URBAN ACTION 2006

A Journal of Urban Affairs

URBAN ACTION 2006

a journal of urban affairs

Produced by the Urban Studies Program
San Francisco State University

For more URBAN ACTION visit
http://bss.sfsu.edu/urbs/urbanaction.htm

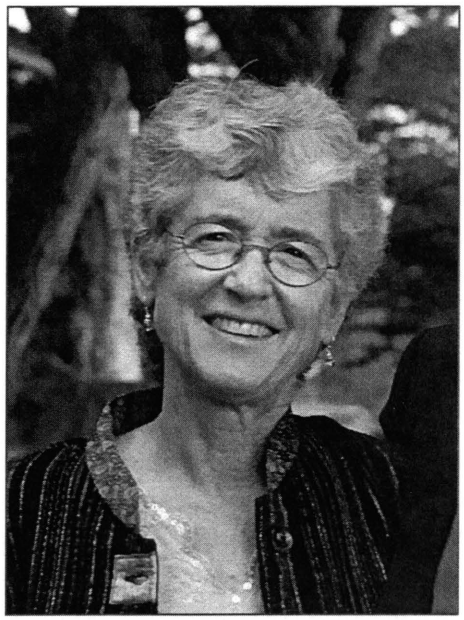
Cover photographs:

Todd Feinstein
Michelle Jacques-Menegaz
Matthew Marceau
Josef Norris
Hillary Strobel
Adrian Torres

TODD FEINSTEIN transferred to San Francisco State University from San Diego City College in the fall of 2005 and will graduate with his Bachelor's degree in Urban Studies in the spring of 2007. During the past few years Todd has been fortunate enough to travel throughout South East Asia where he took some of the pictures on this year's cover including shots from the streets of Burma, Thailand, Cambodia and Laos. Todd selected these images because he feels they convey the story of people engaged in the most basic acts of survival. He is intrigued by Buddhism's influence as a coping mechanism and key to sustenance as compared to other world religions, and how children and the elderly are a common part of the street environment in contrast to western society where they are often obscured from view and excluded from daily life on the streets.

ADRIAN TORRES, who designed this year's cover, transferred to San Francisco State University from Cuesta College in San Luis Obispo and and will graduate with his Bachelor's degree in Urban Studies in the spring of 2007. Adrian has a passion for shooting photos of urban and natural landscapes and has won several college photography awards. He is also passionate about making neighborhoods more balanced and livable places and would like to pursue a career in community development.

URBAN ACTION is published annually by students in the Urban Studies Program at San Francisco State University with funding from the SFSU Instructionally Related Activities Program. Views expressed are those of the authors and do not necessarily reflect those of San Francisco State University or the Urban Studies Department. Correspondence and requests for additional copies should be sent to: URBAN ACTION, Urban Studies Program, HSS 263, San Francisco State University, 1600 Holloway Avenue, San Francisco, CA 94132. For additional copies, please enclose a check or money order for $5.00 each (includes postage and handling) made payable to URBAN ACTION.



Every year the annual arrival of Urban Action seems like another miracle!

Since its founding twenty-six years ago, Urban Action has been produced entirely by students: student editors plan and manage the work, solicit contributions from other students, and sometimes professors, and often write their own articles as well, do the layout, arrange for printing and, finally, organize the journal's distribution. All this responsibility falls on the students and the fact that they have done this so successfully for twenty-six years certainly defies the challenges raised by those faculty who discussed its initial creation in 1978. Most of us felt it was unreasonable to expect that students alone could produce a sufficiently high-quality journal to make it worthwhile; we anticipated a huge burden on faculty, and we were reluctant to take it on. As I recall, it was only Professor Norm Schneider—and the students who were working with him to establish the journal—who believed that the students could do it, and they were right!! Thanks Norm!

The first issue was published in 1979. "Collated and stapled" would be a more accurate description: I recall a work party in the apartment of one of the editors, with journal pages stacked neatly on the floor of one of the rooms, waiting to be assembled. Every issue since then has been professionally printed, though that hasn't always been without problems. Indeed the first professionally printed journal, the 1980 issue, failed to reach campus in time for the wine and cheese reception which had been organized by the editors to publicize the new journal! High level university administrators had been invited, but the printing was delayed, and the editor who had rushed to pick up the journals at the last minute was stuck in traffic on the other side of the city.

The journal has now become one of the proudest accomplishments of the Urban Studies Program, and an integral part of our curriculum as well as our outreach to the community. The journal offers students an opportunity to revise an existing paper or undertake original research, or to be part of the editing and production of the journal. For them, both the intellectual experience—the research, writing, editing—and the work experience—being part of a team working under time pressure to produce a professional product—is one of the most demanding and rewarding, components of their educational experience. The journal is also used to supplement course readings, providing both timely analyses of current urban issues and a model of the kind of high quality work which students are capable of producing. Finally, the journal is an essential part of our outreach to the larger community: it is distributed to alumni, senior seminar clients, and internship supervisors, reminding them of the high-quality performance of Urban Studies students and reinforcing their ties to our program.

