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College of Architecture and Environmental Design
California Polytechnic State University San Luis Obispo



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College of Architecture and Environmental Design, California Polytechnic State University

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Nikki Day

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Vicente del Rio

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Christopher Jordan

Contributing editors:

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Sierra Russell

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Association of Student Planners

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Design & Layout:

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Yousman Okano

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Preface

Preparing students to assist people to build livable and healthy communities has always been a primary objective of the City and Regional Planning Department. This is done through classroom work, projects with local communities, interaction with the professional planning and environmental design communities, and recently understanding more about global issues and cultures. The publication you hold in your hands is part of our overall effort to share knowledge and create interest in the Department's overall contribution to the College of Architecture and Environmental Design, to Cal Poly, and the broader civic minded community.

Thus, it is with great pleasure that we offer you the first issue of FOCUS, a yearly journal dedicated to sharing faculty and student work and showcasing special activities of interest. We want you to know what we are doing. It takes a lot of effort, dedication, and resources to produce FOCUS. It will be published every April, as a retrospective of the past year, and always in time for the Cal Poly Open House. This is a spring celebration when we share our projects and academic works with colleagues, alumni, members of the public, and most importantly with future and prospective students.

It is a proud time because we are able to show others how we implement our mission, and highlight some of the countless professional possibilities that planners face in California, in the US, and in an increasingly globalizing world. Each issue of FOCUS is a "golden key" that closes the past year, and opens a new cycle.

FOCUS is organized along five main sections. In Special Events we bring you proceedings of seminars and conferences, articles on special events and guest lectures. In this first issue, two important 2003 events comprise this section: the International Seminar Global Thinking, Local Planning – that brought to Cal Poly planners from different countries to discuss their work and different perspectives on the profession.

In Essays, faculty work is featured. In this issue Paul Crawford, one of CRP's most popular lecturers and distinguished alumni, discusses how to implement "smart growth" concepts through urban codes. Department head William Siembieda, adjunct professor Ken Topping, and Bruce Baird tell us about disaster mitigation and preparedness, a most important but overlooked planning topic. Vicente del Rio describes partial results of his on-going research on the evolution of contemporary urban design in Brazil.

The section on Student Work is a showcase for projects and papers produced by undergraduate and graduate students. This issue highlights two projects developed in collaboration with the City of Arroyo Grande: an urban design study for the redevelopment of Traffic Way by the second-year undergraduate lab, and a proposal for a mixed-use development in the South County Government Area by the second-year graduate lab, the recipient of the 2003 Academic Award from the Central Coast Session of the California Chapter of the American Planners Association.

The Exchange Programs section introduces the international opportunities offered by CRP. It gives you a taste of the experiences that our students have while studying abroad, in places such as Brazil, Italy, and Mexico

In Spotlight, the last featured section, we present work by CRP's alumni. For this first issue we include replies to a brief survey sent out to alumni on their views of the profession and education. The section also shares some of the research generated in the Master of City and Regional Planning program by including the titles and abstracts of theses. These references serve as valuable resources for further research, and are available in the department's Resource Center and through Cal Poly's Kennedy Library.

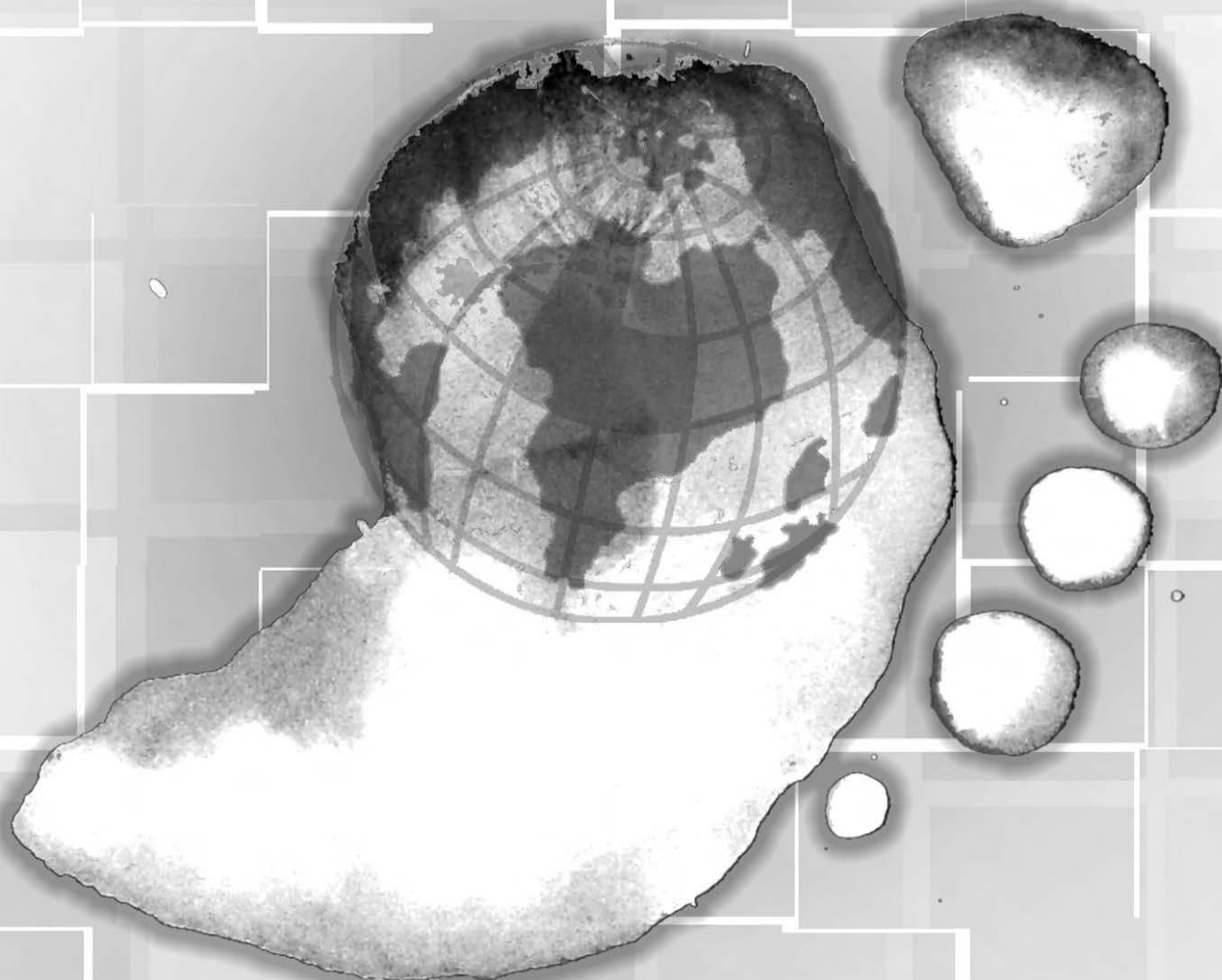
Needless to say, FOCUS represents an evolving collective effort between faculty and students; requiring a significant amount of time, energy and resources. We appreciate the dedication of our team, the support of the CRP faculty, staff and students, and the confidence and generosity of our sponsors. Special recognition is given to Professor Vicente del Rio who suggested this journal, and organized the team to make it a reality. Without his dedication, FOCUS would still be a dream. Now it is a reality.

We sincerely hope you enjoy FOCUS, and use it in ways that improve your own professional work and general knowledge to build better communities. We invite your participation to the next journal edition, and welcome your opinions, contributions, examples of professional experience, and support. We want to hear from you about FOCUS. Please share this issue with others.

William Siembieda
Department Head, City and Regional Planning

International Symposium

Special Events



Vicente del Rio

Associate Professor
City & Regional Planning Department
Cal Poly San Luis Obispo

Global Thinking, Local Planning: International Views on Environmental Planning and Design Reflections on a Symposium

The beginning of the 2003 academic year was marked by CAED's symposium GLOBAL THINKING, LOCAL PLANNING INTERNATIONAL VIEWS ON ENVIRONMENTAL PLANNING AND DESIGN. This first event of its kind at CAED was organized by the City and Regional Planning Department, and co-sponsored by the Architecture and Landscape Architecture departments, in collaboration with the Central Coast Section of the California Chapter of the American Planning Association and CCAPA's 2003 Conference.

In the first two weeks of the quarter, six speakers from different countries presented their projects and perspectives on environmental planning, sustainability, globalization, and design at different scales and for multiple audiences.

Since the 1992 Earth Summit in Rio de Janeiro world leaders have committed to stronger environmental concerns in their political agendas. An increasingly global economy, with open border policies, and a rapidly changing urban society, have turned sustainability and multiculturalism into fundamental issues in international and California planning and design. The symposium explored many of these important questions and fostered a rich discussion among faculty and students.

In introducing the symposium, Dean Tom Jones stressed the importance for California planners, designers and students to engage in global concerns, not only as a quest for more sustainable development patterns, but also to participate in a growing professional market of worldwide proportions.

The first speaker was Javier de Mesones, a leading planner and urban designer from Spain, professor at three universities in Madrid, President of Honour of the Spanish Association of Planners, and former president of the International Society of City and Regional Planners. Don Javier talked about the city of the future and the many issues that planners have to face, from ethical and political to economic and social.

The Brazilian environmental planning system was the main theme presented by architect-urbanist Marcia Junqueira, a professor at the Federal University of Rio de Janeiro. Marcia showed three recent projects in Rio de Janeiro and discussed how community concerns and local environmental groups were pivotal in denying them development permits.

Werner Brog, a sociologist and principal of SocialData in Germany, presented his successful individualized marketing approach to diminish the population's dependence on private

vehicles and to increase the use of transit alternatives. By showing his work in several cities in Europe, Australia, and the US, Werner proved the effectiveness of this approach, and how enduring its effects are on behavior patterns.

In the second week of the event, Richard Stevens, Planning Director of AEI-CASC Consulting, professor at Cal Poly Pomona, and vice-president of the CCAPA, presented on his experience in Japan, Europe, and Latin America. He discussed globalization and a number of international planning issues, venues and organizations that appeal to Californian planners and designers.

Iffat Qamar, an environmental planner originally from Pakistan and now at Sapphos Environmental in Pasadena, made a comparative analysis of the environmental planning systems in Pakistan, New Zealand, Great Britain and California; showing their advantages and limitations and fostered a discussion on what needs to be done for a better system in California.



Conference organizer Vicente del Rio at the opening session.

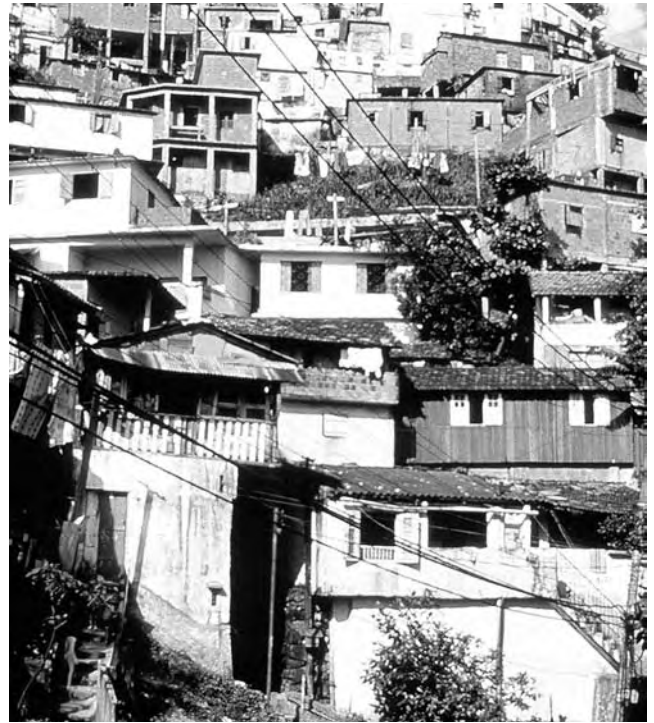
In the last day of the symposium, Rogerio Penido, a Brazilian architect-urbanist and project director at Oger International in Paris, presented his firm's current project which brings new infrastructure and roads into the historic medina in Fes, Morocco. His presentation showed the complexity and the wide social and cultural implications of a project meant to increase the quality of life of a community, and foster tourism development in a settlement considered a world patrimony landmark by UNESCO.

The success of the symposium may be measured by the large numbers of students and faculty in every session (an average of 100 per day, that is 600 total!). The main message was clear and agreed upon by participants: the environmental design culture is moving away from urban sprawl, leap-frog development and fragmented planning processes, toward the pursuit of ecological, social and economic sustainability, integrated land use planning, and urban form management.

As the global community provides both opportunities and new issues for environmental design professionals, this event made the university a more global place, brought new knowledge and six different "sets of eyes and minds" to the California central coast. The discussion of new perspectives and cross-cultural comparisons will always play an extremely important part in better preparing students and professionals for their roles as planners in California, the US, and the world. This event demonstrated the value of working together with our professional associations.

Two of the speakers in the symposium stayed longer and participated in classes and activities in CRP. Javier de Mesones spoke on the social roles of planners and presented his urban design project for Arganda del Rey, an area around a new transit station in Madrid. Marcia Junqueira, coordinator for the Brazilian side of CRP's exchange program with the Federal University of Rio de Janeiro, presented research on environmental planning and spoke about some of her students' projects.

By bringing together six different international "sets of eyes and minds", the event provided participants with a more global perspective on both opportunities and new issues for environmental design. The discussion of new perspectives and cross-cultural comparisons will always play an extremely important part in better preparing students and professionals for their role as planners and designers in California, the US, and the world.



*Rocinha, a hill squatter settlement with 100,000 residents in Rio.
(Photo: V. del Rio)*



Javier de Mesones with students in a design lab.

Javier de Mesones

Architect and planner
Principal, Plan & Design, Madrid
President of Honour, Spanish Association of Urban Planners

The City of the Future

Betting on Sustainability, Health & Safety

Throughout history mankind has always wanted to create beauty - as first attempted by Phidias, to go further - as did Columbus, to fly - like Leonardo da Vinci, to climb higher - as Hilary strived for, and even to travel to the moon – as Armstrong did. If these milestones were accomplished, why wouldn't man also have a desire for the best city, an ideal city in which it would be possible to be have a high quality of life?

I. THE HAPPY CITY.

Before man can acquire happiness, one must know what it means to be happy. What are the basic conditions to achieve happiness? Happiness is an emotion difficult to explain and even more difficult to reach. However, there are two main conditions that are absolutely essential to be happy: health and safety.

The World Health Organization defines health as: “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. Therefore, one's health is related to equity and social justice, the quality of the environment and living conditions, and cultural richness and diversity. Local matters are also very important and have a great effect on one's health.

On the other hand, safety - as much in its spiritual as in its material meaning - has to do with freedom and democracy, equity and social justice, quality of the environment and living conditions, security and civil protection, as well as with technical measures against natural and manmade risks and disasters.

On these assumptions lie the planners' greatness and servitude. Everything is related to health and safety. And everything deals with happiness.

II. THE MYTH OF SISYPHUS.

Has any man reached the healthy city; the safe city; the happy city? According to Homer, Sisyphus son of Eolus was “the most wise and prudent of the men.” He founded the city of Ephyra - later known as Corinth – that was made to be safe with strong walls, and its water supply was obtained from

Asopus. Sisyphus also founded the Isthmic Games, and even blocked all sickness outside the city gates.

Thus, Corinth enjoyed perfect safety and health. But Sisyphus unleashed the jealousy of the gods because he was able to achieve safety and health. The vindictive gods condemned him to push a big rock up a steep slope. Since then, such a great accomplishment has never occurred again. Also since that time, a Sustainable City is considered a goal in need of permanent work, always harder, and which will never be totally fulfilled.

What can we do to ensure that Sisyphus's strength will be stronger than gravity? Which are the negative factors that, such as gravity, degrade the city and push it towards sickness and insecurity? Which are the positive factors, and where do they have to be implemented to counteract the urban degradation promoted by the negative one?

III. WHERE? URBAN DOMAINS AND FACTORS.

The city – a complex and wonderful organism – constitutes a unity in itself. However, for the sake of time we can summarize it the complexity of the city by considering four urban domains: social, cultural, economic, and environmental. Each of the these domains are constituted by different factors, and the most important are:

Social Domain

- demography
- density
- housing and employment
- facilities
- health and safety

Cultural Domain

- natural heritage
- manmade heritage
- image
- identity
- way of life

Note: This article was edited from Javier de Mesones presentation at Cal Poly's International Planning Symposium by Jenny Rocci and Vicente del Rio.

Economic Domain

- economy
- financing
- management
- maintenance
- public participation

Environmental Domain

- accessibility and mobility
- uses and functions
- infrastructure
- natural resources
- manmade resources

All domains and factors constitute just one unity that we study dissociated in its parts because it is easier and makes our job easier.

IV. WHY? DEGRADATIONS & ACTIONS.

The city suffers from many negative influences on each of its four domains and their twenty factors. These negative influences can lead the City to roll slowly but inexorably down the slope to its degradation.

Degradation may take place on all factors of any of the urban domains. Next I will comment on degradation of some of the factors in each domain - concentrating on those that are more related to health and safety – and on some of the corresponding actions needed to fight for the happy city.

Degradations to the Social Domain

Mobility of People:

The easy mobility and the flow of people from different cultures, moving freely all over the country and the world, create another social and cultural challenge yet to be solved. Aggression, violence, racism, segregation, and isolation are common social attitudes.

Housing and Employment:

Housing and employment have become huge problems. These social problems also create exclusion, lack of equity, and segregation. Unemployment contributes to the growth of urban insecurity, and job shortage creates negative psychological attitudes such as depression, stress, and violence. The difficult access to decent housing promotes an unhealthy lifestyle.

Actions for the Social Domain

Housing:

Promoting actions for housing have to consider two main aspects: to produce cheaper and more environmentally friendly dwellings, and to finance easy access to them. There are different methods for developing different housing typologies. A clear and imaginative involvement of the different partners is necessary. Users, administrators, land owners, financiers, and developers need to realize new urban developments. We need innovative and cooperative systems among the different partners to reduce the housing deficit. Proper financial systems for building and acquisition of standard houses are crucial, along with flexible mortgage systems.

Facilities:

It is necessary to create new, multifunctional buildings. and to redesign existing ones to enable them for different types of facilities which have to form a balanced network and furnish easy access for all citizens. New social facilities need telematic systems offering information, education, and training. Social community committees have to be created and become responsible for running and maintaining these facilities.

Health & Safety:

It is necessary to develop a comprehensive public health and safety program that gathers and co-operates with all the actions that are before related. Almost everything affects health and safety. It is also essential to provide easy access everywhere for disabled citizens, and to promote education and training on health and safety in order to reach a new lifestyle, through traditional media and telematic systems.



Plan for Arganda del Rey, Madrid, by Plan & Design 1999

Degradations to the Cultural Domain

Heritage:

The natural and manmade heritage is not well maintained. The use of new unfitted architectural patterns destroys heritage and replaces the original identity with an anonymous and unfriendly environmental structure. The urban image loses not only its formal character but also its collective memory. There is no more urban image for the community. This means a lack of roots that makes citizens feel as though they are foreigners in their own city, as they are not part of their own city.

Cultural Diversity:

The diversity of cultures is not yet understood as able to enriching human behaviour, but it is seen as a dividing factor. It leads to a wide abyss among different groups. This increases exclusion and promotes social aggressive attitudes. Customs, values, and culture are imposed by certain groups over others creating more exclusion and segregation. Also, it banished the cultural identity of the weakest groups, making it easy for them to be manipulated, subduing them or, even worse, using them as a violent instrument.

Actions for the Cultural Domain

Heritage:

To protect, to rehabilitate and to increase the monuments and the cultural heritage, the urban imaginary and identify.



Streetscape in Arganda del Rey, Madrid, by Plan & Design 1999.

Rehabilitation and re-use of historic buildings and spaces. Recovery of the traditional image to enhance the identity and to promote new economic opportunities (as tourism, pilgrimage, spa-health resort, fairs, etc) and new jobs. Creation of new quarters with strong identify. Maintenance and promotion of cultural manifestations as traditions, festivities, dances, etc. incorporating other rich additional values from the coexistence of different cultures.

Social Relationship:

To obtain a better social relationship through the knowledge and respect of social customs. Reconstruction of the city *agora* where all citizens could participate and get involved in city life, sharing responsibilities in the present and for the future. Education and awareness of all citizens, not only the existing residents, but also newcomers to coexist and to share different cultures, feelings, and lifestyles.

Lifestyle:

To develop an easier urban lifestyle. Creation of a new social and city administrative system that conforms to smaller community units so that people may participate more easily and become more acquainted with the requirements of citizenship.

Degradations to the Economic Domain

Facilities, Service, & Infrastructure Maintenance

The maintenance of common structures (facilities, services and infrastructures) turns into a problem. There are not enough funds and means for the level of quality that these structures require for a healthy quality of life in the city. The worst-case scenario situation becomes normal and generates neglect by the citizens. Sickness, vandalism, aggression, insecurity, and health risks are becoming normal characteristics of the city.

Actions for the Economic Domain

Economy:

The first action should be to define ad hoc policies for obtaining urban economic sufficiency. Next, there should be a selection of a suitable multifunctional city models and the promotion of certain specializations as new fields for employment. Jobs should also be created through environmental measures and as a means to generate attractive and healthy environment for new investments.

Financing:

Local finances should be to improved through diverse and innovative actions.

Co-participation in the national and regional budgeting is also helpful, along with the creation of mixed public-private enterprises for developing projects, facilities, housing, etc. Another action should also be to attract new sustainable enterprises through awards, fiscal and tax incentives, etc.

Maintenance:

One of the first actions should include to design a maintenance plan and budget for services and facilities with accurate future adjusting. Planning for future needs should be in balance with the actual maintenance capacity. There should also efforts to improve citizens' awareness through educational programs to show that maintenance is a social concern in which everybody is responsible.

Total Public Participation:

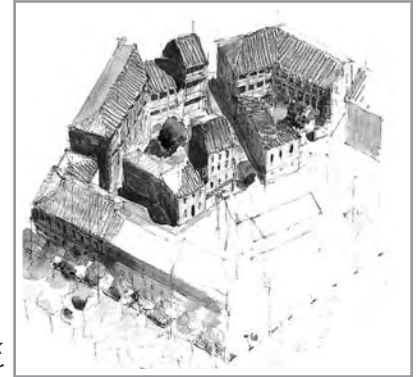
Action should be taken to develop a relaxed climate in which citizens' participation and partnership will be possible. There should be definition of the lacks, problems, wishes and aims of the citizens. And finally, establishment of flexible means of communication between authorities and citizens and creation of more interactive information systems. Bottom-up decision-making should be encouraged instead of the top-down ones, as well as an increase in public awareness by marketing new ideas.

Degradations to the Environmental Domain

Traffic, Accessibility, and Road Layout:

These factors are strongly interrelated. Growing mobility produces higher levels of traffic congestion, reduces accessibility, and collapses the road layout. Congestion means pollution because of emissions, vibrations and noise; a decrease in urban functionality; longer time for movements; and additional costs for the citizens. Costs are not only economic but also physical and psychological - sickness, stress, and even a potential nervous breakdown. Street layouts become inefficient, and streets are simultaneously becoming more unfriendly for pedestrians.

The space that is denied for the citizens is generously given to the machines. When these factors do not work, surface public transportation is affected by congestion, citizens suffer the consequences, and in a vicious cycle private cars replace public modes of transportation. The lack of quality and quantity of public transport affects the quality of life, social cohesion, and the city's economic perspective.



Sketches of block interiors for Arganda del Rey, Madrid,

by Plan & Design 1999.



Infrastructure Services:

When existing infrastructure services or the budget are insufficient, the existing structure is not able to absorb new requirements, nor it is able to satisfy future developments. Air, land, and surface pollution increase. Garbage and waste without proper treatment grow to unsustainable levels and unhealthy conditions; noise pollution reaches unacceptable levels causing alienating states of mind. The urban environment is unfriendly and sick. Degradation and pollution foster healthy and social problems like sicknesses, poverty, isolation and violence.

On the other hand, some infrastructures when broken such as nuclear power stations, or even when they work perfectly such as high tension cables or low frequency radiations from certain home appliances and mobile phones generate serious diseases, cancer, and even death. Eleven million children die every year in the world due to diverse types of pollution. The Alps are still contaminated because of Chernobyl.

Actions for the Environmental Domain

Traffic:

Action should be taken towards a comprehensive traffic

program that reorganizes the city's mobility through progressive stages. Then, to reduce the use of private vehicles, public transportation should be promoted through the coordination between different modes.

