and Lisa Jabuka

Agriculture at the Urban Interface: Attitudes of New Rural Residents  37
Daniel Levi and Kathryn Sperry

Why are Noise Elements so Silent?  46
David Dubbink

The World Changed Today: A Ten Year Reflection for a Climate Changing World  51
Paul Wack

Hot Topic: You Can't Miss the Buzz about Global Warming  55
Ruth Eckdish Knack

Defining Sustainability: A Challenge for Next Focus  61
Paul Wack

A Visual Sequence of Urban Spaces in San Giulio, Lake Orta, Italy  62
Michael MacDDougall

Student and Faculty Work  65
Qualities that Youth Value in their Communities: A Comparative Study  67
Camille Passon

Traver Concept Plan: A Participatory Process  70
Vicente del Rio and Umut Toker

Traver Urban Design Plan  74
Michael Costa

Planning for Ventura: A Community Plan for the Westside and North Avenue Districts  77
Elaine Kabala

Vision Grand: A Village in the City  82
Craig Minus

Toward Safer, More Sustainable California Communities  85
Ken Topping

International Exchange  87
The Uses of Historic Space in Europe: Local Context versus Globalization  89
Ivor Samuels

Spotlight  95
Conversations with Alumni: Spotlight on Michael Codron  97

Mitigation Planning: The Path of a CRP Alumna  100
Corinne Rosenblum

Theses and Professional Projects Abstracts  105
Each issue of FOCUS is a wonderful happening. For the reader it provides an insight into our world and the projects that engage the students, faculty and alumni. For us it is a chance to reflect on what has been done and the meaning of our engagement. The fact that FOCUS is supported solely by private donors, companies and foundations that believe in this project validates the value of the educational and scholastic experience we offer at Cal Poly. This year we received a generous donation from the LEF Foundation. So, I invite you to enjoy this edition and share it with others.

This year the City and Regional Planning Department has much to share with our readers. First, the California Chapter of the American Planning Association gave FOCUS its award of excellence in the journalism category (under 50,000 circulation). This is a major recognition. It validates the quality of content and the journal’s relevance to the state’s planning professionals. We give special thanks to Vicente del Rio for proposing the journal and becoming its senior editor, without whom there would be no FOCUS.

We wish to give special recognition to City and Regional Planning Senior Mike Marcus, who was chosen by the American Planning Association to receive its Distinguished Student Leadership Award for 2006. Mike is a special student who, among many accomplishments, has lead Cal Poly’s student group EmPower (that addresses energy issues). He is the third CRP student to receive this national award in the past six years, making our department the country’s leading program for student leadership. It is clear why we believe this is simply the best undergraduate program in the nation.

How good is the City and Regional Planning Department compared to other programs in the nation? This question was answered, in part, by the first national ranking of masters programs conducted by Planetizen, a private on-line planning news service. The CRP program ranked 19th nationally, by reputation overall. In the categories of special skill areas, it is a pleasure to tell you that we ranked first in zoning administration; sixth in plan making; and ninth in technology. This means that we are viewed as a top program in the same peer group as MIT, North Carolina, UCLA, Berkeley, Penn, and Cornell. This is simply an outstanding performance by a master’s only public university. The ranking was based on responses from more than 2,000 academics and professionals. For more information visit the Web site at www.planetizen.com.

The high national ranking reflects CRP’s focus on engaging in plan making with real community clients. This year we are fortunate to have worked in several communities in the Central Valley (Traver, Armona, Kettleman City), King City in the Salinas Valley, and with the City of Ventura on the Central Coast. In each project, our students have worked with local groups and designed work of local utility. We are proud of this wide ranging effort.

We are thankful when private donors make an investment in the betterment of our department. This year the Errett-Fisher Foundation chose us to receive five years of support for improving the technology and the studio spaces for our program, as well as supporting student professional development. This type of support is essential to the department as the funds provided by the state are not sufficient to provide the quality educational experience we wish to provide our students.
Since 2001, America has been faced with multiple catastrophic events; starting with 9/11 through the California Cedar Fire, to Hurricane Katrina on the Gulf Coast. Each event revealed a different form of vulnerability which is present in American society, and a need to recognize that “risk” is a structural part of the urbanization process and something that is never eliminated. Over the past years, the CRP Department has assembled an especially talented faculty group with special expertise in hazard mitigation planning at the national and international levels, which was recognized this year by the State of California. The California Governor’s Office of Emergency Services (OES) asked CRP to be its academic partner in rewriting the state’s Multi-Hazard Mitigation Plan for submission to FEMA in the fall of 2007. This effect is being lead by CRP faculty including Ken Topping, Michael Boswell and William Siembieda. A talented group of graduate students also are part of the effort. The objective is to integrate all the great efforts of many state agencies into a single plan document that provides overall guidance to the state and local governments.

Many CRP faculty are becoming more engaged in the discussion of sustainability and how its sub-sets (LEED, energy planning, urban ecology, hazard resilient community planning, suburban regeneration) are to play a role in planning education and the profession. How to formulate a post-modern approach to improving the environment will be an area of central concern for us in the upcoming years. To do this will require building partnerships with the profession and non-profit organizations. These partnerships will help us frame the question and to engage in appropriate pilot programs and projects of social merit. We hope you can be part of these emerging partnerships.

You, the reader of FOCUS, is encouraged to participate in the efforts of the CRP Department. We also encourage you to provide feedback for FOCUS, with suggestions and by letting us know how you would like to work with us.

William Siembieda, Ph.D. AICP
Professor and Department Head, City and Regional Planning Department
You have in your hands an exciting new issue of FOCUS with exciting news! The news first: FOCUS was honored with two awards of excellence in 2006, from the Central Coast Section and from the California Chapter of the American Planning Association. Together, with the positive feedback we have always received from our readers, it’s the best reward we could get, and a reassurance that we have been successful in our mission.

As mentioned by professor William Siembieda in his preface, the CRP department has kept pace with its award-winning history with the American Planning Association: Michael Marcus received the award of leadership for a student planner, the Templeton 2030 Community Plan / Templeton Downtown Vision developed by professor Zeljka Howard’s planning studios received awards of excellence from both the Central Coast section and the California chapter, and the Redding Waterfront Revitalization Plan by Vicente del Rio’s graduate project planning studio received an award from the Central Coast section. Also, a Cal Poly team led by CRP graduate students entered the Urban Land Institute urban design competition for the first time, and was awarded an honorable mention among 81 entries from the United States and Canada!

Our excitement this year also comes from the changes in FOCUS, as we expanded the contents and changed the graphic lay-out. The traditional section with student work now also includes faculty work, and a new section will feature ironic but profound perspectives through cartoons on planning issues. We inaugurate the Cartoon Corner with a sharp observation about “contextualism” in big-box design by New Times cartoonist Jerry James, and a critique of speculative urban development by Tarcisio Bahia, an architecture professor in Brazil.

This year, the section Special Events has articles by CRP students on two important occasions. Cristina Batteate and Jennifer Venema write about the Design of Public Spaces Symposium, organized by the CRP department in October 2006. An interdisciplinary panel of four guests discussed different views on public spaces in the US, Thailand, Brazil, Spain and Mexico. Next, graduate student Geiska Baker writes about a lecture about the changing travel patterns of older women, delivered by Sandra Rosenbloom, professor of planning at the University of Arizona.

Five exciting articles compose the Essays section this year. Cal Poly’s psychology professor Daniel Levi discusses a study on environmental attitudes and health impacts of living at the agricultural / urban interface in Oceano, Calif. Colin Drukker and Lisa Jabuka write about the Planning Center’s efforts toward good planning and place making in the suburbs. Faculty David Dubbink defends the importance of the noise element in general plans by comparing the Californian to the European experiences. CRP faculty Paul Wack and Ruth Knack provide multiple views about what is perhaps the most important single issue for planners: global warming. Finally, the sketches and writings of Michael MacDougall, who taught at CRP from 1972 to 1992, take us through a delightful visual sequence of spaces in Orta San Giulio, Italy (Thank you Mike for allowing us to have your beautiful watercolor on the cover!).
The Student and Faculty Work section starts with two articles on planning for Traver, a small community in the Central Valley. Faculty Vicente del Rio and Umut Toker write about their participatory process toward a concept plan for the town, involving a series of community workshops, and BSCR student Michael Costa writes about the continuation of these efforts through his third-year class' urban design project. Next, Camille Passon discusses how youth perceive and value their communities, and the planning implications; the results were from a comparative study of San Luis Obispo, Paso Robles and Cambria from her MCRP thesis. Elaine Kabala writes about her senior community planning lab’s community plan for Ventura’s Westside and North Avenue districts which focused on new urbanism and smart growth principles. Craig Minus, from the MCRP program, writes about his team’s entry to the 2006 Urban Land Institute Gerald Hines Urban Design Student Competition. Lastly, CRP lecturer Ken Topping - a leading expert on urban disaster risk reduction and mitigation in the US - writes about the revision of the California State Multi-Hazard Mitigation Plan, a project currently being developed by a team of CRP faculty under a contract with the State Government.

In the International Exchanges section, we bring you an essay by visiting urban design professor Ivor Samuels about the uses of historic spaces in Europe and the conflicts between the local context and globalization. Ivor was one of the founding members of the Joint Center for Urban Design at Oxford Polytechnic, now Brookes University, in England, and he will teach graduate and undergraduate studios at CRP this coming Spring quarter.

As always, the Spotlight section gathers news from our alumni. This year we interviewed Michael Codrum, a graduate from the MCRP program (1998) who is an associate planner with the City of San Luis Obispo. Corinne Rosenblum, another graduate from the MCRP program (2005), writes about her experiences during and after school, and her work as a hazard mitigation planner. FOCUS closes with the abstracts of all theses and professional projects defended in the MCRP in 2006.

I hope you enjoy this year’s issue, the readings and the new looks of FOCUS. Please always let us know what you think of our efforts. We also encourage you to engage in the making of FOCUS in one or more different ways. Until next year!

Vicente del Rio, Ph.D.
Professor, City and Regional Planning Department.
To stimulate debate on the quality of public spaces and their design, the CRP Department sponsored a symposium with four presenters from different disciplines to talk about their experiences around the globe. Christina Batteate and Jennifer Venema, BCRP students, present a summary of the presentations and their view of the symposium.

On October 20, 2006 California Polytechnic State University at San Luis Obispo’s City and Regional Planning Department hosted the Design of Public Spaces Symposium. Four speakers brought their local and global interdisciplinary expertise. Denise Alcantara, architect and PhD candidate at Federal University of Rio de Janeiro, elaborated on her doctoral research about the public’s perception of the revitalization of historic Rio de Janeiro. Lawrence Herzog, professor of city planning at San Diego State University, explored civic culture and various perceptions of public space in European and North American contexts. Daniel Levi, professor of environmental psychology at Cal Poly, brought a psychologist’s perspective on the public and urban spaces at Thailand. Leo O’Brien, vice president of Landscape Architecture, Urban Planning and Design for the Irvine Community Development Company, illustrated his company’s approach for creating public space in new developments. What we gain from this rich combination of speakers is a vivid glimpse into the design and quality of public spaces across the globe.

The year 2006 marked a major turning point in urban life worldwide. For the first time in human history, more than half (51 percent) of the world’s population made their home in urban settings, a number that will only continue to rise. For planners and urban designers, the quality of life for these inhabitants is now more important than ever. Being that the majority of urban dwellers are not rich and cannot afford private amenities, the demand for publicly accessible spaces is likely to increase.

Public space as a term and a notion is a bit elusive. No single definition of public space exists. There is no template for municipalities, or private agencies, dictating how to create successful civic space. Spaces serve different purposes, some of which may even clash cross-culturally. There is, however, a commonality. Public space, in whatever form, exists in every city in the world: there will always be places where people are congregating, socializing and fulfilling a basic need to interact. If one views the city as a body, its structures as bones, and its streets as veins, then its public spaces are the heart, where the people – the lifeflood of a city – go to be rejuvenated before branching back out into the limbs of the city. There is no denying that public space is as important to a city, as are the citizens that keep the city running. The following summary of the Design of Public Spaces Symposium is an exploration of the notion and significance of public space, and the implications for planners in caring for its quality and performance.
DENISE ALCANTARA

The human experience is an inseparable part of the built environment, as Denise Alcantara reminded us. She named three ingredients that make up a city: the tissue, the architecture, and most importantly, the users. When asked for a definition of tissue she described it as the fabric of houses, streets and networks. She calls the city “a live, dynamic, plural and diversified organism.” The tissue and the architecture of the city could be analogized to a body, while the users are the spirit that keeps it alive. Alcantara traveled from the global city of Rio de Janeiro to conduct a comparative analysis of the city’s downtown to San Diego’s. Her goal was to study how culture and social interaction contribute to the shaping of public spaces and create places in the context of historic preservation. She is interested in the human experience as place.

For Alcantara, the success of a place isn’t found only in the quantitative figures of traffic counts, income or density. She claims that success can be understood by the researcher through a method called “embodied observation.” Numbers and statistical analyses alone aren’t enough; rather, the place must be experienced by the researcher. One must become familiar with it and its inhabitants, to look and listen closely to truly see if it is alive and healthy. In her research, she is attempting to develop a method of qualifying downtown revitalization successes using innovative criteria. Her qualitative approach is founded on learning the public’s perception of downtown revitalization projects and assessing whether or not they actually use the spaces designated for them. While she does use some traditional methods, she also incorporates more phenomenological and subjective criteria often employed by social scientists and psychologists.

To understand a place today, one must understand its past. Rio de Janeiro was settled in the 16th century for its bay and harbor. In the early 1900s, about the same time that the City Beautiful Movement was sweeping the northern hemisphere, Rio had its own beautification movement inspired by Haussman’s Paris renovation. At that time, Rio also implemented a large scale renovation of its port area, with major land infills, and of its downtown. New streets, boulevards and esplanades were created, renovating most of the downtown area. Again in the 1930s, major demolitions of low-income housing in the central area made room for further street expansions and architectural upgrades. Vertical growth became the norm and symbol of modernity, but by the mid 1960s, modernism was being challenged in the US and Europe. Post-modernism placed the emphasis on the ambience, memory, tradition, identity, landmarks, and subjectivity of a place. In the following decade, San Diego began its downtown revitalization. Brazil, unfortunately, was still under a dictatorship and the modernist paradigm still prevailed. When the dictatorship ended in the 1980s, the democratic opening allowed a massive historic preservation and revitalization project called the Cultural Corridor.
The Cultural Corridor Project, taken on by the municipal government of Rio de Janeiro, aimed at a few lofty goals. It set out to preserve historic architecture and cultural resources while stimulating social and economic revitalization. Its purpose was to renovate and revitalize architecture and urban settings by preserving historic character while simultaneously applying a contemporary vocabulary, avoiding historicism in the new or renovated buildings. The project began by identifying four key districts in and around the Central Business District (CBD). Although these areas were to be the focus for the Cultural Corridor Project, as Alcantara later explained, they were not the only ones to be affected.

The city government altered the downtown urban land-use regulations, established new design guidelines, and created an allowance for tax exemptions to business owners who renovated their exteriors. There was a lot of political support for the Cultural Corridor based on an alliance formed between the public and private sector, where business owners, community members, intellectuals, artists and socialites participated. The revitalization was intended to weave renovations and new buildings into the old fabric without overemphasizing either genre. The city created a special technical office of the Cultural Corridor that not only analyzed and approved projects in the area, but worked with owners toward the best solutions, developed local studies, and published design manuals to help disseminate the Corridor’s goals. Opening a technical office in the area, in a preserved historic building at ground floor, was an important step to attain community involvement.

After the remodeling of buildings progressed, renovation of the street-scapes soon followed. A period of intense cultural movement followed, and new museums, theaters, art and exhibition centers were installed in the historic and preserved buildings. The Cultural Corridor project also expanded to incorporate the promotion of concerts, street markets, and many different social events to kept people coming back to enjoy the newly renovated public spaces. The project carefully massaged the tissue in the historic center of Rio, relieving tensions and blight while rejuvenating it for generations to come. The model proved so successful that it spread beyond the initial four areas it was designated to improve, and inspired other cities throughout Brazil to begin their own revitalization programs.

But Alcantara said she wanted to more clearly understand the nature of that success. She wanted to know about the people affected by the success.

“They make the city lively. They make the city a real place. They give meaning to the city. In my research, I’m very interested in knowing how they feel about the places how they interact, how they use it, how they appropriate the space. That’s my interest.”

She said her target population of interest were the workers, street vendors, consumers, artists, entertainers, and even the homeless. For her research, Alcantara studied quantifiable data such as
pre- and post-project building footprints, heights and uses, amount of public space, and pedestrian flows. But she is also looking deeper into the eyes and art of the people who give the place life. She looks at where and why people congregate, how artists perceive and interpret the space, what musicians write about it, and how it feels to walk through.

On all the levels that Alcantara has analyzed it so far, Rio’s Cultural Corridor Project was an apparent success. Not only were the places physically renovated, but they were spiritually rejuvenated as well. The street-scaping and plazas are still heavily used and enjoyed by vendors, artists and entertainers, tourists and residents alike. There is always a lively mix of people inhabiting these spaces and business in the downtown area is booming again. It is Alcantara’s preliminary conclusion that it was the integrative action of government, private sector and the community that made the recipe for success. Downtown revitalization, if done properly, can not only improve the appearance of a place, it can improve the lives of those who use it or live there. Getting back to Alcantara’s analogy of the city as an organism, this historic preservation model not only treats the city’s physical tissue, but also its genius loci – its spirit.

**LAWRENCE HERZOG**

“Buildings built without relation to the context around them is like sex without love.” Larry Herzog opened his presentation with that line. Yes, sex without love is possible, but something is missing, something intangible – something like soul. In order for us to know the direction public spaces are going, Herzog wants us to understand where they’ve been, or rather, where we’ve been. He claims there are two ways of being a human in a city setting. He calls the two states “fast urbanism” and “slow urbanism.” Fast urbanism is characterized by modernist architecture and thinking, technology, globalization, cyber space and simulated space. Slow urbanism, at the opposite end of the spectrum is more post-modern, and Eastern in its philosophy, with nature and organic experiences as the centrifugal pull. Without heralding one or the other, Herzog simply points out that we are currently in a state dominated by fast urbanist thinking.

Our culture’s merge into fast urbanism was one that was seemingly out of our control. Modernist skyscrapers shot us up in elevators, put us into manicured indoor environments and killed the street. Freeways got us into cars and shot us down the superhighways at 90 miles an hour. Technology and the information highway took us out of our physical environment and placed us into a digital one. We’ve gotten closer physically and yet, strangely, further apart.

In his book *Return to the Center*, Herzog explores culture, public space and city building in this global era, wherein he offers suggestions for how to shock people into more public experiences. He calls upon architects and urban designers to craft spaces that create “simultaneous perception, that literally jolt people to come out of the cognitive places they are in, and to want to connect to a space.” He refers to post-modernism’s call for context, meaning, identity and sense of place as a starting point. He also emphasizes the value of history, tradition and collective memory to meet the human needs from spaces.

Cultures across the world can vary in so many ways, but they are all similar in that they cherish their public spaces. Some cultures may express their public spaces in different ways, and it is important for the planner and designer to be sensitive to this. In Latin culture, the street has been called the river of life. In American culture, street life carries a very negative connotation. Even regions within a particular country embrace their public domains in different ways. Using case studies from Spain.
and Mexico, Herzog showed how the public sector can engage the private sector to spark the resurrection of some of our lost public spaces. In many plazas throughout Spain, Herzog noted what he terms “museumization of space.” Plazas that were once for the public have become privatized and are only accessible to patrons of plaza businesses. Benches have been removed and the only seats are at the café tables. When public space comes under the grip of profit, it becomes politicized. One response to this has been the creation of organic, improvisational public space in alleys and on street corners. Another is reliance on simulated space, where even more profit can be made.

Barcelona, Spain stands as a model for cities that wish to resurrect their public spaces. When it received the bid for the 1992 Olympics, it got to work in deciding how it would spend the money allocated for infrastructure improvements. The city planners first identified 160 tangible projects with public space as the anchor for redevelopment. They aimed to recover promenades, plazas, and close off streets to increase pedestrian connectivity.

Public art began to invade the city and its' beaches. Their strategy which used the money to recover their history rather than erecting all new structures, validates the historic preservation and restoration model that is being proven time and time again the world over. People are intrinsically drawn to places that hold history. It gives us the much needed connection and meaning we are so often for searching for in our daily lives.

Mexico City holds Herzog’s closing lesson in civic space. In the mid 1900s, the Muralism Project, initiated by the Mexican government, engaged such artists as Diego Rivera and ignited the country's public spaces with life and meaning. These spaces became alive with activism, the public voice, platforms for protest and synergy sites for cultural happenings. The energy that still remains in many of the mural projects and plazas set the stage for a huge victory for historical public spaces.

When McDonald’s wanted to build a fast food outlet in a historic Mexican plaza, the Mexican people rose in protest. Their problem wasn’t with McDonald’s per se; it was with the invasion of a global corporation on their cherished historical space.

This example leads to a larger lesson. Public spaces aren’t about profit. They are about human experience. Fast urbanism has not just taken away the physical public space; it has stolen our ability to experience public spaces. With the increasing “museumization”, synthesization and privatization of public space, it’s no wonder we are losing our ability to truly have the type of experience previous
generations have had in public spaces. It is our job to resuscitate these places, and the invaluable function they serve to civic life.

**DANIEL LEVI**

Public space and its significance vary across regions and cultures. Levi analyzed the complexity of Thailand’s concept and usage of public space. As an environmental psychologist, Levi approached the quandary by looking at people instead of our profession’s convention to focus on the place. Initially, Thailand confounded his understanding of the differences between public and private space.

Thailand exemplifies how public space can be characterized by purely temporary uses rather than pre-determined spaces. The usage of streets and sidewalks provide the first example of Thailand’s unique understandings of space. Observing the streets and sidewalks started Levi’s confusion. Bangkok is a chaotic city, and he had difficulty comprehending how people were functioning in it. The sidewalks and streets are active and dynamic places that the private realm has merged into, and they are used for much more than travel.

For instance, people cook on the streets. In Bangkok alone there are over three thousand street vendors cooking on the streets each day; their presence is so pervasive that it’s a cultural norm that one should not buy food unless the cooking of it is visible). Sidewalks and streets are also appropriated for ritual use, such as selling flowers for shrines. There is a constant presence of purely temporary usages. Rivers and canals also exhibit this convergence of uses; they are used for municipal transport in addition to accommodating boats that function as markets, living spaces, and eating venues. Levi noted that in Thailand the existence of modern cities and the attendant shopping centers and stores did not displace traditional vendors and street life.

Night markets also illustrate the peculiarities of Thailand’s usage of space. In Thailand, there are modern and traditional markets. One form of traditional market is the night market. Night markets are not stationary; instead, they spring up at night in vacant lots. They occur every night of the week in every major city. If a night market is broken up by the police, they simply move to a new place. Night markets are extremely social spaces, replete with music and vendors, where a wide variety of people congregate and socialize. They exemplify the complexity of public space in Thailand, which is often more of an event rather than a designated, fixed place.

Levi discovered that Western understandings of public space are woefully inappropriate in Thailand. Plazas, a common form of Western public space, exist in Thailand primarily in Western resorts. Thais do not use plazas; rather, many plazas in Thailand look as if they are imported from Los Angeles. Thailand’s Royal Palace is an example. It is public in the sense that the government owns it, but by Thai standards it is expensive to visit and functions merely as a tourist attraction. Employees are the only Thais there. Other Western forms of public spaces in Thailand are urban parks, which depict the inadequacy of any universal standards of public space. The parks were based on imported concepts from England, and are relatively rare in Thailand.

Yet, Thailand does hold rich, stationary areas that serve as vibrant forms of public space: the Wats. Wats are Buddhist temples. Similar to cathedrals, they are surrounded by temple grounds. They act as an oasis in the midst of the chaotic city where people go to relax. Even though they are private spaces, they meet the needs of the Thai public. Wats are spaces that serve a variety of uses, from a place for outdoor food vendors to festivals.
Thailand also illustrates how public space can occur wherever public activity is present. For example, public exercise becomes a form of public space wherever it occurs. Recently, Thailand enacted a national healthcare program that requires all Thais to exercise. In theory, all are required to exercise once a day in the national exercise programs, from 7 to 9 in the morning or night. Exercise occurs on any surface that cars can be stopped from driving on, from basketball courts to blocked streets. There is a range of exercise options, from Thai Chi to aerobic dance groups. Public exercise in Thailand is striking because it depicts people’s willingness as a group to take over space and claim it for a public use. It illustrates an organic initiation of public spaces versus a synthetic designation and creation.