I've had the privilege of serving as faculty advisor many times during the journal's twenty-six year history, and it has given me an incredibly rewarding experience! Watching an editorial team come together and develop the kind of dedication needed to take the journal through to final publication has been an inspiration to me. One or more all-nighters have frequently been required to complete the

layout and get the journal to the printer in time to make the publication deadline. Thus for the 1989 issue—the ten-year anniversary issue—the editors spent two consecutive nights (illegally: they had to hide at critical moments in order not to be detected and evicted) in the BSS computer lab in order to have the journal ready in time for our alumni banquet that year, and they succeeded! The 1994 issue was planned in the kitchen of a Broadway mansion where the managing editor was a frequent housesitter; the final layout that year also required a couple of all-nighters, this time in the offices of the brand new KQED building, where another of the editors worked.

The amount of work required to produce the journal always exceeds everyone's expectations, always coincides with other pressing demands, and almost always encounters unexpected challenges. This year has been no different. The editorial team has done a fantastic job of working together despite their totally incompatible schedules. Their work was actually ahead of schedule until they encountered a nearly overwhelming obstacle: the editor who had assumed responsibility for doing the layout suddenly had to undergo surgery for a brain tumor. At that point, no one else on the editorial team had the knowledge and skill to replace her. Again, an Urban Studies student stepped up and saved the day: Erika Lew, one of this year's contributors who also has extensive computing experience, agreed to learn the publishing software and take the lead in doing the layout for the journal. It's hard to imagine what would have happened without her! (The editor who underwent brain surgery also recovered fabulously: indeed her doctors describe her as a miracle!)

And so we have this year's journal: another miracle, another proud testament to the capability of our Urban Studies students, and to those who have had faith in them to produce this work! Congratulations to all of this year's editors and contributors, and thanks for letting me be part of this process!

Debbie LeVeen
Urban Action Faculty Advisor, Spring 2006

Dear Reader:

It is with great pride that we present to you the 2006 Edition of URBAN ACTION. We trust the information contained herein will educate, inspire and motivate you, as it has with us. Our goal is to facilitate change – in thought, attitude and action. The content of this year's journal touches upon some of the most basic and shared urban experiences – food security, housing and the impact of our environment upon our psyches. It features historical analysis, current events, and future trends in urban planning and development. Views from Africa, Asia and Europe lend global insight and provide balance to our local urban perspective. And we are excited to introduce several new features of the journal this year – perspectives, film review and a color cover!

As incidents during the past year in our country and on our campus have highlighted, race – be it biological or social construct – is still a factor in the treatment a person, or a people, receives; in 2005-2006, race still matters. As we go to press, families displaced from the hurricanes of last fall and struggling to put their lives back together are denied temporary housing by well-to-do residents who say, "Not in my backyard!" Meanwhile, more public schools are closed in San Francisco neighborhoods, including the Western Addition, a community largely composed of African-Americans, Latinos and other minorities; urban renewal is alive and well in 2006.

Within the Urban Action team, this year has brought sadness, loss, elation and surprise, forging our interdependence and reliance upon one another and highlighting the interconnectedness of the topics in the journal. It is with tremendous relief and joy that we dedicate the 2006 edition of Urban Action to editor Liz Bagley who, while recovering from surgery for a brain tumor demonstrated her dedication by emailing us, concerned about the progress of the journal – you are truly amazing!

Urban Action and the Urban Studies Program this year says thank you, congratulations and goodbye to many wonderful and dedicated people – Professor Mai Nguyen, Urban Action Faculty Advisor for Fall 2005; Aly Pennucci, Urban Studies graduate and office support extraordinaire; Millo Pasquini, Urban Studies and Political Science Office Manager par excellence; and Professor Debbie LeVeen, Urban Action Faculty Advisor for Spring 2006, whose experienced and dedicated leadership and support proved an invaluable resource.

This journal is the result of the dedication, hard work and cooperation of this year's editors and contributors, with the help of many other people. In addition to those listed above, the Urban Action team would like to say a special thank you to Todd Zimmer for providing layout advice, Erika Lew for enthusiastically and expertly tackling the layout at the last minute, Alex May for passing the torch, Professor Jason Henderson for generously sharing his images and experiences of New Orleans, Tamar Cooper of the San Francisco Green Schoolyard Alliance, Sharon Danks of Ecoschools, Rains Cohen of the Cohousing Association, Barbara Oplinger of the Neighborhood Parks Council, and PR intern Jesse Thorn at the Trust for Public Land for providing images and approvals at the last minute, and the wonderful folks at A.Maciel Printing for their patience, hard work and superb craftsmanship. We are also grateful to the SFSU Instructionally Related Activities Board for their continued support and to the entire Urban Studies faculty and staff for their ongoing support of us in all our endeavors.