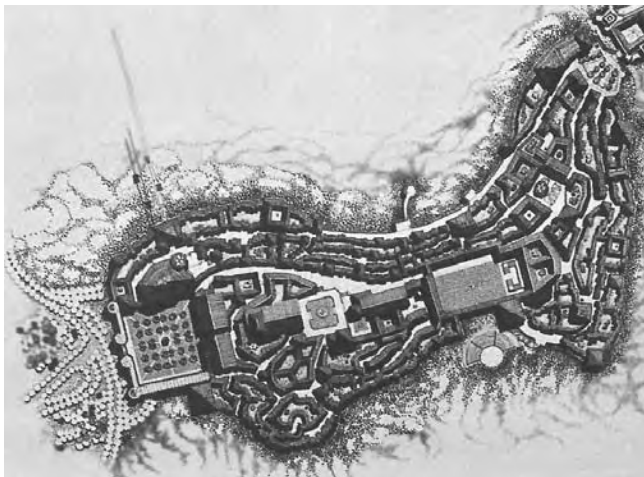
Also, it is important to establish a network of different types of parking (for residents, visitors, commuters, etc.) and to promote alternative means of transportation (trams, new generation of buses, electric cars, bikes, etc.). There needs to be devotion and devolution of the city centre to pedestrians, and a creation of a pedestrian system linking all city neighborhoods. Reduction of air and noise pollution should also be in the agenda.

Mixed Uses:

Action should be taken to mix environmentally friendly urban uses that are compatible and harmonious in a balanced city structure. There should also be an allowance of traditional mixed uses and a horizontal diversity of uses. Densification of tertiary areas in the city centre and main urban corridors will enhance the interrelationship among different city districts. Derelict land should be reused for facilities and new housing, and industrial traffic and pollution should be toughly regulated and controlled.

Green & Blue Areas:

Action is necessary for the maintenance, the growth, and the improvement of the green and blue areas, and for the creation of urban corridors linking all city districts.



The Spanish Village, part of the Master Plan for the Centro Español Iberoamericano in Caracas, Venezuela, by Plan & Design 1979.

Comprehensive Infrastructural System:

This needs to be developed in successive stages. Building licences should only be given in fully urbanized land. There should be an introduction of two-water supply system and sewerage. Appropriate waste collection services should be used to encourage waste separation (re-use and recycling).

Urban Environment:

An ecosystems approach should be utilized to draw up an integrated program for the urban environment: indicators should be defined, and resources and nature should be gradually implemented. There should be an establishment of a new "Health Impact Assessment". Maintenance and rehabilitation of urban environment is required to balance the ecosystem and to improve health and security. Use water, energy, land and raw materials in a sustainable way.

V. HOW? INTERACTIONS.

All four domains and their twenty factors are permanently and intimately interrelated. If any action - positive or negative - happens in one domain and in factor it will sooner or later have repercussions in all other domains and factors. A single interaction causes four hundred stronger or weaker reactions. Each of these reactions function as new actions and by turn generate a new set of reactions, and so on.

This is the reason why the city is such a complex, delicate, and sensitive system. There are extensive ranges and intensities, from the weakest to the strongest reaction. Actions can not be isolated because you risk solving one problem with an action which may be generating negative reactions on the others.

VI. FINAL RECOMMENDATIONS.

I said that a large number of actions and strategies are needed to generate the city of the future – the sustainable, safe & healthy city. It is very difficult to address only a few main recommendations as a closing statement for this presentation, but it is possible to sum up some basic, useful, and positive principles:

Holistic:

Programs have to be comprehensive, not concentrating in a single domain or factor but considering all of them. Actions have to be put in practice in a combined way, never isolated, because the city is just like a surprising chest of drawers from a Marx Brothers movie: when a drawer is closed others get open by themselves, and vice versa. If we need to open or

close any drawer, we need to hold all of them down... and nevertheless, in spite of it all, we will find out that often there are more drawers than we would have ever thought...

Balance:

The city is a unique system, and its whole structure and every one of its subsystems, districts, and buildings have to be balanced. The city is just like a sail boat in the sea: every single of its pieces and tools should be running properly to have it get happily at the harbor. If the engine does not run or the rudder is seized up, if the helix breaks down or the kitchen is empty, the boat will not sink, but will drift, without any control and, sooner or later it will crash into a rock or get stranded in a shoal.

Sustainability:

We must reduce until we completely abolish the wasting and the lavish use of the natural, cultural, and economic resources. Re-use, re-habilitation, re-cycling, re-storation, re-organisations... compose a symphony in "RE" (the Spanish word for the note D) which sounds much better in our times. This is because the city and the whole world are just like a house of a cautious family where everything is used and nothing is either destroyed or wasted. This family will never get poor but, on the contrary, it will get richer. A fool that wastes his resources will soon be in need, starving, sick, and poisoned.

Participation:

Participation and partnership—versus tribalism—has to become a "life style" that will be more and more essential every day. Because the city is just like a horse-drawn cart: we, the citizens, are precisely the horses. Having the best cabman is not enough; it is essential that the horses go before the cart, as it is essential that each and all of us keep going at the same time and in the same direction. The only way to go forward, speedily and secured, is if all agree on when we have to pull, on the direction, and on the speed.

Culture:

Education, awareness, responsibility, respect, solidarity; that is, culture—versus fundamentalism— is the fundamental stone on which to build a free, safe and healthy society. Because the city is just like a motor car: if the driver does not know how to drive or does not know how to preserve it well, if he is unaware of the danger that it represents and does not have the essential sense of responsibility — that is to say, if he lacks a "car culture"— even the best driver will crash into

a tree some day or, what is worst, into a child. Culture is the "driving permit" to be a good citizen.

And Love:

Know the city! Love the city! Take care of the city! Because cities are just like that wife of "The Song of the Songs": "beautiful in the midst of all the women" and whose "voice is sweet and face charming".

We have to keep in mind that the city is just like the surprising Marx Brothers's chest of drawers, just like a boat ashore, just like the house of a cautious family, just like a cart of horses, just like a motor car, and just like a beautiful wife. A city is like a marvelous box of surprises.

In short, we can assure that the City of the Future – The Safe & Healthy City –is neither an unattainable utopia, nor a fantastic dream of a planner: the City of the Future is just the City in which every one of us lives now, but where positive actions and strategies will be carried out on in a comprehensive, balanced, decided, conscious, right, and energetic way - free of any type of corruption and privilege.

There is no "magic" or "scientific solution"! There is only: knowledge, decision, willpower, strength, imagination, honesty, participation, a lot of work, and, on top of everything, a huge amount of... LOVE!!

Werner Brog

Social Psychologist
Founder and managing director, Socialdata
Institute for Transport and Infrastructure Research, Munich

Reducing Car Use?

Just do it!

Between Skylla and Charybdis

The dependence on the car in everyday travel has increased enormously over the last several decades. This has serious and growing consequences for the environment and health and for many communities affected by road traffic. At the same time, these consequences are very expensive for business, environment and society. Ways must be found to overcome this car dependency so that people begin to use other modes of transportation.

The sharp increase in the use of motorized private transportation has resulted in greater transportation distances for the inhabitants of European cities but not in any substantial mobility gain. The time spent on transportation has to a large extent remained steady, approximately one hour per person per day (“active mobility”). But at the same time the consequences connected with this increase (“passive mobility”) have become much greater.

Since passive mobility takes up an incomparably greater part of our lifetime, citizens generally judge the traffic trend from the passive mobility standpoint. They therefore hope that transportation planning and policy will provide relief precisely during the period of passive mobility by an orientation towards the promotion of environmentally friendly and not (no longer) motorized private modes.

This understandable wish that environmentally friendly transportation modes will be encouraged is countered by public opinion, which is seen as “pro-car”. Accordingly, the importance of motorized private transportation is overestimated and the possibility of reducing it is underestimated.

Nonetheless, limited changes by individuals in their behavior would be possible at any time without giving rise to major problems and would have a great impact. But it is not sufficient for such behavioral changes to be possible, as they must also be considered possible. And the predominance of the car in public opinion runs counter to this requirement.

The result is, strange as it may seem, that the simple behavioral changes in active mobility, which would make an appreciable contribution to the desired improvements concerning passive

mobility, are (wrongly) considered to be so radical that any attempt to initiate them is immediately seen as an unwarranted impairment of the quality of life. Accordingly, practical measures to reduce traffic are not taken at all or not taken seriously enough, and the very trend we think we are avoiding (deterioration in the quality of life) actually occurs.

Transportation policy and transportation planning do not provide much solution to this “mental blockage”. For, first and foremost, it is not a change in basic conditions, which is necessary, but a change in people. It is not “others” who have to make a change, but we ourselves. This obviously applies not only to citizens but also to opinion-formers and decision-makers.

Old Wine in New Barrels

Behavior is a product of wanting to do something and being able to do it. In the context of mobility, “being able” is determined by individual constraints and available options, whilst “wanting” is determined by information, perception and subjective preferences. The present discussion about ways of influencing people’s choice of transportation is indeed dominated by proposals concerning options (new tramways, bicycle tracks etc.), behavioral control (road pricing, parking fees etc.) or restrictions (no-parking zones, speed limits etc.). In all of this, it is assumed that people have to be influenced “from the outside” because they are not willingly prepared to adopt a pattern of sustainable mobility by themselves.

This is disproved by the findings of numerous studies on why people choose the transportation they do, and what the chances are of changing their behavior patterns. Again and again, it has emerged that there is great potential for behavioral changes without the objective conditions needing to be changed at all. More than half of all car trips in Germany are made without any inherent necessity for choosing the car to make them, and there is at least one equally good, environmentally friendly alternative (on foot, by bicycle, using public transportation).

Note: This article was edited by Christopher Jordan from Werner Brog’s presentation at Cal Poly’s International Planning Symposium, and from his lecture at the 27th Nottingham Transportation Conference in Nottingham, UK (March 2003).

To open up this potential, therefore, does not require any costly investments or unpopular restrictions – all it takes is the deliberate use of “soft policies” (information, motivation, identification). Nor are people required to give up their cars entirely, but simply to give more thought to their choice of transportation. If every car driver in Germany were to make only two journeys a week (just one round trip) by a more environmentally friendly means of transportation than the car, the volume of car traffic would be reduced by a significant 15 to 20 %.

The potential for soft policies is especially great for the simple reason that people are swayed in their choice of transportation by severe miscalculations and lack of information. About half of the German citizens for whom public transportation is a genuine alternative are not in possession of the facts; if they do know of the alternatives, they heavily overestimate the traveling time and the fares involved. In other words, people’s subjective perception of alternatives to the car is considerably worse than the true state of affairs. However, since it is subjective perception, which controls behavior patterns, this is the key to effective and sustainable influence.

The Homeopathic Way to a Healthier Transportation System

In a business context, problems of this type are solved with differentiated marketing concepts. In the case we are examining, it would make sense to use a dialogue marketing process. This enables mobility patterns to be changed in a quasi-homeopathic way by strengthening existing resources. Citizens are taken seriously as active partners in solving a shared problem. They are motivated to make their own contribution and given all the help and information that they need. “Dialogue” means that they actively join in, decide for themselves what information they need, and are served individually instead of being the passive recipients of unwanted advertising material.

Dialogue marketing of this kind is particularly successful when it happens in a communal context, the dialogue (with all inhabitants) taking place in several phases.

First, all households are personally addressed and invited to reflect on their choice of transportation. Then – depending on how willing they are to change their behavior patterns – they are segmented into different groups and drawn into a dialogue, which will vary from group to group. In this

dialogue they receive not only information and advice tailored to their needs, but also reassurance and rewards. Measures range from providing a bus-stop timetable to making a house visit. In all cases, the dialogue is kept as individual as possible and only maintained for as long as necessary, so that the targeted persons do not feel burdened or pressurized (help to self-help). This concept has so far encountered thoroughly positive reactions, achieving not only sustainable changes in behavior patterns, but also definite improvements in motivation and attitude. Their numerous letters and comments prove this point.

Private households are the classic field of application for individualized dialogue marketing (behavioral changes “at source”). There are, though, two useful and effective areas where this can be complemented: schools and businesses (behavioral changes “at destination”). In both cases, applying a slightly modified process can reinforce the effect, particularly where peak traffic is concerned, and gain additional important partners.

Individualized Marketing: An Effective Tool for Reducing Car Use

Individualized Marketing (IndiMark) is a dialogue-based technique for promoting the use of public transportation, cycling and walking as alternatives to car travel developed by Socialdata. It is a program based on a targeted, personalized, customized marketing approach, which empowers people to change their travel behavior. Using these “soft policies” to make people think about their travel behavior has proven to be highly successful in achieving shifts in mode from the car; shifts that are proving to be sustained in the longer term.

In the 1990s Socialdata undertook a series of projects of an experimental nature, in order to prove the effectiveness of so-called “soft policies” for public transportation. The starting point of these experiments was the recognition that much opposition to the use of public transportation is due to a lack of information and motivation. Potential users of public transportation were contacted directly, to motivate them to think about their travel behavior. They were then thoroughly informed about the availability of public transportation to meet their specific needs. As an added incentive, selected test candidates were given a special ticket to use the public transportation system free of charge for one month.

The development of this method was supported by an International demonstration project called “Switching to

Public Transportation”, initiated by the UITP (International Association of Public Transportation) – the world-wide association of urban and regional passenger transportation operators, authorities and suppliers, with scientific leadership from Socialdata. In 13 European countries 45 projects were carried out which were very successful. This demonstration project showed that personalized encouragement, motivation and information could lead to considerable increase in public transportation use, that the approach could be applied on a large scale and that it was relevant for many very different, countries. Since then about 100 large-scale projects in Europe have promoted public transportation by IndiMark®. It has proven to be highly successful in achieving mode shifts from car to public transportation.

Following from this, the approach of IndiMark was extended to all environmentally friendly modes in order to reduce car use. It has been very successfully implemented on a large scale for the first time in Perth, the Australian metropolis said to have been built for and around the automobile. In a local council area (South Perth) with 35,000 inhabitants, without introducing any special measures as restrictions, the project succeeded in reducing the number of car trips by 14 % and the kilometers traveled in cars by 17 %. The share of trips made on foot rose by one third, bicycle trips increased by two thirds, public transportation trips by one sixth (bus only by one quarter) and 10 % more trips were made as car passengers.

An analysis by the Department of Transportation revealed a cost-benefit ratio of 1:30. These findings have induced the Government of Western Australia to extend the application of IndiMark® to half of Perth over the coming years.

A Global Approach for a Global Problem

Mode Choice

Since this successful application in Perth a number of other cities have tested and applied IndiMark® to reduce car trips. Pilot projects are under way in Paris, London, Townsville (Australia) and completed in Australia (Perth, Brisbane), Germany (Viernheim), UK (Gloucester, Frome), and in the US. They show a reduction of car trips between 6 % and 10 %.

There are at present large scale projects completed and evaluated in Perth, Viernheim and Gothenburg. In Perth and Viernheim, the success of the large scale application succeeded the result of the pilots; in Perth repeated evaluation surveys suggest that the behavioral changes achieved were sustainable.

In addition to this, there are presently five large-scale projects in Perth and five in the UK under way or close to completion. A large scale application is in the planning stages for an area in Portland and is scheduled to begin September 2004.

The results of all projects in Europe, Australia and the United States which have been conducted so far show that IndiMark® has a great potential as a tool for promoting use of public transportation, cycling and walking as alternatives to car travel.

The modal shift achieved makes a significant contribution to the aims of local transportation policies and also other policies. The reduction of car use would help to reduce traffic congestion, improve air quality and cut road crash casualties. The associated increases in walking and cycling alone would make a significant contribution to health promotion purposes.

Extended Possibilities

The key to the success of the process explained is personal contact. Once the requisite personal contact has been established, the dialogue is not restricted to a discussion of alternative means of transportation that are kinder to the environment. On the contrary: it would be worthwhile, helpful and scarcely any more trouble to extend the dialogue. This might include promoting other ways of using transportation (such as “car-sharing” or “car-pooling” schemes) and encouraging a more environmentally sound use of the car. (There are journeys for which it is extremely difficult to replace the car by a more environmentally friendly means of transportation. In such cases it is often possible at least to encourage a more environmentally friendly use of the car. Automobile clubs offer successful programs in this area, providing a valuable addition to the actual change of transportation).

The concept also touches on other topics that are of importance in regards to sustainable development:

Health - the increase of walking and cycling is entirely in line with the World Health Organization recommendation of “30 minutes exercise per day”;

Road safety - the introduction of driving habits that are kinder to the environment has brought about a considerable increase in road safety;

Energy consumption - the motivation to adopt sustainable behavior patterns in the choice of transportation combines very well with changes to energy consumption behavior.

Clearly, a project of this nature should be implemented in a partnership of all social institutions. This is a particular benefit of the concept, for truly sustainable behavior patterns can only be achieved where there is a wide consensus between all the players (“social marketing”), including politicians, decision-makers, opinion leaders, media, user’s associations (walking, cycling, driving clubs etc.); providers in the transportation market (public transportation companies, car-sharing organizations, bicycle dealers etc.); businesses, chambers of commerce, professional associations; other players (medical insurance companies, energy providers) and (local) initiatives (Agenda 21, citizens’ initiatives etc.).

In Control or Under Control of Traffic

The insights at the root of this concept are neither new nor revolutionary. They have been proven effective. Nevertheless, they have not attracted the public attention they deserve. Instead, they meet widespread disbelief, skepticism, and rejection by many transportation professionals. This unveils the fundamental dilemma faced by the transportation world.

Transportation policy, transportation planning and transportation sciences have been greatly influenced in the last few decades by the rapid development of car traffic. In only a few dozen years the car has left an indelible mark on social life in the Western countries. It has become mankind’s symbol for the technical conquest of nature, for freedom and affluence, for status and individuality. The slogan “open roads for free citizens” came to reflect the spirit of a generation who for the first time in history felt they were able to cast off their fetters and enjoy virtually unlimited mobility.

Those who produced cars or carried out the necessary infrastructure planning work were also held in equally high esteem and they succumbed to the universal euphoria; the (planning) techniques and instruments developed by them clearly reflected an emphasis on car traffic. With such planning methods and their planning action, they have left their mark on people’s thinking and their environment.

But since mobility on the part of the “mobile” at the same time leads to considerable disturbances for those who are “non-mobile”, which no disturbance is greater than that caused by the car, this increasing mobility necessarily raises the disturbance level. This did not seem to matter as long as the consequences of mobility were seen as the inevitable (and appropriate) price to be paid for “personal freedom”.

A change in thinking has slowly taken place: the detrimental effects of mobility are judged as negatively as the benefits of acquired mobility are positively. Along with the growing insight into finite nature of resources, a singular kind of conflict has arisen: the more people believe the message that mobility can be increased ad infinitum, the more self-defeating this message becomes. Maximizing individual benefits on a massive scale has an overall detrimental impact that, in turn, neutralizes these benefits.

And yet another change can be made particularly clear by using transportation as an example. While after the Second World War the car symbolized with such striking effect the conquest of nature and personal freedom, it now epitomizes the necessity of subordinating personal development, which is theoretically possible, to the paramount interest of environmental conservation.

It is precisely everyday mobility that makes it possible to achieve considerable overall improvements by means of numerous, minor changes in individual behavior and to test a change in thinking that is very important for the survival of humanity.

Unfortunately, this opportunity is scarcely perceived by transportation policy decision-makers, transportation planners and transportation theorists. Those who are so often themselves the staunchest advocates of “automobile freedom” find it extremely difficult to accept the idea that transportation modes, which are more tolerable than the car, have to be promoted.

It is here that the transportation professionals themselves could provide the inspiration for a major change in the transportation field. However, they would first have to realize that it is possible for them to change their own behavior too.

Opportunities to improve the sustainability of policy and development in California is possible through better integration of urban planning and environmental assessment. A comparative analysis of environmental planning practices in Pakistan, United Kingdom, New Zealand, and California is given. The author recommends that a stronger and more sustainable regional approach in California may be obtained by integrating environmental factors earlier in the planning and development entitlement processes.

Cities and regions are the major focal point of economic production and resource consumption as well as the source of many environmental, political, and socioeconomic problems. Planning as a means to achieve balanced development within a country has been accepted by almost all nations who support different urban planning and land use regulations at various levels of government. The interrelationship between economic, social and political forces, and the physical environment, as well as the need for an integrated planning approach is recognized as the only way to improve quality of life and avoid environmental problems. As responsibilities for planning and environmental assessment are shared among the various levels and agencies of government, environmental management programs are instituted to reduce negative effects of development on the environment.

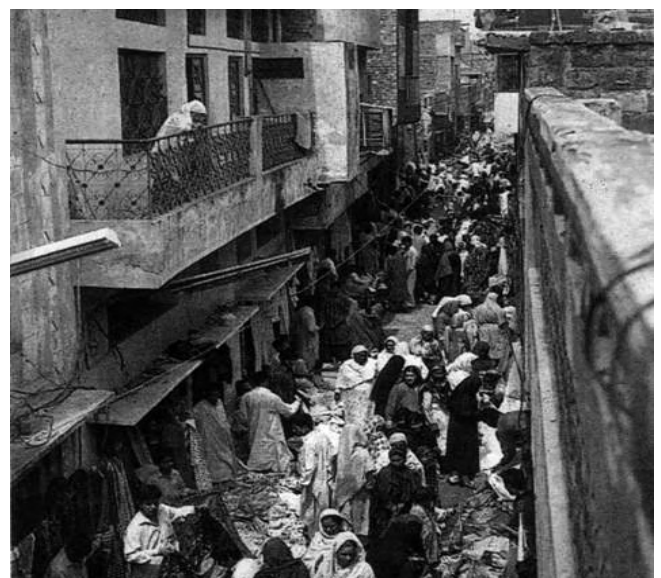
The concept “environment” stands for a comprehensive and dynamic system composed of a complex set of different but interdependent elements aggregated in components identified as physical, ecological, social, economic, institutional, and political. Thus the overall complexity and comprehensiveness of environmental systems can be best dealt with through a broader planning approach that is integrated and encompasses social, economic, and ecological issues in a sustainable policy and development framework.

Environmental Impact Assessment (EIA) refers to either a formal or informal decision-making process for evaluating the possible risks or effects of a particular action on the environment. Whereas land use planning is a common term for physical resource-based planning. While land use planning is mainly biophysical in character, with more or less consideration given to linkages to economic, social, and environmental issues, the integration of the land use

planning process to EIA will ensure that environmental concerns are accounted for at all levels of planning. Within this perspective, sustainable development is that which meets the needs of the present without compromising future generations, through integrated processes that are interdependent with the environment.

An Integrated Process for Environmental Impact Assessment and Urban Planning: Case Studies

Next I will briefly present a comparative analysis of planning and environmental practices in Pakistan, the United Kingdom and New Zealand and consider the state of integration of E
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*Residential encroachment in a commercial street, open drains and waste polluting a river in Pakistan.
(Photo: I. Qamar)*

Pakistan

In Pakistan, planning is influenced by the British system. The overall structure of planning follows a hierarchy of national, provincial, and local levels and seeks to integrate land use planning and environmental assessment with socioeconomic planning through national five-year plans. Zoning and subdivision control is weak at the local government level and, therefore, does not effectively protect or maintain the land's natural resource value. The arrangement of government into line ministries charged with promoting development in their own sector is counterproductive to sound land use planning and, to a greater extent, for environmental assessment.

There is also a top-down environmental management approach with the national government providing EIA guidelines specific to each project. For example, there are guidelines specific to major chemical and manufacturing plants, industrial estates, major roads, and so forth. EIA was initiated through a formal legislative framework for both public and private developments. The concept of environmental protection is well recognized in the mandatory EIA system. Overall, EIA and planning systems are parallel processes in Pakistan. An attempt at integration was made via the Environmental Protection Act in 1997, which requires environmental assessment of housing estates and new town development.

In Pakistan, EIA should be integrated into the existing decision-making procedures of government authorities. To improve environmental assessment and land use planning, a regional planning exercise could be carried out jointly by the planning staff of more than one local council with technical guidance from provincial planning departments.



*Open drains and wastepolluting a river in Pakistan.
(Photo: I. Qamar)*

This would give local government agencies in metropolitan areas more autonomy and control. After plans are adopted, they should be monitored and revised regularly.

United Kingdom

Britain has a long history of planning, and national planning legislation is applicable to the whole country. Departments of the central government have control over local governments and are responsible for ensuring that land use policies are carried out by local governments.

The principles of the British planning system are based on a top-down hierarchical sequence of plans. Hence, British planning is more controlled at both the national and local level, and land use is more regulated. Britain initially rejected an environmental protection system such as the National Environmental Policy Act in the United States because planning acts in Britain already required documents equivalent to an Environmental Impact Statement. Theoretically, EIAs were built into the planning system, and particularly, into planning consent procedures.

As a result of the requirements of the European Community Directive in 1985, EIAs have been implemented through a range of regulations and orders (about 20 in all) because certain types of project effects lie outside the scope of existing planning legislation.

New Zealand

New Zealand has two levels of government—national and local. Local government includes regional and local councils. It provides the best example of an integrated system of planning and environmental assessment through mandatory regional policy statements and district plans.