Another illustration of the Thai’s appropriation of space is the Sacred Forest. Deforestation is a critical problem in Thailand. It affects the lives of many because forests serve as water systems for many communities. Even though there are timbering laws, enforcement is a challenge. In order to further protect forests, monks have ordained trees as Buddhist monks. The sign of this ordination is a simple monk’s sash. For the ordination, monks brought the community into the forest to witness the ceremony, thus leaving the community responsible for the protection of this public resource. Protection of the forests then became a religious devotion for the community. Now the forests are considered sacred and are no longer used as resource or tourist space.

Levi concluded his presentation with an assertion that cultures appropriate space, stating that:

“It’s very hard, especially for an outsider, to look at space and understand how it’s used, or what its designed purpose is, or maybe [that] its designed purpose is sometimes secondary. That what I see in Thailand, is that the greatest of the public spaces... are private spaces. And the street, central to public space, is really a battle between public and private with private trying to take over.”

In Thailand, the Western concept of public space is inadequate. Levi demonstrates that public space is far from having a unified coherency in theory and use. His investigation of public space in Thailand shows that the distinction between public and private spaces is not clear, and that the distinction may not always be relevant. Public space is a concept that differs across cultures and regions, and varies in how it is manifested in meeting the needs of the public.
LEO O’BRIAN

It is critical to study public spaces and realize they have a multitude of manifestations. Leo O’Brien’s description of the creation of the Woodbury Village at Irvine, from the ground up, illustrates these complexities and depicts the way in which public space is being provided in Southern California. As he asserted, good public spaces are not just design solutions, but are also manifested in a variety of ownership agreements, public and private partnerships, and other idiosyncratic relationships.

Many examples can illustrate the dynamics of public space. Millennium Park in Chicago, for instance, is “a new validation of how carefully planned open space combined with a strong public/private partnership can begin new health.” Boston’s Emerald Necklace was a naturalistic solution to a drainage problem and the need for recreation, but it also created a strong civic identity and attracted people. New York’s Central Park was created to address social and health needs for a crowded city. Yet, through the years there has been a steady erosion of municipalities’ ability to make and maintain public space. Instead, other institutions, community or even private groups, are compensating for what municipalities have been unable to do, by creating alternative forms of public space. As O’Brien noted, “(the) ability of these spaces to resonate with civic identity is surprising,” and has created a phenomenon in commercial and open space.

As municipalities withdraw from creating public space, alternative institutions are creating it in different forms. Universal’s City Walk is an example of quasi-public space. O’Brien argued that public space is headed in that direction, and it exemplifies the dynamics of a commercial, synthesized environment. Even though there are many critics of this form of public space, it is evident that people enjoy it. Hence, it is an example that cannot be overlooked by designers. Fashion Island, a ritzy commercial development, is another example of a space enjoyed by the public that is not truly public. It has rules of behavior. It is a place that the homeless cannot live, but can sit for free. These examples illustrate that as public municipalities retreat from providing public space, many new issues arise.

Woodbury is yet another form of the new provision of public space. Its example illustrates some unique dynamics. It is a development in which privately created public spaces have been turned over to municipalities for maintenance. It is an example of a form of public space in a suburban, Southern Californian environment. Woodbury is located on the Irvine Ranch and extends 22 miles east toward Riverside, and occupies approximately 20 percent of Orange County. Its origins can be traced to the 1960s original master plan created by the Irvine family, which was made to change the pattern of development that was occurring in the area. It was a response to the suburban sprawl of the ‘60s. The original master plan was done at a regional level and has been successful in changing the prevalent form of sprawl development. It was able to tackle environmental and water quality issues in more meaningful ways. Because all the land included in the plan was owned by a single landowner, there has also been a high amount of design control.

Leo O’Brien is a landscape architect with a master’s with emphasis on urban design (Harvard). He is vice president of Landscape Architecture of the Urban Planning and Design Group, Irvine Community Development Company, Newport Beach. He directs village planning and landscape architecture in the 120,000 acre Irvine Ranch, and is design coordinator between the company’s retail, apartment and office groups. He creates urban design frameworks, and he has overseen the design for six villages in the Ranch.

Figure 12
Woodbury Village, Irvine Ranch.
The expansive development has preserved a total of 37,000 acres of open space. The open space framework dominates the site and gives it shape. The sphere of influence matches the ridge of the hills, and all arterials terminate into open space. The Irvine view shed permeates the site, and a network of trails connects the villages and parks. The Jeffery Open Space Trail is part of this network; it serves as the “necklace” of the site and creates a strong sense of identity. It converges onto a 70 acre sports and wilderness park. This park is an excellent example of a private project constructed as an amenity to the project, which was then turned over to a public agency to maintain. The park was also used to strengthen a sense of civic identity. Historic materials were incorporated, and it is replete with interpretive plaques and mosaic tiles that tell the history of the place. Native plants and grasses were used, making the park the largest planting of native grasses in Southern California. There are also a variety of other public parks, homeowners’ parks, and semi-public places in front of homes. There are also neighborhood parks, which are within a 5 minute walking distance of all homes.

The village has a combination of densities and uses. These include homes that range from affordable to market rate prices, apartments, daycares, access to employment, schools, and retail uses. The main center of the development is the plaza and recreation area. The urban design framework used creates a pedestrian scale development that is well connected to a regional system. There is a clear hierarchy of streets and landscaping, which is reinforced through ornamentations such as light fixtures. Towers are also oriented along the East-West corridor. Within this unifying framework exists an array of architectural diversity. There are a variety of different home types and design guidelines that shape setbacks, building masses, and landscaping and house treatments. The commercial site, the Commons, is an important aspect of the site as it provides two public spaces that are linked by a promenade, and is within walking distance of all homes. There is a combination of ownership including state, city, local school districts, and homeowners associations.

As a brand new development built from the ground up, this project is based on connectivity and an even distribution of parks. The Irvine Company was in a unique situation to build the project from scratch, which makes it unlike many. As O'Brian asserted, “the techniques of assembling successful municipal open space may not always be done by one entity as in the past.” Rather, examples typically depict “a combination of many ownership entities all working together to create a community vision that creates the best synergy and best results.” O'Brian concluded by observing that Woodbury is an excellent example of this synergy that is the result of the shifting responsibility for the creation of public space.

CONCLUSION

The variety of types of public spaces covered by these four presentations implies the inadequacy of traditional notions. Public space is not simply a space that is created: it appears to happen in multiple ways whenever a space is claimed for public use. This was apparent in all four presentations. O'Brian pointed to the commercial spaces in southern California that have become quasi-public,
such as Universal City Walk and Fashion Island. Levi explained how public activity is able to claim and create public space in Thailand. Alcantara described the unexpected creation of vital urban places through structural renovation. Herzog illustrated how spaces where people converge are given unique meanings, whether through public ritual or protest. These diverse varieties of public space deserve a greater understanding.

Public space does not have to be limited by designated environments. Instead, it can transcend its predetermined physical limitations and sprout out of the public’s organic spontaneity. Rather than confining the public through a segmented conception of what public space should be, as planners, we could encourage the public to feel as if they own the city, and that they are responsible for making it a real place. Public life should spill into all aspects of the city. Also, we must remember the enduring link between the physical environment and public space. In Brazil, what began as a purely structural and aesthetic renovation of historical buildings had the unexpected effect of mobilizing the community to reclaim their public spaces. How do we combine a focus on improving the physical qualities of a space with the strengthening of its cultural and social aspects? Alcantara’s example seems to imply that civilian mobility can accompany a purely physical focus, while Levi’s suggests that structural elements are not always important or even relevant to public space. So where does this leave us in understanding public space?

Public space, aptly named, is a place accessible to the public. It is this access and use that makes a space truly public, regardless of how it was created. Some difficult issues arise when looking at public space which is not yet inhabited by people. How can it be judged as successful if there is no public present by which to gauge it? O’Brian’s description of the Village of Woodbury illustrates these challenges. Are the criteria for public space satisfied merely when a space is intended for use by the public, regardless of whether or not the public actually ends up utilizing it in the future? Woodbury stands as a lesson for planners and designers. Not only does it show the great creative lengths that our design skills are capable of taking us, but it also depicts the challenges of creating public space from the ground up, without a public to speak of. Yet, it provides lessons that need to be learned in the burgeoning cities of California. The value of O’Brian’s presentation lies in its exemplifying how public space can be provided by alternative institutions in today’s context, in light of the diminishing initiative on the part of municipalities.

The presentations also suggest that the public/private dichotomy may no longer be entirely apt in an understanding of public space. The two may be so inextricably linked that perhaps the distinction is only critical in deciding who provides or maintains public spaces. As O’Brian stated, there is a multiplicity of manifestations of public space that result from a wide variety of partnerships. Public and private life are two sides of the same coin; taken together, they form the aggregate whole of urban life. So while it may be necessary to distinguish between the two at times, an overemphasis on understanding them as polar opposites will limit our understanding of how urban life matures and thickens. For instance, Levi described how in Thailand, the notions of public and private are not relevant. Public spaces such as the street are utilized for ‘private’ uses, while private spaces, such as the Wats, are used for public interaction. This illustrates the fruition of life that can develop when public and private are no longer used as categories that limit the eruption of life.

Drawing on the many lessons we can learn from foreign cultures about their propagation of public space and its intrinsic social value, it is obvious that planners have their work set out for them in understanding how public space is successfully fostered. While all the complicated pieces of
this puzzle are not yet clear, these presentations have identified what a few of the pieces are: the relationship between the public and private domains, the responsibility for creating and maintaining public space, be it citizens, municipalities or private developers, and the vital nature of these public spaces to civilian life.

QUESTIONs AND ANSWERS

The following is a summary of the audience questions and the speakers responses.

Q. (To All) Regarding sustainability, and Modernist versus Urbanist conceptions: how do you make a New Urbanist development like Woodbury more sustainable?

A. Larry Herzog: For too long sustainable development has been separated from urban planning and the environment, when it should have been an integral part. An important aspect of sustainability is the idea of creating a community. Not every place has a traditional downtown, but places do need a center. In Leo's project, I would like to see more retail that is not segregated from the community. Retail uses should spill into the community along the promenade, which would make the mixed-use portion of the site come to life. Also, some of the parks in the Woodbury project seem very private and isolated. But Woodbury is above and beyond the suburban developments of the 60s and 70s, which are highly unsustainable and dependent on daily auto trips.

I would like to point out to Mexico for lessons in sustainability. The national conversation of immigration and security focuses on the negative aspects of our neighbor to the South, yet Mexico provides wonderful lessons about daily city life. As scholars and planners, we need to celebrate the life south of the border rather than encourage anti-immigrant laws, such as those created in Escondido, California, that mandate the checking of residency status. Our role as planners is about sustainability and celebrating culture as how to create great places.

A. Denise: Sustainability is related to the three ecologies as proposed by philosopher Felix Guattari: social, environmental, and mental. Sustainability not only refers to nature and its preservation, and it is not only how we interact and use spaces, and conceive of private and public spheres, but it is also refers to a mental ecology, a mental state. Each individual needs to be focused on these three main aspects.

A. Dan: Sustainability means different things in developing countries. For Thailand, it is about the balance between urbanization and the large rural communities. The government has done a lot to improve the life in rural villages so that people do not feel they have to migrate to the urban centers.

A. Leo: A recent conference, the International Federation of Landscape Architecture, discussed this topic. The number one element in sustainability is poverty. Poverty deteriorates landscapes, and finding the solution to sustainability will be tied to solving the problem of poverty. There is also the issue of scale in sustainability. Designers are often asked to create boutique environmental projects. Yet Woodbury is on such a large scale. In comparison, Village Homes is only 1/8 the size of Woodbury. How can sustainability be done at a larger scale? In doing such a large project, the Irvine Company was able to work with multiple agencies to create the largest reclaimed water system in the world. This reclaimed water irrigates 98% or more of Woodbury's landscaping. Leo is encouraged by the shift towards walkability that is occurring. The problem in Woodbury is that there is no supporting population. Originally, a light rail system was planned in Irvine over 30 years ago, but it is not going
to happen due to “NIMBYism” (not-in-my-backyard-ism). This was a disappointment... sustainability is not as easy as we would like it to be.

Q. (To Denise Alcantara) Can you clarify your concept of urban tissue?

Denise: Urban tissue is the same as urban fabric; it is how parcels, structures and streets come together, how they relate to each other. It tells stories, and gives meanings.

Q. (To Daniel Levi) Can you elaborate on night markets, and how they are not a designated space? Are they illegal?

A. Dan: Night markets can occur in vacant lots, blocked off streets, parking lots, and along streets by blocking lanes. As cities develop, some night markets are being pushed to the periphery. However, some Thai cities block off streets to allow the markets to stay. They are not illegal; however, the police may collect use fees from vendors on streets and sidewalks.

Q. (To Denise Alcantara) Looking at the expansion in the metropolis of Rio, was preservation and conservation a strategy and good mechanism to initiate the creation of public spaces?

A. Denise: The process was interactive. It did not relate directly to public spaces, it was about renovating old structures, old buildings, and areas that were abandoned. This process is still being used. At the start, it was simply about buildings, but afterwards, there was more of a focus on public areas. For instance, street vendors and bad sidewalks eventually led to the redesign of streetscaping and rights-of-way, which in turn improved public spaces.

Q. (To Larry Herzog) All of your presentations are important for the debate in design, relating to a European sensitivity and more of a European sense of the legitimacy of what public space is as a territorial understanding. Public space is about a democratic process, but most of the places in your presentation were done by the rulers; so, what is your idea of public participation today and the contemporary stance of public restoration?

A. Larry: The question of what is public and private is important. As Leo pointed out, private spaces are the public spaces of the future. How public spaces are created is important, but the line between private and public spaces is fuzzy. Maybe it no longer matters if a space is public or private, but only if it is a dynamic and well-designed place that creates community. In my book I discuss the politics of downtown redevelopment in Mexico City. The Alameda section is one of the most controversial areas of redevelopment. It has a majestic park, with a turn of the century art deco style and a wonderful scale, and it is heavily used by the working class. It was threatened in the late 1980’s when land was being bought up for redevelopment. Plans were not needed, and the owners could essentially do whatever they wanted with the area, but the community stood up and refused to allow redevelopment to happen. There was a tremendous amount of public participation to influence this outcome. It is also the story of protecting the rights of street vendors and small business owners, and about retaining a sense of place and well-being.

In Mexico, public space is used regularly by the poor as a place to protest. It is one of the only means they have to make their voices heard. The protests are covered by newspapers and television. This is a right held by the poor, the working class, and women. It is a very important tradition in Mexican culture. The politics of public space is about the larger politics of downtown redevelopment. Public space is determining the future of downtown; how we think about it is different than just creating
profitable space. In this process, there are different political evolutions of the community getting involved. The role of the public participation in downtown redevelopment is fundamental.

Q. (To Daniel Levi) Your topic brought up the question of what public is, and what makes it public. In looking at domesticity coming into the public realm, if the public claims a space, one could argue that the difference between public and private is not appropriate. Is public space an intersection of the private?

A. Dan: Now, public and private should be thought of more as whether or not a place allows a kind of behavior, and to what extent. The American distinction between public and private may not be valid in more traditional and collectivist cultures. In Thailand, the issue is not whether a private vendor is using a public space. The issue is whether the vendor is adding value to the social use of a space.

Q. (To Leo O’Brian) Your presentation is more tangible, and illustrates the limitations of New Urbanism. With a lack of density and civic identity, Woodbury seems irresponsible. Why should we perpetuate this type of development?

A. Leo: Andres Duany (famous new urbanist author and designer) would not agree that this project is an example of New Urbanism. However, in order to change constraints of the project, they have to deal with multiple agencies regulations and standards involving traffic counts and arterials. As planners, principles would be easier to incorporate if agencies would support designers. As a firm that does master planned communities, densities are a result of market input. But, this development is also the highest density development the company has ever done.
**Changing Travel Patterns of Older Women**  
Policy, Safety and Mobility  
A Talk by Sandra Rosenbloom

Geiska Baker is the author of this edited transcription of Dr. Sandra Rosenbloom’s presentation at the CRP Department on May 11, 2006. Dr. Rosenbloom thesis is that transportation planning must meet different needs from different users, and be able to respond to market segmentation. She discussed the importance of identifying the travel patterns of older women in planning for an aging population and presented research information from the US and Great Britain.

There is a potpourri of transportation issues facing older people; but more particularly older women because they face different problems and have different resources than older men. In general, there are very few older women in comparable positions to older men. Older men are more advantaged in a number of ways and this is revealed in their travel patterns, mobility patterns and general lifestyle.

**Differing travel patterns**

Older women are substantially less likely to have a driver’s license in the US and abroad. At all ages, women travel fewer miles by any mode than comparable men. Compared to the behavior of younger women, older women make fewer daily trips than older men and more often use alternatives to the car. As drivers, older women’s travel patterns are significantly different from older men’s, and they self-regulate their driving behaviors more. Self-regulation means that they are less likely to drive at night, less likely to drive in congested traffic, less likely to drive when they don’t feel well, less likely to make left turns, more likely to make all right turns around the block, and just driving less, which includes staying home.

Older women give up driving substantially earlier than comparable men and for “less drastic” reasons. Studies in Iowa following older drivers found that the precipitating factor of older men giving up driving is the third stroke or heart-attack! Women, however, give up driving because of vague reasons such as they don’t feel confident, they don’t like it, etc. The reasons are not often a precipitating event, illness, stroke or heart attack. Usually by the time older women have a stroke or heart attack, they’ve already given up driving. The problem is that women have fewer resources to meet their mobility needs when they stop driving, although they’re just as likely as men to be living in suburbs or rural areas.

**Implications**

If women continue to give up driving earlier, and not driving as much, there are going to be substantial mobility issues. If however, as has been happening over time, they come to more resemble the driving behaviors of older men (e.g. driving alone, driving more, more dependent on the car), then there are going to be safety issues.

What is noteworthy about the safety issues is that women have fewer crashes than men, by large margins, through all age categories. So, when it is said that older women are, or might become, less safe, they are not being compared to men. They would have to be much less safe to drive with the crash rates that older men have, but to current generations of older women. If older women in the future drive more, start to have more male-like driving behavior, we will see skyrocketing crash rates even though they will be nowhere near the crash rates of comparable men.
There are obvious mobility implications in this as well. There is substantial evidence that women renounce driving often before they need to; that is they are still competent drivers, they just don’t feel like competent drivers. There is a misconception in the data that with age, women are less likely to drive. In the future there will be really different people driving. New older driver cohorts are on the horizon. The current cohort of 85-and-over represents women who never learned to drive. In 2003, we found 84 percent of women coming into their senior year (age 65) were drivers.

So, the gap is definitely narrowing, and this cohort (65-69) is going to move across time, and in the cohort behind it, the gap is even smaller. The gap is largely a difference in the licensing rates of minorities; white men and white women have licensing rates almost the same. U.S. licensing rates are substantially lower among minority women. In fact, the gap between Hispanic men and Hispanic women is almost twice that as between Hispanic men and White non-Hispanic men.

Drivers

As the sample is disaggregated, it tells us that when older people are drivers, there is no statistically significant difference between men and women’s mode preferences. Both genders take over 90 percent of trips in a car. However, if you’re not driving, you still take two thirds of your trips in a car, for both men and women, and you’re much more likely to walk if you use public transportation.

The National Household Travel Survey 2001, which is the latest available data, establishes that women are more likely than men to travel in a car if they are non-drivers. This survey doesn’t ask people if they are licensed drivers, because there were a lot of people driving without licenses, particularly in the immigrant and ethnic groups. It does ask however, “do you drive?” Some say that there are many who have a license and may not be driving, but this data show that these are people who are driving whether they have a license or not.

All men over 65 drive more than women over 65 and, if they are drivers, they make more trips per day. If they are not drivers, women make more trips. So, the second difference is found between people who drive and people who don’t drive.

Another problem is that we don’t know why these women are not driving; they may have given up, may never have been drivers. The national dataset conflates two very important things; whether you never drove or whether you gave up driving, you’re in the same category. As a consequence, the mathematical averages of non-drivers may actually represent no one’s behavior. It could be argued that if you have never driven it may be that you have organized your life so you can exist without driving. In other words, you live near your relatives, you live in a denser neighborhood, you live near public transport, or you live in a place where you can walk.

Those that must give up driving, on the other hand, may actually be more disadvantaged, because they live in suburbs, in places that have no alternative to driving. They’re not living near their family; they may not have any family. Seventeen percent of baby-boomer women in the United States never had a child, and, increasingly, women are coming into their senior years single, divorced, widowed or never having been married.

Remembering why men renounce driving, makes clear why it is men make fewer trips when they’re non-drivers. They are so ill or have so many disabilities by the time they give up driving, that some of that is reflected in their trip record. The second reason discovered through focus groups discussions,
is that men won’t ask for directions, and they won’t ask for rides; where women seem more willing to ask for rides when they can’t drive.

Another significant difference is if you’re a driver, and you’re a woman, look how much you’re not driving the car you’re riding in. On the other hand if you’re a man, even if you are over 85 years of age, you’re driving almost two-thirds of the time. This is important because there is a real problem with driving experience. Contrary to the belief that older drivers have more crashes than younger drivers, they do not; and they’d have to go a long way to have more crashes than 18 – 25-year-old boys.

Research in Finland on driving exposure found that what is happening among older drivers is that they actually have more accidents per exposure, but less per capita, until around 85 years of age. They discovered that what really predicts crashes is “low driving exposure.” In other words, regardless of age, if you don’t drive very much you’re more likely to have crashes. The fact that women drivers are often riding as passengers means that they’re not getting the experience they need to continue to be good drivers which exacerbates the vicious cycle of not feeling confident, not driving, and relinquishing driving early.

Only in the youngest cohorts do women drive nearly as much as men. The data shows women 16 - 24 drive 82 percent as many miles as their male counterparts and as age goes up they drive fewer and fewer. So, if we’re waiting for the youngest women to make it to 65 before the trends equalize, we’re going to be waiting a long time. Even though there are changes in mobility and drivers licensing, there is more dependence on the car among younger women, though there are still substantial differences.

**Focus Groups**

During focus group research in both America and Great Britain, it was found that many women don’t drive because men are constantly criticizing them. They are criticizing even though the statistics show that women are inherently safer drivers than men. To the question “Why don’t you drive as much as you used to?” these are some of the answers:

- Female driver in an US focus group: Sat beside her husband, never really drove, even though she had a driver’s license, and now there is nobody else in the car, and she doesn’t feel confident. She doesn’t go out as much, she’s afraid of being in the car.

- Female driver, Birmingham, England: The stress of the road.

This introduced an interesting characteristic of British women that wasn’t true of a lot of American women. Many British women thought of driving as a chore and didn’t see it as pleasurable, liberating, or doing anything they wanted to do. They believed that when they had reached a certain stage in their life, they shouldn’t be driving -- for example, past the age of 60 or 65. The contrary belief of one woman in a focus group was met with much criticism from the other women, even though she was the only one of them who had lost her husband and had no one to drive her.

**Parents of Older Drivers**

Self regulation was also introduced with parents of older drivers. What was interesting was how different the parents were in the UK and in the United States. In the UK, adult children of older parents very much wanted that their older parents stop driving. In the United States, the adult children of older drivers were concerned or worried, but they never had the same feeling that their parents ought to
stop driving. This may be, in part, because Americans are more invested in the car so that the adult children did not want to put themselves in that position. They could see what would happen to them if they had to stop driving, so they were unwilling to say that their parents should. Furthermore, they could see what would happen to their lifestyle if they had to start driving their parents around.

- Female driver, Sheffield, England: “My husband criticizes me, he tells me what I’m doing wrong and it’s just easier to let him drive.”

Many of the adult children complained about their father’s driving, and they felt that it was almost impossible to get through to them. If they said anything to their male parents, it started a fight or he would not want to hear about it. There have been some focus studies done in the United States where the researchers found people who actually disinherited their children for saying “dad, you shouldn’t be driving.” Both in the United States and the UK, people universally said that their mothers listened to them, initiated conversations about how they drive and when they were told they were a bad driver, were quite willing to cease or reduce driving, but it was almost impossible to say anything to the father.

It was difficult to get older people to make any comments at all. When asked “Do you think that you’re a better driver because you have years of experience?” most would answer, yes. Then they would immediately launch into a discussion about how bad younger drivers were, and it was clear in both the United States and in Britain that this was not the first time the issue had been raised; they were very resistant.

They were asked “what will you do when you have to stop driving?” To this, they provided answers such as “I’m never going to stop driving” or “I don’t know.” It was really difficult to engage them, particularly the men. So much so in fact, that when during the screening, people were asked to identify themselves as a current driver, former driver or someone who never drove, so that they could put together the focus groups.