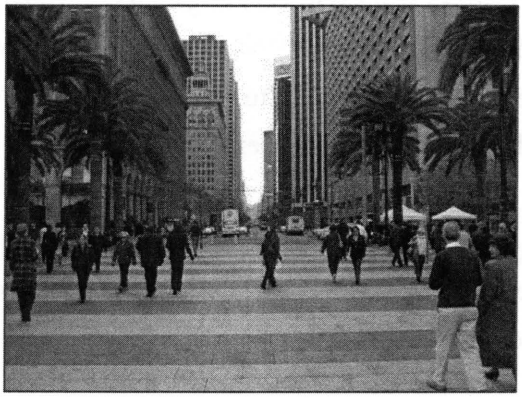
We hope you enjoy the journal and will take ACTION to contribute your vision to the future of our shared urban environment.

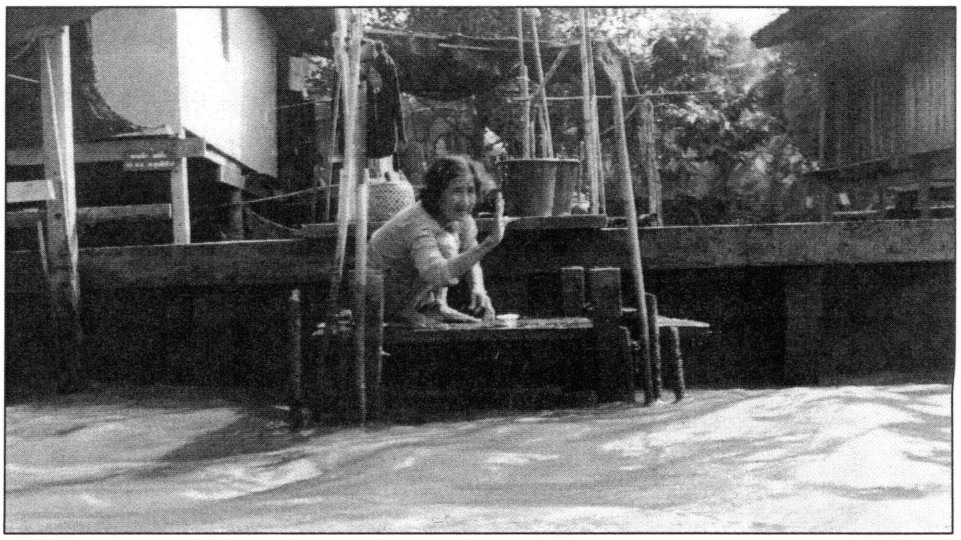
The Editors
URBAN ACTION 2006

P.S. In keeping with responsible and sustainable practices, this year's journal was printed with soy-based inks on recycled paper that uses the highest degree of post-consumer waste available.

Contents





postcard from THAILAND

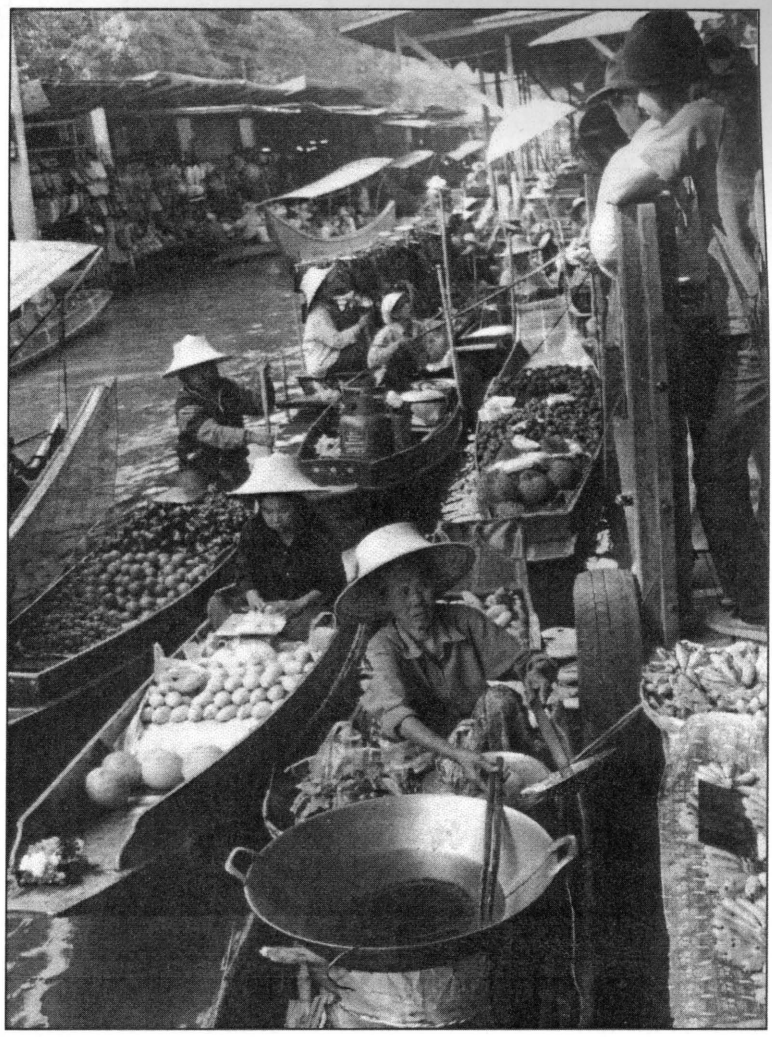
by Liz Bagley

Since we left for Thailand a few days after the 2004 tsunami, everyone was concerned about our safety. The storms, however, were much farther south than we plan to travel. Here in Bangkok, life has continued without interruption. Something that sticks out to me is the importance of Thailand's waterways even here, hundreds of miles from the ocean.