In 1973, the Commission for the Environment devised procedures for EIA for government projects. EIA was introduced in 1974 with the publication of Environmental Protection and Enhancement Procedures but did not yet have statutory status; the system was more project-specific. A new environmental policy with a focus on resource management and sustainability of natural and physical resources was passed in 1986. In 1988, the Resource Management Bill was introduced to integrate impact assessment into planning.

Reforms of the Natural Resource Management Act (RMA) of 1991 caused a radical departure from the former system of planning and environmental protection, resulting in the repeal of 20 major statutes.



City skyline, New Zealand. (Photo: I. Qamar)

The RMA placed the natural environment at the center of the planning process, making it an integral part of the process instead of requiring a separate EIA process at the end of the planning process.

California

In California planning is mandated at the state level and carried out at the local level. Although planning for housing development is mandated by the state, there is no requirement that housing actually be developed, resulting in long-distance commutes to affordable housing in outlying areas. Although major urban growth as resulted in the development of regional cities, regional government agencies have relatively little influence over local planning and development approvals.

The State government policies, regulations, and direct spending are key drivers on most issues requiring local and regional solutions. The State has a hodge-podge of governmental rules, fiscal policies, and institutional frameworks that often discourages regional collaboration among local governments and rarely encourages regional approach.

California has taken major steps in the development of environmental assessment at the land use planning level. The California Environmental Quality Act (CEQA) dates back to 1970. Consideration of project alternatives and mitigation measures to reduce significant environmental impacts are required. Public participation in the environmental assessment and the involvement of interested parties are mandatory for the CEQA process.

In California, air pollution, land use patterns, work commutes, affordable housing, natural resource conservation, watersheds, and economic activity all span beyond local government boundaries.

Local governments typically work to protect their existing neighborhoods and tend to contribute to, rather than resolve, regional planning issues. In addition, local governments lack the legal, financial, and political means to fully address these regional issues in an integrated manner. There is an increasing awareness of regional problems and several cities have undertaken downtown mixed-use redevelopment and transit-oriented development. This remains the exception rather than the rule.

For California, regional and local governments should expand funding for programs that offer collaborative planning, for both multiple stakeholders and multiple issues, to achieve environmental conservation and development goals on a regional scale.

Strategies for Integration in California

The level of application and development of urban planning and EIA varies greatly from country to country depending upon the policies and administrative practices of the country. The situation concerning the application of environmental assessment procedures to planning practice varies widely in the selected countries and states. Planning history, levels of application and concepts of planning that drive planning practices are further key issues that contribute to these variations.

The opportunities for integration of environmental assessment exist at some planning levels in some countries following legislative and administrative reform. Although legislative policy and administrative and decision-making barriers continue to exist and need to be overcome, the integration of environmental assessment into planning is inevitable. Even the modern developed countries have not yet been completely successful in achieving this integration.

As California sets a course into the new century, it is increasingly clear that many of the State's pressing policy challenges call for solutions that are regional in scope. To resolve these issues, a path of integration is depicted in the following Figure. These include legislative and administrative reforms, a more efficient decision-making process, strengthening regional agencies, fiscal reform, and better integration of planning and environmental review with more consideration of environmental factors during plan and project design.

California's economic, demographic, and geographic diversity presents an opportunity to invent a new social and

economic order that celebrates complexity and diversity and that builds self-governing mechanisms appropriate to this new challenge. Recognizing it as an important public challenge, a regional strategy is recommended for California, which bridges the State mandates and existing local control. In addition to resolving structural impediments, the State should expand funding for programs for collaborative planning on a multi-stakeholder, multi-issue basis, to improve the integration of environmental assessment and urban planning and achieve sustainability goals at the regional as well as local levels.

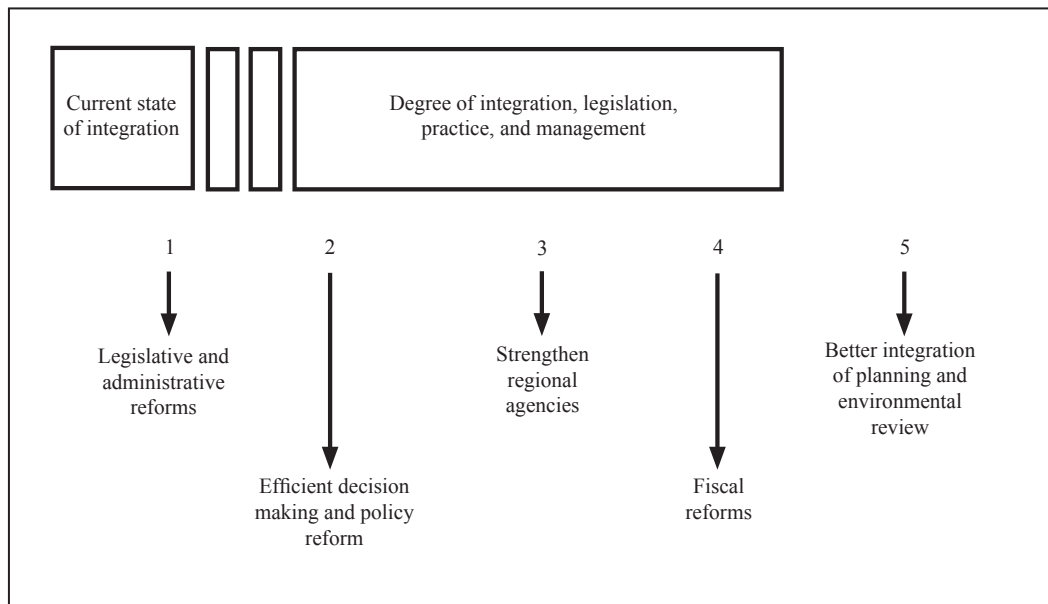


Fig. 1: A path for integration in California environmental planning

Rogério Penido

Architect, PHD
Project Manager
OGER International, Paris

Renovation in Historical Cities Emergency and City Services Streets in Fes, Morocco

The concept of what is a historical monument is changing and our planning practices should follow. Vernacular buildings may be considered monuments, a notion that may be expanded to the scale of a whole city. This is the case in Fes, in Morocco. As the historical center has been listed by UNESCO as a "World Monument", the King of Morocco responded by creating a public agency to manage all the projects in Fes. In this area, planning and building streets for emergencies and services is not a simple challenge.

Oger International was chosen to develop the plans and follow the execution of the works to transform some walkways into streets accessible to emergency services. The objective of this project is to improve accessibility to the historical center for specialized small vehicles. There are many difficulties, such as for a renovation project, how far are we allowed to modify historical buildings; how to involve the local inhabitants with the project to guarantee its sustainability; and how to reach a comprehensive process (utilities planning, urban development and budgeting) and get all key people and city agencies feedback in order to design a cohesive and clear master plan?

For me, this project presents a specific challenge. Renovation work is often inspired by previous projects, but Fes is unique.

I'd like to begin with a few words about the history of Fes. Founded by Moulay Idriss the First, in the eighth century, near the Roman ruins of Volubilis, Fes quickly became an important political and cultural city. Fes is placed in a hollow by a river. Many immigrants moved there, from different countries.

Fes is a highly spiritual center, and it also has a dynamic economy, with a rich handicraft production and a solid tourist industry. Nowadays, the city has more or less one million inhabitants; most of them arrived in the last twenty years from the interior of Morocco. The historical center has one hundred fifty thousand inhabitants, and is getting more and more crowded.

The historical center is composed by two parts. In the north, Fes el Bali is the ancient part of the city, protected by walls, with the Mosque Quaraouyinne and its university, which is older than Oxford or Sorbonne. We can find other important monuments, mosques, palaces or museums in this area; however the great attraction of Fes el Bali is the



The historical center of Fes has 150,000 inhabitants and is getting more and more crowded. (Photo R. Penido)

little shops of all kinds of handicraft products. Most of them are still situated in the center of the city. The tourists come to see the impressive leather or metal production. In the last decades, the more well off inhabitants have left the center and have moved to the suburbs. The old palaces have been transformed into small flats for many families as the proprietors have given up their obligations to the preservation of the building's historic qualities.

Fes el Jedid, in the south, the newest part of the historical center, was constructed in the thirteenth century. Protected by walls too, this part of the city has wide streets; however the area and the population are smaller than Fes el Bali. The Royal palace is located here, and gives an aristocratic charm to Fes el Jedid. In the Mellah (ancient Jewish ghetto), the architecture is different, with big windows and balconies.

Between the two world wars, New Fes was constructed, placed a mile and a half from the center, with regular streets and avenues. The administration, the banks and the industrial centers have established in this part of the city.

As a result, the richer inhabitants of Fes have chosen New Fes as their place of residence, with its good accessibility and modern services.

In the eighties, UNESCO campaigned to protect the historical center of Fes and in the following ten years, a lot of research was made by the agency Ader. In 1992 the “Plan for the Preservation of Fes” was published. Many projects started at this time, with some financed by the World Bank and others by companies or rich families. In the nineties, a few monuments were restored, many ruins were rebuilt, some places and palaces were transformed.

Nowadays, Ader wants to address the structural projects. All the streets have been studied, and some of them will be transformed soon. The agency decided to create a network of streets to gain better access to the historical center.

The first structural project is the “access roads”, which will improve some of the existing wide streets for cars and large vehicles. Only a few “access roads” go to the interior of the historical center; the majority serve the area near the gates of the ancient walls of Fes.



*A typical street in the historical center of Fes.
(Photo R. Penido)*

The second structural project is “the emergency and city services streets”. More or less eight miles of streets are concerned. The objective is clear, and could be summarized in one word: accessibility - accessibility not for cars, but for the essential services such as fire fighters, ambulances, garbage collectors and such like.

It’s important to know that this city has been damaged by fire many times. For this reason, the fire fighting service is still very important. For example, many little industries work with gas bottles or ovens for the traditional bread. The houses are often built with wood. So, when a fire starts, you can imagine the difficulty to combat it.

The accessibility is important for the preservation too. Ader surveys show that the buildings situated near the gates of the city are in a better state than the other parts. One of the reasons for this is the facility to transport material for building work. However, I’d like to briefly point out that the quality of the building work is low, and sometimes they destroy beautiful details or renovate the building without building regulations.

Let me turn now to the companies that are working on this project. After the tendering for the project, Oger International was chosen to develop the plans and follow the execution of the project. We are managing the project with five Moroccan collaborators: Etafat (responsible for topography), CBEE (road concepts), Ingebatt (structure), Archi 33 (architecture), Proctor (perforations and soil analyses). The group of companies must also collaborate with all the services of the City, for example Radeef (responsible for the water, sanitary engineering and electricity), Morocco Telecom (communications), GMF (responsible for garbage collecting), as well as the Governor, the firemen, the police, the authorities, and the inhabitants. You can image the complexity of this project.

Now I’d like to move on to my third point, which is our method. I want to tell you that the first design was made by our client. Some concepts were specified. For example, the streets that will be prepared to be accessible for the emergency and city services were chosen. The technicians of Ader anticipate that thirty-three houses would have to be interfered with.

We started our work in October 2001 with a topographic survey; however some streets are so crowded in the day that we had to work at night to accomplish our task.



Garbage collection and transportation in the historical center of Fes. (Photo R. Penido)

At the same time, we started to make the perforations and soil analyses. Most of them showed something like a filling material, very mixed and porous, with sand, little rocks and ceramic pieces. It's well known that the city of Fes has been destroyed many times by earthquakes. Each time, the city has been reconstructed over the ruins. The consequence is that the level of the soil today is very different than the original.

We made a survey of the entire underground infrastructure, which was observed by the technicians of each service. Many problems were detected, some of them repaired quickly. However some of the systems are too old and must be changed. One project has started and some parts of the city have already repaired its systems.

Now, I want to talk about the emergency and city services vehicles. The initial idea of our client was to utilize a small pickup truck. The garbage services have one, and work with it in a few streets. The garbage in the majority of the city is collected and piled on donkeys. In fact, all transportation in the interior of the historical center is made by donkeys or horses. I can guarantee that they work very well, and we don't want to stop that. It's one of the tourist attractions of the city.

We researched possible vehicles based on the dimensions of the vehicles and their ability to maneuver. When the topographic survey was ready, we studied all eight miles of roadway. We found more than one hundred houses have to be modified to accommodate the turning radius of a pickup truck. After some meetings, our client agreed with us.

It's not the historical center that has to be adapted to the vehicle, but the opposite.

Oger International found a company from Canada that produces a small vehicle, perfect for this situation. I must explain that this vehicle is not capable of transporting water for fire fighting purposes. The system of Fes will be modified, to construct fire hydrants all over the city. That's why we can work with a vehicle which is three feet wide, and nine feet in length. The radius of its capacity to turn around is nine feet.

The process to make this decision was very difficult, and it took some months to make it. All the services and authorities were consulted. After that, we analyzed the streets in consideration of our decision with regards to the vehicle. We were able to reduce the number of the houses that have to be modified from the originally envisioned one hundred fifty to a modest fifteen.

Let's talk a little about the modification of these buildings. Most of the time, the problem is the corner of a house situated in a very narrow street. One idea of our project is that the small vehicle will turn at an extremely slow speed. However, it must turn with only one maneuver. The plans for these modifications follow the principles of the traditional Moroccan architecture.

We always try to utilize the traditional techniques and materials, to give work for the inhabitants of Fes, and preserve the traditional know-how. For example, concrete is our last solution. We utilize supporting walls in brick or a wood structure. For the decoration, we would like to use a ceramic mosaic, a metallic bar screen or wood ceiling.

After all this research and analyses, we made a circulation plan. The idea for circulation is that the vehicle comes by an "access road" in a high point in the city, goes through one gate, and goes down into one of the "emergency streets". The exit must be another gate, in the low part of the city. All the emergency streets will be one way only. The services of the city must know exactly where they have a problem, to map out the best route.

Finally, with regards to the subject of our methods, I want to show you a typical cross section. The client's request was a central drain, changing the profile of ninety per cent of the streets. After more than a year of working, we understood that one revolution like this is impossible.

I'm talking specifically about the consequences in all connections with the underground infrastructure. This was a key point in our task, and it was not easy to convince the client.

We should not forget that some streets are very narrow, and one drain in the center could be an obstacle for the pedestrians and animals. Conserving the lateral drains, we suggested a new concrete piece to protect the buildings and stop water and humidity.

The other problem was the price of the stones to pave the streets. In Morocco, only a few companies could produce the stones, and this is much more expensive than concrete paving. Our client wanted stone paving for the principal streets. But when we presented a budget, the authorities of Fes didn't agree with it. They decided to utilize concrete paving, with one color and texture, which would harmonize with the historical character of the city.

To finish this presentation, I would like to tell you some of the other problems we are facing. First of all, I want to talk about planning. It was stipulated in the contract that Oger International had only nine months to make all the research and plans. However, it's taken two years of studies before we are ready to start the actual work of the project. The execution of the work will start in the beginning of 2004 and our client anticipates it will take three years to complete it.



*Example of vernacular architecture in Fes.
(Photo: R. Penido)*

Three key points are responsible for the delay of our planning: the vehicle dimensions, the type of paving, and the architectural survey. I have talked about the difficulties with the vehicle and the paving; now let me tell you about the problems concerning the architectural survey.

The first task was to understand the characteristics of the Arabic architecture. In Fes, for example, the design of a building is very different from the modern architecture. The place of the walls varied on different floors, and their thickness was also variable. The buildings were built in different periods, and sometimes they had dissimilar levels. We found many geometric forms in our plans: rectangular, triangular, and trapezoidal, with different angles. Consequently, with all these variations, it created a challenge to draw a traditional staircase!

The second problem was to gain access to these houses. The cultural tradition in Morocco is very different. You could imagine the difficulties to enter in a private house, notably when the men are working and the women are alone. To accomplish the architectural survey, we needed help of the authorities of each district.

Next, I'd like to talk about how the population felt about this project. The problem is how to involve the local inhabitants with the project to guarantee its sustainability. Let's translate this in real terms: Oger International is responsible only for the technical work. We can, and we must, give advice to our client about the social aspects of the project. Our client is aware of this situation and made an exhibition about their projects. I saw a lot of news, both in the newspaper and TV, when I was working in Morocco. One expert from Ader was with us when we were working in the streets of Fes, discussing with people who wanted to know more about the project.

For the accomplishment of this project, many people will be disturbed in their lives, at different levels. The majority of the inhabitants of the historical center are poor. They have had little education. In the historical center, we could feel a sense of exclusion on the part of the poor people whose situation would improve if the authorities made decisions with their consultation.

I think that a specific campaign should begin. I would recommend a group of public relations workers talking to the people directly in the streets. If the people of Fes understand the objectives of the project, they will feel that the city is gaining something after all these problems. I think this is

the best way to obtain the understanding and trust of the inhabitants of Fes and its participation.

Another difficulty Oger International had with this project was the coordination between the technicians, the city services, the authorities and the inhabitants. It's not easy to make a decision, when so many people are concerned. And to guarantee the success of the project, we must hear the opinion of everybody.

Our client understood the importance of meetings and spent time discussing some structural decisions and the priority of each city service. This is why the planning has been delayed. Ader has some political support, and sometimes the Governor comes to special meetings. I think an urban project like this, which will develop over many years, needs a strong political support to help its actions. The other essential force is the backing of the inhabitants.

The "emergency and city services streets in Fes" are a good example of a renovation project in a historical city. To conclude, I want to point out some important ideas for an urban planner. First of all, the planner needs to balance the renovation project with the master plan of the city. In my presentation, I have spoken about the importance of getting the key people and city agencies feedback, in order to design a comprehensive and clear process.

The planner should not forget that the inhabitants and the visitors should be considered equally as key people too. We need to be careful as to their feelings towards a monument in order to incorporate this into the project. However, a planner must not forget the surroundings where they are working. In the case of Fes, it's a project situated in a country with many economic and social difficulties. Regarding the budget, I think that countries like Morocco need a special strategy. For example, it's better to develop many little projects rather than one very expensive one. The investments should be made in different parts of the city, to prevent the value of property going up in only one part of it. An extreme change of rates in a historical district could expel the original inhabitants.

Finally, I think that an urban planner who works with the renovation of historical cities needs some humility. We have to respect the inhabitants and their technical traditions, the materials they use, their culture. Perhaps in this profession, the urban planner needs a sensibility of an actor, who needs to understand the psychology of the role to play his part. That's why this profession fascinates me.

Essays



Paul Crawford

FAICP, CMCA Consulting
Lecturer
City and Regional Planning Department

Planning, Architecture, and Politics

Sprawl Codes, New Urbanist Codes, and the Challenge of Community-Wide Coding

As the practice of new urbanist coding evolves, one of the great challenges we face is developing community-wide codes that address existing built communities, and are not solely focused on greenfield development or individual projects.

CODES DECODED

There are several “flavors” of codes. The most widely practiced version is the city-administered code, which contains development and land-use regulations for an entire community. Cities also focus their coding efforts on specific areas within communities. And there are also developer-administered codes for large-scale projects.

When we think about zoning codes as most of them exist throughout the United States, they are really quite simple in concept, and consist of only three elements:

1. Information on how private property may be used;
2. A series of standards for the planning and design of development;
3. Procedures for the review and approval of projects, and for the administration of codes.

There is also a map adopted as part of the code. The map is one of the most problematic aspects of conventional codes because of how it applies zones throughout a community. In most cases, conventional zones are “one size fits all” designations that excessively limit the range of possible land uses, and are typically applied without much regard for the character of existing communities.

THE TROUBLE WITH ZONING

What’s wrong with conventional zoning codes? Major problems include:

- a) Their emphasis on regulation by use with the excessive limitations noted above;
- b) A complete disconnect between land use, and urban form and design;
- c) Exceptions become the rule, because conventional codes are so ineffective in producing with development that responds to the character of a community that variances are constantly necessary; and

- d) Administration of codes rarely balances certainty and flexibility, both of which are needed if a code is to work.

A BRIEF HISTORY OF SPRAWL CODES

To understand where the problematic aspects of conventional codes came from, one must go back to the beginning of our country. Before the Revolutionary War and the constitution, municipalities had complete authority over the type of development that occurred. But the founding of the country and the constitution established no clear authority for city governments. Cities were creatures of the state; they were not given the clear authority to regulate much of anything, particularly land use, except as specific authorities were gradually delegated to them by state constitutions. So, cities’ initial efforts at coding focused on protecting basic public health and safety.

An early example of this was the New York City Tenement House Law. Adopted in 1867, the law addressed the railroad flat, a boxcar-shaped, apartment unit that had windows on each end and no access to light and air from within the building. The Tenement House Law said, essentially, you may not build anything worse than this.

Also in 1867, the City of San Francisco adopted an ordinance that dealt indirectly with land use by requiring that smoke-producing industry and slaughterhouses be placed downwind from residential areas.

From there, early zoning ordinances began to look at the issues of development and compatibility between land uses. Some focused on the hazards and nuisances inherent in certain industrial activities and the need to separate them from residential.

The year 1916 saw two interesting changes, in both New York City and Berkeley. New York City adopted a zoning code partly in response to concerns by trendy merchants on Fifth Avenue, who were exercised about the proliferation of garment manufacturing lofts in the neighborhood, worried about their business and property values. They lobbied the city to regulate those types of uses and keep them away from

Fifth Avenue, and also to impose regulations dealing with height and bulk, because of growing concern that the city streets were becoming canyons.

Berkeley adopted the first exclusive single-family residential zone. High demand for housing engendered the development of tenements houses, which were obviously a building type entirely different from the single-family home. This terrified homeowners and property owners because of the potential negative impacts on their property values, and cities began adopting ordinances to keep tenements in locations away from single-family homes. Even when apartments first emerged and were marketed as upscale, there was still widespread belief that the single-family home was the only proper type of housing.

Early zoning ordinances were challenged repeatedly in court by land owners who believed that their property values were being diminished and their rights were being taken from them. This debate concluded, for all practical purposes in the 1926 U.S. Supreme Court case, *Euclid v. Ambler*, the Village of Euclid versus the Ambler Realty Company. For the first time, the Court looked at comprehensive zoning as an overall concept and said it all was constitutional, a legitimate protection of public health, safety, and welfare.

Then came World War II and the post-war housing boom, the impetus for sprawl as we know it today, a convergence of prosperity and babies. Everyone came home from World War II to find a job and start a family. The baby boom ensued. Mass-production housing replaced housing production as a craft, and the snowball of sprawl began to grow.

Along with the housing and baby boom, retail and services began moving from town centers into the suburbs, to be closer to suburban residents, and all the components of sprawl as we know it were finally in place.

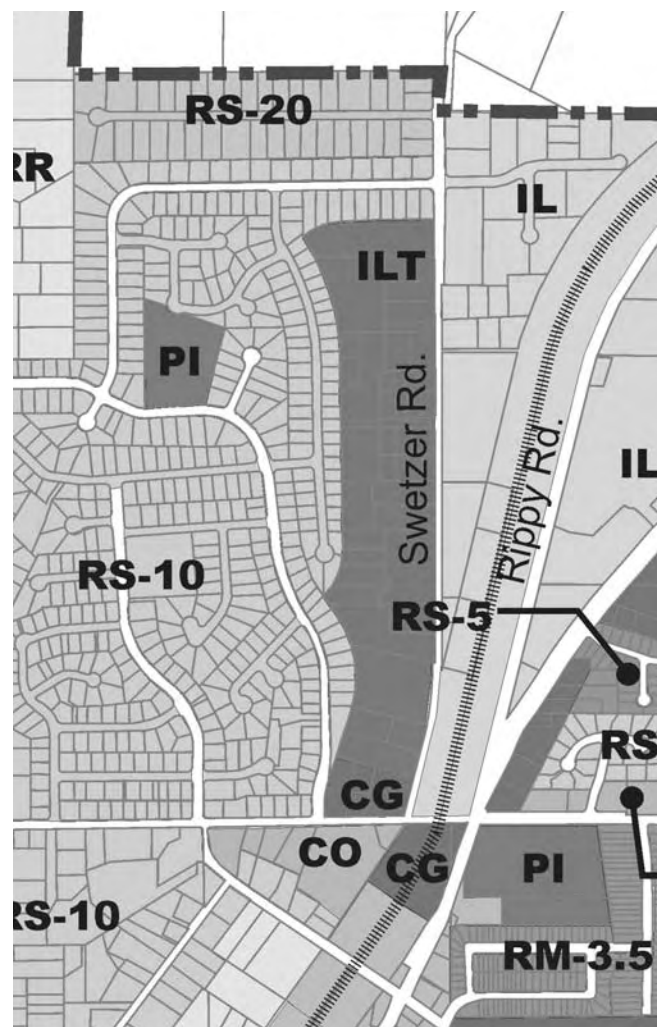
THE PRODUCTS OF ZONING

So we can see that, since its inception in the early 1900s, zoning in combination with a number of other factors has produced pervasive, predictable results:

- Urbanization characterized by dispersed land uses with few or no distinct centers;
- Spatial separation of nearly every key daily activity;
- Excessive land consumption;
- Streets designed for cars rather than people;

- No convenient, cost-effective transit;
- Limited choice in housing supply;
- Fear of density.