In every focus group at least one older gentleman would identify himself as a driver who didn’t have a license anymore, didn’t have a car and had no insurance. But he still identified himself as a driver! This is clearly much more a part of a man’s persona than it is of woman’s, and the kids can’t get the parents to do what they want them to do. The mothers might listen — are more likely to listen -- but the fathers won’t listen at all.

- Seventy one year old female non-driver, Tucson, Ariz. Tucson is a very automobile-oriented culture, so it was sort of a surprise at this woman who didn’t drive. She had a driver’s license before she retired to Tucson, used public transport, but she didn’t drive. She then moved to Tucson to be with her brother, and she feels ready to get in a car and drive again. However, her brother insisted on driving. He is 81 and not her husband but he still believed that it was his job to drive.

By examining trends, similarities begin to appear. Men and women are much more alike if that gap is closing, though it’s not going to disappear, because among younger women, minority and ethnic women are less likely to drive. There will still be a substantial number of women coming into their senior years who have never driven. But at the same time, certainly in the majority culture, that gap is closing.

Female “automobility” is increasing. In other words, there are more women who drive, have driven themselves all their lives, are likely to own and use a car, and more percentage of their trips than ever
before are taken by car. Along with this growing “automobility” and access to the car, is the double and triple digit increase in trips made and miles traveled in a car. There is also a correlation in the increased “automobility” and a decrease in the use of other transport.

Transit System Challenges

In 1995, a national study showed that older people are more likely to use public transport than younger people. Many researchers assumed that the report indicated that older people suddenly decided to use public transport and walk for more of their trips. What was actually represented, however, was a generational difference. It was women, who had never driven before, suddenly being replaced by women who were drivers. Furthermore, the transit system is geared to serve origins and destinations at conventional work times, and not the origins and destinations that older people generally want to travel to. Of course some of them are the same, like malls, but most older people are not going to the large employment centers or other places that public transport is going.

The transit system isn’t as well structured to make non-work trips as it is to make work trips, regardless of the traveler’s age. So, when older people leave the workforce, they’re often exchanging work trips for non-work trips; work trips made by public transport for non-work trips that you can’t make by public transport in most places. The perception of personal security is an issue as well. If you think you are unsafe you won’t use transit. There is so much to be improved in public transit to accommodate older people; it is just far too expensive in most cases.

In 2000, 75 percent of the U.S. population over 65 lived either in rural or suburban areas. There is no suburban definition in the census. The suburban distinction is derived in the census by taking central cities out of metropolitan areas and what’s left, outside of rural, is suburbs. The problem is that the central city is equal to the jurisdictional boundaries of a community. So, you can be 42 miles from downtown Tucson and be considered “central city Tucson” in the way the census definition works. This means that the figure of 75 percent is probably too low. It underestimates the number of people living in low density. It underestimates the number of people that live in areas where there is poor access to public transport or other alternatives. So, now there are people increasingly dependent on the car, older people increasingly living in places where there is no alternative.

This is a serious issue and why it’s so important to find ways for older-people to: a) continue driving, particularly women and others disadvantaged by these trends, and b) talk about housing and land-use options that will allow people to have greater access, particularly older women because they are substantially less likely to be married and more likely to be living alone than older men.

The Finnish researchers mentioned earlier suggest that one way to keep women driving is to encourage them to drive before they turn 65. This does not mean they have to drive more, just encourage them to drive when they’re in the car. Encourage them to say to their husbands and partners, “Hey, I need to drive half of the time, and you need not say anything to me when I’m driving unless I’m about to get us killed! You need not depreciate me, criticize me. You need to let me drive that car for our health in the future!”

A woman in New Zealand said “why should I care about silly women who can’t discuss this with their husbands?” It is the overwhelming percentage of women, so silly or not, women need to be encouraged to instigate these conversations. The need is to encourage them to drive more, period.
But the most important thing is for husbands and wives, partners, to sit down and have this discussion before it is too late.

**Future Research Needs**

There are profound differences in crash outcomes due to innate physical differences between men and women. It’s very important to look at those differences in terms of having crashes in the first place and in terms of crash survivability. This is a women’s issue.

Another area for future research is the impacts of the array of new modifications available in new cars on older-people. There are issues here in terms of the driving tasks there as well as issues of crash survivability and outcome. Research is needed and it should also be done by gender.

Driver training programs deserve some attention in terms of developing and testing some prototype programs. Encourage the private sector to adopt that kind of curriculum, and make sure that whatever that curriculum is, that it is a strong proven relationship between what you’re teaching people in a car or in a classroom, and crash outcomes.

**Land Use, Community Design and Housing Options**

This is part of a whole bigger issue of land use, community design, planning and housing options. For the most part, people are aging in place. In other words, they are living their senior years where they lived at 45 and still in the workforce. While there are exceptions, particularly noted in places such as Arizona or Florida, in fact what’s happening is the percentage of people who move on retirement has been dropping every decade for the last 40 years. There are more people over 65, so a smaller percentage of the larger number is still absolutely more people and they are going to a select few places, such as Florida. When they’re moving, they move to the suburbs.

Some places, such as North Carolina, have made it part of the economic development policy to recruit people at 60 or 65 to move into their rural areas. In Vancouver, they built senior-friendly development, restricting sales to those who stay within the neighborhood, because that is what people are attached to, even more so than their homes.

It is necessary to find housing options for older women living alone, because even when gaps are closed, women are still living longer than men. So, there is a need to look at the kinds of things that will facilitate where they want to be, and keeping them out of institutions. It is a complicated picture and is more difficult for women than men. The Vancouver model needs to be expanded.

**Linking Research to Policy**

If you’re talking about transportation planning, you have to know why different people respond, you have to do that market segmentation, which is considered perfectly acceptable in the private sector, and it should be in the public sector and public-private partnerships as well. Segmentation research is going to change the kind of policy responses and transport that policy makers choose. It’s going to make a difference, and that this type of information is needed to design mire useful multi model transit policy.
Colin Drukker is a senior planner and project manager at The Planning Center’s Costa Mesa office in California, serving as project director for its efforts on suburban studies.

Lisa Jabuka is CRP (Cal Poly San Luis Obispo) graduate. She is an associate planner at The Planning Center’s Costa Mesa office in California, focusing on general plans and specific plans for private developers.

As noted by The Planning Center in the presentation to CRP design studios in 2006, because most residential growth in the US will continue to happen in the suburbs, we must concentrate our efforts in planning for better suburban development. The authors write about The Planning Center’s philosophy towards providing for better communities and for sense of place in the suburbia, and they illustrate their discussion with three recent case-studies.

In the next forty-five years, America will need to house about one hundred million additional people. Much of this growth will take place in our suburbs. In the past, conventional suburbs were less the products of a reasoned approach to growth than expressions of blind faith in long-standing market forces. The result is sprawl, with all of its attendant ills: long commutes, excessive fuel consumption, pollution, and the proliferation of formless, lifeless communities. It is development without community; growth without purpose; expansion without a model for a sustainable future.

But, as we have learned from surveys and focus groups, Americans long for a sense of community, a livable environment for their families, access to nature, centers they can walk or bike to—features that most post-1950 suburban developments have failed to provide.

Creating true community in suburbia will be one of the most pressing challenges facing planners, developers, architects, and land use policymakers of the new generation. To meet that challenge successfully, we must consider strategies that address all of the moving parts that make up our communities. There is no panacea; there is no single land use policy or design construct that can be copied and pasted across the country to create great places to live. However, conversations on strategies for accommodating the coming growth have become increasingly polarized, partisan, and dominated by disputes over one or two issues.

At a fundamental level, a community can best be understood as an interaction of five critical elements—economic, environmental, physical, social, and governmental. This framework is broad and we recognize that many issues apply across many of the elements. As an example, affordable housing is as much a social as an economic concern. This interrelatedness makes a comprehensive discussion all the more important. Addressing all of the elements brings everyone to the table and prevents “silo solutions,” which fix one problem but ignore related issues (Drukker, 2006: 3).

Instead, we ask that a more comprehensive approach be taken—a philosophy of planning, design, and development that aims to coordinate and improve all of the complex elements that make up a community. Addressing all five elements will facilitate the growth of a complete community that can accommodate our coming growth while maintaining and improving our quality of life.

For the past two years, The Planning Center, a multidisciplinary planning, urban design, and environmental firm headquartered in Costa Mesa, California, has been studying successful communities to better understand the fundamental elements of places in which people enjoy living. The ongoing study has resulted in two publications and over twenty detailed case studies of cities, towns, and communities throughout the United States. The most recent publication, Five Steps Towards a New Suburbia, published in October 2006, summarizes the five main elements intrinsic to building a complete community.
In this article, we explore a range of different planning efforts through three case studies that exemplify the Five Steps model:

- Santa Ana, California: an infill project that uses flexible space as a response to changing market forces and a hydraulic parking lift system that efficiently uses available land on this small site;
- Woodlands, Texas: a master planned community that fosters social connections and equity through the integration of a range of housing types within each village; and
- Westlake, Ohio: a mixed-use town center that uses conditions of approval to guarantee a healthy mix of residential and commercial uses in each project phase.

Each example has been selected because it excels at incorporating one of the five steps in an especially creative way. The policies and planning efforts discussed in the following examples are extremely innovative, but they are also practical enough to be applied and implemented within other communities.

ECONOMIC - Creating Flexible Places

West End Commercial Lofts in Santa Ana, California

As market demands change over time, communities experience a flux of uses and dominant industries. Part of creating a sustainable community includes planning for this natural evolution by developing flexible built structures. Flexible spaces and buildings are defined as areas that can easily transition or convert from one use to another. This can be done through site planning and building design. Various techniques include versatile interior and exterior design, access that could be easily adjusted for public or private use, and the height of a building or space being open enough to house a range of different uses.

The flexibility of spaces is becoming increasingly important as many cities and communities incorporate mixed-use designations into zoning codes or individual projects. Ground-floor retail with office and residential located above is a traditional and ideal mixed-use concept, which works well when there is a market to support the ground-floor retail. However, it can be hard to predict exactly how much ground-floor retail will be sustainable, as this depends on the type of retail, project location, adjacent new retail projects, and phasing of new or infill residential within the project or within close proximity to the site.

The West End Commercial Lofts by Urban+West, a proposed project in Santa Ana, California, will be an example of a building planned for mixed use, but with flexible building design and development regulations that will allow its uses to transition if unsuccessful. Currently, the project is planned to include a six-story building with five floors of flats and ground-floor retail, but the building will be designed so that the uses could vary as a response to changing market conditions. Its design would potentially allow the building to be used for a mix of office, residential, and retail depending on which uses prove more viable at that location over time. The City of Santa Ana is employing a creative zoning strategy to ensure the flexibility and adaptability of the development.
standard that will allow for the transition from residential to commercial use without requiring a permit. In order to check this progressive policy, the City regulates the zoning standard with a detailed list of permitted uses and operation standards.

When designing a flexible space, the functionality, compatibility, and accessibility of all potential uses must be considered. Darin Schoolmeester, a Principal at MVE Architects, comments that when creating flexible spaces it is imperative to, “be careful on how the space is used. Spaces suitable for retail must be public and exposed. This creates a unique edge that must relate the surrounding conditions and uses. Converting it to residential will not always work as that use requires a very different edge and environment – mostly. It is not always good to create an active edge when the demand is not there.”

In order for the building to be used as either residential, office, or commercial, public parking must be either available in surrounding areas or built into the project. Schoolmeester notes that if the space is parked for residential and converts to retail there could be a significant parking problem; the only way this can work is if the project is sited in an area with a strong public parking plan. The West End Commercial Lofts project is able to avoid this potential pitfall, as it is located in Santa Ana’s Downtown and Artist’s Village and within walking distance of numerous public parking garages.

Along with creative design and zoning, this project also utilizes an innovative solution to meet the parking requirement on the land-constrained infill site. At approximately 40 feet wide, it would be difficult to achieve the turning radius necessary for subterranean parking, and surface parking is too inefficient. As a solution to this problem, parking for this project will use a German hydraulic lift system, which will cost approximately half the amount of subterranean parking and be an extremely efficient use of land. The lift system can hold up to eight cars, which is the required number of spaces for this project. Likened to a Rubik’s Cube, the system uses nine trays, organized three wide by three high, to shuffle the stacked cars. It takes approximately 20 to 40 seconds for a car to be retrieved by the semi-automatic lift system (Taixin, 2006).

All aspects of the proposed West End Commercial Lofts embody a planning effort that accounts for the evolution of the area and markets over time. By considering long-range planning implications and building them into a current-planning project, the building is more likely to become a sustainable, usable, and economically viable structure for the City of Santa Ana.

SOCIAL - Building Social Capital and Equity through Housing Variety
The Woodlands, Texas

Social aspects of place are equally as important as design and physical form. Social infrastructure plays a large role in drawing residents to an area and should help engage all segments of a community in volunteer, recreational, spiritual, and educational events. It is this social fabric that allows residents to invest in a place. One technique to building a healthy social network within a City or community is to mix housing types of all size, tenure, and density, which works to create an inclusionary and connected social environment instead of one that is exclusionary and segregated.

As new communities develop and existing suburbs evolve, it is common to see the isolation of for-sale single-family residential housing in exclusive enclaves. Traditionally, single-family homes have been developed in mono-functional tracts, as the protection and preservation of these neighborhoods is promoted above all other land uses. This trend originates as a manifestation of the American Dream,
which places great importance on owning a single-family detached home. Because it is seen as a supreme use, single-family residential is commonly developed separately from, so as not to be devalued by, different uses. The effects this has on the American landscape can be seen on zoning and land use maps in all areas of the country, represented as large uninterrupted blocks of single-shade yellow.

This separation between single family homes and all other uses can be harmful for a community, as it divides uses and people that can and should function together to form a community. Multiple types of housing are not only compatible, but complementary, and offering a variety of tenure, density, type, and size provides residents added choices. Additionally, it affords common amenities, schools, and roads of the same quality for all residents, regardless of home price or property tax collection, helping to erase the line between the haves and have-nots.

Over time, many communities have come to acknowledge that integrating multiple compatible uses, especially various types and tenures of housing, can result in community-wide benefits. Integrating different types of housing can facilitate social equity and add value to the entire neighborhood, by providing a true and interesting community fabric.

The Woodlands, a master planned community just north of Houston, has successfully integrated a wide variety of housing types. George Mitchell, founder of The Woodlands, had a vision for a community that would benefit people of all ages, socio-economic groups, races, and religions. His goal was to create a new community – not just a collection of subdivisions.

The vision helped dictate land use and organized the 25,000 acres into seven self-contained residential villages. Small neighborhoods in each village were each allocated for different types of housing, varying in tenure, density, and value. Additionally, subsidized housing is provided in all seven residential villages and located within walking distance to market rate units. This design and community structure allows for sharing of amenities, where all residents—regardless of economic status—within the village enjoy the same schools, security, trails, ball-fields, playgrounds, and community pools. Because public schools typically receive some funding based on local property tax revenue, the blending of housing types helps to create educational equity and eliminate school busing.

Along with the will to implement it, The Woodlands was also graced with the means to fund the endeavor, courtesy of a $50 million loan guarantee from the U.S. Department of Housing and Urban Development (HUD) (Galatas & Barlow, 2004). The agreement with HUD required The Woodlands Corporation to provide low- and moderate-income housing and ensure equal housing opportunities to people of all races and ethnicity. During the development of the first villages, potential home builders were initially apprehensive to the mixing housing types of varied

---

**Figure 2**
The Brownstones, one of the housing types in Woodlands, Houston TX.

**Figure 3**
The motor-court, a housing types in Woodlands.

**Figure 4**
A multi-family building in Woodlands.
tenure, density and cost within the same neighborhoods, but The Woodlands Operating Company held to its established vision and rules for development. Once the Woodlands had shown market success, builders embraced and supported the integration of all housing types.

Roger Galatas, former chief executive officer of The Woodlands Operating Company, credits the success of the integrated housing not just to design but also to The Woodlands residents who ‘buy into the vision.’ According to Galatas, “Residents continue to support the inclusionary character of the Woodlands versus exclusionary (or gated) neighborhoods located elsewhere.” 2 Galatas notes that the physical and social structure of the villages allows for tremendous opportunity for resident participation through volunteering because all members share in the success of the community.

GOVERNMENT - Establishing Development Regulations for a Balanced Town Center

Crocker Park in Westlake, Ohio

(Author Sam Newberg, Joe Urban, Inc., in conjunction with The Planning Center)

A flexible government structure along with creative land use regulations can help to create successful communities. To create a unique place, inventive and site-specific regulations should be established so that a place or city can develop in the way the area was originally envisioned. Crocker Park, a 1.7 million square-foot mixed-use town center located on 75 acres in Westlake, Ohio, a suburb of Cleveland, is an excellent example of a forward-thinking city government guiding a major suburban redevelopment project. The city worked with the developer, Stark Enterprises, to ensure that a balanced mixed-use town center was developed, and that Crocker Park was not dominated by disconnected blocks of commercial buildings.

The concept for Crocker Park dates to the late 1990s, when the city of Westlake was deciding how to develop one of its few remaining commercial parcels. Although the upscale community had an underserved retail market, the city did not want to build “just another retail mall,” and Stark Enterprises came forward with plans for a mixed-use town center. However, the city had an “ultra-Euclidian” zoning code, in which their planned unit development (PUD) did not allow for mixed-use development. In order to change the zoning of the site to allow for mixed-use development, a city-wide referendum was held in 2000. It passed, but not without controversy. Not all staff or elected officials were in favor of the project, and Stark Enterprises embarked on a door-to-door campaign to gain support from residents.

A few parts of the approvals process stand out among town centers in other cities across the country. Because they wanted Crocker Park to be a well-balanced mixed-use community, the city of Westlake negotiated in the PUD agreement that no more than 35 percent of the entire project’s square footage can be retail, and that over 50 percent of the project must be residential; a rule that applied to all phases of development. The concurrent residential requirement is important because it provides a balance of uses throughout each phase of development. The city also requires that over 50 percent of the parking stalls at Crocker Park must be in structures or ramps. The developer exceeded that, with two-thirds of all parking located in a ramp or structure.

The project, designed by Street-Works, takes its inspiration from Mizner Park in Boca Raton, Florida and Santana Row in San Jose, California. From a design point of view, the project has a very strong pedestrian orientation. There are varied

---

facades, wide sidewalks, extensive landscaping, benches, and an oversized chess set. Stores must follow strict design and signage requirements, and every new storefront exterior must be approved by the city. The project does not contain a single anchor tenant; the city and developer believe Crocker Park itself is the anchor. Some of the retailers and restaurants at Crocker Park include Barnes & Noble, H & M, Gap, Talbots, Coldwater Creek, and the Cheesecake Factory.

Residential apartments are located above retail stores in vertically mixed-use buildings. Additionally, “liner lofts” are being introduced at Crocker Park, consisting of townhomes built around the exterior of various parking ramps. The liner lofts are three-story in design, and form a “liner” or “wrap” around the parking ramps, which enhances the streetscape with housing facades by hiding the parking structure. The 116 townhomes, developed by Coral, will be built in four phases starting in 2007. Coral believes residents are “buying the experience” of Crocker Park and that residential development as part of each phase of the project is critical to its success. Coral has a reported list of 500 interested buyers before even formally marketing the project.³

Phase one of Crocker Park opened in 2004, and will contain 550,000 square feet of retail, 240,000 square feet of office space, 160 rental units, and up to 450 townhomes when complete. Other uses planned for Crocker Park include a hotel and mid-rise condo project, which are slated for future phases. The city’s requirement that at least 50 percent of Crocker Park be residential ensures a mix of uses for each phase of development, and allayed fears of the project becoming “just another mall.” The mix of uses, coupled with attractive design and community events has helped Crocker Park become a success and given the city of Westlake an attractive and vibrant mixed-use center.

CONCLUSION – Using all Five Steps

The above case studies highlight one or more of the five steps in their development approach. By doing this, the projects serve multiple aspects of the community and are more worthwhile to the area’s residents over time instead of being singularly profitable for landowners in the short-term. The five steps are intended as a checklist to see if each project responds in some way to the varied and complicated elements of community. It is an acknowledgement that that more goes into community building than the creation of single-family homes or front porches. Above all else, the five steps model recognizes that each project must apply the steps in an appropriate and context-sensitive way. There is no one-size-fits-all solution and to create true community we must understand the unique economic, environmental, physical, social, and governmental components of each community.

References


Taxin, Amy. 2006, October 11. “A Modern Solution for an Old Parking Problem”. In The Orange County Register.

³ Bob Perry, Director of Planning and Economic Development (City of Westlake, Ohio). 2006, June 13. Interview with Colin Drukker, The Planning Center and Sam Newberg, Joe Urban, Inc.
Daniel Levi is a Professor at the Psychology and Child Development Department, Cal Poly San Luis Obispo. Kathryn Sperry received her B.A. in Psychology from Cal Poly and is a Doctoral candidate in Applied Cognitive Psychology at Claremont Graduate University.

As the buffer between farming and residential areas shrinks, pesticide related conflicts increase. Dan Levi and Kathryn Sperry discuss their study examining environmental attitudes and health impacts of living at the agricultural / urban interface in Oceano, California. The discussion illustrates the importance of including these potential environmental impacts and their mitigation in the planning agenda.

1. INTRODUCTION

1.1. Urbanization’s Effects on Agriculture

Urban areas are expanding into the surrounding rural countryside, creating development pressure at the urban fringe. This urban expansion into rural areas increases the importance of agricultural preservation. Conserving land for agriculture is valued by residents at the urban fringe, helps preserve the rural economy and helps limit some of the adverse effects of development. Understanding the economic value of agriculture for a city, town or region, as well as its perceived value for the quality of life of the community is one of the main goals for city and regional planning, particularly in the California context.

Surveys show that most Americans (70 percent) prefer a rural or small town setting near an urban area as a place to live (Fugitt & Brown, 1990). Improved transportation, information technology and cheaper land values have encouraged people to live outside of urban areas (Johnson, 1999). The highest rate of population growth is on the edges of metropolitan areas, predominately in rural counties.

Farms on the urban fringe are an important segment of U.S. agriculture. These farms produce one-third of the value of agricultural output, while using only 16 percent of U.S. cropland (Heimlich & Anderson, 2001). Nearby urban areas create new opportunities for farmers, if farmers are willing to make positive adaptations (Johnston & Bryant, 1987). Farmers adapt to urban pressures of higher property taxes and development pressure by increasing the value of their farm's production and developing marketing techniques oriented toward the urban environment. They shift to “adaptive” farming practices that emphasize higher value crops, more intensive production, new marketing techniques and farm operations that fit an urbanizing environment.

Farming near urban areas has both positive and negative impacts on agriculture. The positive impacts of urbanization include proximity to seasonal labor pool, greater off-farm employment opportunities, new markets for higher value crops – such as fruits and vegetables – and income from recreational activities (horse boarding, U-pick operations, etc.). Negative impacts on farming include complaints from suburban neighbors about farm odors and chemical spraying, conflicts about noise and traffic, reduction of traditional farm markets, higher real estate taxes and pressure on water and land use.

1.2. Agriculture’s Effects on Urban Residents

Working agricultural lands provides a variety of environmental, economic and social benefits to the neighboring urban communities (CAST, 2002). Agricultural areas provide ecological services, such as storm water management and wastewater reclamation. Agriculture helps with urban planning issues by supporting growth management and providing landscaping and wildlife habitat, while improving air...
quality. The positive economic impacts include providing food, nurseries and greenhouse products, landscaping and animal related businesses. Agriculture also impacts community well-being by maintaining aesthetically pleasing landscapes that provide for social and recreational opportunities, and supporting farmer’s markets and community gardens.

Growth at the urban fringe has negative impacts on both the natural environment and rural social system. In some cases, growth can destroy the scenic amenities that attract people to an area (Heimlich & Anderson, 2001). The loss of open space reduces local recreation and cultural activities. The arrival of new residents and the merging of rural communities with neighboring urban areas can disrupt the sense of community in rural areas. Negative environmental impacts include wildlife habitat destruction, air and water quality problems, consumption of open space and disruption of water runoff.

Conserving the rural lands at the urban fringe is important for both farmers and urban residents. Urban residents derive benefits from agricultural areas for recreation, visual enjoyment and growth reduction. Although urban residents are supportive of farming, they typically are not willing to make sacrifices to support the agricultural sector (Molnar & Duffy, 1987), and are not willing to accept loss of development opportunities, higher food prices or risk of chemical contamination to sustain nearby agriculture.

As urban areas expand into agricultural areas, the buffer between farm practices and residential areas shrinks and pesticide related conflicts increase. Although rural communities are often familiar with and accepting of the use of agricultural chemicals, urban residents who live near agriculture are less familiar and accepting (Van Driesche et al, 1987). In addition, urban residents moving to rural areas often show higher support for environmental values than existing rural residents (Jones et al, 2003). Pesticide related problems (such as spray drift of pesticides, groundwater contamination and noise and odor problems) could lead to anti-pesticide and anti-agriculture attitudes in the community.