Until just a few decades ago, canals, not roads, carried Bangkok's citizens around the city. There are still a number of canals on the edges of the city. Just outside of Bangkok, in Damnoen Saduak, we hop, six at a time, onto what they tell us are "James Bond boats." The boats are long and skinny, with a small propeller sticking out of a pipe protruding from the back. One man at the rear of each boat steers with a long handle.

We soar across the murky water contained by stone walls, past golden temples and one-room houses on stilts. Instead of cars in garages, rowboats are hoisted onto wooden frames outside of the homes. Most of the yards – swampy areas covered in grass – have small porches next to the canal walls. We pass a few kids swimming, ladies doing laundry, and several farmers getting ready to go to market.

We have gone a few miles, speeding through these neighborhood "streets", when the traffic starts to get heavy. Now we are in a traffic jam, the boats are tiled on top of the water like bricks on a sidewalk; this is the Saduak floating market. Before



modern roads were built in Bangkok, there were numerous floating markets where people came to buy and sell their goods.

Farmers are flanked in their boats by small mountains of produce, and local craftspeople expertly balance stacks of hats taller than the makers. Everything is carefully passed between boats with long-handled nets. There are boats filled with household goods, tools, spices, paintings and toys. A few brave souls balance huge woks filled with bubbling oil in the center of their boats. These chefs are surrounded by dozens of spices and vegetables sorted neatly into little bowls. They cook traditional Thai meals as well as sweet treats like fried bananas and coconut pancakes.

The boats gather around large platforms near the center of the market. Here we can step off the boats and peruse the displays of some of the larger merchants while still bartering with the floating salespeople who surround us. It is a beautiful, warm, sunny day here in Thailand in January. I think about going shopping back home and I think of parking lots and strip malls and fluorescent lights in giant stores. I am happy to be here, in a neighborhood on the canals, surrounded by sunlight, trees and neighbors. ¤

LIZ BAGLEY is a senior psychology major at San Francisco State University. She would like to pursue a career helping the mentally ill homeless population. She likes to travel but misses her kitchen and her kitty when she's gone.

A Review of Fishman's "Fifth Migration"

by Rocco Pendola

Introduction

In a recent issue of the Journal of the American Planning Association, University of Michigan professor, and author of Bourgeois Utopias: The Rise and Fall of Suburbia, Robert Fishman predicts the rebirth of the American city. If Lewis Mumford were alive today, I venture to guess he would be on board with Fishman's forecast of a so-called "fifth migration." Early in the Twentieth Century Mumford accurately prophesized the exodus from city to suburb, a phenomenon he dubbed the "fourth migration." While others have taken note of recent reinvestment in (and repopulation of) North American central cities, very few have put forward a thoughtful basis for the trend, as Fishman has. And even more important, Fishman is able to temper his obvious enthusiasm for the city with doses of realism; something many contemporary urbanists have been unable to do.

In this paper, I will review Fishman's "fifth migration," question the possibility of it fully taking shape, and place it amid the present "back to the city" dialogue.

Defining the "fifth migration"

In the 1920s, Mumford argued that after experiencing an initial "first migration" (settlement of the continent) and subsequent "second" (from rural farms to factory towns) and "third migrations" (movement to the central city), the United States would undergo a "fourth migration" of what we now obviously identify as decentralization to the suburbs. Eighty years later, Fishman contends that we are witnessing the beginning of a "fifth migration," where suburbanization "is now finally ebbing" and inner cities are being reinvigorated (358). Cities are reurbanizing, according to Fishman, as "density, concentration, and what Mumford termed 'disciplined cooperation and municipal coordination'" are rediscovered by citizens (361). The unsustainable steamroller of suburbanization has naturally produced countertrends, identified as downtown reurbanism, immigrant reurbanism, Black reurbanism, and White middle-class reurbanism by Fishman.

The decentralization of office and manufacturing activity to the suburbs did not crush downtown as it did the inner city, according to Fishman. Instead, global companies, in order to maintain the aura of power that goes along with occupying a skyscraper downtown, never completely abandoned the core. Given his description of this "countertrend," one must wonder why Fishman chose downtown reurbanism as its title when it seems as if his claim is that downtowns never really faltered like the rest of the metropolis. This criticism, though, is minor as is the role so-called downtown reurbanism plays in Fishman's theory; the real fuel is delivered by minorities rediscovering and reviving the city.