Fear of density has become part of our culture, partly as a result of earlier efforts to limit residential development to single-family housing as much as possible, and the continuing failure of the designers and developers of multi-family housing to produce anything that can fit into a neighborhood context.



Conventional zoning puts emphasis on regulation by use, within limited-use, one-size-fits-all zoning districts. There is a disconnect between land use and urban form and design. (Courtesy: P. Crawford)

NEW URBANIST ALTERNATIVES

New urbanist codes offer an approach that deals with community character much more directly and effectively, by de-emphasizing regulation by land use in favor of building form and typology. The applicability of development regulations is “mapped” by identifying transect zones and/or through neighborhoods, districts, and corridors. There is an emphasis on mixed-use and a mixture of housing types. Great attention is paid to the streetscape and the design of the public realm.

How can we inject these notions into codes in cities throughout the United States? One way is to simply tinker with the standards, as they exist in the current code, “quick fixes.”

Another approach is the special-purpose zone or overlay, which deals with a specific portion of a city and reflects the intention of a community to require good development in a particular location.

Still another method is to append TND ordinances to existing codes, allowing the developer to exercise the option of creating a TND and applying it to a particular area.

Finally, there is the more global option of comprehensively and simultaneously updating a city’s general plan and zoning code updates. The importance of giving careful thought to

the plan and policy foundation side of the equation cannot be emphasized enough.

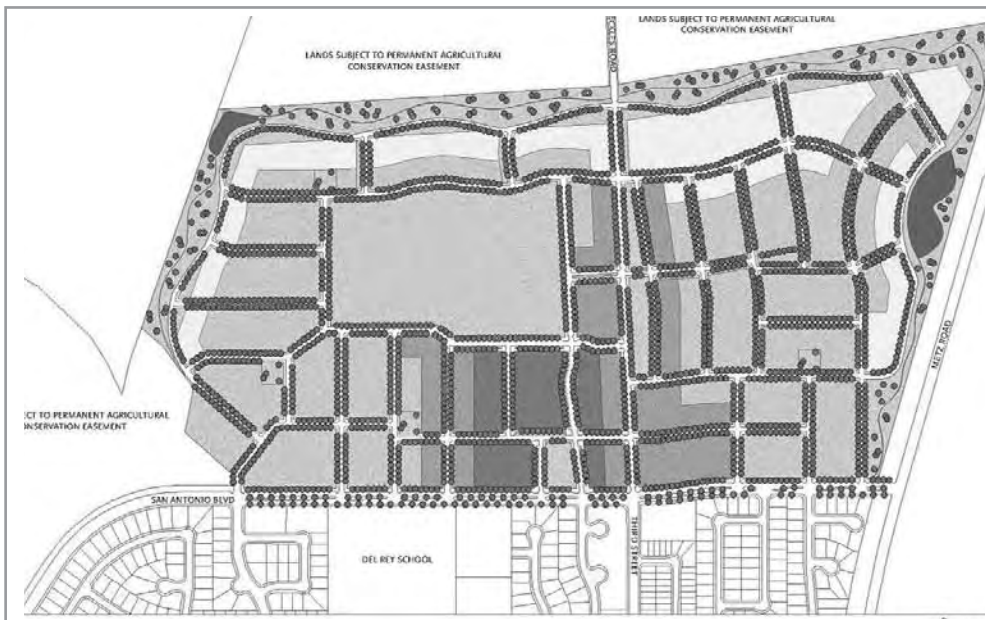
Many new urbanists would probably like to simply toss an existing conventional code and replace it with a new urbanist code. But will that approach work in every community? And, if it doesn’t work, are we willing to try to improve a community to the greatest extent that we can, straying from the so-called “pure code”?

REALITY CHECKS

As we think about the different strategies for embedding new urbanist principles in local codes, it is important to understand the day-to-day realities of code administration in practice; because a failure to consider these realities can prevent a code update from being successful.

First, the community’s general plan can get in the way and seriously complicate the coding process. This is a particularly important issue in states like California, which mandate consistency between general plans and zoning.

As an example: Our office (Crawford Multari & Clark) teamed with Moule & Polyzoides on a code update for the City of Sonoma, California. Sonoma had just adopted a general plan with a new land use diagram based on conventional land use classifications. As we began



For a code to be effective, there must be a greater blending between the general plan and code content. (Courtesy: Moule & Polyzoides)

the coding process, it became clear that the California consistency law would prevent the code from being based on neighborhoods, districts, and corridors unless the brand new plan were significantly amended. So the only realistic option was a hybrid approach a “splice” where new urbanist principles were integrated into the existing plan framework. The standards of the conventional zones that were applied to property within each neighborhood, district, and corridor were adjusted to accomplish the urban design objectives that were important in those areas.

The general plan may or may not be a hindrance, depending on your location. Sooner or later, though, you’ll likely find yourself dealing with one of three stages of state involvement in the planning process:

1. The state says, “Cities and counties, you may plan. You have the authority to do that. Have at it. Have a good time. We wish you well.”
2. The State says, “You shall plan. Cities and counties, you are required to prepare and adopt plans for the future of your communities. Not only is it a good idea, it’s the law. So go do it.”
3. California and a few, mercifully few, other states now say: “You shall plan, and here’s how you’re going to do it.”

A second reality check issue is that a community’s zoning code is only part of a larger local development management system. This system consists of:

- Policies that generally describe the direction in which the city wants to go;
- Regulations, among which are the zoning code and the development code;
- Staff, who are used to conventional codes and must be educated, too, along with everyone else;
- Decision-makers appointed and elected;
- The public.

If new urbanism is to be effectively implemented in any community, it needs to be embedded and inculcated into each of these levels of the system. It’s not enough to write a code; it’s not enough to do a charrette, to work with the community or those who choose to participate in developing a code. There has to be a system-wide examination of what’s going on. The public is absolutely critical, given the culture of public scrutiny regarding development that has arisen throughout the country.

Then we have the land use issue. New urbanist conventional wisdom suggests that regulating land use is far less important than regulating building form, and some believe land use should barely be regulated at all. However, as we pursue the goal of formulating the most effective codes possible, this issue needs more discussion among new urbanist practitioners. While the classic, encyclopedic land use lists found in conventional codes are notoriously ineffective (sooner or later, someone will come up with a land use type that no one considered when the list was developed and paralyze the system), giving land use inadequate attention in a new code is asking for trouble.

Land use regulation has a necessary and legitimate role in new urbanist codes because, for example, communities often have specific economic development goals that need to consider the nature of uses in a ground-floor storefront. And since the generic land use type of “retail” could be interpreted to include book and shoe stores, but also adult bookstores, auto parts sales, and hot tub stores, the community may be better served by a little more specificity. There needs to be some consideration of land use allocation, because the character and vitality of a community can be diminished by bad judgment on the part of entrepreneurs and developers, which does not seem to be in short supply.



New urbanist codes must address issues of urban form and urban design, as well as land use. (Courtesy: Moule & Polyzoides)

PRINCIPLES FOR NEW URBANIST CODES

As we consider the best ways to code, it's useful to identify principles that can both distinguish new urbanist codes from the conventional, and ensure that new urbanist codes do their job. I believe that these principles must at least include the following.

1. Codes need to be place-based. The code should be informed by an understanding of the community's existing character, heritage, and the differences found between various areas within the community.
2. Codes and their mapping need to employ regulatory geography that reflects the ecology of the urban area. The neighborhood, district, and corridor, and the transect, certainly do that more effectively than mapping based on single-use or limited-use zoning districts.
3. New urbanist codes need to be purposeful and not reactive. From the earliest zoning codes to the present, conventional codes have been essentially reactive, knee-jerk responses to bad things that have happened, and have been written in an attempt to prevent more bad things from happening, rather than being used to facilitate, encourage, and be an instrument of positive change in the community.

For a code to be effective, there must be a greater blending between the general plan and code content. If these two documents are divorced, with the plan containing elegant and extensive expressions of a community's expectations for its future, and the code providing only quantitative information, albeit with great illustrations, there's a lack of understanding of why the rules are there and where the community intends to go. This notion does create the risk of bulking up the document and ending up with a fat, daunting book, but it can be very useful for a code to include descriptive information about where a community wants to go and what it wants to achieve.

4. New urbanist codes must address the overriding issues of urban form and urban design, as well as land use.
5. The code must foster compact, mixed-use, pedestrian-oriented development - and through the code foster the kind of places where people want to live.
6. The code should be highly graphic, easy to use and easy to understand. A layperson should be able to read a code and understand the city's expectations.

If new urbanist codes are going to work, they also need to be dynamic documents that change as their communities change. This has been a particular problem for planners updating general plans. These were documents that went through extensive public review, and then sat on a shelf and gathered dust. That's been the case with codes, too, but the consequences are worse, because the code is what determines what gets built every day. And while the code is only part of the development management system, there is no more powerful planning tool in shaping how development turns out on a daily basis, and how the community evolves. Because of this fact, the code must be reviewed constantly, formally, and updated on a regular basis.

We figured out how to create communities worth living in a long time ago. It clearly is time to think more about how some of the time-tested urban principles can be applied in coding.



*Codes and their mapping need to employ regulatory geography that reflects the ecology of the urban area. The neighborhood, district, and corridor, and the transect certainly do that more effectively than mapping based on single-use zoning districts.
(Courtesy: Moule & Polyzoides)*

Urban Design and The Future of Public Space in the Brazilian City

Vicente del Rio
PhD, Associate Professor
City and Regional Planning Department
Cal Poly San Luis Obispo

Invited to participate in a research workshop organized by the Lozano Long Institute of Latin American Studies at the University of Texas - Austin, the author responded to its provocative title "The End of Public Space in the Latin American City?" with this discussion paper. The workshop was an interdisciplinary exploration of the controversies around the erosion of public space in Latin American Cities, and of the paradox between democratization processes and the expansion of physical divides and spatial segregation.

This discussion paper addresses the preliminary results of a research project on contemporary urban design in Brazil that investigates its evolution from its peak with the new capital Brasilia to its decline after the modernist era, and concentrates on its resurgence in the last two decades. Several case-studies inform a critical assessment of urban design as recently practiced in Brazil, its role in the shaping of the public realm, and in social and economic development. The research is meant to contribute to a better understanding of Brazilian urban design from an international perspective, and to foster a discussion on the applicability of its lessons in the US and other contexts.

Our findings indicate that public space in the Brazilian city is not about to end, but it is undergoing transformations that point toward opposite directions. One direction heads to a stronger seclusion of all social groups into their protected "home" spaces, while the other heads to the betterment of quality of public spaces at large, from neighborhood plazas to downtown revitalization. How contradictory or how complementary these directions are will not only depend on community participation and public involvement in local affairs, but also on the spatial dependence of cultural, political, and religious manifestations that are still deeply rooted in the Brazilian society.

I. INITIAL DISCUSSION

Our concept of public space bears three complementary and interconnected characteristics: it must have a spatiality (a physical, concrete, and palpable existence), it must be

Note: The original version of this paper was presented at the research workshop "The End of Public Space in the Latin American City?", organized by the LLILAS Center, University of Texas at Austin, March 4-5 2004. This research on urban design is being partially funded by the Graham Foundation for Advanced Studies in the Fine Arts.

appropriated by citizens (in their daily lives and/or for special events), and its ownership must be controlled by the public (government or shared land). If urban design deals with the physical and socio-cultural quality of the public realm and the making of places for people to enjoy and use (Carmona et al 2003), then it is also about making public spaces.

In Brazilian urban design, the struggle to overcome the modernist paradigm, its subversion of traditional urbanism, and the hegemonic image of Brasilia, started in the mid eighties soon after the overthrow of the military and the return to full democracy. The chapter on urban policy in the 1988 Brazilian Constitution and its regulation by the "City Statute" in 2001 "confirmed and widened the fundamental legal-political role of municipalities in... directives for urban planning and in conducting the process for urban development and management" (Fernandes 2001).

This fact not only ensures an old constitutional prerogative that sets the social role of urban land beyond its economic value, but it also expands the principles set during the United Nation's 1992 Earth Summit and other UN campaigns for more socially inclusive development. Also, with the return of democracy and the resurgence of parties with stronger social concerns, local governments revised planning programs and included new participatory and socially oriented programs, such as legalization of land tenure and participatory municipal budgeting. Evidently, these new political and social frameworks reflect in the way urban design is understood, as well as in the way it is practiced.

The practice of contemporary urbanism and urban design in Brazil have yet to be more systematically studied and their advances remain largely ignored by international researchers. Of course, this is not the case of Brazilian modern architecture which has been studied in some detail

and is reported in a number of recent international titles such as Fraser (2000), Deckker (2001), and Cavalcanti (2003). Although these are all mostly historically oriented and stop their accounts by 1960, they clearly show the role of architecture in the country's cultural development.

After the publication of the much praised analysis of Brasilia and its subversion of traditional urbanism by Holston (1989) only a handful of international publications have addressed Brazilian urbanism at large. The modernist legacy of Brazilian cities was reported by del Rio & Gallo (2000), the prospects in *favela* upgrading was discussed by Fernandez (2000), Caldeira (2000) commented the relationship between modernist planning and social segregation. More recently, Brakarz et al (2002) and Machado (2003) published on the *Favela-Bairro*, the neighborhood upgrading project in Rio de Janeiro. And of course, the most published advances in Brazilian urban planning are the successful efforts by the city of Curitiba particularly in transportation and environmental planning (Margolis 1992; Hawken et al 1999).

Interestingly, the lack of a systematic and integrated inquiry on the practice of contemporary urban design in Brazil also affects Brazilian academia as no such effort is available in Portuguese. After the efforts of the three national conferences on urban design at the University of Brasilia in the late eighties, most available studies are either historical accounts - such as the national inquiry coordinated by Leme (1999) on the history of Brazilian urbanism until 1965 - or are limited to a specific projects - such as reported at ANPUR meetings (the Brazilian association of research in urban planning).

II. RESEARCH FINDINGS

Although our research clearly indicates that modernism continues to impact Brazilian cities for the better (by bringing in the functionality and urbanization much needed in developing areas) or for the worse (by facilitating spatial and social segregation), there are several ground-breaking and successful examples in urban design that teach important lessons and point to new directions, such as in historical preservation, revitalization, and in upgrading the quality of public space.

Our studies and the fifteen case studies included in our investigation indicate four general trends in Brazilian

contemporary urban design.¹ These trends are: a) urban design at the city scale, b) urban design for revitalization, c) urban design for social inclusion, and d) urban design for social exclusion.

Important projects and successful examples can be found all over the country, such as in Rio de Janeiro, Belem, Salvador, Porto Alegre, and Sao Paulo. Even Palmas - new capital of the recently created state of Tocantins inaugurated in 1990 - may be called a success in regional development and in serving its current 150,000 population albeit its modernist design concepts. In Salvador, a recent massive state project has succeeded in revitalizing the old deteriorating historic core, boosting local economy and attracting tourism, but it has also spurred gentrification and new social contradictions. In Sao Paulo brown and grey fields are now regarded as opportunities for new territorial transformations, and while shopping centers and private developments cause profound impacts to their surroundings they also respond to them and experiment interesting mutations. In Porto Alegre, the DC Navegantes shopping district demonstrates the success of a privately-led revitalization of a brownfield, and in Belem the somewhat uncoordinated projects by state and city governments start to revitalize the historic riverfront. In Rio de Janeiro, the three most important and successful efforts in contemporary urban design will be briefly discussed later in this paper.

On the other hand, the investigation also reveals some of the limitations of urban design as currently practiced. In the case of Curitiba, for instance, while the city boasts its many successes in public transportation and sustainable social design, it now faces the limitations inherent in the city's own marketing, in the planning models that have been adopted, as well as in the lack of metropolitan planning. Urban design practice is permeated by some of the contradictions inherent in a free-market and global economy, and as such, suffers retraction of the public realm.

III. THE END OF PUBLIC SPACE? SOCIAL EXCLUSION IN BRAZILIAN CONTEMPORARY URBAN DESIGN

Urban design may be regarded as an instrument for social exclusion that limits accessibility and social encounters, while preventing the unexpected. For the new post-modern environment, seclusion and total control are qualities, and urbanity - as we historically learned it - does not exist. Social exclusion and spatial control are seen everywhere in major cities.

1: Case-studies being developed in several Brazilian cities by different collaborating researchers.

Modernist urban design is easily appropriated by developers and by the “private realm”, which sometime generate strong physical and social segregation. This is the case in Barra da Tijuca, a district of Rio de Janeiro with 120 km² and 200,000 population designed in the late sixties by Brasilia’s Lucio Costa, creator of Brasilia. The Corbusian model of “towers in the green” was applied in full, and meant to integrate development with the natural landscape, allowing for the free flow of space, air, views, and movement. However, strict zoning and design regulations created a disjointed environment of areas dedicated to singles uses (apartment towers of up to thirty stories, single-family houses, retail and shopping centers, services, and industries), large distances separate buildings, cars and highways dominate, and public areas are no-man’s land. The rigid separation of land-uses and of typologies provide a rationale for a culture of seclusion as a response to the fear syndrome of the middle-class: communitites, shopping centers, and business parks are walled and fenced, and their access is controlled. Modernist space, originally conceived as communal, is becoming increasingly segregated.

The large majority of new residential developments in all Brazilian cities follow the “gated community” model, partly as a result of a society that is understandable scared for its own personal security, but also as an expression of a socio-cultural gap that is increased by the market and by social expectations. Even dead-end streets of the city grid are being gated by residents, who first build their own fences around their buildings. Within walled and gated communities, the common imagery is often a pastiche of traditional and alien architectural styles - symbols that are quickly adopted by the middle class for status connotation. This urban design and its architectural imagery, and their set of social and cultural metaphors are interpreted and appropriated by other social groups, popularizing a totally new urbanity. Gates and walls have become symbols of security but also of social belonging, and big land developers – such as Alphaville from Sao Paulo - now sell “new urbanism” as a new way of life.

IV. URBAN DESIGN FOR REVITALIZATION

By the mid 1980’s the majority of the large cities in Brazil had realized they should direct planning and design efforts for the redevelopment of the downtown areas. Deteriorating, underutilized and outdated buildings, vacancies, “planning blights”, antiquated zoning and regulations, and over ambitious road projects were some of the problems to be



The first gated communities in Barra da Tijuca, Rio de Janeiro, built in the early 70’s follows a modernist design with apartment towers, single-family houses, a club, a private school, and a small shopping center next to the gate. (Photo by V. del Rio)



A recent 800 acres residential development near Belo Horizonte where all single-family communities are gated and surrounded by 10 feet walls. (Photo by F. Lara)



A common view in Rio de Janeiro: a fence protect the entrance to an apartment building above a restaurant. (Photo by V. del Rio)

Janeiro was started in 1993: *Rio Cidade*, a citywide program for the redesign and regeneration of commercial cores and strips in several neighborhoods. Some brief comments on both these programs will follow.

V.1. Upgrading of Squatter Settlements in Rio³

The Favela Bairro program was conceived in 1995 by the city government to integrate squatter settlements into the surrounding neighborhoods. It recognizes the social and capital investments that the squatters did over the years by providing the communities with physical upgrading of public spaces and complementary social projects. However, the most important benefit of Favela Bairro is the distribution of land titles, providing the “favelado” with security and rights to city comforts.

The program represents investments of US\$ 600 million and benefits a population of 500,000 in 120 favelas – what corresponds to 60% of the city’s entire squatter population – and has been successful in community development and in integrating these “informal” settlements into the formal city. Favela Bairro has innovated in several fields and is considered a model-program for neighborhood upgrading by the InterAmerican Development Bank (Brakarz et al 2002) that provides significant financial support - up to a US\$ 4,000 per family.

The Favela Bairro methodology – hiring design teams for each favela project through public competitions – allowed for a special attention to the quality of design and the specificities of each settlement. Design teams had to cope with the enormous complexity of the socio-cultural and spatial reality of the different favelas, what also means coping with different local politics, power struggles, and participatory processes.

The quality of the urban space is provided for by new roads and pedestrian pathways, access to infrastructure networks and city services, playgrounds, and recreational areas. Occasionally Favela-Bairro builds community facilities such as day-care centers, and new housing units – generally to replace those who had to be evicted from risk zones. Social programs complement neighborhood upgrading and integration to the city, mostly through community

development, educational and income generation projects, such as the organization of local work cooperatives.

By investing in the public realm, this innovative urban design process is successful in improving significantly the quality of life of communities. His limited scope is probable the major reason for success, as the program does not try to tackle with large scale housing and other fundamental social problems that affect the urban poor. On the other hand, evidence demonstrate that the improvements tend to attract new dwellers and impact housing prices and rents, thus generating gentrification and a more speculative housing market that is difficult to control.



A community center at Favela do Fuba and the urbanized waterfront at Ladeira dos Funcionarios, both projects of Favela Bairro. (photos courtesy of J. M. Jauregui and Arqui 5)



3: Case-study investigated by Cristiane Duarte and Fernanda Magalhaes, Universidade Federal do Rio de Janeiro.

faced. Not surprisingly, much of these areas had important historic and cultural patrimony to be respected for legal, symbolic, and political reasons. And unlike North-American cities, most of these areas are still being heavily utilized by a large amount of the population; particularly users of public transportation due to the central location of transit nodes.

In the last twenty years several revitalization projects have been implemented in Brazilian major cities, most with a cultural and recreational bias, and some include efforts to revitalize waterfronts. Examples may be found in Salvador (the first Brazilian capital and birthplace of Afro-Brazilian culture), Sao Paulo, Recife, Porto Alegre, Belem, and Rio.

In Salvador, the Pelourinho – the historic core - was deteriorating, had a bad reputation, high marginality and prostitution, and most of its buildings were vacant or in very bad state of conservation, many had turned into slums. Because of its cultural, historic, and architectural importance, after many attempts along more than three decades, the state government finally implemented a program destined to recuperate it as a tourist destination. Not without controversies and a touch of post-modern scenography, the project evicted original residents, encouraged new tourist-oriented retail and services in restored buildings, created new cultural events, and has renovated the area that now feels more “secure” and attracts hordes of tourists.

On the other hand, in Porto Alegre, an old industrial district is being totally revitalized by the private sector with little support from the government. A couple of blocks had its original industrial buildings renovated into an outlet shopping center, where shoppers can meander along alleys and sidewalks, and enjoy pocket plazas and cultural events. Although architecturally this is not a great project, it is an urban design success. The original area has already been expanded, has a theater and good restaurants, and is now a popular destination during weekends.

Probably the most important and successful effort for urban revitalization among Brazilian cities is the Cultural Corridor project in downtown Rio de Janeiro, which will be commented next. It became a model for preservation and revitalization, and inspired many other projects and programs in various cities, and remains a huge success.

IV.1. Projeto Corredor Cultural - Rio de Janeiro²

Projeto Corredor Cultural was the first large scale urban

design program in Brazil to combine historic preservation to cultural and economic revitalization in the inner-city - the historic core of Rio de Janeiro in the Central Business District. The project started in the early eighties by city planners and community groups who reacted to the fate of some of the most traditional buildings downtown. Retailers and the local business community cooperated fully after realizing that preservation could help them fight gentrification and displacement from larger economic groups, and as a means to revitalize and attract new clients.

The project soon gathered enough political momentum and was approved by the mayor and the city council in 1982. In January 1984 the area was declared a special district with special design guidelines and development requirements. Buildings were classified for preservation (those to be maintained and refurbished), renovation (new buildings in vacant plots), and reconstruction (important buildings to be rebuilt). Building envelopes, design guidelines, a color scheme, signage control, and construction requirements were defined, and a system of technical assistance for property owners, developers, and architects was established. Property tax abatements and other city based incentives were made available, and the city started complementary projects such as street beautification, pedestrian precincts, and new public lighting. Other initiatives help disseminate the project such as cultural events, tourist guides, walking tours, educational books, posters, postcards, etc.

To help revitalizing downtown as a cultural destination, private and quasi-private initiatives were attracted to the area to renovate several historic buildings into cultural centers. Some of these include the Casa Franca-Brasil (art show-place maintained by the French government), Centro Cultural Banco do Brasil (a big cultural center maintained by Brazilian's largest bank, holding two theaters, art galleries, two cafes, a library, and research facilities), Centro Cultural dos Correios (cultural center and exhibition spaces maintained by the post office), and others. Many new retail stores reopened; new cafes and restaurants were started, and the downtown now offers many activities during the happy-hours and the weekends. Due to the success of the project, its original boundaries were expanded several times to include more buildings and areas in the fringe of the downtown. As the last zoning restrictions prohibiting new housing in the

²: *Case-study Investigated by Vicente del Rio (Cal Poly) and Denise Alcantara (Federal University of Rio de Janeiro).*

CBD were removed in the late 90's, the area is starting to receive the first residential projects in decades, in new and recycled buildings.