1.3. Pesticides and Community Health

Agriculture’s use of pesticides can affect surrounding areas through surface and ground water contamination and airborne contamination. Spray drift is the movement of pesticides through the air during application to unintended sites (EPA, 1999). Airborne residues of pesticides can represent a direct hazard to humans, wildlife and vegetation. This hazard is especially evident for people who work in agriculture, but also impacts people who live and work near agricultural areas (NRC, 2000). Although government regulations limit spray drift problems in a variety of ways (i.e., restricting how pesticides are used and training applicators), problems remain and complaints by neighboring residents are increasing.

Off-site movement of pesticides can lead to health problems, both acute (which occur at the time of exposure) and chronic (longer-term) (Arcury, Quandt & Dearry, 2001). The acute health effects of pesticide exposure include rashes, headaches, nausea and vomiting, and respiratory failure. Longer-term effects of exposure can lead to cancer, neurological problems, and reproductive problems. Chronic health problems are difficult to detect in the early stages, so it is hard to determine the link between health problems and chemical exposure.

Given the relatively low levels of pesticide exposure to people who live adjacent to agricultural areas, the potential impact on human health is uncertain (NRC, 2000). Although research shows that pesticide residues are widely spread throughout urban areas, studies trying to link the use of pesticides with health problems have not been able to demonstrate a direct human health connection
(Daniels, Olshan, & Savitz, 1997). Consequently, public concerns about environmental health risks are often focused on unproven or uncertain risks.

Studies show that the public believes that pesticides pose a substantial danger to people, wildlife and the environment through food residues and environmental contamination (NRC, 2000). Beliefs vary widely about how dangerous pesticides are to personal health; however, less than 50 percent of the public believes that the government adequately regulates pesticide use. The growth of the sales of organic produce is one indicator of the public's concerns about food safety. According to surveys in the 1990's, about 70 percent of the public support the use of organic agricultural practices.

1.4. Community-Based Participatory Research

One approach to dealing with community concerns about environmental health problems is community-based participatory research (CBPR). In CBPR, health professionals and community members cooperatively work to investigate environmental causes of health problems, and develop physical and social approaches to improve community health (Arcury, Quandt, & Dearry, 2001). This approach uses surveys to gather health information from residents, which is then used by community groups to develop and implement approaches to improving community health.

CBPR is an important approach for dealing with health problems in rural communities that result from environmental causes. This approach has helped document the health disparities resulting from pesticide exposure in agricultural communities. Most of the community-based research in the field of environmental health has examined health impacts on farm workers and evaluation of interventions to reduce workers’ pesticide exposure. However, this research approach can be used to examine the health impacts on agricultural communities.

2. STUDY OUTLINE

We developed a case study using CPBR to examine environmental attitudes and health impacts of living at the agricultural / urban interface in Oceano, California – an unincorporated town in the San Luis Obispo County, close to the ocean, and with a population of about 7,260 in 2000. To conduct the study, a countywide environmental organization (Environmental Center of San Luis Obispo) partnered with an Oceano community group, researchers at the Center for Latino Health and Culture of UCLA, and faculty and students at the Psychology and Child Development Department of Cal Poly.

The main approach for this research was a community-wide, door-to-door survey conducted by community volunteers and students. The survey examined attitudes about community environmental issues and agriculture, and perceptions of household health. This study provides an example of how CBPR operates and demonstrates community perceptions about living near agriculture.

2.1. Description of Oceano

The community of Oceano has several characteristics that are important to understand to interpret the results of the study. Oceano has agricultural fields bordering and within the town. The crops grown in these fields are strawberries and vegetables, and these agricultural areas are substantial users of pesticides and other chemicals.

The town is about a mile from the ocean, with a large area of dunes and agricultural fields in between. These environmental factors can create dust problems and increase problems with pesticide spray
Because of ground water contamination that may be related to agriculture, the town recently switched from well water to reservoir water. This has lead to complaints about the quality of drinking water in the community.

2.2. Methods

The survey was designed to measure perceptions of environmental quality, attitudes toward living near agriculture, household members’ perceptions of their health and recollections of specific health problems within the last year. Data on background characteristics of the household was also collected. The surveying was conducted by community and student volunteers, who walked throughout the community of Oceano. The Oceano sample includes data on 1,548 people from 509 households, which represents about one-fifth of the population of Oceano.

3. RESULTS

3.1. Environmental Quality, Attitudes toward Agriculture, and Perceived Health

Perceptions of environmental quality are summarized in Table 1. These ratings of environmental quality show what the residents like about their environment and help to identify environmental stressors that may be related to perceptions of their health and attitudes about agriculture. Residents had fairly positive perceptions of air quality, traffic and noise in Oceano, but mixed views about the quality of drinking water, amount of pesticides, and dust in the air. Because these variables correlated with each other, an overall perceived environmental quality index was calculated.

The residents were asked to describe what they saw as the main environmental issue affecting their community. Table 2 presents a list of their responses. Mentioned by 25 percent of the residents, agricultural use of pesticides was the most frequently mentioned issue. Other frequently mentioned issues were quality of drinking water, growth and development pressure, increased traffic and congestion, and trash or visual blight.

The residents were asked to rate their attitude about living near agriculture on a scale ranging from a “major benefit” to a “major problem.” About half of the residents (53 percent) rated living near agriculture as a benefit, 33 percent were mixed or neutral, and 14 percent viewed living near agriculture as a problem. The participants were asked to describe what they viewed as the major benefit or problem with agriculture. Table 3 shows the responses. The residents listed a variety of benefits of

![Figure 1](image1.png)

**Figure 1** Halcyon Road is a divide between farming and urban uses and homes in Oceano.

![Figure 2](image2.png)

**Figure 2** Agricultural area in Oceano showing the proximity of residences and urban Arroyo Grande in the background.
Table 1: Perceived Environmental Quality Ratings

<table>
<thead>
<tr>
<th>Quality</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>77%</td>
<td>17%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>59%</td>
<td>26%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>52%</td>
<td>25%</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>46%</td>
<td>26%</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>39%</td>
<td>29%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td>27%</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Main Environmental Issues Affecting the Community

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural pesticide use and pesticide drift</td>
<td>25%</td>
</tr>
<tr>
<td>Quality of drinking water</td>
<td>14%</td>
</tr>
<tr>
<td>Overpopulation, too much growth, and loss of open space</td>
<td>13%</td>
</tr>
<tr>
<td>Increased traffic and congestion</td>
<td>12%</td>
</tr>
<tr>
<td>Trash, litter, junk cars, and visual blight</td>
<td>8%</td>
</tr>
<tr>
<td>Infrastructure problems, such as inadequate streetlights, sidewalks, water drainage, and sewage.</td>
<td>6%</td>
</tr>
<tr>
<td>Air pollution, smog, offensive odor, and dust in the air</td>
<td>6%</td>
</tr>
<tr>
<td>Other issues, less than 3%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Table 3: Benefits and Problems of Agriculture

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>29%</td>
<td>Local markets with fresh and cheap food</td>
</tr>
<tr>
<td></td>
<td>18%</td>
<td>Employment for locals</td>
</tr>
<tr>
<td></td>
<td>16%</td>
<td>Prevents development and population growth</td>
</tr>
<tr>
<td></td>
<td>16%</td>
<td>Provides open space and visual beauty</td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td>Value of farming as part of community’s history and culture</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>Rural character or atmosphere</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>Other</td>
</tr>
<tr>
<td>Problems</td>
<td>67%</td>
<td>Pesticides spraying</td>
</tr>
<tr>
<td></td>
<td>11%</td>
<td>Water pollution</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>Air quality, dust, and smells</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>Health problems and uncertainty about health effects</td>
</tr>
<tr>
<td></td>
<td>6%</td>
<td>Other</td>
</tr>
</tbody>
</table>

Participants rated their own health and the health of their household. The most common response was that the residents’ health had remained about the same during the past year. These perceived health ratings significantly related to self-reported health problems in the households. Perceived health ratings also correlated significantly with three of the environmental quality ratings (air quality, pesticides and dust), and ratings of attitudes about living near agriculture. Residents who viewed their health positively were more likely to rate environment quality factors positively, while residents who felt their health was worsening had more negative ratings of these factors and were more likely to view living near agriculture as a problem.

In addition, attitudes about living near agriculture were more negative for households with members who had breathing problems and recurring health problems. Residents who viewed air quality and pesticides as problems were more likely to view living near agriculture as a problem.

These perceived environmental quality and health ratings were compared to the background variables. Longer-term residents had more positive attitudes about living near agriculture. Homeowners were more likely to rate the environmental quality of Oceano as higher and they had more positive ratings of living near agriculture. Residents with higher incomes rated their own health and the health of their households as better.

Proximity to agricultural areas related to the perceived environmental quality and attitudes about living near agriculture. Residents who lived near agricultural areas rated their environmental quality as lower and had less positive attitudes about living near agriculture than those who lived further away from the fields. 25 percent of the residents who lived within a block of agricultural areas had negative views of living near agriculture, while less than 10 percent of the more distant residents had negative views of agriculture.
3.2. Health Issues

The survey contained four sets of questions that asked residents about their household members’ health problems during the last year. The questions examined the use of emergency medical care, respiratory or breathing problems, cancer and recurring health problems.

The residents were first asked if any members of their household needed emergency medical care within the last year. The data on emergency medical care was compared to the results of a national study on use of emergency care. The overall pattern of medical diagnoses was similar and the usage per capita was less for Oceano than the national sample.

Secondly, they were asked if anyone in their household experienced respiratory or breathing problems in the last year. The data on respiratory or breathing problems was compared to data from the American Lung Association. The rates of respiratory problems in Oceano were approximately equal to or less than county and statewide estimates.

In the third question residents were asked if anyone in their household had been diagnosed with cancer. Households that had lived in Oceano for more than 10 years were more likely to have a household member with cancer than households with less time in Oceano. However, the overall prevalence of cancer was not significantly higher than Central California norms.

In the final question we asked residents if anyone in their household experienced repeated or recurring problems with a list of six health problems (headaches, skin rashes, stomach aches or nausea, vomiting, physical weakness and excessive sweating). These problems were selected because they are symptoms of acute pesticide exposure. About half (52 percent) of the households had no problems, while the other half of the households had either one problem (25 percent) or more than one problem (23 percent).

The experience of recurring health problems in the household did relate to the other health variables. Households with recurring health problems were more likely to use emergency medical care, have respiratory problems and have cancer. The experience of recurring health problems in the household also related to the location of the house. Houses bordering agricultural areas were more likely to have multiple recurring health problems than houses more than two blocks away (32 versus 23 percent).

4. DISCUSSION

Living in a community adjacent to agriculture should be a benefit for the residents, and many people who live in Oceano appreciate living near agriculture. The residents rate the environmental quality of their community as relatively high, especially for air quality, traffic and noise that are typical urban environmental problems. The majority of residents view living near agricultural fields as a benefit due to the availability of fresh and cheap food, employment for community residents, preventing increased growth and providing open space and beauty.

However, the residents of Oceano are aware of the problems of living near agriculture. A quarter of the residents listed pesticide exposure as the most important environmental problem facing the community. Almost half of the community rated having agricultural fields near their homes as either a mixed experience or problem. Most of those who thought it was a problem listed pesticide exposure as the main problem. The residents’ response is typical of a community exposed to chemical contamination. While most members of the community view the community positively and downplay
the importance of the chemicals, other parts of the community are highly aware of the problem and search for ways to manage it.

In Oceano, about one-quarter of the residents are highly concerned about the health effects of exposure to agricultural chemicals. This concern is related to negative attitudes toward living near agriculture, perceived environmental quality problems, perceived negative health changes, and the presence of health problems in the household. It is difficult to determine if these concerned residents are over-emphasizing the dangers of pesticide exposure from agriculture. There is no conclusive medical research clearly showing a relationship between pesticide exposure and human health.

This study provides some explanation of the characteristics of the people who are concerned about agricultural pesticide exposure. Attitudes toward living near agriculture in Oceano were related to ratings of air quality and pesticide exposure and beliefs about one’s health. The perceived health of the residents, respiratory problems in the household, and the experience of recurring health problems were related to attitudes about agriculture. More recent residents to Oceano and renters were more concerned about pesticides. These new people have less commitment to the existing community, so they may be more willing to view it critically.

People who lived adjacent to the agricultural areas had more negative attitudes toward agriculture, more negative ratings of the community’s environmental quality, and were more likely to experience recurring health problems that are related to acute pesticide exposure.

It is not possible to use the results of this community health assessment to conclusively demonstrate a relationship between pesticide exposure and health. The health data does not show unusually high usage of emergency medical care, breathing problems or cancer rates. About a quarter of the residents report multiple symptoms of recurring health problems that are related to pesticide exposure. These health results are a reason for concern, but the link to agricultural practices is not conclusive. Without a definitive research conclusion, the community’s uncertainty remains.

5. IMPLICATIONS

This study had important implications for city and regional planning. It documented health problems in Oceano, but it could not scientifically demonstrate a link between health problems and pesticide use. The study showed that one-quarter of the residents experience stress about the health effects of living near agriculture. This stress, by itself, is a health problem for the community.

There are a variety of solutions to help mitigate or reduce the potential environmental health problems caused by agriculture at the urban fringe. These solutions can be classified as technical, social, environmental or agricultural. The implementation of these solutions requires the cooperative efforts of community members, community environmental organizations, government agencies and farmers.

Technical solutions are designed to reduce pesticide spray drift at its source. Many of these solutions are part of existing EPA regulations, such as improved spray technology and training of pesticide spray applicators. The use of Integrated Pest Management approaches also reduces the use of pesticides, by replacing their use with biological controls of pests and changing farm practices (Van Driesche, et al., 1987).

Social solutions help promote community empowerment by involving community members in reducing the environmental health problem. For example, farmers could be required to inform the community
whenever pesticides are being used. Education programs can inform residents how to change their behaviors during these days to reduce their exposure. Environmental solutions create buffers between agricultural areas and community residents. The planting of hedges and the establishment of greenbelts and natural buffer areas can reduce chemical exposure to the residents and enhance the environmental quality of the community. Greenbelts provide many of the benefits of living at the urban fringe, such as open space, access to nature, and growth control.

The final set of solutions focuses on agricultural practices. Agriculture at the urban fringe is more successful if it shifts from traditional to adaptive agricultural practices. Unfortunately, adaptive farming often encourages the shift to fruits and vegetables that may be more pesticide intensive than traditional crops. Farmers at the urban fringe need to reassess their relationship to the neighboring community and try to build positive connections between the community and agriculture. One approach is to shift to sustainable agricultural practices that reduce or eliminate the use of pesticides. Organic farming can be used to create environmental buffers that protect residents from pesticide exposure and build a positive relationship between agriculture and the community.

This new relationship between agriculture and the community is exemplified in the growth of Community Supported Agriculture (CSA) (DeLind, 2003). CSA establishes a more direct and personal relationship between farmers and the community by making community members “shareholders” in the farm’s activities. Most CSA farms practice organic farming.

Planners need to be concerned about the possible negative effects of living near agricultural areas. When possible, environmental solutions such as buffers can be used to mitigate problems. When environmental solutions are not available, then planners need to work with community residents, farmers and government organizations to implement alternative solutions.

REFERENCES


Why are Noise Elements so Silent?

David Dubbink

The Noise Elements requirements contained in the guidelines for General Plans in the State of California represent an important step towards ensuring that urban development meets higher standards of environmental quality. David Dubbink discusses how the European initiatives can provide California with a model of how to craft noise maps that provide accurate and understandable information.

Recently the European Parliament directed its member states to prepare noise maps. Maps are to be produced for metropolitan centers and for land near airports, motorways and rail lines. The idea of having noise maps is familiar to California planners. They’ve been a required feature of General Plans since 1972. However, there is a quantum difference between the mapping effort now underway in Europe and the California noise maps. They say that learning about another culture gives you insights into your own. This is certainly the case for noise control strategies. A quick look at the European initiatives tells us why the California Noise Elements are so little used.

Mapping

The European maps are readable and accurate. Figures 1 and 2 show how a typical California plan’s noise map compares to one produced in Germany. The differences are more than aesthetic. Germany’s shows the outlines of individual houses. This level of detail is typical for a European noise map. Noise exposure is indicated using a color gradient, which is easier for people to understand than the usual noise contour maps. The German map is an interactive, web-served document that can be zoomed, scrolled and queried.¹ The noise levels are shown in selectable color layers for day and for night - and for different noise sources such as roadways and rail lines. With this web page map, you can also click on any location and a popup box appears giving the appropriate noise level at the selected point. Such map displays can even be linked to digital recordings to deliver actual acoustic experiences appropriate to the selected site.²

There is also a quantum difference in the accuracy of the maps. The German map is based on noise estimation technologies that consider topography, shielding and reflections. If you look closely at the color gradations near the structures you see that the buildings cast an “acoustic shadow”. Although it doesn’t show in plan view, noise exposure is projected over the building’s surface, too. Each building face and each floor level of the structure are separately evaluated. Small black and white discs are scattered over the German map representing locations where the noise levels were measured using a portable monitoring system mounted in a small trailer. You can click on one of these disks and see a photo of the trailer standing in the neighborhood along with a numeric table showing both the measured and estimated noise levels. The level of map accuracy appears to be on the order of plus or minus two decibels – at the threshold of detectable difference.

By contrast, the noise estimation technology used to produce the California map includes no topography. There is no shielding and no reflections. There are no buildings. The California noise map appears to have been created by drawing lines at a fixed distance from the centerline of major roadways. The contour lines end at the city limits. At best, the California map is a crude indicator of places where noise might be an issue. It doesn’t depict noise levels with anything approximating the

¹ The address of the interactive source site is www.noiserus.com. The color map example and images on following pages were provided by the acoustic consultancy ACCON (engineering bureau for sound and vibration technology in Greifenberg/Germany) www.accon.de. The images are copyrighted by ACCON.

² The Interactive Sound Information System developed by the author is an example of an interactive mapping system linked to acoustic examples. See www.noisemanagement.com

David Dubbink, Ph.D., AICP, was a professor in the Cal Poly’s CRP Department from 1989 to 2006, when he retired. He is the director of the consulting firm Noise Management Inc.

Note: A version of this article appeared in the APA’s Cal Planner; May-June 2006.
precipice of the German map. The German map looks better, is more informative and is decidedly more accurate than its California counterpart.

The Tyranny of Standards

Every city in the state has a noise map that resembles the example of the California Noise Map shown in Figure 2. There’s no coincidence in this; the maps conform to very explicit OPR guidelines.

There was a time when California’s noise element guidelines were cutting edge ideas. But that was 1972. Eight track and Betamax tapes were new then, too. The downside of being an early adopter of any technology is that a shift to still newer technologies necessitates writing off the original investment. The state’s guidelines have been little changed since 1972. They date from an era when maps were printed in black and white, and desktop computers didn’t exist. Interactive maps such as we see everywhere on the web didn’t even show up in science fiction.

Throwing an established governmental program into the garage sale bargain box isn’t easy, but the state’s obsolete noise mapping requirements are long overdue for an upgrade. It is interesting to speculate why such obviously deficient noise maps weren’t trashed years ago. The present guidelines have a certain simple appeal in that drawing up the maps requires little effort or specialized knowledge. The guidelines have been around so long that the text for a noise element and an implementing ordinance is stored on every general plan consultant’s word processor. Traffic counts and the old “Sound 32” noise model can be used to figure out how wide to draw the contour lines. It’s a simple drafting job to produce the maps. The maps are neither accurate nor easy to understand but they score on the essential points of being easy to produce and on exactly meeting the state’s requirements.

Does Noise Matter?

It’s not as if Americans don’t consider noise to be a problem. The 2000 Census of Housing included a question that asked people to say whether they were so bothered by street noise that they’d want to move. Of all households surveyed, 4.4% said they wanted to move. This compares to 3.6% of all households saying that they were so bothered by crime that they wanted to move. Twice as many households reported that they were impacted by street noise as by crime (28.2% vs. 14%).

The benefits of accurate, accessible and easy to understand noise maps are more than just being a masterpiece of mapping technology. Some people are far more noise sensitive than others. If the community is provided with vivid demonstrations of the differing acoustic environments in a community, people could choose noise settings that fit their preferences. The cost of providing such information is modest compared to the costs of sound walls or residential noise insulation.

The bitterest community noise controversies come about when residents are injected into a noise environment that doesn’t meet their expectations.
Doing the Work

Technology for making accurate and accessible maps is available, but the question is, “What are the incentives to do this and who pays for the work?”

Like the California plan guidelines, the European initiatives are based on directives that spell out what should be done. The methods and metrics are defined. They also specify that the resulting maps are to be posted on the web. There is also a commitment to what are called Action Plans. These consist of multifaceted programs to improve the noise environment. They identify the number of persons exposed to excessive noise and suggest programs and priorities to reduce the number. They also identify present day quiet zones and provide for their protection.\(^3\)

The first step in any California program to improve the noise environment is to update the antiquated planning guidelines and noise depiction technologies. Some of this is about to be enforced since the Federal Highway Administration now requires use of a new traffic noise model.\(^4\)

Modern day noise modeling software now comes with point and click usability. The availability of digital elevation maps and GIS databases reduces the cost advantages of the handicap approach. This is particularly so if, as in the European case, the scale of the mapping effort is expanded and analysis is applied across an entire transportation system.

But there’s a first order questioning the need to apply high tech noise mapping in every California city. One problem of the one-size-fits-all prescriptions in the Noise Element guidelines is that they don’t consider the extreme variability of noise issues. Many California towns are quiet places, without major industry, freeways, railroads or airports. Certainly these quiet suburbs can have their own noise issues – barking dogs, construction sites, noisy pool pumps and loud parties – but these don’t require complex, technical solutions.

More exacting technical analysis is appropriate for towns that are crossed by freeways or that have major airports and industrial facilities. Such noise sources are typically region-serving facilities. The drivers, passengers and workers come from other places.

The European standards attach noise mapping requirements to noise sources instead of to cities. They require noise maps for roadways with more than 16,500 ADT, and for major airports and rail lines. If there were to be a “regional” or “source oriented” approach to noise mapping, who would do it and who would pay for it?

There are economies of scale in dealing with larger regions. The design and the pricing of high quality noise analysis packages such as Cadna A\(^5\) and SoundPlan\(^6\) are based on the idea that purchasers will make regular use of the systems. Users require training, as do the specialists in topographic mapping and GIS that deliver the baseline data. There is no need for cities to build such proficiency on their own. The solution is to have noise studies produced through a Service Bureau with the appropriate technology and specialists. In California, Caltrans or a regional transportation planning agency is the appropriate source for organizing such expert assistance. Consulting firms could provide assistance and craft community strategies for dealing with localized noise impacts.

In environmental impact reporting the principal is: “the polluter pays.” Noise maps produced for

\(^3\) The text of the EU Environmental Noise Directive (END) can be found at: http://www.ruidos.org/Noise/En_32002L0049.html

\(^4\) This is the Traffic Noise Model 2.5 (TNM)

\(^5\) www.datakustik.de/download/seiter_6_CadnaA_E.pdf

\(^6\) http://www.soundplan.com

Figure 3
A noise monitoring trailer in Germany.
commercial airports are typically supported by grants from the FAA - which collects the funds from airline ticket fees. In the case of noise maps for highways, the funding might appropriately come from vehicle license fees or FHWA planning funds. A rate structure might even be established that links vehicle license fees to vehicle noise production (which would be a noise control incentive itself).

When planners advocate Smart Growth and urban infill at higher densities, increasing noise is an authentic concern. The European initiatives provide California with a model of how to craft noise maps that provide accurate and understandable information. Decision makers and people making individual location decisions can benefit from such technologies. The FHWA mandate that requires the use of new noise forecasting technology provides us with an incentive for change. It creates an opportunity to rewrite the tired general plan noise standards that anchor us to the past. We can do better, and in doing better can build a foundation for improving the acoustic environment of our cities.

Figure 4
A 3D noise map from the UK (original in colors).
In this article Paul Wack offers us a reflection on two of the most important issues for the planning profession: climate change and the public’s short attention span. He starts by addressing a 1895 poem depicting an optimistic view of the future which the late musician John Denver used to recite during his concerts, and in which Paul finds much inspiration for his classes. The article also ties into the next one, titled “Hot Topic”, dealing with the same theme and originally published in the APA’s Planning magazine.