At the heart of Fishman's "fifth migration" is immigrant reurbanism. While most of the nation's large numbers of immigrants have chosen to live in suburbs, a sizable portion has settled in the city. Citing the work of Saskia Sassen and others, Fishman describes immigrant workers as those responsible for setting the stage "for the spectacle of downtown consumption, the place where high-quality food stuffs, flowers, and other goods were brought together for just-in-time delivery" (362). Later, "immigrants began to master the skills necessary to produce the downtown spectacle – the metal workers, carpenters, glaziers, tillers, electrical workers who constructed the glittering storefronts, hip restaurants and galleries, and luxury kitchens and bathrooms" (362). Fishman likens the operation of this downtown immigrant economy to the function of the suburban back office.

Although it has taken a much more arduous path than immigrant reurbanism, according to Fishman, black reurbanism has resulted from forces similar to those that have benefited immigrants. Strangely though, Fishman claims that "Black culture has largely defined the core

ideal of hipness and diversity that is the cultural ideal of reurbanism" (362). This statement hangs conspicuously unsupported and undeveloped in this section. While important, Fishman downplays the impact of White Middle-class reurbanism on the city. He claims that this countertrend will become "more widely distributed, and thus only one element in rapidly improving neighborhoods where the main impetus comes from within the neighborhood itself" (363).

Fishman goes on to conclude that "the demographic potential of the fifth migration rests on such varied bases as aging baby boomers returning to the cities; their 20-something children rejecting the suburbs in favor of livelier inner city districts; the 'natural increase' of unslumming households who choose to stay put; and of course the millions who seek to migrate to the United States" (363). He accurately predicts that the degraded infrastructure of many inner cities is not beyond repair; rather its inherent urbanity can reemerge with the proper intervention by urban planners, governments, and the citizenry.

Fishman is correct, from a physical form standpoint the inner city is ready and able to be resurrected. The major obstacle, though, that could keep the "fifth migration" from coming to fruition as Fishman sees it is high housing costs, due in part to intense gentrification. Additionally, he worries that the success of blacks and immigrants may send them searching for the apparent American dream in the suburbs. If these two things happen, the result is more of the same, present day urban dichotomy: expensive and homogenized desirable city neighborhoods and slums. In order to achieve a stable and diverse urban environment, Fishman hangs his hat on what he terms "a balanced housing policy that encourages investment in (and hence commitment to) recovering areas by promoting home ownership for those of moderate income... similar programs that encourage rental rehabilitation, especially two- and three-family houses where home ownership and rental strategies can be combined... and an expanded Section 8 voucher program that finally fulfills its original hope of allowing low-income households a wide choice of decent apartments" (364). It is in this conundrum of affordability where I begin to question the idealism and attractiveness of the "fifth migration."

Conclusion

Many urbanists, myself included, share ideas as to exactly what elements make up "good urbanism." We have preconceived notions of just what should comprise the theater of the city. Fishman's description of the "push-cart economy" is but one example of this. Urbanists tend to expect, and even want, to see immigrants in neighborhoods such as San Francisco's Mission District, selling flowers and foodstuffs on street corners as well as other goods ranging from pirated DVDs to wallets along the promenade. This is part of what makes the urban experience what it is, no doubt. Indeed, without such a spectacle, one could argue that neighborhoods would not gentrify in the first place; would upper-middle class whites really want to live in the Mission without the atmosphere that makes the neighborhood famous? The answer is probably not, yet the very aura we seek is at risk because of our fondness of it.

I originally took the photos pictured below because I felt as if they perfectly captured quintessential urban

Boston's predominantly Italian North End, July 2005.

San Francisco's North Beach district, October 2005.

scenes. The shot in Boston could have been taken in a small Italian town with an older, presumably Italian woman peering out of her second-story window to watch what could be a grandchild on the sidewalk. On the opposite end of the photo, a woman is seen pushing a bag of goods to her destination. Although it is tough to describe, there is something about the San Francisco photo that smacks of urbanity, with the clothes of an apartment dweller hanging just above a city billboard. The question that I began to ask myself as I continued to look at these snapshots of the city is the same one that Fishman's glorification of immigrant reurbanism, as part of the fifth migration, prompted me to ask: Has anyone bothered to ask the people in these pictures?

This question is purposely vague. But, as Fishman touts the idea of immigrants inhabiting the city selling the "fruits" of their toil for "the spectacle of downtown consumption," I wonder if indeed the urban picture we, as students of the city, desire is one that the actors are content with. Is the woman leaning out of the window in Boston happy with her lot in life? Are the people living above the beer advertisement existing in even a remotely secure fashion? Do the hundreds of men and women, many of them immigrants, we see daily on the streets of San Francisco pushing ice cream carts, selling flowers, and waiting for day labor long for a better life? And in more practical terms, are they struggling to make the rent? How many people are they sharing their living space with? Do they even have a slight chance of owning a home in one of the nation's most expensive cities? As we fancy the thought of a fifth migration, of a rebirth of the American city, we must ask questions of social justice. The pushcart economy that entertains many of us as we stroll Mission Street is quite possibly someone else's meager existence.