The Projeto Corredor Cultural is an extremely well succeeded planning and urban design program from all points of views. From almost 3,000 buildings included in the project 800 had been totally restored by September 2002 and almost 2,000 had been object of partial betterments (such as painting and new signage) according to the project's special requirements.

Other cities use it as a role model, and many replicated it's methodology. From the social point of view, the project proved to be sensitive to the community groups and involved them in the decision making process. From the economic point of view, it managed to maintain the dynamics and



*Revitalization of the Cultural Corridor in Rio de Janeiro through historic preservation, design guidelines for new construction, and renovation of public space.
(photos by V. del Rio and Corredor Cultural)*



diversity of small-scale commercial activities, supporting them against larger scale uses and enhancing the quality of their space. From the ideological point of view, it represented a big step from the technocratic approach of preceding plans by concentrating on the social value of the building stock as well as on the spaces and activities. Finally, from the cultural point of view, the project proved to be fundamental in recuperating the symbolic and cultural role of the city's past, along with rejuvenating its public spaces.

V. URBAN DESIGN FOR SOCIAL INCLUSION

Urban design has an important role to play in the re-democratization of Brazil in guaranteeing the social function of the public realm. This question became crucial with the realization that the quality of public spaces and services were major issues not only for citizenship but also for ameliorating the gap between rich and poor, and to compete for a better image nationally and abroad. In most major cities, city planning and urban projects try to recuperate the city – or at least parts of it – as a pluralist environment, while seeking to extend public services and cultural and social amenities to larger groups.

Efforts for social inclusion are particularly present in projects for the renovation of streetscapes and public open spaces, and in the upgrading of *favelas* -squatter settlements- and neighborhoods. It is no novelty that Brazil faces a huge housing demand that is not only a result of the nation's lack of resources and structural economic problems, but also of years of neglect or of pursuing the wrong housing paradigm. National housing policies and institutions like the National Housing Bank – extinguished in the 1980's – contributed to a biased approach, and squatter settlements (*favelas*), illegal subdivisions, and slum housing grew at astonishing rates. In Rio de Janeiro, 25% of the 6 million population live in almost 700 *favelas*.

After Brazil's full return to democracy in the mid 1980's and facing the lack of resources from the central government, some states and major cities started housing projects on their own. Smaller scale housing initiatives, assisted self-help, and settlement upgrading, became more common in dealing with squatter settlements and illegal subdivisions. The most innovative and successful of such programs is the *Favela Bairro* in Rio de Janeiro, started in 1995.

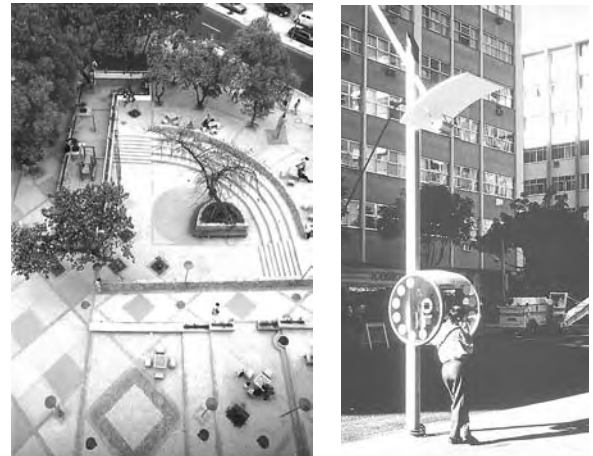
Also, in the lines of urban design for social inclusion another ground-breaking effort to recuperate city spaces in Rio de

V.2. Enhancing the Pedestrian Experience ⁴

With the country's steady return to democracy and free elections Rio experienced the start of a slow economic and cultural renaissance in the late eighties. In 1993 a new city's Strategic Plan was launched to restore its position in an increasingly competitive global market, to recuperate its once famous world image, and to redirect policy actions to satisfy local communities more directly. The plan identified the necessary programs to attract new investments and tourism, and the projects to restore quality in the public realm. Part of these efforts concentrated on Rio Cidade, a large-scale unique urban design program to remodel public spaces at key commercial areas throughout the city, making them more livable for residents and visitors alike, and fostering shopping and a safe and active street life. The program was relatively successful and some of its projects did manage to enhance local pride, the use of public spaces, and injected larger revenues for local retailers.

Rio Cidade was a significant change in how the public sector regards its role as the promoter of a livable and attractive city: the strategic plan moved city officials away from planning which was purely geared to zoning and transportation policies. Urban design was assumed as a major contributor to the reconstruction of the image and the quality of life, place identity and sense of community, particularly through more pedestrian-friendly streetscapes, and public spaces that could act as catalysts for social and economic revitalization. Spanning from 1993 to 2000 the program was divided in two stages that included 41 different project areas, and design teams were hired through open public competitions. The fifteen projects built in the first stage represented a public investment of approximately US\$200 million. Project areas span from tourist neighborhoods such Copacabana, Ipanema, and Leblon, to downtown and working-class neighborhoods such as Meier, Bonsucesso, and Campo Grande.

The program was effective in supporting public life in several of the target areas. Although results vary in each case, all projects had significant local impacts and contributed to revitalizing the public realm through a more pedestrian friendly environment. Critics point out the lack of method to choose the project areas, the excessive attention on embellishment, the differentiated budgets between areas, and the lack of design coherence between



Projects of the Rio Cidade making better public spaces in Meier, Leblon, and Ipanema. (archive photos in IPLAN Rio, and by V. del Rio)



4: Case-study investigated by Vicente del Rio, Cal Poly.



Scenes of heavily used public spaces: Ipanema beach, beachfront lanes closed to vehicular traffic, and a street celebration during Carnival.



projects sometimes along the same traffic corridor. On the other hand, a valid collection of different design solutions was attained, public areas received several betterments that increased pedestrian comfort and security, the public perception of some of the areas changed radically, and the program contributed to rebuild the city's image.

Under a different name and with a different administrative scope, Rio Cidade was continued by the following city administration. Importantly, the program has changed community perceptions and expectations, and its philosophy was incorporated into the daily concerns of the different city departments. Urban design is now seen as an important public policy, and several such projects are renovating public spaces in the city, such as in the efforts to revitalize the port area, and to prepare the city for the Pan-American Games and as a candidate for the soccer's World Cup.

VI. CONCLUDING REMARKS

While most of the contradictions of a global and free-economy are certainly present in Brazilian cities - that succumb to street violence, social segregation, and to the retreat of the middle-class to gated environments - the research reveals that a number of government-sponsored projects are producing urban areas and city centers that are more livable, attractive, and responsive to communities.

While private space becomes more entrenched and sometimes expands over the public realm, public space in Brazil seems to be alive and well. While socio-cultural patterns and traditions demand public spaces for their expression -such as carnival and several religious celebrations, soccer, etc, most Brazilians still rely on the public realm for social encounters and recreation. The square, the sidewalk, the parks, and the beaches will always be fundamentally places of plurality, what evidently is particularly important for lower and middle income groups. In Sao Paulo, people still flock to Viaduto do Cha, Anhangabau, Largo de Sao Bento, and Ibirapuera Park on Saturdays, and on Sundays residents of the downtown walk and play in the Minhocao elevated expressway which is closed to traffic. In Rio, the most successful intervention in public spaces was simply the closing of traffic lanes along waterfronts, and in some commercial strips of suburban neighborhoods, what allows people to "appropriate" the street, jog, stroll, and socialize freely.

Urban design in Brazil seems to have overcome the limitations of the modernist paradigm, and has expanded to a number of

different approaches that are responsive to community needs and integrates interdisciplinary teachings toward real place making. This differs from the previous modernist “portrait” of what a city should be like; one that relied on total control and centralized design. “Post-modernity” in Brazil has carved an urban design that follows no models but seeks “visions” of urban quality. In the quest for these visions, urban design as public policy seems to be fundamental for a truly pluralistic and culture specific usage of the public realm, and for social and economic development.

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William Siembieda

PhD, Department Head, CRP Cal Poly San Luis Obispo

Bruce Baird

Governor's Office of Emergency Services, California

Kenneth Topping

Former Director of Planning for the City of Los Angeles

Adjunct professor, CRP Cal Poly San Luis Obispo

ACTIONS TOWARDS DISASTER RECOVERY

A Global Planning Perspective

This article explores recent thinking about disasters as a component of global, national and local development planning. It suggests ways of shifting emphasis from recovery to that of mitigation and risk reduction through community involvement and including risk assessment in the local plan making process.

Disaster reports appear in newspaper headlines with disturbing regularity. The number of events and the losses from disasters are increasing worldwide. The early January 2001 earthquake in El Salvador is quickly replaced with the late January 2001 earthquakes in India. In the next years the world experienced massive earthquake damage in Turkey and the loss of thousands of lives in an ancient village in Iran. Following these “natural” disasters in September 2001 is the World Trade Center’s human-made disaster. In San Luis Obispo, the San Simeon earthquake of December 2003 caused significant damage particularly in Paso Robles, killing two people, collapsing 40 buildings, and shutting down the power for more than 10,000 homes.

Not only are the numbers of natural and manmade disasters increasing but also the cost in property and in human life. For natural disasters worldwide, the annual economic losses averaged \$4.9 billion in the 1960s, \$15.1 billion in the 1980s and \$75.9 billion annually in the 1990s. The worst loss of life was 50,000 deaths in 1998. The September 11, 2001 attack on the World Trade Center in New York is a sad reminder of the collision between vulnerability and impact.

In part, this continued and inexorable increase in disaster losses is a function of world urbanization, where cities are located and the value of property. We are a more urban than rural world, developing without sufficient forethought in location subject to natural disasters.

Disasters are not totally solvable or controllable problems. They are physical, economic and social events to be mitigated, managed, learned from, and, to an increasingly greater extent, planned for. Disasters events fall into two broad categories and can impact whole regions, as well as cities and towns. The first is from human interaction: wars, famine, nuclear meltdown, and terrorism. The second is from human interaction with natural events: floods, earthquakes, hurricanes, etc. Actions taken by people, not nature, leading up to and following such events make them disasters.

DISASTERS AND DISASTER RECOVERY

Let us begin by establishing a disaster definition. Disasters are the result of an interaction between a hazard (such as an extreme natural event) and a vulnerable population. A disaster occurs when people suffer losses due to a hazardous



Damages on Honduras South Coast, Hurricane Mitch, 1998.
(Photo: OES, California)



The Acorn Building in Paso Robles, after the San Simeon earthquake, 2003. (Photo: D. Stanfield)

event that causes extreme damage to them, or their livelihood, and recovery is unlikely to occur without external aid. Disasters do not just happen. The actions leading up to them unfold over time and relate to the set of factors that place communities where they are at that point in time. This is an important distinction in linking any event with the level of vulnerability at the community or family level. There is socially constructed vulnerability built into our settlement system. Since there are limits to controlling extreme events (human or natural based), the need to examine methods to lessen or influence exposure to vulnerability becomes more important as a risk reduction strategy.

Recovery from a disaster is never an easy task. For poor communities in developing countries this task is more difficult because the majority of people have few assets (savings, insurance, construction equipment, ownership of property, etc.) to apply towards the recovery process. The economic cost of natural disasters can be twenty times higher as a percentage of gross national product (GNP) for developing countries than for industrialized nations. For example, annual flooding in Bangladesh impedes the GNP growth; while Vargas State in Venezuela has lost years of economic advancement from a single massive rain event. It is difficult to advance economic and social development when you to spend large parts of the public budget rebuilding roads, school and bridges.

PATTERNS OF RECOVERY

According to the World Bank, there is now recognition in government and international agencies of the need to incorporate natural hazard mitigation and risk reduction in development planning. Until recently there has not been much interest among policy analysts, especially in economically advanced, “first world” countries. Part of this is due to the unique ability of first world countries to put in place strong systems of risk identification, risk education and risk transfer.

Risk identification provides the basis for risk reduction. Risk transfer (mainly private insurance schemes and claims on government assistance programs such as FEMA) requires a level of wealth and financial infrastructure to function well. For the U.S. more than fifty percent of the total private property losses are paid by private insurance; while in Asia, which in 1997 accounted for over half of the world property losses, private insurance covers only two percent of the losses.



*Alluvial flooding destroys coastal towns in Venezuela, 1999.
(Photo: OES, California)*



*Tropical rains and flooding
destroying shacks in a
squatter settlement,
Rio de Janeiro.
(Photo: www.oglobo.com)*



*Destruction by the Northridge earthquake in Los Angeles, 1994.
(Photo: OES, California)*

THE CLASSIC RECOVERY MODEL

Disasters are not new phenomena. They have however, become more prominent as the world continues to urbanize, and according to the United Nation's Urban Development Unit will increase in number in this century. Over time, a set of institutional mitigation/prevention and recovery procedures has evolved to address disaster events. This set can be called the classical model for disaster recovery. There are generally four stages to disaster recovery cycle including (1) the "emergency response" stage which emphasizes measures for the rescue of people, removal of debris and provisions of temporary shelter and food, (2) the "restoration stage" which emphasizes restoration of public facilities and services, (3) the "return to normalcy" stage characterized by the attempt at replacement or reconstruction of capital stock and economic activity to pre-disaster levels, and (4) the "redevelopment or reconstruction" stage featuring initiation of reconstruction that involves economic growth and physical redevelopment.

In practical terms the post-recovery community (especially the site most impacted) often will be different in appearance, form and perhaps utilization of social and economic resources from the pre-disaster community. The disaster event furnishes the community an opportunity to correct problems, which might lead to future disaster impacts if left unattended. One may ask when (if at all) the 'equity' function comes into play in disaster policy. Equity, in this context, needs to be understood in terms of vulnerability which involves the ability to recover from a particular type of 'shock' or injury in a given period of time with the physical, social, and economic resources available. Vulnerability however, is not evenly distributed. Poor and marginalized people (such as caste groups in India) carry with them higher degrees of vulnerability than other groups in society. The equity is linked with how local and non-local policy analysts can address the vulnerability of specific populations in their community, city or region in terms of the types of natural events most likely to occur.

Based on experiences in Asia and Latin America the classical model can be improved by adding to it other kinds of activities. These include: risk assessment, mitigation measures, identification of special done group and emphasizing post disaster planning. Risk assessment and mitigation task are best carried out in the pre-disaster period.

EVOLVING GLOBAL PERSPECTIVE

Worldwide there is an overall sense of for the need to decentralize disaster relief authority. This is a significant movement away from the notion of "single high level institutions" as the best means of controlling human settlement supported by Habitat I, the first UN Conference on World Settlements convened in 1976. The experiences in Turkey, India, Venezuela, and Honduras teach us a lesson. There is a need to strengthen the regulatory structures that control and oversee how buildings are planned and constructed and to listen more closely to local groups in the community to determine the level and extent of built environment vulnerability. Thus, in countries such as Turkey where 45% of the population live in high risk areas there has been a call to privatize the design and construction supervision activities in the most vulnerable cities. While this could be considered an indictment of the local government's capacity to serve the populace, it does reflect the extent of concern over reducing the recurrence of natural disasters related losses and a willingness to recognize the limits of state operated regulatory systems.

For the world's larger cities efforts are underway to establish common disaster management tools under what is known as the Disaster Management Master Plan. This plan has five elements: assessment, preparedness, response, relief and mitigation, and expertise acquisition. To make such a plan work, central governments must establish the needed strategies to decentralize decisions and to provide adequate resources. The fact that disaster master planning is being discussed in larger cities is a positive step.

Central American Examples

Legislation signed in Nicaragua in 2000 created an entirely new system of disaster prevention. Under this system, mitigation and management is based on working at the community level with the country's 152 municipal governments and is assisted by a coordinating national agency. With regional operations, local disaster committees work to link their needs to a regionalized approach in an effort to secure improvements that lessen vulnerability. The limits to this approach are resource based, not organizational. A national disaster mitigation plan is now being developed in Nicaragua.

In Honduras, 1999 legislation authorized a new civilian agency (COPECO) for disaster recovery, separating this

function from the military. With the assistance of World Bank resources, this will lead over time to the municipalization of emergency services in the country so that local stakeholders will play a greater role overall. The Organization of American States (OAS) has adopted sectorial improvements focusing first on the local school system to make the buildings secure places that can withstand a disaster event and also to make disaster education part of the curriculum. This approach has particular merit in that local schools are closely linked to the household level and are part of building social capital. A generalized model of the evolving Central American approach is shown in Graphic #1 .

The Kobe Case

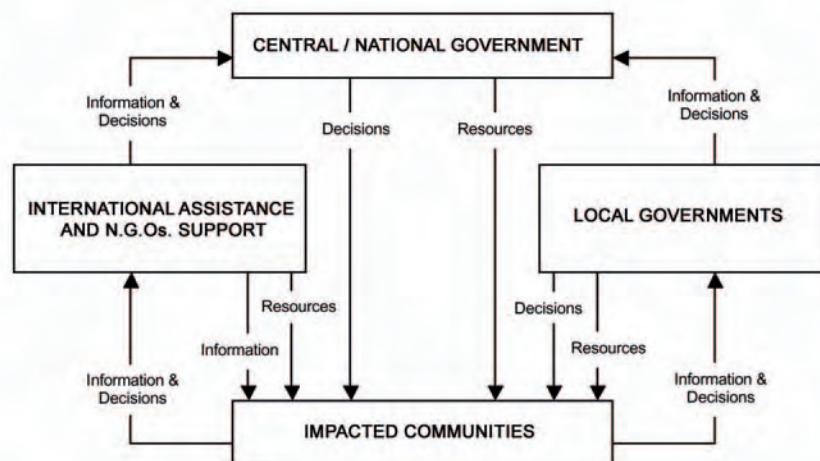
The post-disaster planning period is an opportunity for national support of post-disaster activities designed to empower local authorities to incorporate local realities and include voices of more stakeholders. It also provides space for new actors to participate, as was the case in Kobe, Japan, where the Machizukuri process of town design, building and citizen participation was implemented as a result of the earthquake of 1995 that killed over 6,000 people, injured 40,000, and displaced 300,000 households in Kobe.

In rebuilding after the earthquake, the major role of the central government was to finance reconstruction of roads, the port, railways, parks, and public schools. The major role of city governments was to guide the urban planning

activities during the rebuilding process. Seventeen restoration promotion districts were quickly established in Kobe City and other affected cities. Within three to four years over 160,000 housing units were constructed in Kobe and nearby cities.

However, in the rush to restore normalcy the urban pattern was changed by the construction of many high-rise residential buildings that replaced the low wooden housing destroyed units. This brought about permanent changes in living environments. Elderly people felt especially strong impacts and had difficulty adapting to the new conditions. This was also true for lower income people who could not afford such modernized replacement housing.

The first planning phase undertaken by Kobe City in achieving this remarkable recovery was made during the two-month period immediately following the earthquake. City officials made basic decisions on citywide plans for major centers, arterial roads, and parks. The second phase was at a neighborhood level, emphasizing review of local street and park plans with local residents through the Machizukuri (community building) citizen participation process. This took two to three years. The third phase, finalization and adoption of plans, took several more years, and implementation has continued. Nine years after the quake the major recovery in broad physical terms was complete while the process of local neighborhood and household recovery continues. Today there are new



*Interaction Flow Between Key Recovery/ Reconstruction Actors:
Emerging Model--Central America*

mixed-use housing and retail towers, a memorial museum, waterfront parks, and a changed community.

What can we learn from this experience in preparing for future disaster recovery in New York or other world communities? One applicable lesson is that it may not be possible to restore familiar surroundings exactly as they were. All segments of the community do not hold a common image. Another important lesson is that involvement of citizens in planning for development can be not only useful but also truly beneficial in bringing about community betterment. A third lesson is that disaster recovery experiences from other countries, emphasizing as they do the creative use of all types of assistance, can be useful in improving pre- and post-disaster planning effectiveness.

USA Context

In the US there is a slow shift towards greater appreciation of disaster mitigation planning. An example of this involves changes in the U.S. Army Corp of Engineers approach away from attempting to “tame” rivers and reclaim lands for urban uses with dams and levees. Part of the shift comes from the growing recognition by the U.S. Federal Emergency Management Agency (FEMA) and other federal agencies that disasters always are local in impact.

In 1998 there were 98 major disasters declared involving 34 of the 50 states. That year FEMA incurred disaster assistance payment obligations of more than \$3 billion. Direct recovery costs from the Northridge earthquake event in California were in excess of \$12 billion with 57 percent being covered by private insurance and 25 percent in U.S. Small Business Administration (SBA) loans. Even with massive assistance from many sources the most marginalized groups living in Northridge received less relief than the middle class and mainstreamed groups.

To address this trend FEMA began Project Impact: Building Disaster Resistant Communities. This effort was based on three principles: preventive action must be decided at the local level, private sector participation is vital, and long term efforts and investments for prevention measures are essential. The Disaster Mitigation Act of 2000 provided incentives and guidance for urban planners to develop local hazard reduction plans.

At the state level, California has shown significant leadership. One example, is the Disaster Recovery Reconstruction Act of 1986, passed by the California legislature following a review

of impacts of the 1985 Mexico City earthquake disaster. This act authorizes cities, counties and other entities to prepare in advance for disasters and for the orderly recovery and reconstruction of the community or region. The act provides guidance for cities to prepare a hazard vulnerability analysis and can be part of the state-mandated general plan safety element. A contingency plan and a pre-event ordinance approach provide local authorization for recovery and reconstruction which can be invoked as soon as possible after an event.

KEY TO SUCCESS: EFFECTIVE PRE-EVENT STRATEGIES

The theme of pre-event planning identified by the 1986 California statute was significantly enhanced in a milestone publication prepared jointly by FEMA and the APA, *Planning for Post-Disaster Recovery and Reconstruction*, PAS Report 483/484, December 1998. The first seven chapters focus on planners’ roles, disaster operations, planning policies, planning processes, planners’ tool kit, and legal and financial issues as well as hazard identification and risk assessment. The final five chapters contain a series of case studies reflecting lessons learned from disasters in various U.S. cities.

Recovery after a major disaster may be the most significant challenge a local jurisdiction will ever face. Therefore the better a community is prepared with procedures and pre-disaster inventories of readily accessible resources useful to recovery and reconstruction the easier it will be to meet the challenge. For local, county and even regional planning staffs it is important to understand who will take on which role after a disaster event and how to provide support for the “temporary” organization in meaningful ways.

SUMMARY OBSERVATIONS

Are urban planners needed in disaster mitigation and disaster recovery? The answer is YES. Would these activities be better served by better training of civil engineers, organizational managers, national policy analysts, and social/health service providers? The answer is definitely NO, if such training precludes involvement of planners in the recovery process..

The reasons for these answers are many. To begin with, urban planners take a broader, more systematic approach to the challenges of the city and human settlements. Urban planners also think about implementation; how things

get done, how the pieces fit together, and what trade-offs between scenarios may be necessary. Urban planners also know how to create alternatives and foster debate with a critical eye to equity considerations.

Moreover, urban planners are involved in drawing citizens into the process of creating visions for better futures for the community more so than creating visions by themselves. In doing so the idea of simply “returning to normalcy” usually is not an acceptable option. The fact that urban planners 1) use information from many sources, 2) emphasize integrative concepts, 3) are sensitive to equity issues, and 4) make attempts to provide synergy between solutions proposed to all issues makes their professional involvement with disaster mitigation and recovery particularly valuable.

For too long, urban planning has left the subject matter of disaster mitigation and proactive involvement in disaster recovery to others. With the prospect of an increasing number of disasters in the 21st century, it is time for all of us to make a contribution to this important area of community betterment.

Note: *This article is a revised version of an article published in Interplan (publication of the APA International Division) # 69, January 2002.*

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Student Projects



South County Government Area in Arroyo Grande - Concept Plan

A Project by the Second Year Graduate Class, MCRP, 2003

This quarter long class project was developed in the Project Planning Lab (CRP-553) with instructor Vicente del Rio, during the spring quarter 2003, in collaboration with the City of Arroyo Grande's Community Development Department. The project was the recipient of the 2003 Academic Award from the California Chapter of the American Planners Association - Central Coast Section.

This project is typical of Cal Poly's learn-by-doing philosophy and CRPs community-outreach pedagogy. A group of 17 graduate MCRP students with varied professional backgrounds engaged in developing a design scenario for an area in Arroyo Grande, in response to the needs of City, County, and community needs. The proposed program, the design concept, and the guidelines contributes to a stronger collaboration of the parties involved, and a consensual solution for the area.

THE PROJECT SITE

Located on West Branch Avenue in Arroyo Grande, the project area encompasses approximately 40 acres and it is made up of six adjacent parcels owned by the County of San Luis Obispo and the City of Arroyo Grande. The larger portion is owned by the county that plans to dedicate it to a future "south county government center" for which it still does not have a specific program.