Ten years ago while walking to the opening reception of the annual California Chapter American Planning Conference in Monterey, an event of personal meaning happened that I would not learn about until the following day. Singer/Songwriter/Activist John Denver died in a plane accident that was completely preventable. In a tragic lesson learned, Denver forgot to check the fuel gauge of his experimental aircraft and crashed into the ocean within two miles of the reception site, the Monterey Aquarium.

A year later I published an article in the Association of Environmental Professionals’s *Environmental Monitor* (Summer, 1998) highlighting a poem that I use in almost all my classes, which appears below. Denver’s music and volunteer work was an inspiration to me during the early years of my planning career in the Central Coast. When I visited his Windstar memorial site near the Rocky Mountain Institute (RMI) in Colorado a couple of years ago (30 minutes before the photo of me in the APA Planning Hot Topic article was taken), I was reminded how much he continues to influence me. I give a donation every year to RMI’s Solutions Fund in his honor.

An “Ambulance Down in the Valley,” originally written by Joseph Malins in 1895, was an inspiration to Denver. At one of his web sites, Denver illustrates his optimism and commitment about a future of possibility through this poem about prevention.¹ If Denver were alive today I suspect that he would still recite this poem during a concert and connect it to the challenges facing a climate changing world. Since he can’t, I offer the poem as a tribute to him for making a difference in my life, including his challenge: “that in the polarity between darkness and light, there is the balance; that in the cycles of life and death, there is harmony; that in the incredible diversity of life there is equilibrium; that even as there is a way, there is not one way.”

This article attempts to bridge the “Ambulance in the Valley” poem to the reprinted American Planning Association Planning magazine article “Hot Topic” that follows, originally published last summer. The connection is a climate changing world that will challenge the planning profession for many decades to come. The idea of thinking about the seventh generation is not so abstract these days, if our future based professional job description and sense of moral responsibility to the unborn is any measure. The “Hot Topic” article opens with: “What a difference a year makes.” This could be the “copy and paste” quote of 21st century. Only future editions of Focus will know for sure.

¹ [www.wstar.org/Windstar/Org/Founders/possibility1.html](http://www.wstar.org/Windstar/Org/Founders/possibility1.html)
“An Ambulance Down in the Valley”

T’was a dangerous cliff as they freely confessed,
Though to walk by its edge was quite pleasant.
But over its edge slipped a Duke and an Earl
And it had fooled many a peasant.

The people said something would have to be done,
But their projects did not at all tally.
Some said “Put a fence around the edge of the cliff,”
Others, “an ambulance down in the valley.”

The lament of the crowd was profound and quite loud,
As their hearts overflowed with great pity:
But the ambulance carried the cry of the day,
As it spread to the neighboring cities.

So a collection was made to accumulate aid,
And dwellers in highway and alley.
Gave dollars and cents not to furnish a fence,
But an ambulance down in the valley.

“For the cliff is all right if you’re careful”, they said
“And if folks ever slip and are falling;
It’s not the slipping and sliding that hurts them so much
As the shock down below when they’re stopping.”

And so for the years these mishaps occurred,
Quick forth would the rescuers sally,
To pick up the victims who fell from the cliff,
With the ambulance down in the valley.

Said one in his plea, “It’s a marvel to me
That you’d give much greater attention,
To repairing results than to curing the cause;
Why you’d much better aim at prevention,

For the mischief, of course, should be stopped at its source:
Come friends and neighbors, let us rally!
It makes far better sense to rely on the fence,
Than the ambulance down in the valley.”

“He’s wrong in his head,” the majority said.
“He would end all our earnest endeavors.
He’s the kind of a jerk who would halt our good work,
But we will support it for ever.

Aren’t we picking up all just as fast as they fall,
And giving them care quite liberally?
Why, a superfluous fence is of no consequence
If the ambulance works in the valley.”

Now this story seems queer as I’ve given it here,
But things oft occur which are stranger.
More humane we assert to repair the hurt,
Than the plan of removing the danger.

The best possible course would be to safeguard the source,
And to attend to things rationally.
Yes, build up the fence and let us dispense
With this ambulance down in the valley.

Joseph Malins, 1895
Ambulances as mitigation

The purpose of highlighting the “Ambulance in the Valley” poem is to make us think about how humans generally respond to challenges with the traditional reactive approach to problem solving. Zachary Smith (2001: xi) argues that humans suffer from what he calls the “Environmental Policy Paradox”, in “that we often understand what the best short- and long-term solutions to environmental problems are; yet the task of implementing these solutions is either left undone or is completed too late.” The symbol of this paradox is the ambulance that catches those that fall from the cliff, which proponents would argue “aren’t we picking up all just as fast as they fall, and giving them care liberally? More humane we assert to repair the hurt, then the plan of removing the danger.” I suspect most planners would argue that “the best possible course would be to safeguard the source”, meaning in the context of global climate change, not to focus on “end of the pipe” fixes, but confront the sources of increasingly adverse human forces to normal global climate change: arrogant and aggressive behavior in the use of land across the planet. This conduct is not sustainable.

Climate Change as a Hot Topic

The recent Planning magazine article that follows is reproduced with the permission of the American Planning Association in an attempt to initiate dialog about the future of planning and the planet that humans call home. When Apollo 8 transmitted an image of Earth in the 1960s, generating the idea of “Spaceship Earth,” it became clear to most of us experiencing this miraculous event for the first time on our televisions that we didn’t have many options for an alternative cosmic ZIP code. As The Eagles, a rock group, reminded us in their 1970s song “Last Resort”: “there is no more new future frontier, we have got to make it here.” 30 years brings us to the viewpoints contained in the Planning article, which opens with introductory observations by CRP faculty member Ken Topping, reminding us that in the matter of global warming, “Katrina elevated the issue for everyone.” Several other planners from across the country offer observations suggesting that the planning profession is not in the business of “gloom and doom.”

The Planner’s Dilemma: Short Attention Spans

One challenge for planners is that tomorrow matters and should be part of any decision affecting a community. Unfortunately, most humans are influenced by decisions of the moment and possess short attention spans, as argued by Anthony Downs in his classic 1972 article “Up and down with ecology – the issue attention cycle”. Downs argued, during a time when the environmental movement was “leaping into prominence,” that it would eventually fade from public and media concern due to boredom and/or attraction to other new issues of immediate interest. The cycle provides a precautionary tale for planners with long term interests in climate change.

The issue-attention cycle involves five stages. First, is the “pre-problem stage,” in which the issue has not achieved public attention, but scientists, interest groups and policy advocates are concerned because of the trends reflected in their cumulative studies. Downs argued that an issue may rumble under the surface of public awareness for years before something happens to attract attention. Rachel Carson’s early 1960s classic “Silent Spring” is one example of igniting public interest in DDT and other environmental issues. Some would argue that former Vice President Al Gore’s recent Oscar winning documentary “The Inconvenient Truth” is one catalyst that has catapulted global warming or climate change to the attention level it is now experiencing. Gore’s documentary, released a month earlier, had an interesting impact at the United Nation’s World Urban Forum held in Vancouver,
Canada last summer. The theme of the conference was the anticipated historic transformation of the global population from rural to urban, including poverty, as represented by conference participant Kai Lee’s article (“An Urbanizing World”) in the 2007 edition of State of the World. However, I noticed there was increasing buzz of conversation among the 10,000 attendees representing 150 countries about global warming. It topic appeared to be elephant in the tent.

Whether it was the Gore film, or the image on the cover of the Time magazine’s April 3rd issue of a polar bear on a shrinking block of ice, or some other catalyst, it was clear that 2006 might be the year that the second phase of the Downs cycle blossoms. This phase is described as “alarmed discovery and euphoric enthusiasm.” The accelerating attention the media and politicians are currently giving to climate change is being fueled by the release of a series of scientific reports issuing a collective warning that the debate about climate change is over, and it is time for humanity to deal with it. Prevention is being replaced with the challenge to adapt, as recommended in the recent report of the normally conservative United Nation’s Intergovernmental Panel on Climate Change, or IPCC.

Climate change, or global warming, has been in the news cycle during recent months, feeding the “alarmed discovery” notion of Downs.

A question Downs would perhaps ask at this time is how long will the rapidly escalating interest among the public continue before the cost of mitigating the evolving impacts of climate change starts to surface? This would get the third phase of the issue-attention cycle started: “realizing the cost of significant progress” to solve the problem. Perhaps lessons from Hurricane Katrina in New Orleans or the earthquake/tsunami experience in Southeast Asia in 2004 will be instructive, as these events eventually move us to the fourth phase: “gradual decline of intense public interest”. Will there come a time when these events and the overall public interest in climate change enter into the final phase of the issue attention cycle, “the post-problem stage”? This is when the issue has been replaced by other pressing matters and “moves into a prolonged limbo,” seasoned with periodic events that temporarily “recapture public interest.” News at eleven!

**Carpe Diem (seize the day)**

As Ken Topping notes in “Hot Topic”, planners are generally optimists and enjoy challenges. Planners tend to seek proactive approaches to solving problems, rather than merely reacting. Can planners be proactive in response to problems that require adaptation over prevention as the only perceived option, assuming the significant body of scientific knowledge about current trends in climate change is correct? John Randolph, in his popular environmental planning textbook suggests we can be proactive through “learn by doing,” by pursuing an interdisciplinary approach that integrates adaptive management (scientific learning) with collaborative environmental decision making (social learning) (Randolph, 2004: 34).

The encouraging news is that for every report or commentary on the dark side of climate change, there are counter forces seeking the lighter side as an opportunity to confront this global-to-local challenge for human civilization. The almost daily onslaught of news, books, studies, documentaries, Web sites, and even cartoons, is overwhelming and too numerous to mention in this short article. However, a couple of examples serve to illustrate that the opportunities for making a difference are growing as exponentially as the world’s population, consumption, and greenhouse gases.

---

Recently, Cal Poly was one of the many sites to host the 2010 Imperative Global Emergency Teach-in at Chumash Auditorium. Part of the program was a presentation by architect Edward Mazria, representing Architecture 2030. He told the audience that buildings are responsible for almost half of all greenhouse gas emissions annually, with about 76 percent of all electricity generated by power plants in the United States is consumed by the “Building Sector.” 3 Mazria highlighted the Challenge 2030 campaign in which the design and development community is to implement a progressive fossil fuel/greenhouse gas reduction standard calling for all new buildings to be carbon neutral by 2030.

Another example is the U.S. Green Building Council (USGBC), a rapidly expanding national coalition of building industry leaders promoting structures “that are environmentally responsible, profitable and healthy places to live and work.” The USGBC established “LEED” –the Leadership in Energy and Environmental Design Green Building Rating System™ – representing a national benchmark “for the design, construction, and operation of high performance green buildings.” The USGBC has recently adopted the LEED for Neighborhood Development Rating System which “integrates the principles of smart growth, urbanism, and green building into the first national standard for neighborhood design.” 4 The potential of incorporating the LEED certification process into local planning agency development review procedures is strong and starting to be implemented in a number of counties and cities in California, and across the nation.

In last year’s California Energy Commission’s Integrated Energy Policy Report Update, the estimated 20 million increase in the state’s population by 2050 represents a severe challenge to energy resources and climate change “and suggests a need for fundamental shift in approaches to land use and development” (California Energy Commission, 2006: E-7).5 Moreover, the report acknowledges that “land use planning has not incorporated energy considerations to any significant extent.” (op cit.: 74). It will be interesting to see if the Governor’s Office of Planning and Research (OPR) addresses this issue when they update the current (2003) General Plan Guidelines this year.

We appear to be living in an “exponential era” of change and uncertainty. With “peak oil” meeting climate change, human adaptation seems the only immediate option. At the planning level it will be sustainability challenging climate change. It can be an exciting opportunity to expand the planning toolbox to participate in an interdisciplinary adventure to make a difference, or it could end up like a scene out of the classic short film “Bambi Meets Godzilla” by the end of this century. In the short run, it will be interesting to see where climate change resides within the issue-attention cycle one year from now. Stay tuned.

References


http://www.architecture2030.org

http://www.greenbuildingcouncil.org

The current California State population is 36 million.
As global warming is finally catching the attention of the general public, and it is certainly one of today’s hottest themes for the planning professionals, Focus decided to reprint Ruth Knack’s article which first appeared in the APA’s Planning magazine. It is a strong reminder that climate change and global warming is pushing the world towards a new development paradigm that will redefine the future of cities.

What a difference a year makes. Last summer, when this magazine ran its first story on global warming, there were still many doubters, and planners seemed only vaguely interested. “For most planners this issue simply does not resonate,” says Kenneth Topping, FAICP, a former Los Angeles planning director who has become an expert on hazard mitigation.

Why? “Because planners are fundamentally optimists,” Topping says. “They don’t like to think about negative scenarios.” But after the tsunami, hurricanes, cover stories in Time and Vanity Fair, and most important, An Inconvenient Truth, former Vice President Al Gore’s book and film, with its dramatic images of melting polar ice, heads have come out of the sand.

“Katrina elevated the issue for everyone,” Topping says. “We recognize now that no community is immune from disaster,” made more imminent by the steady increase in carbon dioxide emissions—the main cause of global warming. “What went wrong on the Gulf Coast could go wrong elsewhere,” he says.

What can we anticipate from a planning perspective? Topping asked at a forum on globalization at the last APA conference. The answer: sea level rise, coastal erosion, flooding, drought, urban heat zones, and agricultural disruption.

**Movie makes point**

“My mission is to change the minds of the American people,” said Vice President Al Gore on the Charlie Rose Show in June, “so that they recognize the danger before it’s too late.”

“This movie should be required for all planners,” says Ingrid Kelley, program manager of the Energy Center of Wisconsin in Madison, and chair-elect of APA’s Environment, Natural Resources, and Energy Division. “His point was to wake people up to the basic issue, and he did that very well. It’s up to us to pick up the ball and run with it.”

Sarah James, a planning consultant in Cambridge, Massachusetts, and coauthor of The Natural Step for Communities, agrees. “We may look back on 2006 as the year when this subject came on the public radar screen in this country. And I think this movie will have had a lot to do with that,” she says. “It gives us the grimmest aspects of the effects of global warming. But it also gives examples of things that are moving in the right direction.”
But lowering the carbon number will not be enough, James says. “We’re also going to have to stop gobbling up the land with our sprawling land-use patterns, and stop depleting water all over the planet. And we’re going to have to find ways of meeting our human needs more efficiently—and more fairly.”

James was part of the task force that guided the development of APA’s Planning for Sustainability policy guide. She notes that the guide is a good starting point for action on global warming. Its first objective is “to encourage planning approaches that reduce dependence on fossil fuels and other underground metals and minerals.”

In short, she says, “we already know what we’re supposed to do. Now we have to redouble our efforts to help decision makers in our communities to understand the local consequences if we don’t act.”

Several cities, including Duluth, Minnesota, and Portsmouth, New Hampshire, have officially adopted the “natural step framework,” the ecological program that the APA objectives are based on. Portsmouth has created training workshops for department heads, who are informally using the APA sustainability objectives to guide decisions, James says.

James and coauthor Torbjorn Lahti are now in the process of developing a training institute for communities. “Global warming will definitely be part of the curriculum,” she says.

**Short attention span**

Paul Wack, AICP, who teaches city and regional planning at Cal Poly in San Luis Obispo, had just returned from the United Nations World Urban Forum when we asked him if he had seen the Gore film or read the book. “I have read the book, but I haven’t yet seen the film although I am assigning it for a film class I’m teaching this summer,” he said. “I do think his ideas are pretty well on the mark.”

Wack says he is concerned that Gore could use the film as a stepping-stone for another run for the presidency. “If he does,” he says, “the global warming message could get lost in the politics.” In Wack’s estimation, that would hurt Gore’s credibility—“and the credibility of the whole climate change movement.”

“Some of my students who have already seen the film say they received a handout titled ‘10 Things You Can Do,’ which is taken from the book. It lists simple actions that individuals can take: change a light bulb, drive less, recycle. They’re all the things that we already know, but people are finally starting to pay attention.”

The publicity surrounding the Gore film prompted some broader musings. In 1972, Wack recalls, urban economist Anthony Downs published an essay called “Up and Down with Ecology.” In it Downs talks about a phenomenon called the ‘issue attention cycle,’ which Wack explains this way: “An issue is bubbling under the surface and momentum builds. You
know we’ve got to do something about it. But then people realize what it will cost and interest wanes.” The point is that our attention spans really are pretty short.

“And the same thing could be happening today,” Wack continues. “Global warming [or climate change, the term he prefers] used to be pretty obscure to most people. But now, thanks to the April 3 Time magazine cover, we’ve got that image of a polar bear on a shrinking pile of ice. People can relate to that. How long will their interest last?”

Wack represented APA’s International Division in June at the U.N. forum in Vancouver. “It focused on the fact that the global population—poverty too—has become more urban than rural for the first time in human history,” he says. “And of course that’s having all sorts of impacts on land use (notably the destruction of the rain forest and the dangers to coastal communities caused by rising sea levels).

“How are you going to armor all the airports and the sewage treatment plants and ports to deal with the rising oceans? We’re sitting here with that time bomb waiting to blow up,” he says. “And that gets us back to planning. We need to start thinking ahead and looking beyond our own little jurisdictions. We’ve got to understand that everything on this planet is interrelated to everything else—the old first law of ecology.”

Wack says his planning students are ready to meet the challenge. “They want to start addressing these issues. Many of our students are interested in the green building movement, and more and more of our graduates are becoming LEED-accredited.

“We’ve got a whole generation of planners coming up that already gets it. They’re aware of the danger, and they’re ready to move on it, because it’s their future that’s at stake. Most of the impact of climate change is going to be happening on their watch. That’s why they’re concerned. It gives me hope, actually.”

Ahead of the pack

In May, Diane Sugimura, the director of Seattle’s Department of Planning and Development, took part in a panel on planning for climate change sponsored by the University of Washington’s Northwest Center for Livable Communities. “We talked about the potential impact of climate change on the region, and what we as citizens, planners, and policy makers can do to help protect its livability,” she says.

“So, yes,” says Sugimura, “Seattle is definitely concerned about global warming, and the planning we’ve been doing for over a decade shows that. The comprehensive plan we adopted in 1994 focuses on concentrating development in urban centers and on preserving our rural lands and forests.

“We were the first city in the U.S. to make a commitment to use LEED (Leadership in Energy and Environmental Design) standards for public buildings. And we just adopted a new downtown zoning code that gives private developers a zoning bonus if they build to LEED silver standards. Also, this summer we will release an urban forest management plan that’s aimed at significantly increasing our tree canopy.”

In February 2005, Seattle Mayor Greg Nickels contacted mayors throughout the U.S., challenging them to “meet or beat” the targets set by the Kyoto Protocol, the international agreement to cut carbon emissions that the U.S. has refused to sign. “As of July 7, 262 mayors from 43 states had accepted the mayor’s challenge,” Sugimura says.

Education is a large part of Seattle’s program. A local lecture series, the Urban Sustainability Forum, features speakers like Svend Auken, a member of the Danish parliament and a former Minister of Energy
and Environment. “We had 900 people on a Friday evening listening to him tell how Denmark freed itself from its dependence on imported fuel,” she says.

An idea borrowed from Sweden is the “green area factor,” which allows home owners and developers greater flexibility in meeting landscaping requirements. “Somebody could get credit for a green roof, for instance, or for a tree canopy,” says Sugimora.

A current focus is to convince mortgage lenders to value green building. “We are working with a national group to attempt to change the underwriting criteria,” she says.

**Tipping point**

“I think we’re at a tipping point now,” says Michael Replogle, echoing Gore’s words in his film and book. “It’s a useful concept,” he says.

“The film reinforces the fact that there is an overwhelming scientific consensus that climate change is real.” At the same time, says Replogle, transportation director for the national nonprofit, Environmental Defense, he is somewhat disappointed that Gore did not spend more time on solutions.

“We’re putting this planet under huge stress right now and it’s human activities, many of them driven by planning decisions, that are doing that. But those same decisions can become a big part of the solution.

“The evidence is in,” he continues. “We must reduce our greenhouse emissions by up to 80 percent if we’re going to stabilize our climate. But there are no magic bullet solutions. We can’t solve this problem just with clean power plants, or by switching to low-carbon fuels, or by banking on hydrogen. It’s going to take a lot of one percent solutions adding up to a bigger thing over time.”

What we do know, he says, is that transportation and community design are major factors in energy use. “We have to learn to manage travel demand, which has been growing at more than one percent a year per capita. And that, in turn, means both smarter growth and smarter transportation choices.

“Where proposals for new freeways and toll roads are being put forward, for instance, we need to be sure that we are doing all we can to operate the existing transportation system efficiently before we invest in costly new capacity that will simply spur more travel. That means using tools like time-of-day congestion charges and bus rapid transit.

“We’ve got some strong evidence coming out of London and Stockholm and Singapore—and some U.S. cities—that the public will accept tolls on existing roads if they get good value and performance as a result,” he says. “We’ve seen traffic congestion drop significantly in those cities.”

Replogle also sees opportunities for more efficiency in a linked, intermodal system where network pricing plays a key role and in a viable cap-and-trade system (which is part of the Kyoto framework for climate change management) to manage greenhouse gas emissions.

He sees a major disconnect between local land-use planning, state and regional transportation planning, and the global situation. “We’ve got these state climate action plans and regional greenhouse gas initiatives, which are a good start, but only a start. We need enforceable emission caps allocated to states and regions, like the strategies put in place by the Clean Air Act to manage smog pollution.”
We’re not there yet, but Replogle is relatively optimistic. “I think we’re at the edge of a paradigm shift,” he says, “when these kinds of things are going to matter a lot more.” Meanwhile, he says, “we need to seek out the best practices, wherever they are, and work with others—including other nations—to adapt to a world in which climate matters. I think we’re all looking to find our way on this.”

And that’s where planners come in. “I think planners have a role to play in everything from providing affordable infill housing in areas that have lots of jobs and not enough housing, to paying closer attention to how transportation investments will affect long-term travel consumption,” Replogle says.

Even more important is planners’ ability to help people see that small things add up to bigger outcomes over time. “The quick fix often peters out after a few years when the technology you’re using becomes obsolete. But changes in the built environment are long lasting. Creating a development around a new transit station changes the DNA of a metropolitan area,” he says, “and that goes on for generations.”

Like the Iroquois Indians of old, he adds, planners need to be thinking about the impacts of what they do as far forward as the seventh generation. “If we as planners don’t do that, who will?”

**What to do?**

Frederick Steiner, dean of the School of Architecture at the University of Texas, has thought long and hard about what planners and builders can do, including in hot climates like his. “For starters,” he says, “if you’re trying to get people to take this really seriously, start talking about ‘global climate change’ rather than ‘global warming.’ That’s because some places on the planet will actually cool—and that causes confusion, which the naysayers can exploit. Also, explicitly include the urban heat island effect. It’s closer to home, and even the skeptics accept the fact that our cities are heating up.”

Then, says Steiner, start thinking about the buildings you allow in your communities. He notes that, according to Edward Mazia of the University of New Mexico, buildings are responsible for roughly 46 percent of all carbon dioxide emissions annually in the U.S. (roughly double any other producer including transportation and industry) and around 48 percent of all the energy consumed.

Greenhouse gases and energy are linked, he adds, because as energy demand goes up so do emissions from power plants, especially coal-fired plants. Air conditioning in warmer climates and heating in cooler ones increase energy use and contribute to the problem.

“Planners should be working with architects and structural engineers to revise building and zoning codes both to reduce emissions and to lower energy use. As part of Austin’s Green Builder Program, the city’s energy company offers incentives to builders and architects to build greener buildings. It’s also investing in wind power as an alternative energy source.”

Planners should also encourage city and county officials to adopt the U.S. Green Building Council’s new Neighborhood LEED standards, which provide a model for revising existing subdivision regulations and neighborhood plans.

“While current LEED standards are weak at the site scale, that could change,” he says. “The American Society of Landscape Architects has teamed up with the Lady Bird Johnson Wildflower Center at the University of Texas to develop new site standards to encourage energy reduction.”
Roofs are another area of concern. “Dark roofs absorb more heat than lighter colored ones. In the 1970s, Davis, California, adopted an ordinance encouraging lighter colored roofs. Another option is to create green roofs. See Chicago’s City Hall for a model,” he says.

Most important perhaps are streets and parking lots. “Black asphalt and concrete absorb the sun’s light during the day and reradiate its heat, especially at night. We can narrow the width of streets and the size of parking lots, reducing the amount of paving and saving money as well.”

Finally, says Steiner, “we need to preserve green spaces and create new ones. Green spaces help to cool our cities and reduce energy demand. (Using native plants requires little irrigation.) Planners have long played a key role in preserving farmlands and creating parkland. But the challenge of global climate change calls for new ways of greening the city. New York City’s High Line Project is a terrific example of such innovation.”