Despite this, I think most of Fishman's predictions are accurate and he is right to be pessimistic about the housing situation in our cities. Perhaps though, Fishman's best contribution is his realistic approach to the issue of reurbanism. All too often critics declare war between cities and suburbs with just one side able to emerge as the "winner." James Howard Kunstler, for example, promotes the traditional city while Joel Kotkin touts the virtues of suburbia as the popular and uncontested choice. Fishman is not so one-sided:

> ...one great strength of the fifth migration is that it is likely to be a countermovement to the continuing power of decentralization rather than the single dominant pattern within the region. The reurbanization of the core will necessarily ease the pressure for expansion at the edge, thus increasing the chances for successful suburban growth management. And the continuing attachment of the majority of Americans to suburban densities should decrease the pressures of a "land rush" to the core and hence increase the opportunity for stable, diverse, all-around communities in the inner cities. The fifth migration thus carries the promise of something never before seen in American urbanism: balance. (360)

While I disagree that the lack of a "land rush" will tame housing prices in the city, I concur with the point on "balance." Not since Olmsted's plans for Central Park in New York, parks and parkway systems in places like Buffalo, and suburbs around the country have we had a true and thoughtful vision that seeks the appropriate balance between town and country, urban and rural, and more narrowly, city and suburb. ▫

ROCCO PENDOLA is an Urban Studies major at San Francisco State University, and a Sally Casanova Pre-Doctoral Fellow of the California State University. His research focuses on environment-behavior studies, including sense of community as well as the link between planning and health. He has an article in press at *Health & Place*, entitled "BMI, auto use, and the urban environment in San Francisco." He will begin doctoral study in the fall at the University of California, Irvine.

References

Fishman, R. 2005. "The Fifth Migration." *Journal of the American Planning Association.* Autumn 2005, 357.

Image Sources

All images: Rocco Pendola

Building Reuse, Cohousing, and the Land Ethic

by Hillary Strobel

This paper will examine the ethical, aesthetic, and economic components of several large scale building reuse projects that were developed as intentional communities known as cohousing, in Oakland and Emeryville, CA — Swan's Market, Temescal Creek, and Doyle Street Housing. The theoretical framework used to examine these components is ecologist Aldo Leopold's land ethic, developed in 1949. While building reuse does not represent the only method for creating such intentional housing communities, the ethical, aesthetic, and economic opportunities they present make building reuse an attractive alternative to new construction.

Building Reuse Defined

The reuse of buildings is not a new concept; societies have utilized it in many ways for thousands of years. In modern, urban and peri-urban contexts, both in the developed and developing worlds, the term building reuse can be expressed as "using older, existing buildings for new uses." This is commonly referred to as adaptive reuse, a term that is used in the professional fields of architecture, city planning, and real estate development. Various groups mold the basic, underlying concept of building reuse to promote certain agendas, from economic development (Burchell and Listokin, 1981) and artistic and social expression (Powell, 1999) to preservation of the historic fabric of a city, the look and feel of a place (Bunnell, 1977). Recently, small groups of people frustrated by the apparent lack of real community development and a sense of place and belonging in the United States, have also begun to take advantage of building reuse. These groups are using old buildings as the starting point for the creation of a dynamic and community-based mode of living known as cohousing, one of many forms of intentional communities. By reusing existing buildings, these groups are not only creating new modes of community living, but they are also promoting economic development, artistic expression, and preservation of existing urban fabric.

Building reuse began to gain support in the United States as more and more people realized that modes of development and land use developed in the first half of the 20th century, and expanded brutally in the 1940's and 50's as urban renewal, were causing more harm than benefit. "This is not the rebuilding of cities. This is the sacking of cities," wrote Jane Jacobs in 1961. The social justice implications of urban renewal and the environmental implications of endless sprawl are enormous; they can no longer be ignored as the major issues facing urban development in the 21st century. A valuable resource for cities is its existing building stock, which possesses endless potential for reuse, as long as careful and thoughtful planning is engaged and implemented. Many city residents are looking to existing building stock to create socially fulfilling and environmentally sound housing in areas of cities once thought unsafe and undesirable. In many cases, building reuse presents an ideal opportunity to create a new kind of community, that of cohousing, which provides social interaction, group building, and "shared practicalities such as laundry facilities and tools, and also the pleasures of neighborhood — someone to feed your cat while you're out of town, a neighbor who will baby-sit on short notice, a backyard play structure for the kids, and grounds that are more than most individuals could maintain on their own." (Smith, 2002)

CoHousing Defined

The opportunities presented by reusing existing buildings is often attractive to groups that are interested in creating cohousing situations. Ken Norwood and Kathleen Smith, the authors of Rebuilding Community in America, define cohousing as: "resident-developed, -owned, and –managed cooperative communities in

which individual households are clustered around village-like courts and streets and a large common house with shared facilities for group cooking and dining, work, play, social activities, and childcare." (Norwood and Smith, 1995)