It is adjacent to St. Patrick's private school on the north, to the Women's Center on the south, and to single-family residences on the east. Due to its location, proximity to Highway 101, and easy accessibility, this is a strategic area not only for the

county and the city, but also for the community. Most of the area is currently undeveloped but for less than 40% of the county's property that include the South County Library and offices for the Chamber of Commerce, a Sheriff's substation, and a public works shed and yard. A riparian corridor with a seasonal creek bisects the area, and the topography is mostly gentle but at close proximity to the riparian corridor where slopes go up to 30%; significant sections of the area have already been graded.

THE CONCEPT

The project's theoretical framework is inspired in classics such as Lynch's and Alexander's, and in concepts from New Urbanism and Smart Growth. The project concept capitalizes on the area's location and the proximity to the Village, as on existing social, economic, and transportation patterns. While it recognizes the split ownership of the site the plan represents a cohesive solution that is feasible for each entity.

The existing needs of the County are fulfilled with new government office space, a library expansion, a "park-n-ride" facility, and the continuation of the corporation yard. City



View west from top of the project area



View east to the project area and single-family development beyond.

needs are responded to by new below market and market rate housing, a new daycare facility, and the expansion of the existing Women's Center.

Community needs are responded to by new cultural facilities and public plazas, the rehabilitation and enhancement of the riparian corridor, passive and active recreation opportunities, and limited convenience commercial space. The plan provides for alternative modes of transportation, and follows a sustainable approach in its total integration to the natural landscape and to the surroundings.

The design parti focuses on the riparian corridor as the major resource and organizing element as it allows for permeability between the different sectors while providing for a strong sense of identity and for a connection to the larger landscape. The distribution of land uses and the design enhance the site being both internally compatible and easily incorporated to existing surrounding uses.

On the County parcel two public plazas – the Government and the Cultural Plazas – are strongly articulated to the

riparian corridor and to the recreational area which connects to the City parcel and to the new housing. A network of open space and trails connects all uses both internally and with the surrounding areas. Two small convenience commercial plazas at respond to the new users while providing for lively gateways to the area.

RESULTS

The project was very well received by all parties involved, and it was successful in considering the area as a development opportunity for an integrative response to the needs of the county, the city, and the community. It allowed students an opportunity to practice project planning in the “real world” – thus serving well Cal Poly's mission of learn-by-doing and community outreach – and it opened an important dialogue between the two planning spheres. By opening possibilities and by showing a plausible development scenario it contributed to a mutually beneficial relationship and served as a catalyst for the discussion of design ideas for a better public realm.



New Bridge (CalTrans alternative 2)

- 1. Government Plaza**
- 2 Cultural Plaza**
- 3. Expanded Library**
- 4. Cultural / Conference**
- 5. Existing Yard**
- 6. Park'n ride**
- 7. Nature Museum / Restaurant**
- 8. Vista point**
- 9. Retention Pond**
- 10. YMCA**
- 11. Housing**
- 11a. Below Market**
- 11b. Market**
- 12. Day care and Women's Center**
- 13. Commercial**

Christopher Jordan

Student, BCRP

California Polytechnic State University, San Luis Obispo

Traffic Way Conceptual Plan

Arroyo Grande, California

In this project, the undergraduate second-year design class proposed an urban design project for Traffic Way, a commercial corridor in the City of Arroyo Grande, California. The area is a "jumble" of uses, architectural styles, and vacant lots, and the project concentrated on infill development and area improvements, such as pedestrian-oriented streetscaping.

To jump start new development and act as a catalyst for new projects, the City of Arroyo Grande charged the second year design class (CRP 203: Intermediate Environmental Design) of the CRP Department at Cal Poly San Luis Obispo, to investigate how the area could change over the course of the next years. Lead by instructors Zeljka Howard and Vicente del Rio, the team worked in close cooperation and collaboration with City staff to generate a concept plan for the project area.

The Traffic Way area is characterized by a mix of uses, including professional offices, specialty shops, auto service yards, auto dealerships, a post office, restaurants, a new strip mall, and a fire station. In its current form, Traffic Way does not lend itself to pedestrian oriented development, as the City General Plan outlines. Its overall character lacks any link to the adjacent Arroyo Grande Village, the historic main commercial corridor of the community; rather Arroyo Grande Creek provides an abrupt disconnect between the two areas.

Some good features within the Area include a historical museum, the Arroyo Grande Creek, and the Bridge Street Bridge, which could be utilized and revitalized in a way to make them more attractive to users. The site is directly adjacent to U.S. Highway 101, the major north-south artery for the region.

The class developed two conceptual plans with design guidelines in response to short and long range development opportunities. The design and concept plan development process included field surveys visual preference surveys, and public hearings, so that the views and concerns of the public on how development within the project area should occur could be translated into the design.

The short range proposal looked at how the area may develop over the next 15 years and proposes retaining the existing automobile dealerships with some modest changes. The central feature of the plan is a pocket park in the "island" between Station Way and Traffic Way. It is accessed via several *paseos*, one of which connects to and

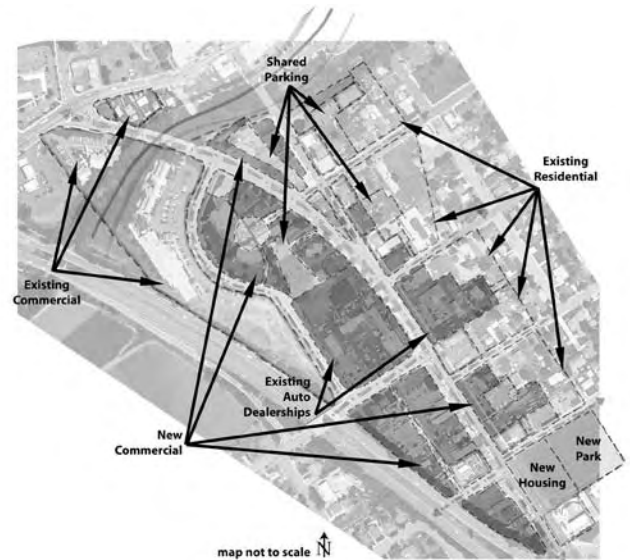
is set along the creek to incorporate the park into our plan. The short range design seeks the creation of a sense of place by integrating the existing car dealerships, by enhancing transitions with surrounding areas, and by promoting safe and efficient pedestrian-friendly circulation. As a reference to the car dealerships, the design proposes the use of features that are reminiscent of the 1950s - like flat roofs with bold signage and awnings. A unifying streetscape through special street lamps, wood benches, and landscaping will help to tie the street environment together. All vacant lots are to be developed for commercial and mixed uses in order to take advantage of the nearby thriving Village economy. Encouraging commercial growth in an already successful retail district will result in increased revenue for the city.

The long-range conceptual plan proposes to redefine the Traffic Way area with a new image and character over the a period of twenty to thirty years. This will happen with the relocation of the existing auto dealerships to a different location within the city, making available two sizeable lots. The central location in which they currently reside would



Students hard at work crafting the plan. (Photo: CRP 203)

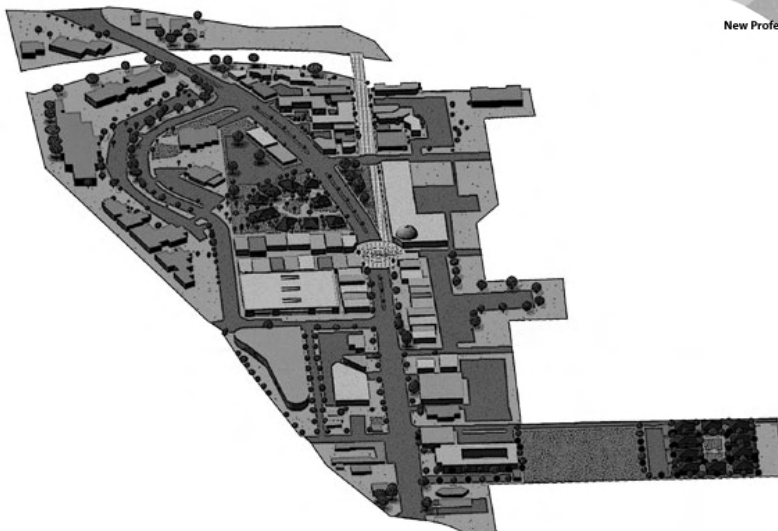
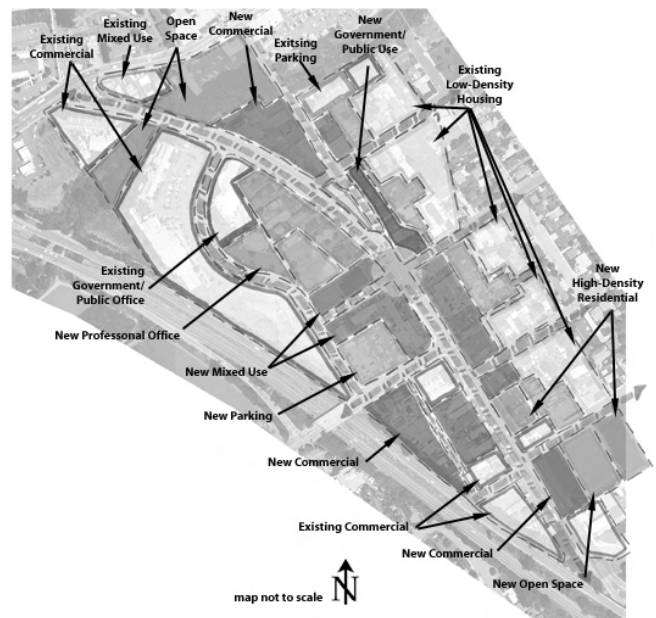
be developed into a mixed-use promenade, promoting both vehicular and pedestrian inflow from all major nodes in the city. The final plan provides for retail and mixed-use areas suited for a pedestrian business environment, with the option of offices or residential uses on the second story. Small lot sizes would promote small-scale development, further enhancing the pedestrian-friendly atmosphere. Along these lines, the plan calls for minimizing and staggering setback distances to bring buildings close to the sidewalk to create a pleasing aesthetic view and maintain pedestrian interest. Finally, the long range plan presents a vision for a dramatically different Traffic Way -one that achieves its goals of attracting pedestrian usage and activities, accommodating all modes of transportation, creating a sense of place, and attracting compatible and complementary uses in the immediate surroundings.



Top: Short Range Concept Plan;
Bottom: Long Range Concept Plan



Top: Rendering of new development along Traffic Way;
Bottom: Computer model of the Long Range Concept Plan



Trevor Keith

Associate Planner, Rincon Associates, San Luis Obispo

Vicente del Rio

PhD, Associate Professor

City and Regional Planning Department, Cal Poly San Luis Obispo

New Urbanism, Automobile Dependency and Sense of Community

A Comparative Study of Two Residential Developments in California¹

This paper resumes a research that concentrated in the effectiveness of residential urban design in response to some of the key tenets of new urbanism.² Our original questions were: a) how this design truly reflects on the daily lives of the communities' residents; and b) how residents perceive it? To answer these questions, the research focused on (1) automobile dependency and (2) sense of community, as the two major variables of new urbanism.

In the broader context, with this research we hope to contribute to a better understanding of New Urbanism design and its influences in the life patterns, sense of community, and daily behavior of stakeholders, moreover, residents of new developments which have been built according to the New Urbanist agenda.

We decided that a comparative study of a new urbanism development to a standard suburban development in the San Francisco Bay Area was the appropriate research method. Two case studies were adopted, both in California: The Crossings, a new urbanism development in Mountain View, and the Somerset, a suburban development in Sunnyvale. These two developments are similar to each other in terms of building age, starting home sale price, and residential demographics.

Based on existing literature on New Urbanism, and on the reasoning of this movement, we expected to find that residents of the new urbanism development had a greater sense of community in their neighborhood and have less dependence on their automobiles for routine trips than residents of the traditional suburban development.

For our evaluation we compared design aspects, as well as the residents' perceived sense of community, and their automotive dependence. Residents of both developments were surveyed for their design preference, sense of community, and automotive dependence as constructed from relevant literature. To measure the accuracy of new urbanism in each development, both were evaluated against the New Urbanism Index of Neighborhood Characteristics (developed by Dr. Patricia Patterson, Oregon Health and Science).

¹ The original version of this paper was presented in poster format at the 34th Conference of the Environmental Design Research Association (EDRA), Minneapolis, 2003.

² Research by Trevor Keith for his MCRP thesis, supervised by Dr. Vicente del Rio. See Keith (2003).

THEORETICAL FRAMEWORK

Suburban growth has been the greatest transformation of our environment and cultural landscape in the U.S. since World War II. The introduction of zoning regulations, increased mobility due to advances in transportation, and Federal policy changes enabling more Americans to purchase homes, where the three major changes that greatly altered our civic culture and patterns in residential development.

The suburbs became the "American Dream" but, despite all they represented, they began to lose their original appeal, leading to new design concepts geared to regain sense of community and place that had been lost. In reaction to the suburban development of the post-war period, architects began to devise new designs to regain these "lost" elements. The most notable of these designs are: (1) New Town community design, (2) the planned unit development (PUD), and (3) New Urbanism.

Three main concepts directed our research. Automobile dependency is defined by the lack of alternative modes of transportation that would give residents the opportunity to reduce the amount of car trips they would need to make from their neighborhoods. This definition is based on the Victoria Policy Institute's definition of automobile dependence as "the cumulative effect of transportation and land use patterns that result in high levels of automobile use and limited transportation alternatives (VTPI, 2003). Sense of community is defined as a way of life; a setting where people work together and achieve common goals; a place where social bonds are formed; and where a sense of belonging can be achieved (Schwartz, 1991). And finally, new urbanism may be defined as "an expansion of relatively narrow neotraditional design principles to larger scale planning issues: regional planning, transportation engineering, retail marketing, and agriculture land protection" (Furuseth, 1997: 201).

We also looked into the main types of research that has been conducted on new urbanism, and were able to group them

into four categories: (1) media accounts, (2) theoretical papers, (3) descriptive studies, and (4) indicators. Media accounts, including newspaper and magazine articles and published books, generally provide a positive report of new urbanism as well as a mainstream outlet for the discussion of alternative design styles. Theoretically-based articles and papers have encouraged an open debate on the positive measurements of design principles on new urbanism residents, as well as calling new urbanist definitions into question. Several comparative studies have been conducted on conventional suburban communities and new urbanism developments to research the successes and differences. Indicators researched include New Urbanism Index of Neighborhood Characteristics (developed by Dr. Patricia Patterson, Oregon Health & Science). The index is a 29-item 3-point scale created to measure different types of neighborhoods to aid in gauging the pedestrian friendliness of built environments, and it is administered by measuring aspects of a resident's face block and the surrounding $\frac{1}{4}$ mile neighborhood area. The tool was pre-tested in 18 census tracts selected from census data. Reliability in was $r = .93$ in 29-item index (Patterson & Chapman, 2002).

NEW URBANISM AND AUTO DEPENDENCY

New urbanism's design approach claims to reduce automobile dependence through a combination of the following: (1) a reduction in the surface street distance between locations, (2) a mix in land uses, and (3) encouraging alternative transportation modes such as walking, bicycling, and transit. The principle goal is to develop a mix of services within walking distance of homes which should encourage residents to walk more and should allow them to accomplish more in one trip, resulting in an overall reduction in the number of trips. New urbanism designs incorporate narrow streets, human scale streetscapes that reduce auto access to create a more pedestrian friendly environment, and the use of a grid street system, which is thought to be a more accessible system, provide more trip route options, and therefore decrease traffic congestion.

NEW URBANISM AND SENSE OF COMMUNITY

According to existing literature on New Urbanism, social interaction may be generated and a sense of community may be fostered by design configuration and design elements, particularly through: a small distances between houses, a variation of housing types, a mix of services and uses, front porches, narrow streets, public spaces, and by pedestrian



The entrance and a typical street in Somerset (above), and a mixed-use corner facing the rail station at one of the accesses, and townhomes in The Crossings (below).



friendly amenities. New urbanists also believe that residents of mixed-use neighborhoods have more social interaction and a greater sense of community than residents living in neighborhoods that are zoned single use. To maintain a community identity that promotes a sense of place, they make use local architectural styles and materials, and contextualise new design patterns to those of the lay-out of neighboring communities.

RESEARCH METHODS

The research tries to understand the patterns of relationships between two or more variables within two communities. These variables include physical attributes of the developments and the residents' perception of sense of community and automotive dependence. The evaluation of the two developments, The Crossings and The Somerset, compares the design aspects as well as the residents' perceived sense of community and automotive dependence.



The park serving Somerset (above), and the park and gazebo at The Crossings (below).



Residents of both developments were surveyed regarding their design preference, sense of community, and automotive dependence as constructed from relevant literature. The survey consisted of four sections: section one examined the residents' sense of community; section two examined the physical characteristics of each development; section three investigated the residents' automobile dependence; section four addressed demographics, and the final question was open ended, asking what each respondent would change within his or her respective development. Surveys were distributed door-to-door over a 3-day period in November, 2002. Each survey included a cover letter, and follow up interviews were conducted with those participants who wished to provide further feedback.

To measure the accuracy of new urbanism in each development, the two developments were evaluated by using the New Urbanism Index of Neighborhood Characteristics (Patterson & Chapman, 2002).

RESULTS

Demographics - Based on the demographics questions, the two developments are very similar. Both have the same number of renters and homeowners, average resident age, average number of children in the household, dual income households, approximate household income, and education level. These demographic results support that these two developments are comparable communities.

Sense of Community - The results of the demographics support the idea that each development has the same positive influences on their sense of community. Both developments have a similar amount of sense of community among their residents, and residents of both developments know a similar number of individual neighbors on a first name basis. However, there is a significant difference in that residents of Somerset have lived in their development longer, a result which indicates that The Crossings created a similar sense of community in a shorter amount of time.

Design Features - The results of the index found that The Crossings had an overall higher score of 26% than Somerset. The Crossings scored 14% higher on the face-block characteristics and 41% higher on the neighborhood characteristics than Somerset. The two developments had some similar design characteristics such as small front yards and traditional residential designs. However, the developments differed in neighborhood layout as The

Crossings incorporates a mix of land uses, has more open space and parks than Somerset, which is purely residential.

Design Aspects Associated with Sense of Community - The Crossings residents correlate community parks and open space with promoting sense of community. Despite what residents reported, on-site community day care and a front porch on their home are both features that promote a sense of community by facilitating social interaction among families with small children and between neighbors. Somerset residents report that living on a cul-de-sac and looping street are the most important design features giving them a sense of community with neighbors.

Automotive Dependence - There is no significant difference between the number of licensed drivers in the household and the number of working cars or light trucks between The Crossings and Somerset.

The Crossings residents used more public transportation to get to work than those in Somerset, and Crossings residents also made more weekly trips than did Somerset residents. The Crossings residents drove less by themselves and walked more when they went food shopping. They also made more non-food retail trips in a week than Somerset residents. The Crossings residents drove by themselves more when they made their non-food retail trips compared to Somerset residents, but Crossings residents also walked more to their non-food retail trips than did Somerset residents. The Crossings residents walked more than the Somerset residents when they visited friends and family.

Results show that residents of The Crossings use more alternative transportation more frequently when they do their food shopping trips and visit friends and family. They also may make more shopping trips because the shopping is within walking distance to their residence.

CONCLUSIONS

1: What are the design features that distinguish The Crossings from the Somerset as a new urbanist development?

The Crossings is a pedestrian-oriented, mixed-use community, along with the inclusion of a wide range of housing types, from small-lot family homes, to townhouses, and condominium, a recreation component of three pocket parks with a community center and swimming pool, and neighborhood-serving retail stores. Somerset was designed as a conventional suburban development with typical architectural characteristics including wide curvilinear streets and cul-de-sacs, houses on same-size

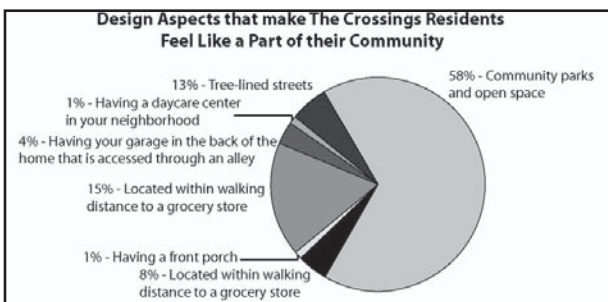
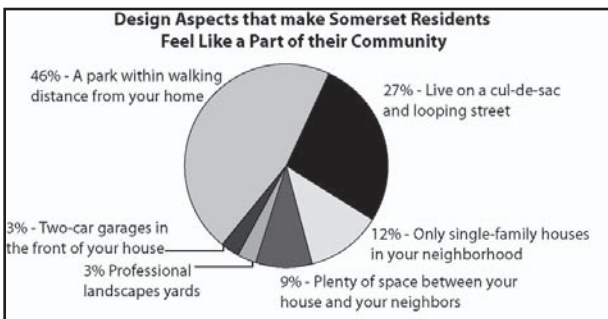
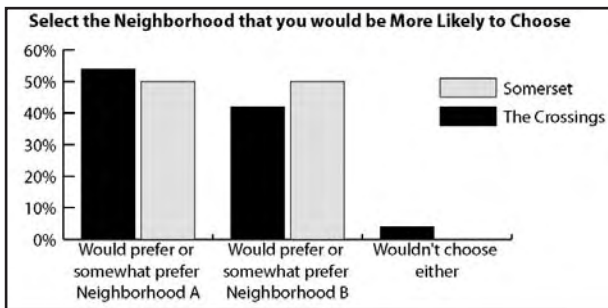
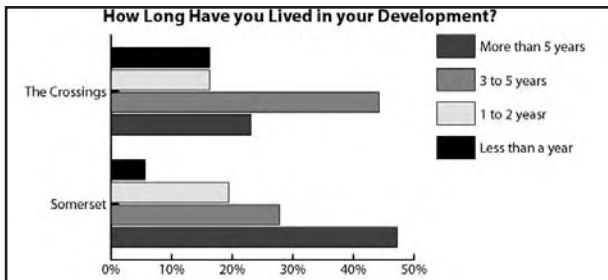
lots with the same architectural style. Somerset is strictly a residential development and does not include any other uses or services, landmark structures, or common areas.

2: Does the new urbanism development (The Crossings) provide for a greater sense of community within its neighborhood than the Planned Unit Development (Somerset)?

The data do not indicate that residents of The Crossings had a greater sense of community in their neighborhood than those residents of the Somerset development. However, it can be inferred from the results that The Crossings created a similar sense of community in a comparatively short amount of time. The high density design of The Crossings may account for increased frequency in interactions among its residents and may contribute to residents' sense of community occurring over a shorter time period than in a more conventional suburban development which doesn't create as many opportunities.

*The New Urbanism Index of Neighborhood Characteristics
Score Sheet for Somerset and The Crossings*

SCORE		ITEM
		FACE-BLOCK CHARACTERISTICS
3	2	1. Street interconnects with other streets
3	2	2. Intersections have right-angle corners
3	3	3. Street has sidewalks
3	2	4. Street has planted strips along walkways
2	2	5. Residences have front porches
3	1	6. Residential garages are not at the front
2	3	7. Residential styles are consistent
2	2	8. Residential facades vary
2	2	9. Residential designs are traditional
2	3	10. Street is interesting to pedestrians: visibility
3	2	11. Street is narrow
3	2	12. Block is small
2	2	13. Front yards are small
1	1	14. There are garage apartments
3	2	15. Trees are along the street at regular intervals
37	31	Subtotal
		NEIGHBORHOOD CHARACTERISTICS
3	1	16. There is a centralized area with civic buildings, office & retail space
3	2	17. There are convenient stores
3	2	18. The neighborhood has facilities for a mix of uses
3	1	19. Buildings have architectural variety and distinction, yet are cohesive
3	1	20. Commercial and civic buildings have minimal setback from street
2	1	21. Commercial streets have curbside parking
2	1	22. Commercial area off-street parking is away from sidewalks
3	1	23. Housing types vary across the community
3	2	24. Streets form a rectilinear grid pattern
3	2	25. Transit stops are convenient
3	2	26. Neighborhood streets have sidewalks
2	2	27. Street trees provide overhead shade
2	1	28. There are midblock alleys
3	2	29. A green open space provides neighborhood focus
38	21	Subtotal
Total Score		
75	52	



3: Which design aspects do the residents associate with a sense of community in their neighborhood?

The Crossings residents associate community parks and open space, residing within walking distance to a Safeway grocery store, tree lined streets, having a daycare center in the neighborhood, and having a front porch with a positive sense of community in their neighborhood. Somerset residents regard the design aspects of a park within walking distance from home, living on a cul-de-sac and looping street, having only single-family houses in their neighborhood, plenty of space between neighboring homes, and easy access to Highways 101 and 237 as the most important attributes of their sense of community.

4: Do residents of The Crossings have lower automobile dependence than residents of the PUD in their daily activities?