In the works

Little Rock planning consultant Christie McGetrick, AICP, is a longtime member of APA’s Legislative and Policy Committee. She’s also a global warming watcher. “I’ve been stirred up about it for a long time,” she says. “I believe it when Al Gore says we can’t stop the warming process but we can slow it down. But first we have to pay attention.”

McGetrick is one of a number of planners who would like to see an APA policy guide on global warming. “It should focus on what planners in the U.S. can do,” she says, “but it might also have input from planners in other countries, since this is obviously an international problem.” A new guide must also make clear how its recommendations can be translated into legislation and regulations, she adds.

“Katrina really made me think,” says McGetrick. “So much of what happened could have been avoided with better planning. We didn’t have to destroy the wetlands, and the levees could have been built to last.”

What would happen, she wonders, if a global warming-induced catastrophe overtook her own state of Arkansas (“not the most planning-advanced state in the union”). “I see a lot of poor land use and more and more highways, and very little control of emissions,” she says.

Resources

10 things to do to stop global warming: Change a light, drive less, recycle more, check your tires, use less hot water, avoid products with a lot of packaging, adjust your thermostat, plant a tree, be a part of the solution, spread the word. From An Inconvenient Truth, by Al Gore (2006; Rodale Press; 352 pp.; $21.95). Website: climatecrisis.net


Global, The Global Planners Declaration signed by APA and other national planning organizations at the World Planners Congress in June notes that urban activities generate 80 percent of all carbon dioxide emissions: www.globalplannersnetwork.org.

Cap and trade. Seven New England states have signed onto the Regional Greenhouse Gas Initiative, the first regional, mandatory carbon dioxide cap-and-trade program. The system limits total emissions and creates tradable “allowances” that permit users to emit a certain quantity of the capped gas. For details see www.rggi.org.
Defining Sustainability: A Challenge for the Next FOCUS

Paul Wack

Have you ever been stuck trying to respond to the question “what is “sustainability”? Many planners have a basic understanding of what they think this concept means, but have a difficult time articulating it through a succinct definition that generates at least a responsive nod appreciation for the attempt, especially among the general public. Paul Wack and FOCUS issue a challenge to see if anyone on this planet can offer such a definition for a concept that potentially possesses the necessary components to confront the evolving forces of climate change.

Sustainability is not something to be defined, but something to be declared.
It is an ethical guiding principle.
- Bert De Vries

What is sustainability (or sustainable development)? Defining this “fuzzy” term has been an ongoing issue for years with little resolution. The range of definitions generated during the past two decades has been as mixed as the bargain bin at the local flea market. Of course the most common definition cited is the well known Brundtland Commission offering that sustainable development “meets the needs of the present without compromising the ability of future generations to meet their own needs”, which is often criticized as being too simplistic and development-biased (Brundtland, 1987). Defining sustainability continues to be a challenge as the concept becomes increasingly integrated into planning education and practice (Gunder, 2006).

The challenge here is to encourage academics, practicing planners, and students to create a simple definition that does not require a dissertation to explain, but retains a touch of simplicity for ease of discussion.

For starters, I offer the following pseudo formula: \[ S = E^3 + F^7 \]

S means sustainability; \( E^3 \) means economy, environment, and equity; and \( F^7 \) means the future to at least the seventh generation.

I have considered adding “ + NS^4*” to represent “The Natural Step”, which is the basis for APA’s Policy Guide Planning for Sustainability (see http://www.planning.org/policyguides/sustainability.htm).

Send your “Sustainability Definition for Simplicity” entries by email to Paul Wack (pwack@calpoly.edu) before January 1, 2008. They should not exceed 100 words long. A panel of distinguished faculty and students will select the best three entries, which will be properly acknowledged and cited in next year’s FOCUS. The authors of the winning entries will receive a life-long subscription to our journal! We look forward to hearing from you.

References


These notes and sketches are based on the author’s travel journal from his visit to Italy in the summer of 1987. They reveal a spectacular sequence of spaces and vistas from San Giulio, a small medieval town in the north of Italy. They also reveal what an incredible asset that sketching and observation are in the education of a city planner and urban designer who is always looking for the perfect place.

These are sketches of Orta San Giulio, a small town of 1,200 people on the shores of Lake Orta, north of Milan, in Italy’s Piedmont lake district. They illustrate the succession of pleasant, contrasting and sometimes surprising spaces that pedestrians encounter while walking from its main entrance parking lot through a covered passage to an inclined ramp with a beautiful church at one end and a glimpse of Lake Orta at the other. Then, at the bottom of the hill is Piazza Motta, enclosed on three sides by buildings is a spectacular view of Isola San Giulio, a small island in Lake Orta, its monastery, and the mountains in the background.

Whether this exemplary progression of spaces and views is the result of deliberate design, or happy accident through the centuries, is not known, but anyone who has traveled through Italian towns can appreciate that this is no rare occurrence. They teach us how space can reveal itself through movement in a succession of angles, planes, vistas and surprises.
Sketch 1:
As one enters the town from the main parking lot, one walks through a short, dark corridor which emerges through an archway (not shown) at the middle of a cobble-stone ramp. The ramp, enclosed by buildings is, in effect, an inclined mall. Looking left toward the top of the hill and terminating the vista to the upper end of the ramp, is a small yellow 15th century Baroque church, Santa Maria Assunta. Its upper silhouette adding to the beautiful skyline, it was built in the days when the church and religion dominated public life. Its visual prominence reflects that position and it is one of the San Giulio’s landmarks.

Sketch 2:
Looking downhill from the previous position, one looks west through a gap in the surrounding buildings and gets a glimpse of Lake Orta and distant views of the mountains. The ramp gently curves to the left at the bottom of the slope, allowing partial enclosure of the ramped mall, above. It is, in effect, an outdoor foyer or antechamber to the waterfront Piazza Motta which lies below.
Sketch 3:
At the bottom of the hill, one turns right (south) and comes into Piazza Motta. Like most Italian piazzas, it is a pedestrian-only urban stage, and the heart of the community civic activities. This sketch is from the opposite end of the Piazza Motta, which is enclosed on three sides by shops, restaurants, hotels and apartments. Mostly from the 17th and 18th centuries, the buildings are adorned with wrought ironwork. At the far left, just opposite where the ramp in Sketches 1 and 2 terminates, is the old covered market used as the community center and known as Il Palazzetto. A narrow street runs by its side and connects to an extension beyond the piazza.

Sketch 4:
Views of San Giulio Island in Lake Orta – with its Romanesque basilica, bell tower, nunnery and houses with their covered boat-houses, and hanging gardens – can be seen from charming Piazza Motta. Two rows of trees, partially seen at right, frame lakeside views and give partial enclosure to the piazza. On certain days, an open air market with stalls covered with colorful awnings is held here. The sketch for the original watercolor was drawn while sitting at one of the restaurant tables that show in the foreground, and colored back in California.

The Orta San Giulio environment is like a stage setting with dramatic effects.
Site Plan
Traditionally planning has concentrated on the adult population for decision-making processes, overlooking the needs and values of adolescents. To better understand how adolescents relate to their communities, to identify the qualities they value most, and to find ways to encourage their involvement in planning, in her MCRP thesis Camille Passon conducted a comparative study with high-school seniors in three communities. This article summarizes that study and highlights some of its important findings.

The manner in which we plan and develop our communities exhibits our values as a culture and has a dramatic effect on how we relate to our environment. Planners have a responsibility to ensure that all residents within each community have an opportunity to provide input on matters which affect their quality of life. Unfortunately, there are barriers which preclude certain members of society from participating in the process of planning and designing their communities. This study focused on the barrier of age.

Children and adolescents are often excluded from planning activities simply because of their age. As a result, the places in which they live do not respond to their unique needs. Adults tend to believe that they know what is best for their children and that young people are not capable of providing valuable input. Generally, this means raising them in a quiet, suburban neighborhood and adopting policies and design practices that restrict the activities of minors and prohibit their occupation of public spaces. These actions are usually meant to either protect young children from harm, or the general public from rowdy teenagers; however, they can have a devastating effect on how these young people develop.

Being involved in the daily social life of cities and urban streets provides healthy stimulation for young minds and helps minors to become well-adjusted adults. Without this exposure to the public realm adolescents may not be able to complete certain developmental tasks such as establishing satisfying relationships, learning how to use free time wisely, and becoming comfortable being alone. In addition, the more children are disciplined, punished and controlled, the more they begin to see themselves as a group that is incapable of creating change and lacks valuable opinions. In order to ensure that they are capable of becoming active civic leaders in the future, we need to begin empowering them and involving them in important governmental activities that directly affect their daily lives, such as urban planning.

The first step to involve children more actively in planning is to gain an understanding of their perceptions of their environment and the qualities that they value within their communities. A limited amount of research has pursued this topic. Arguably, the most comprehensive study was conducted by UNESCO; however, it focused primarily on children under the age of 14 in countries other than the United States. Known as the Growing Up in Cities, that study identified certain qualities that indicate if a community is a good place to mature. These indicators include safety, freedom of movement, social integration, cohesive community identity, green areas, peer meeting places and a variety of interesting settings. The definitions of these indicators are summarized below:
• Safety - when young people are familiar with the community and feel comfortable being there.

• Freedom of movement - when young people have the ability to move about freely and easily reach their destinations.

• Social integration - how welcome adolescents feel in their communities. Communities that possess social integration are ones in which young people are able to interact with other age groups in public places and have a sense of belonging and of being valued.

• Cohesive community identity - a place that has clear geographic boundaries, a sense of pride in the history and culture of the place, and a positive identity expressed through festivals and art.

• Green areas - these consist of some sort of vegetation that is accessible to young people, from flat grass playing fields to tree-shaded parks and wild, overgrown landscapes.

• Peer meeting places - niches in the community that adolescents can claim as their own in which to socialize, such as plazas, empty lots, street corners, coffee shops, and community centers.

• Variety of interesting settings - a community in which young people have access to a range of places where they can meet with friends, play sports, join in community work, shop and run errands, be away from adult supervision and observe action on the street.

In order to test whether these same indicators are important to older adolescents, and present in our society, high school seniors in three communities in San Luis Obispo County (Cambria, Paso Robles and San Luis Obispo), completed surveys, participated in group interviews and prepared cognitive maps of the places in which they live.

The surveys instructed the students to respond to Likert-scale questions, which are designed to determine how important each indicator is to the students and whether or not they perceive that characteristic to be present in their communities. The group interviews gave the students the opportunity to express their likes and dislikes about their communities and what they would do to improve them. Finally, the cognitive mapping exercise allowed students to physically identify and describe the places within their communities that they like and dislike.

The results showed that all of the quality indicators are important to the students; however, the degree of importance that the students placed on the indicators varied and seemed to be attributed to the unique experiences that the students have had in each community. For example, students in Cambria, the smallest and most isolated of the three communities, rated freedom of movement significantly...
more important than students in Paso Robles or San Luis Obispo. The students crave seeing new things and meeting new people. They have to leave their small town in order to obtain that kind of excitement and stimulation.

In each city, students indicated that they feel safe in their communities and that there are an abundance of green areas; however, they stated that their communities lack social integration, cohesive community identity, freedom of movement, peer meeting places and a variety of interesting settings. This perceived lack of quality indicators contributed to the low ratings of satisfaction with each community and its amenities.

Of the students who participated, only 11 percent in Cambria, 17 percent in Paso Robles, and 24 percent in San Luis Obispo indicated that they are satisfied.

An observation for why San Luis Obispo may have received a higher rating is that, out of the areas studied, it is the only community with a large, identifiable, pedestrian-friendly downtown area. Students in all three communities indicated that they enjoy visiting downtown San Luis Obispo. It provides them with an opportunity to meet their friends, interact with others, walk to several shops and eating places, go to a movie theater or hang out at a bookstore. This downtown area provides them with a significant amount of freedom and entertainment.

The students cited reasons for disliking their communities. The primary reasons are the difficulty they experience getting to their friends houses due to a sprawling development pattern, a lack of inexpensive places for young people to hang out with their friends, a lack of recreational opportunities, and being asked to leave certain places by adults for no apparent reason.

These results indicate that small, quiet suburban-type communities are not necessarily the best places for adolescents to grow up. If young people could choose where to live, they would likely choose compact, transit-oriented communities, which are more likely to obtain the quality indicators that they value. In addition, they would prefer residences that are designed to facilitate interaction with others, such as homes with front porches that abut the sidewalk. These happen to be principles of smart growth, a development pattern that promotes objectives such as a greater mix of commercial and residential uses, preservation of open space and other environmental amenities, and more vibrant town centers. This should be a call to parents who still believe that suburban neighborhoods are ideal places to raise their children, as well as to hesitant developers and investors who insist that traditional sprawl is the only adequate response to the housing market.

Many believe that communities which implement smart growth principles sustain a higher quality of life. Perhaps involving minors in planning can aid in implementing these concepts. One of the suggestions provided in the study includes establishing adolescent commissions, which could prepare Youth Elements for General Plans or other policy documents aimed at identifying and advancing the youth agenda. These efforts could give children a sense of pride in their communities, teach them about local government functions and encourage them to become more active citizens by showing them that they do have the power to make a difference.
TRAVER CONCEPT PLAN:
A PARTICIPATORY PROCESS
VICENTE DEL RIO AND UMUT TOKER

In the summer of 2006, faculty Vicente del Rio and Umut Toker developed a series of community workshops in Traver, Calif., towards a participatory concept plan envisioning local development and future growth. In this article they discuss the active involvement of the community and the successful results of this planning process.

Traver is a small community of around 180 families in Tulare County, along State Highway 90 in California. The closest cities to the north are Kingsburg, only seven miles away, and Fresno, which is at a short 20-minute drive. Visalia is about 21 miles south off of Route 198. Agriculture, a flouring mill and the railroad were responsible for making Traver a thriving town in the 1880s. Unfortunately, it only lasted until the end of the 19th century, when a series of devastating fires and a sudden increase in the alkali levels damaged the agricultural soil. Most of the population and businesses were scared out of Traver, and the community’s development came to a grinding halt, until recently, despite the proximity to the highway and to larger towns (Figure 1).

In the beginning of 2006, Cal Poly’s City and Regional Planning Department was contacted by George Nord, principal of Traver’s Elementary School. Having served in the school district for many years and having developed a strong attachment to Traver, Nord is a community leader legitimately concerned about the future of the community. Besides Traver’s evident need for better infrastructure and services, Nord feared that the town would eventually succumb to haphazard highway commercial development and to speculative housing due to the demand of the nearby cities and the Central Valley in general. Since he was familiar with the potential of good planning and with the community-outreach projects developed by the CRP Department, he contacted us to support his quest for a better future for Traver.

Faculty members Vicente del Rio and Umut Toker took the task of helping the community and developed a plan through a participatory process during the summer of 2006. During the fall quarter, the third year class “Community Design Lab” (CRP 341) with instructor del Rio, went further and developed the Traver Urban Design Plan.1 With the strategic support of the County of Tulare’s community development specialist Frank Ruiz – who acted as the liaison between the Traver community and the Cal Poly team – two contracts were signed between the county’s Community Development and Redevelopment Department and Cal Poly Corporation.

The Traver Concept Plan

The Traver Concept Plan was developed through a participatory process based on the understanding that community involvement and participation in decision making is fundamental in planning and design. Community participation not only permits a better understanding of existing problems and

1 See the article “Traver Urban Design Plan” by Michael Costa in this issue of FOCUS.
potentials, but it also guarantees representative and equitable decisions and proposals. In a small non-incorporated community such as Traver, with a long history of basic needs, participatory planning processes are ideal to empower citizens and make them aware of their own needs and potentials, to encourage stronger community representation, and to foster the involvement of the stakeholders in plan implementation and in other civic affairs.

The main goal of the Traver Concept Plan was to identify a vision for the future development of the community through a series of workshops with residents and community representatives. The process helped the community to understand their own strengths, weaknesses, constraints, and opportunities, as well as the importance of getting organized around a set of ideals and ideas to direct their own actions in the future. Pointing out directions for Traver’s development, and identifying possible paths, agencies, and actors to carry them through were important outcomes of the participatory process. The process also empowered the community by making them aware of their own problems and potentials, by helping them to identify a set of legitimate demands organized in a plan of action.

The Process

From the start, the Cal Poly team, utilized participatory methods. Always with the assistance and support of school principal Nord and planner Ruiz, the Cal Poly team conducted a series of community workshops in the Traver elementary school. A total of five workshops were held, each holding between 20 to 30 participants. During the workshops the team ensured that all participants were given a voice and got involved in the decision making process. Spanish speaking members of the community were helped by the Cal Poly team and/or other community members.

A series of participatory and group dynamics methods were utilized during the workshops (Figure 2). Constraints, opportunities, qualities, and problems were identified; a set of goals, strategies, and actions were discussed and prioritized; and the final results were put together in a vision for Traver’s future development. In all stages of the process, community members voiced their concerns, ideas and observations and were directly involved in decision making. The team acted not only as planners but as process designers and facilitators.

The objective of the first workshop was to identify the community’s perceptions of Traver and its negative and positive attributes, as well as a vision for its future. Two instruments were specifically designed by the Cal Poly team for the focus group interviews and the vision exercise that composed this workshop. There were two major results: (1) a list of positive and negative aspects of Traver according to the community’s perceptions – categorized into common themes – and, (2) a list of six goals for future development. In the second workshop, the community prioritized the goals identified previously and decided on the strategies to achieve them. Again, the Cal Poly team designed two instruments: the first enabled individual participants to prioritize the goals and to define three strategies for each goal, and the second facilitated the group to get to an agreement.

The third workshop was on action planning. Having identified a development vision, goals and strategies for Traver, the Cal Poly team designed a new exercise to allow participants to correspond the chosen strategies to action steps towards implementation, the person(s) to initiate each action, and the funding sources. With these results, the Cal Poly team identified a list of goals in order of priority, and strategies and action steps for implementing each of the strategies. By this time in the process, the Cal Poly team had already obtained incredibly rich information on the community’s perceptions, expectations and willingness to set forth a process to direct future development actions in Traver.

---

2 Student assistants: David Grim (BCRP program) during the whole process, and Alex Friedman and Joaquin Salazar (MCRP programs) in the first workshop.
The forth community workshop was on concept planning, and it focused on issues directly related to physical and spatial solutions. For this workshop, the Cal Poly team analyzed data from the previous workshops and identified all the issues related to the built environment cited by the participants. These issues were organized into three categories: “areas” (including all ideas related to identifiable areas, such as land uses), “routes” (ideas related to lines, or identifiable routes, such as for public transportation), and “spots” (ideas related to specific locations, such as for a traffic light). Then, the Cal Poly team designed a three-step space planning exercise using a board game approach. During the workshop, participants were organized into small groups and encouraged to “spatialize” their specific ideas and proposals on base maps of Traver. They followed a legend representing specific items in the categories of “areas” and “routes”, and used specially made stickers in the shape of black-and-white icons, representing elements of the “spots” category. Back in the office, the resulting five base maps with the group proposals were analyzed and integrated by the Cal Poly team, which put them together into a final concept plan (Figure 3).

The Traver Concept Plan accommodated all concerns commonly voiced by the workshop participants and represents the community’s ideas for physical improvements. The community supports new development as they understand that it would tend to generate economic and social development. They proposed areas for new industrial and highway commercial, retail and residential uses (including affordable housing), parks, slower traffic zones and traffic lights, the diversion of truck traffic from the community, a new bus line serving the community and the school, potential locations for a police station, a medical facility, and a community center. Participants also agreed on the need to provide Traver with an attractive identity, and on enhancing the quality of their main street.

The last workshop was a “celebration session” in which all the products and the concept plan were presented by the Cal Poly team to the community during a meal promoted in the Traver School. Representatives from the county’s Community Development and Redevelopment agency and of the State Assembly were present, which helped support the plan making process and the results, and allowed the community to start a political process towards solving its concerns and implementing its own vision.

**The Products**

The participatory process allowed the Cal Poly team to assist the Traver community in developing a vision for the future and to identify development goals, an action plan and a physical concept plan based on the understanding of their needs, expectations, constraints and opportunities for development. While there are pressing needs for investment in basic infrastructure (namely storm water drainage, sewage disposal, street paving, and public lighting), better control of vehicular circulation (namely trucks), and an efficient alternative for public transportation, the community is aware of Traver’s potential due to its good location and accessibility, and it is ready to participate in the building of its own future.

It is envisioned that the Tulare Concept Plan will support the updating of the existing community and redevelopment plans, as they both seem outdated and distanced from the local reality and
community expectations. The concept plan recommends that support for new residential and highway commercial development in Traver be added into the on-going County General Plan update. The community is well aware of its potential for becoming a development hub in the Central Valley, particularly in serving the present housing demand, and that this growth should coincide with its vision of quality and in keeping Traver’s “small town” appeal and agricultural image.

Finally, the concept plan recommended that Cal Poly’s City and Regional Planning Department be contacted for further technical assistance, and that a class be asked to develop another planning step for Traver in the form of an urban design plan. This would help the community determine concrete physical solutions for future development, and would assist the Tulare County as a platform for a new redevelopment plan, and a set of guidelines to community-supported new development. In the fall quarter of 2006, a third-year undergraduate studio developed the Traver Urban Design Plan, a process described in the next article by Michael Costa.
In the fall quarter of 2006, the third-year Community Design Lab received a grant from the Tulare County to develop an urban design plan for Traver, CA. Michael Costa participated in that studio and writes about the class collaborative efforts and the resulting project.

In the summer of 2006, Cal Poly faculty members Vicente del Rio and Umut Toker, were hired by the County of Tulare to do a series of community workshops towards the Traver Participatory Concept Plan. This process revealed the community expectations and defined a vision and recommendations for future development. The relationship with the community and the County of Tulare’s Community Development and Redevelopment Division continued through the fall quarter when instructor Vicente del Rio’s undergraduate class Community Design Lab (CRP 341) went further from that initial process and produced an urban design plan for Traver.

The Traver Urban Design Plan developed a physical design-oriented vision to help the community to orient and manage growth and development. The making of the plan was a collaborative effort by the class, and it encompassed gathering, analyzing and utilizing information obtained from several sources including field visits and consultations with the Tulare County. The class created a firm foundation to support the development of the proposals, providing Traver with an array of physical solutions and design guidelines. With the right planning tools and design concepts, Traver can play a significant role in the region and establish itself as a community of high environmental and aesthetical quality.

Traver Urban Design Plan

The vision of the Traver Urban Design Plan is to promote opportunities for both social and economic development within an environment that respects the community’s unique cultural and agricultural heritage. The class research and planning efforts are a true representation of the community expectations and needs for its future prosperity. Along with information gathered from the workshops held during the summer, in analyzing Traver’s present conditions the class concentrated on studying the community’s natural elements, current land use and circulation patterns, existing community services and infrastructure, cultural and social services, and local and regional market profile analyses. These studies revealed Traver’s physical, social and marketable attributes that would allow or hinder the development process. Some of the community’s major development challenges are the lack of suitable services and infrastructure currently provided, together with the impact of the 100-year flood plain that currently encompasses nearly all of present-day Traver as well as a large portion of land designated for future expansion. The study of both local and regional markets showed that Traver’s location along Highway 99 is ideal for new residential, commercial and industrial growth within the region.
The class identified other specific constraints within the community, such as the noise from the railroad and Foster Farms, truck traffic through the community, and the necessity to upgrade current infrastructure and service facilities. Among the opportunities that would support development are the existing agricultural and open space both in and around the community, plenty of areas with potential for infill development, the close proximity and easy access to and from the highway, and the proximity of larger cities such as Kingsburg and Fresno.

After researching several case studies to further generate ideas for the plan, with the results of both the analysis of existing conditions and the summer participatory workshops, the class identified an appropriate Vision to guide Traver’s development: “Traver will be a proud, diverse and unique community in the Central Valley where existing social and cultural heritage is integrated with future growth through the promotion of opportunities for social development and interaction in an aesthetically pleasing environment.”

This vision guided the class in developing four goals reaching for vitality and land use, accessibility and circulation, aesthetic character, and street and landscaping, as well as the objectives, and the design concepts in order to obtain them. The process allowed the class to go to the next step and design a plan that could illustrate how and where Traver would grow in the future. The products of these initial phases were presented by the students to the community in a meeting at Traver Elementary School on Saturday Oct. 28, 2006. The community reaction and comments were then incorporated into the final proposals by the class.

With the overall urban design concept plan adapted to accommodate the community comments, the class began developing proposals for specific areas of Traver. The class was subdivided into four teams and each of them concentrated on one of the areas and developed proposals in congruence with the overall urban design plan. Each section of development established a program for specific uses,
land measurements and projected population that new development would contribute to that specific area of land. Following the detailed site plans and programs, each team further illustrated what the development would look like on their portion of land with site plans, elevations, cross sections, basica architectural typologies, and computer generated images using SketchUp, including animation.