The attractiveness of older buildings stems from their often obsolete state; they are surplus, according to the Center for Urban Policy Research, meaning that they are no longer paying their way. Whatever use they were originally intended to provide is no longer necessary in the area, the businesses or agencies they housed are no longer operating, they are abandoned by landlords, and so forth. (Burchell and Listokin, 1981) In many cases, buildings can be acquired for renovation and reuse through loans from Community Development Corporations (CDC's), Housing and Urban Development (HUD) grants, bank loans for subsidized housing, or with the guidance of for- or non-profit urban developers. This is often a perfect opportunity for families and individuals interested in creating cohousing communities in urban areas. Buildings can be purchased inexpensively, or subsidized, and the cohousing development can commence. Three case studies from the San Francisco Bay Area which took advantage of this process will be highlighted. They are Swan's Market and the Temescal Creek neighborhood, both in Oakland, and the Doyle Street CoHousing project in Emeryville. The land ethic model developed by Aldo Leopold will be used to examine these projects as ethical, aesthetic, and economic contributions to the surrounding urban environments.

The Land Ethic Defined

Aldo Leopold, a conservation ecologist, developed the land ethic in 1949. This model was intended to be applied to the natural environment and the uses of land in that context — whether open land is to be developed, or conserved and protected. The land ethic simply states that the land itself is a valuable, contributing member of the community and is to be treated as such. The land ethic outlines three principles to guide decisions regarding land use: ethical development, aesthetic quality, and economic sustainability. (Leopold, 1949) According to Leopold, each of these three principles must be fully represented in current and future discussions of land use policy and development, because "by and large, our present problem [in land use decision making] is one of attitudes and implements." (Leopold, 1949)

Most current land use decisions are heavily rooted in economic development, which tends to see unmitigated outward spread as the best form of growth. As planning consultant Eben Foder puts it, "Members of the [growth machine], the business community, tend to adopt a 'growth is good' philosophy. This is based on the simplistic notion that growth will increase their business volume and they will become more prosperous." (Foder, 1999) Foder points out that one of the biggest myths about land include notions that "growth [spreading from city centers] is inevitable, and that vacant and undeveloped land is going to waste." (Foder, 1999) Leopold's land ethic questions the veracity of these and other myths that put solely economic value on land and guide land use decision making.

Leopold defines the term ethic in two ways: ecologically and philosophically. Ecologically, an ethic is "a limitation on freedom of action in the struggle for existence." Philosophically, it is "a differentiation of social from anti-social conduct." (Leopold, 1949) Both definitions imply that existence is achieved through cooperation of all members of a community — a "checks and balances" system. By allowing unmitigated growth and showing a lack of concern for the land upon which this growth happens, humans have allowed the checks and balances system to fail and have created a situation in which the futures of the natural and urban environments look bleak. In order to rectify this situation, Leopold calls for the development of a new land ethic, in which the guiding principles of land use decision making are ethical development, aesthetic quality, and economic sustainability.

When this model is applied to the urban environment, as was done by Jane Jacobs in her book *The Death and Life of Great American Cities*, it becomes clear that one of the essentials for the survival of the urban environment, namely reused buildings, can contribute to the ethical, aesthetic, and economic quality of life in a city. (Jacobs, 1961) A building reuse project often functions most completely as part of a system that affects the social, environmental, and economic realms almost simultaneously, much as an ecological system would have multiple, simultaneous benefits. As Jacobs puts it, "Cities need old buildings so badly it is probably impossible for vigorous streets and districts to grow without them. Some of the old buildings, year by year, are replaced by new ones — or rehabilitated to a degree equivalent to replacement" (Jacobs, 1961) — in

other words, adaptively reused. As an ecology, Jacobs sees reused buildings as providing ethical development by providing diversity; aesthetic quality by maintaining vitality in appearance and helping mitigate blight and decay; and economic sustainability as reuse helps buildings pay their way and provide an incubator for low- and middle-level enterprises. (Jacobs, 1961) With the three housing case studies presented here, reuse provided an opportunity to bring residents to central city areas that needed an infusion of diversity, vitality, and economic stability.

The Case Studies

SWAN'S MARKET
Downtown Oakland, California

Swan's Market began life as a department store and prepared food mart in downtown Oakland in 1917. It was an anchor in the bustling downtown area between Ninth and Tenth Streets. (Swansway, 2005) The building closed as a store and food mart approximately 20 years ago, and sat vacant for almost 15 years. The City of Oakland purchased the property in 1994 for $2.4 million. After purchasing Swan's Market for $4 million, the Oakland-based non-profit development group East Bay Asian Local Development Corporation (EBALDC) was given control of the building, and under a mandate from the Oakland Redevelopment Agency, began plans to incorporate market-rate cohousing opportunities in the form of condominiums. Pyotak Associates, an architectural firm based in Oakland, was hired to complete the design work, and the reuse work was finished in 2000, with EBALDC maintaining the rights of property management as well as developer. Since the building is a high-profile, mixed use development, many stakeholders were gathered to ensure that the architectural design, financial investment, and management were solidly in place. This coordination work was undertaken by the Berkeley-based CoHousing Company.