Residents of the Crossings seem to use their automobiles less than residents of Somerset in certain instances, such as food shopping and visiting friends and family. The data does not directly conclude that there is an overall lower auto dependency for residents of The Crossings versus residents of Somerset.

Despite the constraints of this study, limited by the number of comparable developments and the self-selection bias, it seems that the case study method is the most appropriate strategy when the study is to be based on a social phenomenon such as sense of community and automobile dependence. Although comparative studies may not be exhaustive enough to adequately evaluate new urbanism against suburban neighborhoods, this research provides useful foundation for looking into future topics on new urbanism principles.

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Margarita Village **Meeting the Housing Needs** **of San Luis Obispo City:** **An Exercise in Interdisciplinary Learning**

As San Luis Obispo County becomes inundated with over a million new residents over the course of the next 20 years, existing communities will need to expand and develop new areas on their urban fringe to accommodate the growth. One possible area is the Margarita Ranch site, in southern San Luis Obispo City.

This site, directly north of the Regional Airport and adjacent to the South Street Hills, was chosen by a joint City and Regional Planning/Landscape Architecture course (CRP 341/LA 452) in the fall of 2002 as a way for students in the two programs to interact and participate in an interdisciplinary learning environment.

One proposal for the Margarita Ranch site was a development titled Margarita Village. The proposal featured 628 apartments, 217 townhomes, and 274 single family homes. This plan was designed using a series of case studies, which included Laguna West, California; Bonita Springs, WaterColor and Seagrove Beach, Florida; Orenco Station, Portland, Oregon; and Deventer, The Netherlands. These case studies encouraged the concepts of compact urban form, human scale design, and a sense of place.

The challenge in designing Margarita Village was integrating it into the surrounding urban form. The site is bordered on the north by hills and on the south by an airport. The east and west sides, however, contain the natural expansion of the City of San Luis Obispo over the past few decades. The result has been a no-man's-land between the two areas of development. Additionally, high-capacity power lines from the Diablo Canyon Nuclear Power Plant run through the middle of the site. The City is also planning on extending a major east-west road (Prado Road) through the site in the near future, and the proposed development needed to take advantage of this feature.

Before designing the details of the proposal, the team created a set of objectives, program requirements, and design concepts that aided the developmental process. These objectives stressed the ideas of a vital community, and integrated context, providing unique housing opportunities for residents, providing parks and recreational services

to the residents, promoting economic opportunities, and utilizing the concepts of sustainability with respect to building design and siting.

The specific plan that was generated from these objectives created a unique, 400 acre community. The design utilized a modified grid system and built off of the existing system used in the neighboring development while maintaining a context to the geographic landforms of the site. Street design was a key element of the proposal, and all roads included some form of shading. Residential streets were limited to a right-of-way of only 48 feet, where only 23 feet was for vehicle travel.

In addition to the homes mentioned, a central commercial area was created with a community center as the main focal point of the project. Radiating out from this, in decreasing density, are the residential developments. Directly north of the community center is a proposed elementary school and park. In the south-east corner of the site, along a major north-south thoroughfare, is a proposed business park. On the south-west side is a regional park. Running throughout

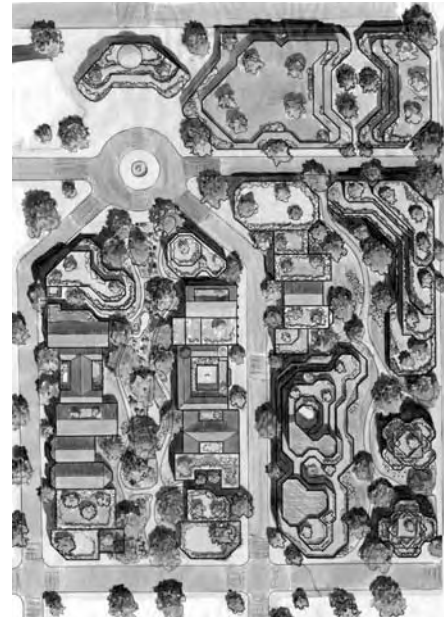


Sketch of the central promenade in the commercial center of Margarita Ranch.

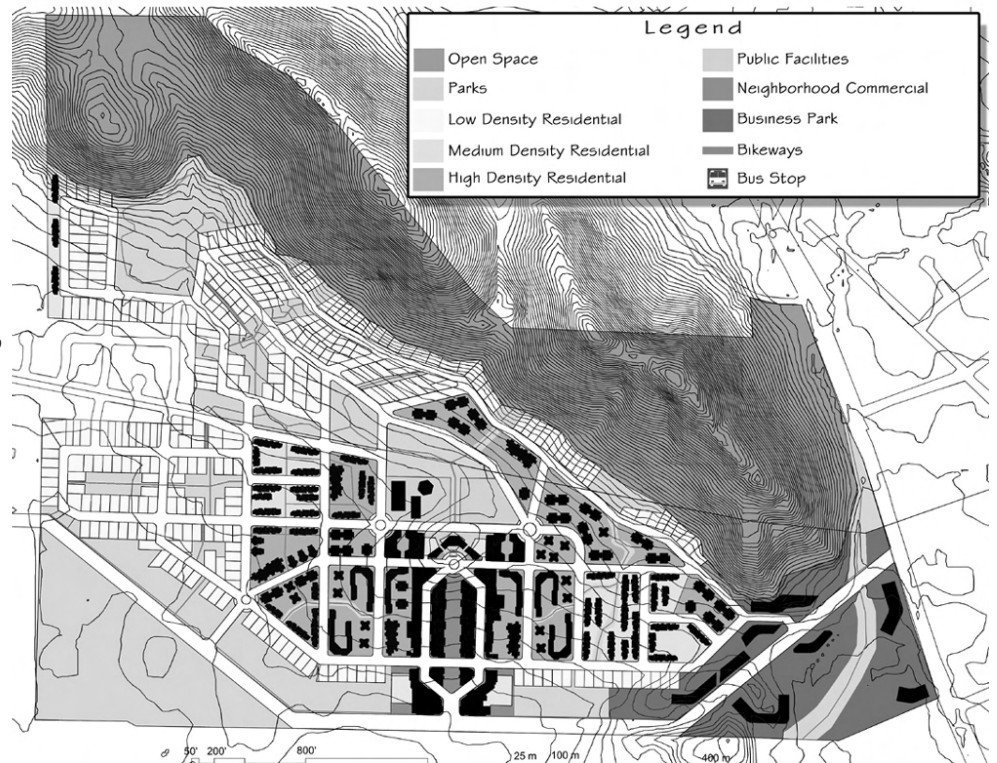
the site is a series of green-ways, with bike and walking trails. These green-ways connect all of the parks and provide a more direct connection between the residential and commercial portions of the site.

To meet the sustainability element of the proposal, most buildings utilized a terrace design, where each additional floor of development had a smaller floor area than the previous. This helps to increase the amount of solar light available to the lower floors of the buildings, as well as to the streets. Roof-top gardens were also created, which help to cool the buildings during the warm summer months. Several of the creeks present on the site were incorporated into the proposal as design elements, maintaining their natural course and features.

The opportunity to engage in joint work with City and Regional Planning and Landscape Architecture students was a valuable experience in building interdisciplinary coordination. Additionally, this proposal was presented to City staff, who welcomed the suggestions made by this design.



View of the commercial area and town center.



Margarita Specific Plan site map

International Exchange



Paul Wack

AICP, Associate Professor
City and Regional Planning Department

New Zealand's Search for Sustainability

Ideas for California Planning

New Zealand, or Aotearoa to the native Maori, is a small island nation of 4 million people and 47 million sheep, located across the Tasman Sea from Australia. The home of the Kiwi (an endangered bird, a popular fruit, and the friendly people) is about the size of Colorado, although the shape of the north and south islands would approximate the elongated length of California.

Much of New Zealand would remind us of Oregon and the Sierras with their majestic Southern Alps. Overall, New Zealand reminds me of California during the 1950's, before urban sprawl kicked in with a vengeance. As a former British colony, New Zealand had followed the traditional Town and Country Planning model, until the early 1990's when sustainability became a major interest to a wide range of national politicians and officials, planners, and citizens. Unlike the U.S., New Zealand has been very active in attempting to address global issues at both the national and local level, especially since the 1992 Earth Summit in Rio de Janeiro, Brazil.

New Zealand has been in a continuous mode of land use planning reform, beginning with a major overhaul of its governmental structure in the 1980's. In a spirit of economic liberalization, they reduced 800 governmental units down to about ninety, including dividing the country into fourteen watershed areas for future planning. In 1991, the Resource Management Act (RMA) was enacted as a result of a nationwide debate about how to manage their natural and physical resources, an effort guided by the



Downtown Christchurch. (Photo: P. Wack)

strength of the national government and the charisma of its leadership at the time.

I was in New Zealand on sabbatical to celebrate the 10th anniversary of the RMA in the fall of 2001 and had the opportunity to meet with a wide range of national officials, local planners, and citizens to discuss the success and failures of the RMA. I found that the reactions were mixed, but generally hopeful. For example, the RMA calls for local governments to prepare "district plans", which are equal to our General Plans at the county and city levels. To date, about a third have been certified by the national Ministry of the Environment, a third have been submitted in draft form and are awaiting certification, and the remaining are tied up in the Environment Court awaiting final action; a mixed outcome at best.

However, with only a little over 10 years of collective experience, it is too soon to pass a final judgment on the effectiveness of the RMA at present. In my opinion, the RMA is a grand experiment of environmental policy that



The national government center in Wellington, also known as "beehive". (Photo: P. Wack)



Downtown Christchurch. (Photo: P. Wack)



Avon River. (Photo: P. Wack)



South Island east coast (Photo: P. Wack)

is worthy of more time to mature in order to learn from its mistakes and successes, and to evolve into a model for local planning across the globe.

During my most recent visit to New Zealand in the summer of 2003, I learned that additional reforms were in the works that may aid local governments in promoting good planning practice. Their Local Government Act (LGA) was recently revised to improve local planning through monitoring and reporting of plan implementation. Moreover, local governments were given more power to administer their planning programs, which is a big deal for a government based on a strong national executive branch and not familiar to the California experience. I also discovered through numerous interviews across the country that the LGA reforms were not connected very well to the RMA, generating some confusion about land use planning and environmental factors.

In addition to the promise of the RMA and LGA reforms, New Zealanders were moving forward on the sustainable communities' bandwagon through a unique effort of bridging "quality of life" issues with the growing interest in local community sustainable indicators. During my last visit to Aotearoa ("the land of the long white cloud"), I focused on an effort that I learned about at the end of my previous sabbatical visit in 2001, a collaborative report compiled by six of the nation's largest cities focusing on the state of the quality of life in New Zealand. It was a remarkable effort to assess the well being of a nation with a population becoming increasingly urban while remaining traditionally rural in many respects.

Knowing that a new report was to be released in 2002, I planned my return trip accordingly, expecting that the report would be released in plenty of time to review and prepare for extensive interviews of the participants. As with any major effort though, delays happen. I returned to find that the new report had been expanded to include the eight largest cities representing almost half of the total national population, and that it would not be released until early October, almost a month after I would have to return to Cal Poly to start Fall Quarter classes. Argh!

However, the report was released in late October, and is now available on the web site www.bigcities.govt.nz. The major benefit of this effort has been the improved relationship between the national government and local cities in working

toward the goal of improving the urban environment of New Zealand, which is undetectable by the typical tourist's radar emphasizing outdoor recreation, green landscapes with grazing animals, quaint vineyards, beautiful mountain and rivers retreats, and sites where Lord of the Rings was filmed. New Zealanders, however, are very concerned about the future of their cities and are seeking ways to address well known urban issues that are mostly ignored. They understand that in order to achieve a good quality of life and a sustainable society, the issues confronting their urban communities must be addressed.

My work in New Zealand has informed my teaching at Cal Poly. As a founding member of the "Sustainability Movement" in the College of Architecture and Environmental Design, I have been able to include New Zealand's efforts as positive examples in my lectures on green plans and sustainable communities in our popular EDES 406 course. In my CRP 336 course also, we have devoted the last two years developing a web site to promote the use of community sustainable indicators for application at both the community and campus levels in San Luis Obispo County.

The possibilities for studying planning in the international context are limitless. I am excited to see that my goal of generating a long-term New Zealand exchange program to encourage student interaction between our nations is starting to take shape. In the summer of 2004, a group of planning students from the University of Auckland will be visiting the Central Coast, and three CRP majors are currently attempting to be the first wave of students to attend the University of Auckland this fall. I have also been working with Lincoln University, near Christchurch, to establish a student exchange program. It is very important that our students understand that we are a part of a larger community of nations and people, which I deem critical to the future sustainability of our nation



*View of Downtown Auckland.
(Photo: P. Wack)*



*Downtown Christchurch.
(Photo: P. Wack)*

Field Trip and Project in Mexico

Spring Break 2003

Michael R. Boswell

PhD, Assistant Professor
City and Regional Planning Department
Cal Poly San Luis Obispo

Mexico is full of contradictions. The most noticeable is the lavish wealth next to miserable poverty, the people's desire to be modern but ambivalent about change, and the beautiful craftsmanship of food and art in the context of half-finished, disheveled buildings.

But it was not until we had spent too many hours on a huge bus driving tiny, twisty mountains at night in rural Oaxaca that I began to feel Mexican. Since I was responsible for 18 Cal Poly students, I stayed awake all night in a mild panic that something would go wrong.

I continuously cursed my decision to leave the relative safety of Puebla, Mexico for this seemingly endless excursion. Several hours later while sitting on the beach in Puerto Escondido enjoying great food, drink, and music, I was continuously asking myself how we possibly could have skipped this place. This was our Spring Break 2003 study in Mexico trip; an exploration of contradiction.

Professor William MacElroy and I, along with 18 students from City and Regional Planning, Landscape Architecture, and Architecture traveled to Puebla, Mexico to engage in a cross-cultural exchange of knowledge in planning and design with faculty and students of Benemérita Universidad Autónoma de Puebla (BUAP). Our initial goals upon arriving were to learn how the BUAP students and faculty approached planning and design challenges and learn about



Students and faculty in Puebla. (Photo: M. Boswell)

Mexican history and culture through some touring. Our main goal, though, was to engage in an interdisciplinary, cross-cultural planning and design “learn-by-doing” experience. The focus of our effort was the La Mora site, a rectangular piece of land of approximately five acres located in a lower working class neighborhood in Puebla, Mexico. The site has flooding problems and, at the regional scale, is a relic piece of a historically extensive drainage and lagoon system that has undergone dramatic change due to long-term climate changes and encroaching urban development. We sought to understand and respond to these changes and the active cultural processes still impinging both upon the function of the system and the resultant quality of life.

This challenge was continuously complicated by contradiction. Downtown Puebla, Mexico is a beautifully rich urban environment which has been designated a World Cultural Patrimony site by UNESCO. The 2,000 Colonial Era buildings give the place a decidedly European feel and wealth and the things it buys are on display in the shops and streets of the city. Our project site in, on the other hand, was surrounded by do-it-yourself, partially completed



Local home restaurant. (Photo: M. Boswell)



Images of the field trip. (Photos: M. Boswell)

construction of drab, boxy buildings made from questionable materials. Do we acknowledge the reality of poverty and create cheap, minimalist designs or do we strive to capture the beauty of Colonial and pre-Colonial designs?

Our work with the Mexican students and faculty was the most rewarding aspect of our trip. They were enthusiastic, generous to a fault, and possessed excellent graphic skills. However, they seemed to lack a sense of urgency or pragmatism in their disciplinary approaches. We struggled to identify the community's problems and possible range of solutions. All the energy and skill of the Mexican students was directed into visionary designs that seemed impossible to implement in the context of the site we had visited. How had the reality of the La Mora community failed to impact students who had the talent and enthusiasm to make change?

It was not all work. We also toured the region to better understand Mexican history and culture. The touring included such places as the historic Puebla downtown, the ancient pyramid at Cholula, the warm beaches of Puerto Escondido, the magnificent ruins of Monte Alban, and the incomprehensible gathering of 30 million people that is Mexico City. All the contradictions followed us, and were equally evident throughout the tour, but they demonstrated to me how I think contradiction is good. It creates intrigue, excitement, and possibility. Mexico's biggest contradiction is one that need not be explained: No matter where we traveled, no matter how poor the people seemed, they were happy.



Example of student work. (Photo: M. Boswell)

Summer Quarter in Puebla, Mexico

Sarah Behm
BCRP Student
City and Regional Planning Department
Cal Poly San Luis Obispo

Being able to spend a whole summer studying at the Benemerita Universidad Autonoma de Puebla, in Mexico, and participating in the joint effort of this university with the CRP department are two of the advantages with its international exchange agreement. Once experienced, these are experiences that change your perspectives of life and of your profession.

Currently I am a 4th year City and Regional Planning student at California Polytechnic State University. Until this last summer I was the average student in our department. I had a typical internship with a government agency and kept myself busy with school, student clubs, and friends. However, now I am proud to say I have been exposed to a new way of living and thinking. I am no longer the average city and regional planning senior, and my resume is no longer identical to the rest.

For a little over three months during the summer, I participated in a departmental exchange program in Puebla, Mexico. The City of Puebla is located approximately 80 miles southeast of Mexico City at an elevation of 7,000

feet. When I was about to board the plane heading off to this large Mexican city of 1,346,000 inhabitants, I felt a strange mix of fear, excitement, and uncertainty churning inside. At the University I would attend, Benemerita Autonoma Universidad de Puebla (BUAP), there would be a large number of students who only speak Spanish. How would I be accepted by them? How would I adjust to a new lifestyle? Many questions scattered through my mind, but within my first week they were all answered positively.

When I arrived to Puebla, I immediately felt welcomed. During my stay, I lived with two different Mexican families, where I experienced two different ways of living, communicating, cooking, celebrating, and loving one another. Both families were so accepting I felt like an adopted daughter. The students and professors at the University were equally accepting, and went out of their way to make me feel at home, a cultural characteristic we usually don't see in America.

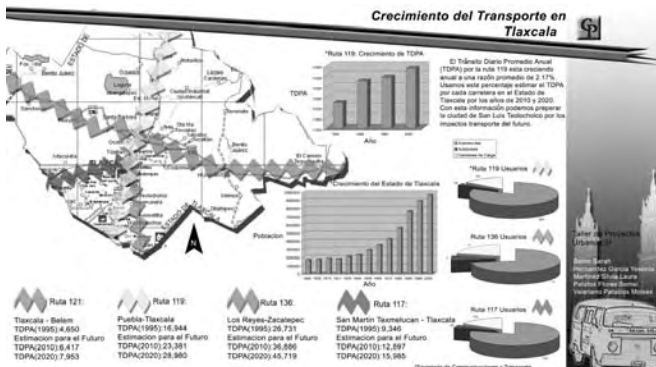
The city itself was also easily accessible and pedestrian friendly. I quickly learned the bus system in order to get to school and to the city's central area where I was exposed to the spatial and architectural expressions of their deeply rooted



Puebla's Cathedral. Photo: Sarah Behm



Sarah Behm in Puebla



Sarah's team project in Puebla.

culture. Here I noticed the importance of caring, religion, and humor in Mexican culture through the interactions of people and the layout of the commercial districts, which are designed to integrate religion, history, business, and entertainment. There wasn't one city I visited in Mexico without a "zocalo" or central core. Just as Mexicans hold their families close to their hearts, they also find it essential to build a heart of a city where the community can come together as one. Located in these central areas are generally main government offices and large plazas used daily for either strolling or special celebrations, as seen in the picture of the main church and central plaza in the heart of Puebla.

Aside from living and traveling, I found my most beneficial experiences inside the classroom at BUAP. Through my courses, I was exposed to not only a new language, but also to new theories and perspectives on urban planning. I participated in two design labs, each with a main focus to create a sense of place within a location that tied directly to its history of use. This was particularly important in one lab where we conducted a transportation design study for a small community (see figure). The other lab focused on creating a strong vision and central theme for our selected site, which would later be used for our final design, as was heavily emphasized by the professors. In working with both my groups I thoroughly enjoyed expanding my mind to new ways of planning, processing, and expressing information. Both groups were also very open to combining educational techniques and solutions in order to produce an innovative result.

The other two courses I participated in were Urban Law and Urban Ecology, in which I was exposed to the evolution of planning in Mexico. Currently there are many laws existing

in Mexico to regulate the environment and other planning issues, but they are rarely implemented correctly, and sometimes not implemented at all. After being immersed in a classroom setting, I perceived a strong pressure being put on students to protect the environment through stricter laws and regulations. I am sure that when these students enter their careers they will help strengthen environmental protection policies, which is much needed in Mexico.

My trip benefited my future in many ways. Not only am I able to speak Spanish in a U.S. state where over half of its population is from a Latin background, but I am also able to be more open and respectful to the ideas of people from different backgrounds. I feel that living amongst different cultures is essential for any planning education. An opportunity to study planning in another country can allow us to look at the same planning problems we have been studying throughout our college careers in a whole new light. These new perspectives, places, and experiences can expand our planning knowledge, constructing openings to new waterfalls, rivers, and streams of knowledge from minds across the globe.

Two Quarters in Rio de Janeiro

The Carioca Experience

Sierra Russell

BCRP Student

City and Regional Planning Department

Cal Poly San Luis Obispo

The literal definition of the word “carioca” is a native or inhabitant of Rio de Janeiro. However the meaning behind it goes far beyond merely place of residence. It describes a good-hearted, friendly, generous and humorous state of spirit in an often chaotic, loose system where punctuality is optional, social relations are essential, delays are inevitable and contradictions are evident.

This is the system I was introduced to for seven months as a City and Regional Planning exchange student in the School of Architecture and Urbanism of the Federal University of Rio de Janeiro. My “carioca” experience far surpassed any expectations I held before my trip. The exchange not only offered me new academic options, it contributed to my personal growth through immersion in a culturally enriching environment.

Rio de Janeiro is one of the most interesting urban areas to study planning. It is a city where spontaneity reigns and planning frequently occurs to resolve a problem, rather than prevent one. I learned this first-hand when I worked on an urban design study for Madureira, a district constituting an important commercial and cultural pole for the north zone of the city. The project site, bisected by two railroad lines and a major overpass, was unlike any other place I had experienced.

During my first site visit I left with blank paper, overwhelmed by the amount of information to process. Analyzing the site posed completely different design problems such as strengthening linkages between divided neighborhoods, providing better transit options for an area where over



Port area in Rio. (Photo: S. Russel)

500,000 people travel daily, or revitalizing a dense commercial district containing great cultural significance. All of these factors contributed to a fascinating study and design proposal for an extremely complex urban area.

My other coursework was just as interesting, and included creating an exposition on design solutions for urban waste and a comparative study of Californian and Brazilian architecture. I was also fortunate enough to participate in a national convention of architecture in Rio where I attended lectures by well-renowned professionals, including one by the world-famous architect Oscar Niemeyer.

The academic setting of the university was inspiring for me, with frequent guest lectures, dedicated architecture students, and coursework with group projects that allowed me to network with Brazilian students and faculty. I was so intrigued by the planning projects occurring at the university and in the city, I decided to complete research to develop my senior project on a topic in Rio. As a result, through contacts with Brazilian professors and students, I am currently working on an urban design concept for tourism development in the Port area of Rio, coinciding with the recent revitalization plans for this area.



Downtown Rio. (Photo: S. Russel)

Beyond learning from my academic experiences, were the lessons I learned from daily living in Rio de Janeiro. From catching the bus to the friendliness of strangers, the Carioca system is a looser configuration where unexpected events like street fairs or incredibly long lines are normal. The city is full of contrasts, with luxurious high-rise apartment buildings next to the largest slums in South America, also known as favelas. While I was in Rio, it was hard for me to believe a city with such spectacular scenic beauty and gracious residents could be riddled with such extreme urban problems of violence, poverty, environmental degradation, and congestion.

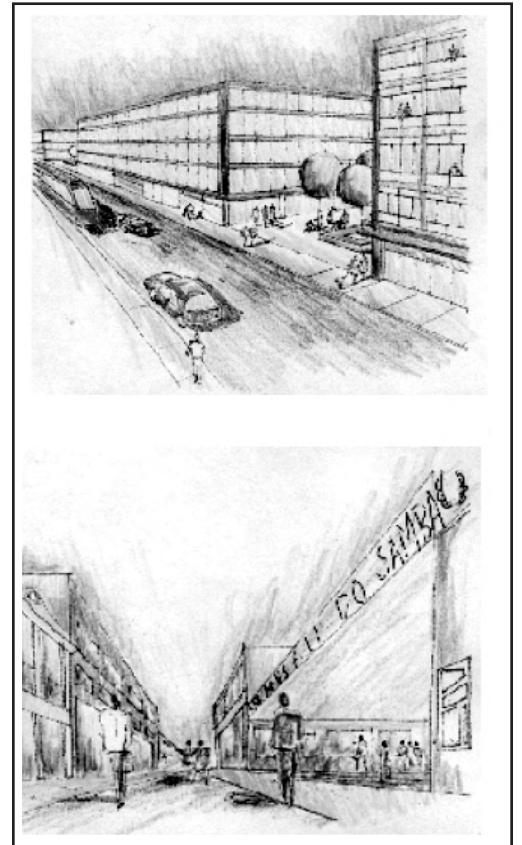
My stay in Rio always seemed to be full of exciting options that left me so enamored with the city. Whether it was viewing the *desfiles*, or samba parades, of the Sambodromo during Carnival from box seats, or visiting Rocinha, the largest favela in South America, I was amazed by the complexity and differences of Brazilian culture and life. Yet at the same time, it was impossible to feel like an outsider with such an overwhelmingly warm and welcoming population. I left Rio truly filled with an incredible appreciation for its *carioca* culture, and even feeling *carioca* at heart.