The proposals for Traver support growth in expanding the existing community area into 171 acres of new residential, commercial, industrial, open space/recreational, and civic uses, and projects an addition to the population of around 2,331 people. The Traver Urban Design Plan will assure that development responds to community needs and expectations, and that growth fits into the existing physical, social and cultural patterns while enhancing the community.

Concluding Remarks

The plan was revealed to the community on Saturday Dec.16, 2006, at a luncheon organized by community leader and principal of the elementary school George Nord, and Tulare County planner Frank Ruiz. The students gave a very professional presentation utilizing Powerpoint and films of the computer animations, while displaying several posters on the wall showing the different phases of the design process and the final solutions. The deliverables were an 80-page report and a data DVD containing all the material, including all posters and computer models. The Traver community and the County of Tulare were very happy with the results of the study and the final plan, which will certainly assist them in planning public investment and in promoting local physical and social development.

**Figure 4**
The final land-use and site plan for Traver showing the existing development and the proposed growth.

**Figure 5**
A partial view of the computer model showing the expanded school (above), the proposed park to buffer flood from the canal (left), and new housing.
In the 2006-07 academic year, CRP’s undergraduate fourth-year Community Planning Lab was invited to collaborate with the City of Ventura. The class developed a community plan for the city’s Westside and North Avenue districts, focusing on new urbanism and smart growth principles. Elaine Kabala, one of the seniors in the class, writes about the experience.

The two upper division community planning laboratories are designed to provide a bridge between the theoretical knowledge about the principles and techniques of urban planning and the application of this knowledge in “real-life” situations. This is accomplished by engaging students in a community-based project which offers opportunities for creative problem solving through cooperative work with the community. To provide an added dimension of reality, the work scope is structured to simulate the process of preparing a general/community plan following procedures and guidelines established by the laws of California. This is obtained by dedicating the first lab (fall quarter) to information gathering and analysis, and the second one (winter quarter) to plan development.

The pedagogy involves three major phases: (1) developing an understanding of the community’s social, physical and environmental characteristic and identifying key issues facing the community, (2) developing and evaluating alternative approaches to addressing the issues and selecting a preferred alternative which reflects community vision and the realities posed by the constraints and opportunities for development, and (3) formulating a draft general/community plan together with specific design proposals and, when possible, providing appropriate mechanisms needed to implement the proposed plan or its elements.

These labs have been very successful in community outreach projects, and many of them have received awards from the American Planning Association. In 2003-04, for instance, professor Zelkja Howard’s class received the “best student award” from both the APA and the AICP for the San Miguel Community Plan.1 In 2005 the same lab collaborated with the City of Ventura to create a community plan for the Saticoy and Wells districts of the city. The Saticoy-Wells Community Plan presented a unique opportunity for CRP students to explore community planning through smart growth principles and form-based code -the first such project in the CRP program. The student collaboration with the City of Ventura also represented the first opportunity to work with professional consultants in addition to city staff and residents.2

In the 2006-2007 academic year, professor Zelkja Howard’s Community Planning Lab was invited for another opportunity to collaborate with the City of Ventura. The class developed a community plan for the Westside and North Avenue districts of the city, focusing on new urbanism and smart growth principles. The Final Draft Community Plan incorporated alternatives which best responded to the needs of the community. As an amendment to the Ventura General Plan, the community plan chapters are structured to reflect the general plan and address the natural environment and open space, land use and housing, circulation, infrastructure, civic involvement, and the arts.

The Community

The Westside and North Avenue districts are located in the northwest of the City of Ventura. The
Westside is located within the city's jurisdiction, while North Avenue is outside city limits, but within its sphere of influence. The study area comprises approximately 2,000 acres; 1,200 acre in the Westside and 800 acres in North Avenue. There are approximately 14,000 residents, mostly concentrated in the Westside with 13,000 residents, with an additional 1,000 residents in North Avenue.

The study area was originally settled by Chumash Indian tribes, and later settled by Spanish missionaries in the 1700s. There was little economic or population growth until a rail connection and port were established in the 1880s. In 1910, oil reserves were discovered in the area, resulting in a growth boom which doubled the population. Most of the existing housing in the Westside was developed as workforce housing during the intense oil industry boom. Although the oil industry began to decline during the 1970s, taking many support industries out of the area, the oil fields and derricks remain the defining feature of the community.

The decline of the oil industry in the area has had lasting impacts on the character of the community. Since the oil industry comprised the base economic feature there, its decline was manifested in a corresponding dilapidation of properties. The area is in transition as the community seeks a new economic staple for growth. In addition to the economic transition, other challenges included a large homeless population, crime, blight and environmental constraints.

Much of the Ventura Avenue Corridor, which comprises the commercial district of the community, is haphazardly developed with discount retailers, industrial supply stores, storage yards, auto-repair shops and some mixed-use; however, the predominant massing and architecture of Ventura Avenue makes the corridor prime for revitalization. Since the planning area is located in a valley, it is susceptible to landslides and liquefaction in the hills to the east and west, while the valley floor is susceptible to flooding from the Ventura River.

Despite the numerous challenges posed by environmental, economic and land use characteristics of the study area, the community presents a wealth of opportunities and assets. The community is located close to the Pacific Ocean, which can be accessed via an existing regional bike trail that runs along the scenic Ventura River to the picturesque Ojai Valley, and the hills to the east and west of Westside and North Avenue are strikingly beautiful. The community is also rich in cultural assets, including the Brooks Institute of Photography, numerous local artisans and copious public art displays. The area is rich in historical assets as well, such as the Simpson Historical Tract, which consists of the earliest developed neighborhood in the area, and the Casa de Anza Building, a beautiful brick structure now housing the community library.

**Planning Process**

**Phase I**

This phase entailed gathering background information regarding environmental resources and hazards, population and housing, land use and urban form, circulation and noise, and public services and utilities. The class started by studying the information gathered by the city in previous studies and workshops, and added a lot of new information and data gathered from the class own field work. This initial research led to the compilation of community profile which the students presented to the community at a public workshop to gather residents’ comments and information.
By participating directly with residents, students were able obtain additional information about the study area that could not be determined through secondary sources, such as the community sentiment on safety and services. The students also used this opportunity to perform a visual preference survey to gather residents’ preferences on the Ventura Avenue Corridor, neighborhoods, civic places, open spaces, thoroughfares and streetscapes and districts. Results of the visual preference survey also aided students in visualizing the community’s image of its future built environment.

Phase II

After students drafted several concept plans reflecting the needs and wishes of the community obtained from the first community workshop and the information contained in the background report, a second community workshop was held. Students took advantage of this opportunity by creating several different concepts that addressed industrial expansion, environmental conservation, density alternatives, height alternatives and new and infill residential development. At the second community workshop, residents were able to comment on alternatives that most aligned with their vision for the community. This community workshop was invaluable in helping students develop a community plan which best responded to the needs of the citizenry.

The Plan

The Final Draft Community Plan incorporated alternatives which best responded to the needs of the community. As an amendment to the Ventura General Plan, the community plan chapters are structured to reflect the general plan, which address natural environment and open space, land use and housing, circulation, infrastructure, and civic involvement and arts.

The community plan seeks to preserve and enhance open space around the developed core of Westside and North Avenue. A key feature of the environmental element is the Ventura River, which both the students and residents identified as a foremost opportunity for restoration and enhancement. The land use and housing chapter focuses on concentrating industrial uses away from the Ventura Avenue commercial corridor and residential neighborhoods, while maintaining the appropriate amount of land for industrial economic growth. In particular, this chapter seeks to provide a balance in housing and jobs, and allow for a variety of housing types. The community plan also encourages the incorporation of sustainable infrastructure including solar farms, green roofs and bioswails for storm water runoff.

In addition to the topics addressed by the general plan, the community plan addresses key opportunity areas within the Westside and North Avenue Communities, which are identified as Ventura Avenue Corridor, Stanley Gateway District, Belley Special District, Olive Street Corridor, Simpson Historical Tract and the Kellogg Art Colony.

The Ventura Avenue Corridor is envisioned as becoming a vibrant mixed-use corridor, with increased retail and housing opportunities which offer a multitude of activities for residents. The community plan outlines
enhancements to guide development of the Ventura Avenue Corridor including building massing and height to encourage pedestrian activity, view corridors and a sense of place; streetscaping improvements; improved crosswalks at critical intersections; parking meters in critical areas; and enhanced public transit.

The Stanley Gateway District is located between the intersection of state Route 33 and Ventura Avenue. This district was identified as a primary gateway into the community, with high potential for revitalization and creation of a neighborhood center. The community plan suggests several enhancements that will maximize the potential of the Stanley Street area to help define it as a central node for Westside and North Avenue. Key enhancements include creating gateway features for Westside and North Avenue; encouraging inviting facades and comfortable building heights and setbacks; allowing space for commercial, office and industrial activity; and providing on and off street parking to allow for vital pedestrian activity.

The Selby Special District is currently an underutilized area east of Ventura Avenue and adjacent to the Stanley District. The community plan identifies this area as a potential catalyst district for Westside and North Avenue, which will compliment creation of a neighborhood center at the Stanley Street District. The community plan suggests that revitalization of this area should include creation of a transit-oriented development which incorporates housing, and mixed-use space for retail and offices. The community plan also suggests extending Stanley Street to the extension of Cedar Street, which will allow for improved circulation throughout the Westside area.

The Olive Street Corridor encompasses land south of Stanley and between Route 33 and the Ventura Avenue Corridor. This district also includes land under the Simpson Historic Tract. The community plan suggests revitalizing Olive Street as a secondary commercial corridor, including a commercial node for small corner businesses, streetscape enhancements along Olive Street, and creation of bike lanes.

The community plan suggests continuing the preservation and enhancement of the Simpson Historic Tract. Suggested enhancements include creation of a neighborhood center adjacent to Casa de Anza building and complementing streetscape improvements. The plan also recognizes the Kellogg District (an undeveloped two-acre site located adjacent to Ventura Avenue and Cedar Street) as a catalyst for development for its potential for creation of a live-work artist colony which will celebrate the vibrant art community in Westside and North Avenue. The plan encourages vibrancy through creation of pocket parks, ground floor retail, infill development and a variety of housing types.
Lessons Learned

Both the students and the community greatly benefited from this class effort. Exposure to community settings and “real-life” planning problems helps to enrich students’ experiential learning, stimulates development of the cognitive problem solving skills, and instills a sense of social responsibility. In addition, this approach emphasizes student collaborative work with each other as well as with the members of the community. Citizens are often more willing to participate in discussions at community meetings and public opinion surveys run by students. They seem to be less constrained in expressing their views and are more receptive to the suggestions coming from the students who have no vested interests in the outcomes of particular decisions. This type of attitude expedites the planning process and assists in the final selection and agreement on the proposed development plan. The community gained useful information about itself, its opportunities and the constraints it has to address in accomplishing its long and short-range goals, and the students were given practical experience on the complexities of their chosen profession.
The Urban land Institute holds the Gerald D. Hines Urban Design Competition for graduate students every year. In a very short period of time, the interdisciplinary teams of students are given a project theme, a city, and a site to which they have to respond with a complete design proposal, including pro-formas, financing, and implementation strategies. Craig Minus writes about his team’s submittal, awarded an Honorable Mention in 2006.

In 2006, for the first time, a Cal Poly team entered the Urban Land Institute’s Gerald D. Hines Urban Design Competition for graduate students. Participating teams have to be interdisciplinary, and they have only 10 days to present their proposals from the day the ULI releases the site, the theme and the problem. Eighty one teams from across the U.S. & Canada participated in last year’s competition, and the jurors selected four “Final Teams” and seven “Honorable Mentions.” Final teams went into a second phase when they were given some more time to further develop their projects for the final round. The Cal Poly team was selected as one of the “Honorable Mentions.”

The ULI urban design competition was in St. Louis, Miss. and comprised a 100-acre parcel spanning the proposed Chouteau Greenway and acting as a bridge between the North and South campuses of Saint Louis University (SLU). The area would also serve as a point of entry into the city’s planned greenway system and the multimodal transportation spine that parallels the greenway. The competition asked participating teams to act as the master developer for the entire parcel and to consider private, public, institutional and nonprofits as development and equity partners. The teams were asked to include a mix of uses as well as to incorporate the proposed future greenway and open space plans into their design ideas.

The Cal Poly Project

Vision Grand: a Village in the City, the Cal Poly team’s proposal, includes residential, mixed-use, commercial and office developments, and the design allows for the incorporation of the emerging biotechnology industry. Where the Chouteau Greenway intersects with the Grand Boulevard Bridge, a tight-knit, fine-grain village builds cohesion between the two Saint Louis University campuses, provides a base for bio-tech companies and incubators, and establishes a medium-density, pedestrian oriented neighborhood with a unique and eclectic character.

The project proposes the Grand Boulevard Bridge as an icon providing a strong identity and sense of place in the area. The design generates a harmonious interface between the Chouteau Greenway and the areas surrounding the Grand Boulevard, strengthening the connection between the North and South campuses of SLU. The new street, pedestrian and bicycle systems are well integrated and provide for a balance of mobility options. Bicycle routes to and from Chouteau Greenway and Park encourage active recreation and healthy transportation to/from work and school. Convenient routes are established connecting activity centers inside and outside the project area. A shuttle service along Grand Boulevard between the two campuses is proposed, and the Metro station will ignite and support transit-oriented development.
Buildings will utilize green design principles, such as appropriate materials for facades and south-facing windows with overhangs to create passive solar heating and cooling. They will be designed to coexist with nature and pose minimal harm to the environment by implementing sustainable design principles. Materials from demolished buildings will be reused in concrete for parking areas, foundations and bicycle and pedestrian paths. Gray water from the area and the bio-tech industry will be reused and recycled for irrigation and act as a water feature flowing out into the park. Bioswales will collect storm water runoff from the surrounding street grid. The open space system will integrate the new development to the Chouteau Greenway, provide cohesion between both sides of the site, and allow for various recreational choices for employees, students, and residents alike. Pocket parks will be a special feature of the open space system creating more intimate spaces.

The relationship between public and private realms plays an important role in the project, and the two domains are clearly defined and support each other. Active street frontages provide for a pedestrian-friendly environment and for safe sidewalks, and the pedestrian experience is enhanced by a wide variety of mixed uses and complementary activities. The urban design strategy creates a split from denser and higher buildings to open space and the greenway, and the staggered building heights and street layout respect view sheds.

Several of the images that composed the team's submittal to the ULI's Gregory D. Hines Urban Design Competition, 2006. The project occupies a 100-acre parcel that spans the Chouteau Greenway and bridges the North and South campuses of Saint Louis University.
The project’s financial strategy capitalizes on the emerging Bio-tech industry as a catalyst for improvement, and a tax increment is used to finance 9 percent of the total costs. New Market Tax Credit for Bio-tech and Federal Historic Preservation Tax Credit for armory building are transferred to private syndicators at $.085 per dollar. The Land Clearance for Redevelopment Authority supports a portion of pre-development costs, construction of road and public utilities costs. Environment Protection Agency P2 Grant funds the construction of the bioswales for fostering environmental protection. Traditional financing is also used with tax-free bonds at the rate of 4.75 percent, and developers bear the remaining project costs with private equity.

The Experience

For the participating graduate students, the learning opportunity crammed into just 10 short days provided a valuable experience on both an academic and practical level. The lessons and applications offered from the competition project was equivalent to the knowledge gained from a quarter-long class. The five graduates students, who in many cases did not know each other before the competition, came together to combine talents and produce a quality deliverable. Throughout the 10 days, the interdisciplinary team quickly grew together to work as industry practitioners would. This experience helped simulate the professional environment and prepare the students for life in the workforce. The ULI/ Gerald D. Hines competition also allowed the students to further emphasize Cal Poly’s “learn by doing” motto.
The CRP Department has been a leader in research and education in the areas of urban disaster risk reduction, prevention, mitigation, and post-recovery. The international symposium held in 2005 and its proceedings published by FOCUS are examples of that. Lecturer Ken Topping writes about the revision of the California State Multi-Hazard Mitigation Plan, a major applied research project undertaken by the CRP Department.

A major applied research project undertaken by the City and Regional Planning Department during 2006-2007 is revision of the California State Multi-Hazard Mitigation Plan. The work is being financed through a $762,894 contract between the Cal Poly Corporation and the California Governor’s Office of Emergency Services (OES).

The project is being carried out by CRP faculty having special expertise in hazard mitigation and graduate assistants, and is also supported by advisees from other departments and outside consultants. Together they have closely examined and assessed FEMA-approved Local Hazard Mitigation Plans (LHMPs) of 424 local governments, including 164 prepared by cities, 21 prepared by counties, and 239 prepared by special districts in California.

Approved by FEMA in November 2004, the State Multi-Hazard Mitigation Plan (SHMP) is a statewide plan under the Disaster Mitigation Act of 2000 to identify and profile, assess vulnerabilities and risks, estimate potential losses, and promote strategies and actions for mitigation of a variety of natural and human-caused hazards such as floods, earthquakes, and wildfires.

An overall goal of this plan revision is to help institutionalize mitigation planning and action across the boundaries of state agencies, local governments, business and industry, and community groups. OES recognizes the need to energize effective mitigation actions at all levels. The effort to link the SHMP with over the LHMPs of over 400 local governments addresses the need to tie hazard mitigation to routine development planning and infrastructure management.

Cal Poly is revising the 2004 SHMP so it can be approved by FEMA as an Enhanced Plan. According to the FEMA guidance criteria an Enhanced Plan “…documents the State’s demonstrable and sustained commitment to the objectives of hazard mitigation…recognizes the State as a proactive leader in implementing a comprehensive statewide program…and acknowledges the extra effort a State has made to reduce losses, protect its resources, and create safer communities.”

California’s financial stakes for receiving FEMA approval of the 2007 SHMP as an Enhanced Plan are high. Enhanced Plan status would qualify the state for Hazard Mitigation Grant Program (HMGP) funding of up to 20% of a federally declared disaster authorization following future disasters, as opposed to receiving only 7½ - 15% with the current Standard Plan, depending upon the size of the disaster—the larger the disaster, the lesser the amount. This would make a major difference in the event of a catastrophic disaster.

In the revised 2007 SHMP Cal Poly is addressing a variety of new conditions, laws, and programs which have been encountered since the current plan was published and which can potentially affect
the State of California, including: climate change, tsunami mitigation and preparedness, and San Francisco Bay Delta regional levee failure potential. Cal Poly and OES are using GIS modeling to jointly prepare a systematic statewide risk analyses for major hazards (earthquakes, wildfires, and floods) to identify the distribution of hazards and their interrelationships within a multi-hazard policy framework.

The project schedule includes release of an initial administrative draft 2007 SHMP revision for comment by state agencies by the end of March, 2007, circulation of public comment draft from July through September 2007, and publication of a final FEMA-approved manuscript by October.

Interdisciplinary Sustainable Environments Curriculum Advancement

The State Mitigation Plan Revision Project is tied with a series of initiatives in recent years to address disaster management and sustainability in conjunction with the College of Architecture and Environmental Design and other colleges. CRP has supported and promoted courses and specialties in environmental design and disaster management at both the graduate and undergraduate levels.

In addition to a Masters of City and Regional Planning in Environmental Planning, undergraduate City and Regional Planning majors can earn a minor in Environmental Management. Catalog courses supporting sustainability include Environmental Design 406, 408, and 410, a series of upper division and graduate interdisciplinary courses offered with the College of Architecture and Environmental Design which emphasize concepts and principles of sustainability to be used in all aspects of environmental design. More specific to the connection between disaster management, sustainability, and city and regional planning are two new courses recently added to the catalog.

UNIV 339, Disaster Resistant Sustainable Communities: offered as a lower division University-wide elective. It is designed to provide an understanding of the tools, techniques, and processes for reducing risk and vulnerability to natural, technological, and human-caused hazards. It emphasizes basic sciences of hazards (earthquakes, landslides, floods, hurricanes, and wildfires) with the application of technical tools and community solutions to hazard mitigation.

CRP 458, Community Safety Planning and Design: an interdepartmental course for future design professionals, natural resource managers, and community administrators, offered as an upper division and graduate elective. It provides an understanding of specific community planning, design and development tools, techniques, and processes available for reducing risk and vulnerability to natural, technological, and human-caused hazards, and for securing suitable post-disaster redevelopment.

Global Outreach

Much of the inspiration for these new initiatives are related to the International Symposium on Urban Disaster Reduction and Regeneration (November, 2005) sponsored by Cal Poly’s College of Architecture and Environmental Design, which the CRP Department was instrumental in organizing. The symposium featured presentations by prominent disaster management experts from Costa Rica, Japan, the Philippines, Taiwan, and Venezuela as well as the US. The symposium identified a variety of challenges and opportunities in pre-career and mid-career curriculum development in environmental management, sustainable development, and disaster management. Proceedings of this event were published as a special issue of FOCUS in 2006, and can also be found at the following website: http://www.caed.calpoly.edu/documents/Urban_Disaster/intro.html

This paper introduces us to an interesting discussion on the impacts of globalization on European historic spaces. The author points out some of the problems in trying to impose trendy design solutions such as new urbanism. Ivor Samuels, is a visiting professor of urban design at the CRP department (Spring 2007).

Against a background where ‘everywhere is becoming like everywhere else’, this paper attempts an overview of the current situation of historic space in Western Europe as it confronts the challenges of globalisation. It also attempts to widen the discussion by considering, in addition to the range of actual spaces which we might consider historic, the impact that the qualities of these spaces are having on current design activity.

Supply, demand and cultural constraints

In a general sense the impact of changes in the world economy is only speeding up the process of evolution, which has always occurred to our inherited built forms. Most buildings were erected to serve a purpose; otherwise no one would bother to build them. These buildings, by definition, are static, the only constant in life is change, so that, sooner or later, the needs which these buildings have to meet will change. Even the great Gothic cathedral churches of western Europe that seem to be eternal were used as builders’ yards or prisons in XVIII century revolutionary Europe (Figure 1).

Until recently this did not matter; things changed slowly, and building structures could be adapted – witness the 18th century domestic buildings of London, which are now used for universities, offices, libraries and apartments. Since then, buildings have become more specialized and their useful life has also been reduced. Normally, offices last ten years, factories eight years, and shops only five years.

With the exception of some Modern Movement buildings, which are discussed below, the emotional attachment to a building is much more long-lasting than its functional viability. The latter depends on the matching of the supply, represented by a building’s characteristics and the extent to which it is protected, to the demand of the market and the social context. This usually means that if we want to keep a building, then the economic and functional demands on it have to be modified.

The extent to which buildings can be conserved is influenced by the roles and power of the different actors in the process of urban change. This can be represented by a range of conflicts (after Couch 1990):
Local needs versus National interest
Property investment versus Local social housing needs
Tourism versus Local residents
Preservation versus Functional performance
Townscape role versus Fabric obsolescence

The relative significance of these factors will, of course, change for different contexts. The impact of globalization has been widely discussed in current literature, and here it will be restricted to its impact on the inherited urban space at different scales. International firms increasingly dominate the urban economy, although the extent to which this results in a homogenization of forms can be exaggerated. For example, in Taipei one can find two international firms B and Q and Carrefour not side by side in a large parking lot as in Europe, but on top of one another! These changes, together with local shifts in the activity patterns, have resulted in changes at different scales from cities and districts to individual buildings. This paper will emphasize the former.

Different types of location can be discussed in terms of several factors, which depend on the area characteristics, the building attributes and condition, and the market and regulatory context. In summary these are:

- The instigators of development
- Commercial emphasis
- Type of image generated
- Social and spatial outcomes

We briefly discuss these with respect to a limited number of urban location types.

**Abandoned industrial space**

The great industries of Europe have largely disappeared. For example, one hundred years ago, half the merchant shipping in the world came from the banks of the River Clyde (Figure 2). Now these abandoned shipyards are being transformed to service uses and cultural assets through the use of public funds to attract private investors. This change has been instigated by a public private partnership with an emphasis on gearing, for example, the amount of private capital that can be attracted by public investment. A second spectacular example is the Ruhr, the German industrial heartland that was reconstructed after the war and is now undergoing a massive conversion through a large public investment (Schafer 1999) (Figure 3).

The outcomes are large spaces used for new cultural activities, public spectacles, exhibition centers, and art galleries, together with housing for higher income groups, which propose an image of a new urban lifestyle. Any commercial activity is linked to recreation and, sometimes, to heritage tourism.

**City Centers**

Conservation of the buildings and the urban fabric of city centers do not mean their preservation like flies in amber, but their adaptation and reuse while retaining their essential
embodies all the qualities of an ideal place to live – the English equivalent of the US New Urbanism model.

Sherborne, England. A small country town which

Duisburg, Germany. A former steel works in the Ruhr Valley is used to house major events; here it is illuminated for a rock concert.

Newcastle, England. The once derelict early 19th century Grainger Town has been revived with new apartments, retail units and offices.

Sherborne, England. A small country town which embodies all the qualities of an ideal place to live – the English equivalent of the US New Urbanism model.

Small Towns

The pressures on small towns are familiar in most developed countries. The first comes from the transformation of the rural economy. Even the bucolic image of la France profonde, with its vineyards and pastures, screens considerable change. The number of those considered to be peasants declined by 38% in the decade between 1989 and 1999 as industrial agriculture, which employs fewer people and does not depend on local towns, became the norm.

The second factor is the process of decentralization, which has seen retail activity shift from town centers to supermarkets (Figure 4). At the same time that shopping has been decentralized, public facilities have been centralized, again to the detriment of small town vitality. In the pursuit of economies of scale, schools, colleges, hospitals and clinics have been amalgamated into fewer, but bigger units. As a result, these have often needed larger sites in the bigger towns with the local units being shut down. Police stations have also been centralized and the removal of a local presence has increased crime response times and has led to greater rural insecurity (ODPM 2005). All these changes have resulted in a vicious circle of reduced local employment possibilities, lower spending power, reduced provision and, therefore, redundant buildings.

The distinctive character clearly depends on the form of the buildings and their relation with the natural environment, but it can equally derive from the particular economic patterns and the social fabric of the town (Action for Market Towns 2005). Although few of these towns are of exceptional artistic quality, most of them include some protected zones and buildings, and the quality of their built environment and natural settings
represent an important resource for their economic future as attractive places to live and for tourism (Figure 5).

**Modern Movement artifacts**

The buildings constructed in the first six decades of the last century in Europe represent a particular type of inheritance with its own set of unique characteristics that are worth discussing. Modern buildings were innovative in technical, social or aesthetic intentions. Some like the Bexhill Pavilion (architects Chermayeff and Mendelssohn), which gave an identity to an otherwise nondescript seaside town, has all three qualities. Finished in 1935, this building is listed as Grade 1, which means that it enjoys the same protection as the most significant national monuments such as the Tower of London. The problem with many modern buildings is that their aesthetics were in advance of their building techniques. They are more susceptible to the ravages of time than older building so that they often have to be virtually rebuilt just as any ancient structure.

The paradox is that we are now preserving as heritage the ‘throw away’ buildings of an epoch that rejected all connections with the past. There is also the problem of the general public’s dislike for much modern building. In fact, much of the housing stock built in the 1950s and 1960s is now being demolished, but some of it has been conserved. Some buildings now enjoy statutory protection, which, if proposed now, would be rejected because of the way they abusively intrude into a historic context. Embassy court, a modernist building of the 1930s on the historic Regency seafront of Brighton, is a spectacular example (Figure 6). Sometimes the problem is how to modify housing built in the 1960s. The building may be intensely unpopular with the people who have to live in it, but since it is considered to be of cultural significance, it therefore, has been protected. Park Hill in Sheffield (Sheffield 2005) is the most prominent example (Figure 7).

**The influence of history- neo-vernacular and the quest for local identity**

Finally, in considering the uses of historic space and forms, we cannot ignore how important they have become over the last decade, especially in the search for a reaffirmation of local identity which has been one consequence of globalization. It is no coincidence that the challenge to the design hegemony of the Modern Movement almost exactly matches the rise of interest in conservation. In the UK, the Act of Parliament, which designated conservation areas, was passed in 1967. In France, a similar law dates from 1963, while the infamous collapse of the Ronan Point block of flats in 1968 heralded the real end of the extensive program of post-war rebuilding according to Modernist principles.

The return to classical principles found its champion in the Prince of Wales and through his patronage the town extension of Dorchester
Dorchester, England. Poundbury where new housing built under the patronage of the Prince of Wales attempts to recreate the qualities of the traditional small town was started in 1993 and is continuing to be built (Figure 8). It has been enormously influential since it seems to have struck a cord with house buyers. Such speculative housing schemes include Ingress Park, a sort of English version of New Urbanism (Figure 9). A recent survey confirmed that 80% of potential house buyers want a traditional home – but with modern comforts. While the majority of ordinary buildings fit in this mold, special buildings are pushing back the boundaries of design innovation (Samuels 2005). This is as it should be – the failure of the Modern Movement was to impose its innovations on ordinary buildings. After all, in the Middle Ages it was the special buildings, the Gothic cathedrals, which pushed structural design to its limits. The ordinary houses remained the same for centuries.

References


London, England. Ingress Park, a recent development on the edge of the metropolitan area of London which clearly has been influenced by the success of Poundbury in creating a “traditional” quarter.
Every year FOCUS brings in news on the alumni through interviews and articles not only as a way to keep track of their whereabouts, but also to keep a critical eye on the work and pedagogies of the CRP Department. This year we interviewed Michael Codron, a graduate of the MCRP class of 1998, who is associate planner with the city of San Luis Obispo, Calif.

FOCUS: When did you graduate? Which degree did you get?
Michael: I received my MCRP degree from Cal Poly in 1998. This was when the comprehensive exam was still an option. I had started on the route towards a thesis project on how using an electronic, hypertext format could improve general plans in California. Unfortunately (or fortunately depending on your perspective), my life (marriage, children, job) got in the way of completing that project. I think it is still a relevant and worthwhile topic if anyone out there is interested.

FOCUS: Describe your current job. What is your title and position in the organization? What are your primary responsibilities, and what type of work do you get involved with?
Michael: I am associate planner with the city of San Luis Obispo. I work in the Long Range Planning Division. I maintain all of the city’s demographic data and prepare the annual report on the general plan. I am currently working on the Orcutt Area Specific Plan, which includes plans for 1,000 new dwellings in the south-eastern portion of the city. I am also working on annexation of the Margarita area (a neighborhood planned for 868 new dwellings) and annexation of the airport area (1,000 acres of industrial and service commercial land). The project that seems to be taking most of my time right now is the discussion of downtown building height and intensity limits.

FOCUS: Briefly describe your previous jobs.
Michael: Before Cal Poly, I worked for a neighborhood organization in Chicago and had the title economic development officer. My undergraduate degree was in economics, and my first job in the economic development arena led me to discover the planning profession. I started out with the city of SLO as the planning technician, and then became an associate planner in the Development Review Division. I worked in development review for several years before moving on to long-range planning.

FOCUS: How does your education reflect in your work? Do you feel that the classes and skills from the MCRP program support your professional practice? What did the program provide that was fundamental to your professional practice?
Michael: My education is reflected in my work because it created the foundation for my ethics and work habits. I believe that in school our biases become firmly imprinted. Once work begins, there is less time to question every decision and we fall back to what we know. Of course, professional planners, like teachers, really need to continue to research and understand the best practices for a wide range of topics. But, once your lives begin, there is less time for introspection and deciding
focus | 2007 | volume IV

who you want to be as a professional. You get swept up in performing your specific job duties, and your background is brought to bear on your work through osmosis as opposed to direct application. The MCRP program was especially helpful because of its focus on planning theory. The theory is really what gives you a foundation for making decisions that are comfortable to you as a person and a professional. In addition to the theory, the basic skills of working with site plans and computer applications – especially GIS – have been invaluable.

FOCUS: Which do you think are the strengths and weaknesses of the CRP program?

Michael: I think one of the major strengths of the program is the design focus and the resources available to all students in CAED. I think that planners who have strong architectural skills are exceptionally valuable to the organizations they work for. The weaknesses of the program are probably related to location more than anything else. With the rural setting there is less of an ability to have a practical focus on urban/social factors that would be faced by planners moving into metropolitan jurisdictions.

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

Michael: I would say that the mix of core requirements between theory and practice is well balanced, but I would encourage more optional courses in theory. Planners need to come out of school with an ingrained sense of direction with respect to their core beliefs. Then their decisions will come easier and will be more consistent in their professional practice.

FOCUS: What are the critical knowledge areas for planners entering the field? (e.g. land use law, research methods, zoning, housing finance, CEQA, etc.)

Michael: I have not worked for any other public agency beside the city of San Luis Obispo, but my experience here suggests that good organizations have the ability to take advantage of the particular skills that their staff possesses. Therefore, I would suggest a broad-based understanding of all of these knowledge areas, and encourage students to also pursue a specialty in one or more areas that fit their skills and long-term goals.

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

Michael: New planners are not often shielded from the public realm, and do best when they have superior technical skills, especially GIS, design, statistics and/or the ability to perform economic feasibility analyses. Ultimately, effective communication skills become the most important skill that a planner can have in their toolbox to help decision makers make the right choices.

FOCUS: What computer applications should planners entering the field know?

Michael: New planners need to know GIS and mapping; they should be skilled in document management and publishing practices – for
example, how to package a .pdf document for digital press. I didn’t start using computers on a
daily basis until I entered the MCRP program in 1995. These days, students have the general skills
necessary to adapt to new applications quickly.

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

**Michael:** The most challenging aspect of moving into professional practice is understanding the
culture of the organization that you move into and how to get your ideas across in a way that is not
combative. The hard part for me wasn’t figuring out what needed to be done, it was how to bring
everyone else along with an idea that requires organizational change.

**FOCUS:** *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?*

**Michael:** I think the biggest challenges will come in trying to hold the line on growth and sprawl. For
those agencies that successfully establish growth boundaries, but still want to foster a vibrant economy,
the challenge becomes one of integrating infill and intensification projects with existing development.
There is a balance that must be found between neighborhood preservation and the need for infill, and
planners are best suited to guide the public and decision makers through this process.
As the State of California and the whole country becomes more aware of the need to prepare cities to cope with and to recover from natural disasters, the need for specialized planners increases. Corinne Rosenblum, a graduate of the MCRP program class of 2005, writes about her professional path in this important area of planning in which the CRP Department has been focusing on.

I find the life and times of CRP alumni to be fascinating and hope you will find my story interesting. Before I tell you about my life now, there are a few things you should know about my pre-graduation experiences.

After completing an undergraduate degree in Environmental and Resource Sciences at UC Davis in 1999, I jetted off to Boston, Mass. with my good friend, Amber. We needed to try a new coast for a while. I landed a job with a GIS consulting company and quickly learned the trials and tribulations of creating digital data. After a couple years, I was managing projects and coordinating with local communities to build their GIS, training them to use it as a tool in their regular planning tasks.

At that time, I had no idea what a planning department’s purpose was. With four years of GIS (technical) consulting, I realized I could add much more value to the world if I understood what my clients really did with GIS. Thus, my path led to Cal Poly. I considered two schools for graduate study: Tufts University in Boston and Cal Poly. During my visit to Cal Poly, CRP department head Bill Siembieda told me that Cal Poly has a 100 percent placement rate (meaning every graduate gets a job) and that if I wanted to work in California, I should have a California planning education. I was sold! You’ll find it ironic that after only nine months of working in California, I moved back to Boston, but that part of the story comes later.

MCRP Days

Thank goodness for the CRP department’s push to decide thesis topics early in the curriculum. During my second quarter as a master’s student, having just realized how cities function (i.e. I never knew about city council, planning boards, etc) and that people were actually making decisions about life and development in a given neighborhood, the San Simeon Earthquake of 2003 occurred. I thought to myself, “If we have people that decide on building codes and regulations, zoning, public safety, etc., why do we use buildings that we know are not seismically retrofitted for earthquakes?” I have known since first grade that California is prone to earthquakes; it wasn’t news.

It seemed to me that enough time had gone by, and enough devastating earthquakes had damaged the state, that our local cities and towns would have implemented means to make buildings safer by now. I took this on as a thesis topic and researched the recovery process in Paso Robles, comparing it to the recovery process from a prior earthquake in Napa.

Through this exercise, Ken Topping, my professor and thesis supervisor, introduced me to the small world of Hazard Mitigation Planners. Sometimes they are referred to as Disaster Mitigation Planners, but we must keep in mind that hazards cause disasters. The idea of
mitigation planning is to mitigate enough of the hazard that the disaster never happens. Disaster refers to the damaged structures and destroyed human lives that result from the hazard. Without the human component, a tornado in a desolate rain forest wouldn’t really be considered a disaster. It would just be Mother Nature taking her course. It’s when we humans are affected by these hazards that we call them “disasters”.

This is what I learned in my research. Professor Topping gave me a small role in a Disaster Preparedness seminar, and this put me in front of the room, giving me a chance to introduce myself to the “disaster planners.” I networked at the APA conference and even participated in the annual APA “Disaster Planners Dinner.” One thing I can attest to is that disaster planners like to have a good time!

In the end, I feel lucky that I was able to focus my planning studies in this small niche of the planning realm. It accomplished my initial goal for planning school, which was to understand how to be involved in my community in a meaningful way, and now it lets me help make communities safer around the world.

Post-Graduation

As you can imagine, with my previous work experience and the practical experience I gained at Cal Poly, as I neared the graduation date, job opportunities were flowing into my mailbox. It felt like I interviewed with every company in California that does planning. The “dream” companies at the time for me were EDAW and Sasaki Associates. I really liked the products from both of these companies. Unfortunately, neither of them wanted to talk to me seriously. I like to think it just wasn’t the right timing.

I thoroughly enjoyed my talks with LSA in Berkeley, and still think that it would be a wonderful place to work. I spoke with a few companies in Boston (VHB and Goody Clancy), keeping the option to move back east open. In the end, my goal was to try something in the “corporate America” category. I had come from a small consulting firm into graduate school, and had done my internships in the public sector. I was ready to try the part of the working world that I hadn’t yet tasted.

During a career fair at Cal Poly, I stumbled across STANTEC. No one in the department had heard of them. They were able to provide endless opportunities for me through all the different services they offer. In the Sacramento office alone, there are architects, landscape architects, and many different kinds of engineers. It was exactly the kind of company I wanted to land in, to understand the corporate environment and see how the different professions work together on development projects.

Nine months later, I received a call from Scott Choquette, a mitigation planner with DEWBERRY whom I’d met at the last APA conference. DEWBERRY wasn’t on my interviewing radar at the APA conference. Lucky for me, Scott saw my talents during my brief role in the workshop and introduced himself. We kept in touch, as all good networking consultants do, and when he had a position in Boston open, he gave me a call. Apparently my valuable qualification is the combination of knowing what mitigation planning is and being able to communicate effectively.

It didn’t matter that I didn’t have professional experience in “disaster planning,” he was willing to train me on that aspect. He was grateful to find a person with the understanding of the concept for mitigation planning, and with a knowledge of the Disaster Mitigation Act of 2000. I jumped at the opportunity to move to Boston. It didn’t take long to realize how much I missed the seasons and the advantages of living in a big city (such as public transportation). The streets and sidewalks are covered in ice as I write this and I love it.
Life at Dewberry

I have been at DEWBERRY in Boston for over a year now. My title is Hazard Mitigation Planner, and my responsibilities vary among three types of jobs. My primary duty is to support the hazard mitigation planning practice. My secondary duty is to support flood mapping work. My tertiary duty is to support GIS services.

Hazard Mitigation Planning

Dewberry works with communities (who are usually funded through grants from FEMA) to write hazard mitigation plans pursuant to the Disaster Mitigation Act of 2000. Thus far, I’ve been involved in plans across the country including the following: Costilla County, Colo.; Dekalb County, Ga.; Colleges of the Fenway, Boston, Mass.; Santa Barbara School Districts in California; Mississippi state; and South Dakota state.

A FEMA approved mitigation plan makes the community eligible for Hazard Mitigation Grant Program funding and Pre-Disaster Mitigation funding. Mitigation plans are relevant for every level of community from the state level to the county level to the city and township level. Universities and colleges are also eligible to submit mitigation plans, as are Native American tribes. Other funding is available in the wake of a disaster, but these are funding sources to help communities implement projects designed to reduce losses from future hazards.

Many of the hazard mitigation plans address man-made hazards in addition to natural hazards. Natural hazards generally of concern are things like floods, hurricanes, severe winter weather, earthquakes, strong wind, etc. Man-made hazards include hazardous material spills, rioting, terrorism, nuclear plant explosions, etc. DEWBERRY has many methods of researching past hazards and analyzing the risk for future hazards. Any given hazard mitigation plan takes approximately one year to complete. So, I’m still learning the details of each step in the process.

It is interesting to see how the planning principles I’ve learned, and the guidelines from FEMA, actually play out with the politics of getting a plan approved to be eligible for funding. Money talks!

Flood Mapping

A large part of Dewberry’s business is doing contractual work for FEMA as part of FEMA’s map modernization program. FEMA’s goal is to upgrade all of the nation’s Flood Insurance Rate Maps to a digital base.

This means converting the existing paper maps into GIS format. FEMA, with the help of private contractors, has developed a set of standards for these maps so that every community submits a database in the same format. Over the past year, I’ve been learning these standards, the process for digital conversion, and the GIS tools developed to assist in the production efforts.

As part of this business, I learned that there is a professional certification to be a floodplain manager. Thanks to support and training from my co-workers, I am now a Certified Floodplain Manager. Getting the certification involved studying the process and requirements of FEMA’s National Flood Insurance Program and passing a test.

Basically, it proves that I understand how to read the Flood Insurance Rate Maps and that I understand the national requirements and guidelines with regard to development in designated floodplains. I’m
looking forward to my first annual floodplain manager conference this coming summer! It will definitely be a different change of pace from the APA conferences.

Both hazard mitigation planning and flood mapping have required public participation processes where I am able to use my Cal Poly training to interact with the public and build consensus among stakeholder groups.

**GIS Services**

Dewberry has a 50-person department dedicated to providing GIS services as a single contract to clients as well as for the other disciplines within the firm. Obviously, the floodplain mapping work requires a lot of collaboration with the GIS group and use of GIS tools. Aside from that work, I assist the engineering staff in my office as needed and support the GIS group, lending a hand when I can.

**Balancing Various Responsibilities**

The reason for being well versed in the three service lines of hazard mitigation planning, floodplain mapping, and GIS is so that I can contribute where the work is needed. Depending on the kinds of projects that come in, or that our clients need, my workload varies on a weekly basis.

**Corinne’s Advice to Planning Students**

The other night, as I was discussing this article with a good friend of mine, she asked me if I would have my current job if I hadn’t gone to graduate school.

The answer is clearly no. My experience at Cal Poly opened doors and introduced me to people I would not have found without going to graduate school and learning about planning. The hands-on experience I gained through our class projects and my internships is truly invaluable. It was that experience (which seemed limited to me) in conjunction with the standard skill set of being able to communicate effectively and perform in a professional manner that landed me the job I have today.

My advice to the students looking for jobs is to meet as many people as possible. Talk to companies and cities anywhere that seem interesting in order to get a feel for what it’s like to work there. Even if there are no open positions at the time, most people love to do informational interviews and “show off” their daily duties or the company they are proud to work for. The connections you make in informational interviews or any interview are valuable in the long term. Networking, and knowing people in the right places, is key to finding a group of people you are happy to work with and for.

Another tip for interviewing: don’t be modest. No one else is going to sell your skills like you can. Talk it up! Show that you’re confident in your abilities, be honest about your experiences, but be your own advertisement. It’s hard for a lot of people, but it works. Employers want confident people who know how to solve problems.

For those students not quite ready to interview yet, it’s not too early to think about it. In every course, look for the experience you can pull into your portfolio. Build your portfolio up over time. Keep extra copies of your completed reports and plans handy. Interviewers often like to see samples of writing.
skills. It’s not too early to start meeting companies at places like the APA conference. Most people love talking to students. Just ask them about their jobs, find out what their daily lives are like. This will give you a better idea of what you want to strive for when the time comes.

Finally, be flexible. Keep in mind that any private firm will be looking for projects that make money. Having a multitude of skills and the willingness to work on a variety of projects can make you a valuable asset to a consulting firm with broad services. Your job description will most likely change over time as the world evolves and demands change. Keep an eye out, keep learning, and embrace change.

Conclusion

All in all, I am pleased with my path and where I am in my career at this point. I have grand plans of moving up in the world. I’m not sure where “up” on the corporate ladder is yet, but I’m learning more everyday. That’s the exciting thing about working for the federal government. There are always regulations to learn about! At the end of the day, I still dream about being on the city council or town selectman’s board of a small New England town. Some towns in New England do everything by vote at an official Town Meeting. It would be fun to moderate that meeting! I just have to find the right town and then I’ll let my political wings spread.

I always love to talk to Cal Poly students (or alumni). If you would like to reach me, please do not hesitate to e-mail me at <crosenblum@dewberry.com>.
The following are the abstracts of theses and professional projects defended in the MCRP program during the year of 2006. Both the CRP department and Cal Poly’s Kennedy Library hold copies for consultation.

Housing Authority of San Luis Obispo Humbert Street Limited Equity Housing Cooperative. 
Tyrone Buckley

The purpose of this project was to assist the Housing Authority of San Luis Obispo in the development of a Limited Equity Housing Cooperative at 851 Humbert Street in the City of San Luis Obispo. The goal of this housing development is to increase the availability and diversity of homeownership opportunities in the city. This final report presents the process of project development through the application for a zoning change and General Plan Amendment.

Regulating Adaptive Reuse to Achieve City Planning Goals: A Comparative Study of Ten U.S. Cities.
Donald C. Kress

Adaptive reuse of existing building can help a city achieve its planning goals. As a form of real estate development, it can be regulated by a city’s planning documents, zoning and building codes, and discretionary actions. These can be structured in a manner that makes adaptive reuse projects feasible and encourages developers to undertake them. This study examines 10 cities that have structured their regulations in such a manner to discover whether these cities met with success in using adaptive reuse to achieve their city planning goals.

Initial Assessment Conservation Plan for the California Valley Subdivision in Eastern San Luis Obispo County.
Christopher Park

This project is a comprehensive analysis of the California Valley Subdivision that investigates the interaction of real estate trends and local land use regulations to develop an understanding of the limitations that prevent the full buildout of each parcel. Habitat within the Subdivision is analyzed for comparative importance in terms of rarity and successful survival of the larger regional habitat area, and is then divided into zones reflective of habitat importance. The results of this analysis are used to create a conservation strategy that seeks to protect the multiple critical habitat areas using tools and techniques specific to each zone.

Identifying the Qualities that Youth Value in their Communities: A Comparative Study of Cambria, Paso Robles, and San Luis Obispo.
Camille Passon

This study analyzes youth perceptions of their environments and qualities they value within their communities. Youth are often excluded from planning activities, and as a result, places in which they live are not responsive to their needs, and several planning policies and practices work to restrict youth activities and prohibit their occupation of public spaces. The purpose of this study is to compare perceptions of adolescents in Cambria, Paso Robles, and San Luis Obispo to test
whether quality indicators established by previous research are present in the region and considered important to them. High school seniors in each of these communities completed surveys, participated in group interviews, and prepared maps of the places in which they live. Results indicate that quality indicators are important to students although their varies by community. The majority of students indicated their dissatisfaction with their communities and that there is a lack of amenities for youth. Results also stress the need to encourage youth to become more involved in the planning of their communities. Suggestions are provided for strengthening quality indicators in the communities in addition to guidelines for developing effective youth participation programs.

Defining, Measuring, and Predicting Gentrification in 1990s San Francisco: A Diagnostic Tool for Planners Seeking to Impact the Course of Urban Revitalization.

Michael E. Profant

This thesis presents a method for defining, measuring, and identifying predictors of gentrification in the context of 1990s San Francisco. To conduct this study, gentrification is operationalized as the relative increase in average household value and measured at the ratio level. Also, GIS technology is employed to analyze spatial patterns of gentrification in the city. Certain findings were consistent with those established through prior research, such as the negative relationship that existed between distance to downtown and the extent of gentrification. There were also unanticipated findings that reflect the unique geographic and temporal context studied. Super-gentrification was a notable phenomenon of the 1990s. Also contrary to expectations, widespread gentrification was less likely to occur in immigrant neighborhoods. Lastly, public housing did not serve as a complete impediment to the occurrence of gentrification.

Conservation Easements: An Investigation into the Application of this Land Use Planning Tool.

Richard Rojas

Although in recent years conservation easements have become widely used to conserve agricultural, open-space, and natural resources, the implementation of this land-use tool has avoided critical analysis. Though private by design, they rely upon substantial investment of public resources. In an effort to address the effectiveness of conservation easements, this research evaluates the Bonnheim Conservation Easements held by the non-profit agency Land Trust of San Luis Obispo County. Evaluation criteria were applied to assess the incorporation of values important to the conservation of biodiversity and to evaluate the land trust’s level of compliance with the national land trust community’s best practices for operation and management.
focus

This journal highlights the work produced in the City and Regional Planning Department, Cal Poly, San Luis Obispo.

Special Events
Essays
Student and Faculty Work
International Exchange
Spotlight