Project site in Madureira, Rio de Janeiro, and concept sketches by team mate J. Guimaraes.



Contrast between a historical building turned museum and a modernist skyscraper. (Photo: V. del Rio)



Senior Project in Florence, Italy

Brianna Sadie Holan
BCRP Student
City and Regional Planning Department
Cal Poly San Luis Obispo

Imagine waking to a gentle winter sun warming your bed, and then walking fifty paces to a neighborhood café where the barista already knows what you're going to order as you walk in the door. Afterwards, you spend a good portion of your day people watching and studying behavior in an open piazza. You shop at the neighborhood grocer for meats and breads but save the fresh produce and cheese purchases for the open-air market. And finally, in the middle of the night when cravings for sweets strike, you find a bakery selling its next day's goods hot and fresh from their back door. I experienced these moments and more during my six-month habitation in Florence, Italy.

Last winter, I was given the opportunity to pursue an independent study for my senior project in Florence and it will remain one of the most valuable experiences of my life. I was able to tour most of Italy and many Western European cities. However, it was living in the birthplace of the renaissance what truly enabled me to appreciate the culture I was immersed in.

While there I attended lectures and field trips in conjunction with the Cal State International Program. I learned how Italian architecture and urban patterns continue to influence much of the world today. For my senior project, I joined a collaborative effort to revitalize the City of Livorno's Maritime Port, a large-scale redevelopment that gave rise to revitalization opportunities throughout the City. During this exploration and over the entirety of my time in Italy, I learned about the Italian perspective in the field of urban design. The following photos and descriptions are my attempts to articulate these lessons:

Dominance of Urban Public Spaces

I found myself loitering in a public piazza (town square) at least once a day. We sought them out to eat lunch in the sun, or meet each other to embark on an outing. Living on the outer edge of the center, Piazza Santa Croce was our first linkage to the rest of the City. It is the simplest imaginable form, an open paved rectangle surrounded by shops and housing on three walls and the magnificent Santa Croce Cathedral at the eastern wall. There is no provided seating, with the exception of the steps of the church.

The hours I spent in the many piazze of Florence are some of my fondest memories. From time to time during the evening we would play calcio (soccer) in the piazza and were joined by various passers-by. There was always an immensity of activities from puppet shows, street vendors to the occasional full-scale concert.

Dense Housing Works

Our 8-story apartment building had a large open atrium in the back that allowed all the apartments adequate sun exposure. The advantage of this exposure directly into my bedroom allowed me to bask in the sun during my siestas or enjoy while reading on the windowsill, even during the cold winter months.

The design of this building was such that I never felt I was in a dense place. The apartment never felt cramped, even with five of us in three bedrooms. I owe that to our 12-foot ceilings and fairly large floor plan. We always fear noise as the main problem with dense living, however I never felt disturbed by any loud conversations, music or the like. In addition, there were enough parks and piazzas to never be wanting for open space. We hung our laundry from the back balcony and attempted to grow basil from pots (no green thumbs here). Living in a dense neighborhood made me feel



Brianna in her Florence bedroom. (Photo: Y. Okano)

more connected to my community. Through the glimpses of Italian families surrounding us we learned the cultural methods of living in this type of environment, (its ok to block your downstairs neighbors' view with a drying sheet once in awhile).

Vitality in Complete Neighborhoods

Although our neighborhood was located on the edge of the historical center, it was not lacking in any commercial development. Less than a block away we had two cafes, a butcher, a bread shop, a tobacco shop, a fruit and vegetable shop, hardware and houseware stores, an electronic store, a general market, stationary, clothing, an organic food store, and even a small train station. I never had to go far for practically anything I ever needed. It was a complete paradigm shift to not consider using a car as a more convenient mode for daily errands.

Additionally, after becoming familiar with the clerks and other regulars, I really felt that I was part of a community. I enjoyed friendly conversations and the occasional free food samples at shops frequented. The daily connections with working class Italians in my neighborhood was the most valuable immersion of the culture I experienced. I can't say a foreigner in the US receives the same connections in our typical neighborhoods.

Development Limited to Urban Areas

I took different trips on buses and Vespas out into the countryside of Tuscany. While it is important to note that sprawled development does exist, the majority of rural areas still remain undeveloped. Its remarkable that in a City as old as Florence, development has for the most part remained inward. A fifteen-minute walk can get you to a landscape of vast hillsides dotted with Italian Cypresses and the occasional 500-year-old Tuscan Villa. Driving through the rural roads between olive groves and vineyards made this city girl truly appreciate the importance of agriculture as both an economic and visual resource.

Historical Preservation and Enhancement

Florence is a living museum. There is an overwhelming wealth of architectural masterpieces throughout the center. For Italians, these places mark pride in the accomplishments of their culture. Historical buildings are constantly being washed and restored. The attention given to these buildings catalyzed the experiences I felt in their presence. I was often

overwhelmed by the grandeur of these cathedrals and palaces. Pictures can never do them justice. I continue to feel fortunate for having witnessed them.

Alternative Transportation Choices

I did not have a car and I did not need a car. I did have a bike, however, all I really needed was my feet. The buses and trains could reach just about every destination I could imagine. I never felt inhibited or immobilized by the fact that I had to take public transit or walk. The presence of so many choices of transportation modes coupled with the cost and difficulty of navigating streets in a car makes public transit the natural choice for a large percentage of Italians. I felt liberated from the confines of auto-dependency so prevalent in the US

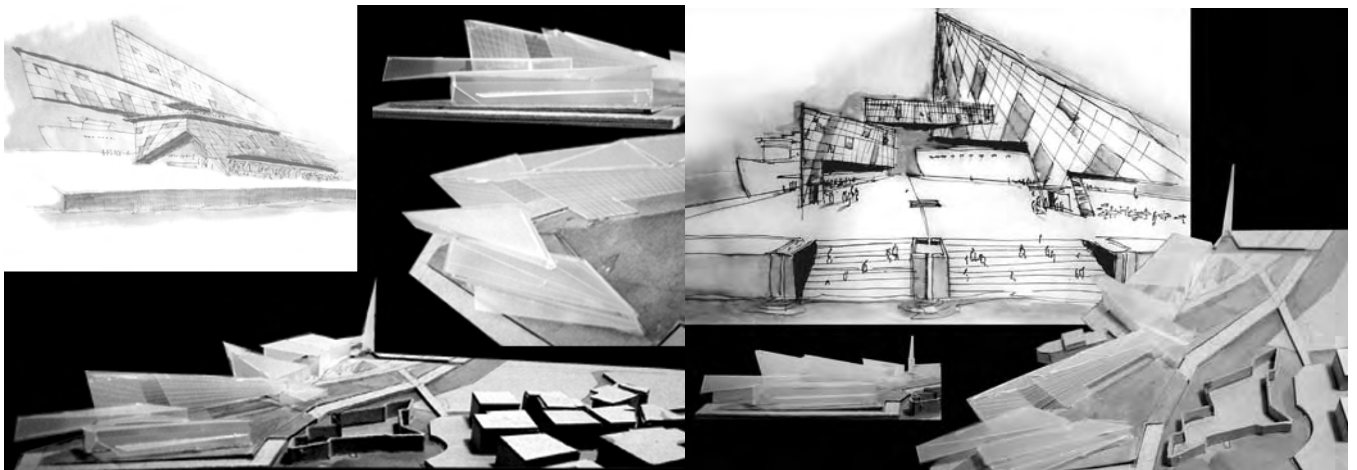
In returning to the United States, these lessons from abroad have revealed to me powerful and appropriate solutions to our struggles with sprawl and separated development trends. In Italy, these lessons are a social norm due to a cultural consensus to not let consumerism and car culture overshadow an individual's connection to a place. Instead, the city is shaped to promote a desirable quality of life. The United States should look to Italy as a model of appropriate development where people and culture take precedence over profit and property rights.



*Piazza Santa Croce.
(Photo: B. Clae)*



Exploring the Tuscan countryside with a Vespa.
(Photo: Y. Okano)



Models and sketches of Final Project: Port of Livorno Revitalization project (Photo: Y.Okano)



Neighborhood cafe.
(Photo: Y. Okano)

Alumni Work
MCRP Theses

Spotlight

Conversations with Alumni Recent Graduates from the City and Regional Planning Department Cal Poly, San Luis Obispo

This section will always feature work by CRP alumni. For this issue, we sent out a brief survey to our recent graduates from the undergraduate and graduate programs, asking them some questions about their present professional work and their feelings about their education. Here are some of the answers from our “conversations”.

Erin Bishop

Hunsaker and Associates San Diego, Inc.

After graduation Erin obtained her real estate license. She currently works for Hunsaker and Associates, a private Planning/Civil Engineering firm in San Diego. She works compiling large, complex submittal packages, performing research at all the public agencies, submitting controversial housing projects to City staff, and managing the development team members (architect, client, developer, and outside consultants). Erin is considering sales as a next step in her career.

Scott Swanson

BCRP Class of 2001

Forestry Technician

Instead of taking a traditional planning job, Scott started working as a Wildland Firefighter with first, the National Park Service, and currently, the U.S. Fish & Wildlife Service. Within the wildland firefighting profession, he has found that there are numerous upper level positions with planning related field work, i.e., Prescribed Fire Specialist and Regional Fire Planner. His advice to current students is not limit yourself to a strickly “planning” profession. CRP’s curriculum offers a broad aspect of employment opportunities to consider after college. He suggeste students should explore as many fields and subject matters as they can during school, and to get involved in student organizations and extra curricular activities. “You will learn more, as far as interpersonal people skills there, then you most likely will in any classroom.”

Michelle T. Brzezinski

BCRP Class of 1998

Currently Michelle is enrolled in Brandeis University in Massachusetts and will graduate June 2005 with a Masters of Arts in Sustainable International Development. She has been involved in the Peace Corps, Historical Preservation

Planning of a Colonial (architectural styted) town in El Salvador. She plans on narrowing her specialization in International Project Planning and Development to focusing on social justice.

Alfredo R. Castillo

BCRP, June 2003

Alfredo’s first job since graduation is with RRM Design Group working in very busy Central Valley Office as an Assistant Planner. He has have developed specializations in Community Planning, in terms of writing, and putting together graphics for small communities in the central valley, as well as skills in computer aided design and mapping work. These community plans usually include land use plans, circulation, parks and open space, and community design guidelines. Alfredo’s future plans include obtaining AICP



Michelle Brzezinski

certification, becoming more involved with the local APA chapter, and attending law school.

G. Brett Clavio

MCRP, June 1998

Brett worked with ISOCARP (International Society of City and Regional Planners) on a Dutch sponsored transportation planning project for young planners in Cairo, Egypt last year. The project involved linking the island of Almere with the Randstadt Region and Amsterdam. He specializes in transportation planning, architecture & design. Brett is considering fellowship in Spain this fall.

Brandon Smith

BCRP, June 2001

After graduating in Spring 2001, Brandon went straight into the planning field. He continues his education occasionally through extension courses and workshops (i.e. CEQA & land use law updates). The local government agency he currently works for often covers the registration and related costs for these courses, as they annually budget some funds strictly for the purpose of employee training. His first job was working for the City of Visalia Planning Department as an Assistant Planner since October 2001. He is still employed at the City of Visalia today. Like most entry-level planners in local government agencies, most of his initial duties pertained to public assistance and the preparation of staff reports to the planning commission, though by now he wears several more

hats. In particular, Brandon reviews all of the department's in-house environmental documents, works with the County LAFCo in processing annexations, and acts as a staff representative for the City's Historic Preservation Committee. His immediate plans are to become an AICP professional.

Edith C. Martinez

Project Manager

New Economics for Women

Edith's first job after graduation was a Project Assistant for Non-Profit Developer. She has developed specializations in project management through design and construction. She is the project manager for the construction of a new 24-classroom elementary school to be sold to the local school district after completion in Los Angeles. Immediately adjacent to the school her company is also building 119-units of affordable housing with a community center. Her future plans are to continue developing innovative projects that incorporate a holistic approach with housing, school and recreation needs.

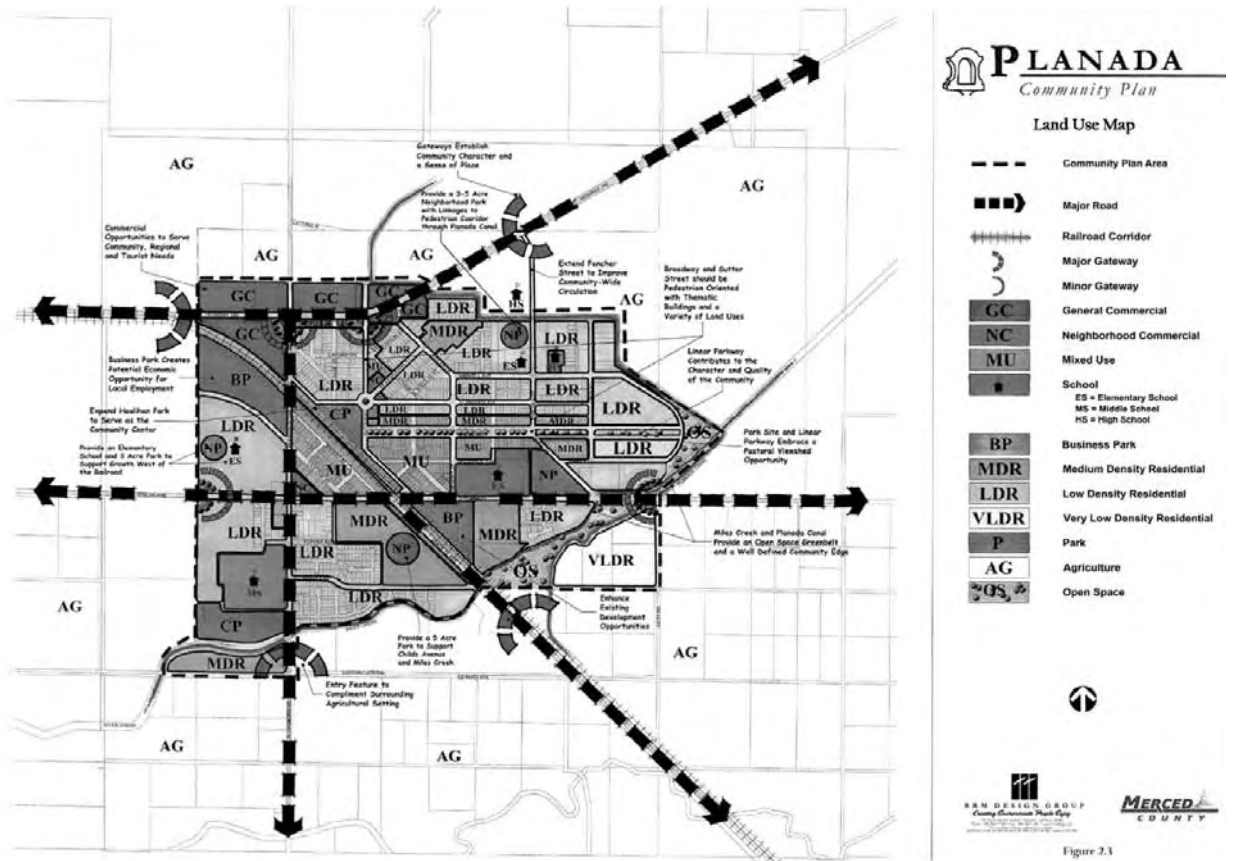
Norman Allinder

MCRP, June 2002

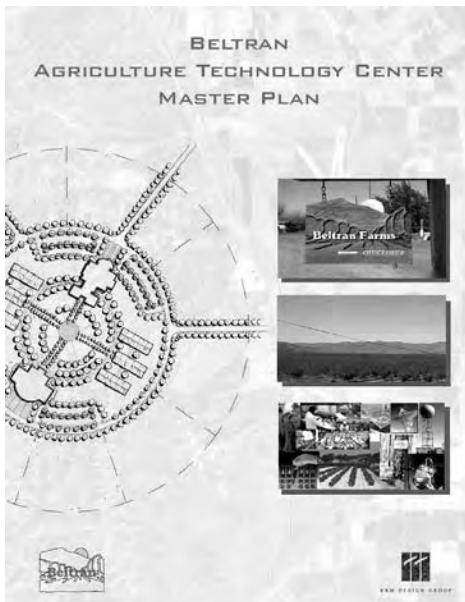
Norm first job after graduation from CRP's master program was with the City of Fresno Planning and Development Department. In Fresno, he utilized most facets of planning in a municipal planning agency, and his work included mostly large infill projects. He is currently working at RRM Design Group in Oakdale, California, where he is primarily involved in master planning for new neighborhoods. He is scheduled to take the AICP certification this May.



Brett on the far side, during a session of the International Planning Congress in Cairo, International Society of City and Regional Planners - ISOCARP, 2003.



Planada Community Plan, example of work by Alfredo R. Castillo at RRM Design Group



Beltran Master Plan, example of work by Norman Allinder at RRM Design Group

Thesis Abstracts

Master of City and Regional Planning, MCRP

Cal Poly San Luis Obispo

This is a reference list for all theses – titles, author names, and abstracts – that have been defended by MCRP candidates and approved by the CRP department, from 2000 to 2003. They represent the research interests of faculty and students. You may consult any of these titles in the CRP department, at Cal Poly's Kennedy Library, or through interlibrary loan.

Community Indicators: A Case Study Analysis of the Effects of Indicator Projects on Sustainability and the Policymaking Process

David Crook, 2000

Indicators are a tool for planners, decision makers, and the general public to monitor and affect changes within their communities. They develop common visions and issues through consensus-building, and diffuse potential conflicts of interest related to future policy decisions. Additionally, indicators keep the general public, planners, and decision makers informed as to the state of critical issues within the community.

Paradigm of Unified Continuance

Sung H. Kwon, 2000

The planning profession has gained several theories through its evolution. The constant redefinition of planning has caused a fragmentation in comprehensive planning. Addresses the complexity of content, fragmentation, unification, time, and integration of planning.

Transportation Demand Management

Martha L. Neder, 2000

Attempt to maximize movement of people, rather than vehicles, by reducing amount of trips by single occupancy vehicles or at peak times. Explores the issue of providing mobility for workday trips - reason for most unsuccessful transportation demand management programs. Work-based travel demand does not prevent employees from participating in employer based transportation management programs, especially combined with shared vehicle programs.

Affordable Housing in Northern California: A Third Sector Approach

Colleen Aiko Oda, 2000

An investigation of the role of third sector housing organizations in providing affordable housing for low

to very-low income families in the East Bay region of Northern California. Extensive research on case studies and application of theoretical concepts used to determine the successes and pitfalls in this implementation approach.

Neighborhood Revitalization, Gentrification, and Displacement **Lissette E. Paralta, 2000**

Causes for blight are due to exodus of middle class, long periods of disinvestment and changing economic trends. Revitalization is used to rehabilitate decaying downtown areas and neighborhoods. If social and economic conditions of neighborhood are not addressed in the revitalization process, there is potential for negative effects.

Moving Beyond the Rhetoric: Implementing Principles of Sustainability in California Communities

Scott M. Duiven, 2001

Evaluation of California's General Plan model as a tool for planning sustainable communities. Seven planning strategies: growth management, environmental management, social equity, economic development, urban design, public participation, and governance. The majority of policies geared toward planning sustainable communities lack clear standards, direction, and accountability in the policies overarching goals.

Brownfields Reclamation: Implementing Elements of Sustainability

Nicole Lynn Nugent, 2001

Evaluation of the brownfields reclamation process relating to environmental, economic, and social enhancement. An analysis of the brownfields reclamation in relation to EPA's recommendations for sustainability offered with A Sustainable Brownfields Framework.

A Proposed Purchase of Development Rights Pilot Program for the Visalia-Tulare Greenbelt Study Area: An Application of Spatial Modeling

Chandra Slaven, 2001

Proposes to establish a theoretical and practical basis for a Purchase of Development Rights (PDR) Pilot Program to provide permanent protection of farmland and to revitalize the economy. PDR Pilot program would establish a pattern of rural properties that would aid in the conservation of rural agriculture environment.

Video as a Communication Tool in the Planning Field

Sonja Linnea Wadman, 2001

Video as a way to generate public interest and participation in planning endeavors. Videos shown through cable channels, public access stations, and in schools can be very effective communicators. Explores what aspects of short video segments can be produced with little professional support.

The Implementation and Impact of the General Plan in California

Elizabeth Ann Wise, 2001

The confusion and lack of consistency within General Plans are symbolic of the inattention to plan effectuation by the planning profession. General Plan has not been fully evaluated as a guide for land use decisions. Local agencies should accurately assess the status of their General Plan and adequately communicate information at both local and State levels.

Urban Village Development Code

Norman Allinder, 2002

Implementation strategies for the city of Fresno, California. Development codes prepared with the proper regulatory features can ensure consistency with and promote the intent of the general plan. This product seeks to organize some of the important requirements that relate to the urban village development in a coherent comprehensive neighborhood unit.

Outdoor University Spaces

Daniel Amsden, 2002

The planning and design of outdoor university spaces, with analysis of the University Union Plaza at California

Polytechnic State University, San Luis Obispo. Create outdoor spaces within the built environment that respond to people's needs and aesthetic values, and help promote social interaction. The intent is to provide valuable insights and recommendations for professionals at California Polytechnic State University and other universities.

Growth Management on the Borders of Reality, Planning, and Politics: Evaluating Growth Management Using Geographic Information Systems and Sustainable Indicators

Aaron Bock, 2002

Growth policies in the Contra Costa County side of the San Joaquin Delta Watershed will dramatically affect growth in the surrounding jurisdictions. Growth management policies involve several philosophies that make it a very confused issue and thus several facets of society easily adopt growth management principles. Geographic Information Systems is only a tool and as such is only as good as the planner using it. Planning for communities has become incremental, as has the workings of agencies when they do not fully develop the ideas by which they are incorporating software and growth management policies.

An Update of the City of Guadalupe Zoning Code

Jeremy Krout, 2002

City of Guadalupe's current zoning ordinances are in need of an update. Existing codes do not stem from the City's current General Plan. Current zoning ordinances have not been updated since 1980, whereas the General Plan was adopted in 1986. Purpose is to connect the consistency issue between the Zoning Code and the General Plan, and to eliminate vagueness to protect the public's health, safety, and welfare.

Research and Design of Harvey Milk Plaza

Aaron D. Starr, 2002

Redesign Harvey Milk Plaza to better serve the needs of the Castro Community. Outlines what makes a successful public space, how public space is used in a Queer context, and San Francisco's Queer history. Includes survey results from residents and merchants, and interviews with neighborhood organizations. Concluding design of the plaza that responds to the site and needs of the community based on data gathered.

Wellhead Protection Planning: The MTBE Case Study**Casey Michael Willis, 2002**

Water is the limiting resource in California that defines and often regulates development. Communities cannot afford to lose municipal groundwater resources because of contamination. Review of the gasoline additive MTBE to document that groundwater contamination is widespread across California and the rest of the nation. Identifies effective methods of protecting local groundwater supplies from chemical contaminants.

Higher Density Housing in the Cities of San Luis Obispo, Monterey, and Santa Barbara**James Bergman, 2003**

Fifteen housing complexes are presented and analyzed to demonstrate good examples of existing higher density housing in the cities of San Luis Obispo, Monterey, and Santa Barbara. Focuses on ways to educate the public about the concept of housing density by using good examples.

A Guide to Implementing Sustainability: Bringing Sustainable Development to California Communities**Mathew Richard Burris, 2003**

Sustainable development is a goal that is desired by many communities. The general plan possesses great opportunity as a method of implementing sustainability in our communities. There is nothing preventing communities from incorporating their goals and policies for physical, social and economic development into their general plans.

New Urbanism, Sense of Community and Automobile Dependency: A Comparative Study of Two Residential Developments in California**Trevor R. Keith, 2003**

The effectiveness of residential urban design in responding to key tenets of new urbanism, and how this design influences the daily life of the residents. This research focuses on automobile dependency and sense of community as the two major variables in new urbanism teachings.

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