Swan's Market provides two housing options: 18 one- and two-bedroom apartments and 20 market-rate cohousing condominiums. (U.S. HUD, 2005) The apartments are subsidized with housing vouchers for families that earn below 60% of the median area income. "The condominium lofts, located within the original market, combine homeownership and cohousing that allows potential buyers to invest in the development in exchange for approval rights over design." (U.S. HUD, 2005)

Swan's Market Cohousing, Oakland, CA.

TEMESCAL CREEK HOUSING
Oakland, California

This community began in 1999 in a neighborhood in north Oakland. This type of cohousing situation is known as a "cohousing retrofit," since the buildings used by the new owners were already existing duplexes — in professional terms, this is known as housing-to-housing adaptive reuse. The buildings, three duplexes on adjoining property, were chosen for the location, which includes two-thirds of an acre of shared property in a residential section of Oakland, and for the fact that the new homeowners were attracted to the possibilities of reusing existing housing stock. Once again, the CoHousing Company was brought into help this community design a "strategic plan" (Hester, 2005) to help each member of the community both pay a separate mortgage on their private residence and pay into the construction of a new common house. The common house provides space for resources that are shared by all members of the cohousing community: a shared kitchen and dining space, laundry facilities, and maintenance supplies. It is also a space for socializing.

A membership organization, akin to a condominium association, was also formed as the common house was being built in 2001— both the common house build and the duplex reuse construction were paid for through home-equity lines of credit. The addition of an additional housing unit above the new common house brought the community membership up to seven families. One point of pride for the community is the fact that solar panels, recycled materials, and in-house construction management are heavily featured (Hester, 2005).

DOYLE STREET COHOUSING
Emeryville, California

This cohousing community was built between 1990 and 1992 in Emeryville, in an "obsolete 7,700 square foot industrial building" (Norwood and Smith, 1995) which features 12 individual units and 2,200 square feet of common space. A small group of individuals interested in creating a cohousing situation in this city, "a transitional neighborhood of residences and light industry," (Norwood and Smith, 1995) pulled together a team that included, once again, the CoHousing Company and architect William Olin. Financing was acquired and the project was put together through an intensive consensus process. A multigenerational, multi-income group of people live in the building.

The residents who wanted to develop Doyle Street needed the assistance of both the Cohousing Company, which helped locate the warehouse building and "aided the residents in their self-organization and decision-making processes," (Fenster, 1999) and a private local developer with whom the residents formed a limited partnership and who undertook financial responsibility for the project and oversaw the warehouse's renovation. "Doyle Street faced fairly difficult obstacles in development because of its position as the first urban cohousing development in the United States and its location in both a tight real estate market and one of the most heavily planned and regulated land use regimes in the country." (Fenster, 1999)

Building Reuse, CoHousing, and the Land Ethic

Each of these three building reuse projects presents an opportunity for the infusion of diversity in urban situations. "Cohousing communities include people with different ages, backgrounds, family types, racial heritage, religious and political affiliations. By going through the planning, design and decision-making process together, residents form the bonds that provide the foundation for ongoing community." (Canadian Cohousing Network, 2005) In the case of Swan's Market, the inclusion of market rate condominiums and subsidized rental housing increases the diversity. A downtown location with access to transportation, amenities, fresh food sources, and culture — Swan's includes a children's museum and an art museum — lends itself to a greater appreciation for social resources. The creation of Temescal Creek cohousing from existing housing stock

Doyle Street Cohousing, Emeryville, CA.

meant that greater care and group participation had to be given to secure a successful outcome. Additionally, "public participation, respect and care for community life, a deep sense of connectedness to others, and democratic self-determination make the final product the result of a shared intention and deeply co-creative process." (Canadian Cohousing Network, 2005)

In the realm of aesthetics and environmentalism expressed by the land ethic, reusing buildings is one of the main tools for achieving such qualities and benefits. The reuse of a building has an enormous impact on the reduction of waste produced in a construction project, (O'Rourke and Norris, 2002) as well as providing excellent opportunities for integrating technologies designed to mitigate environmental impact. Such technologies may include solar panels, efficient use of land, native species in the landscaping, organic gardening, building for transportation alternatives, effective waste and water management, and material choice based on analysis of embodied energy and environmental impact. The reused buildings in these cohousing situations helped facilitate these technological opportunities: "Social interaction encourages pro-environmental behavior. Research has indicated that influence, exchange, cooperation, and support all contribute to increased levels of pro-environmental behavior in cohousing communities. Extensive common facilities shared by the community helps support the social fabric, which makes the sharing of resources a daily reality." (Canadian Cohousing Network, 2005) The beauty of the buildings themselves helps to contribute to the fabric of the community through their appearance.

Since decisions made in cohousing communities are made by 100% consensus, the opportunities for sustainable economics is high. The members of the com-

munity are expected to contribute equally to both the creation and the sustainability of the project. "Educated purchasers make more sustainable choices. The future residents determine the product so there is a natural opportunity to become educated about the cost benefits of choosing certain options. Knowledgeable purchasers are more likely to choose a higher capital cost now with future savings, thus choosing better quality and more energy efficient alternatives." (Canadian Cohousing Network, 2005)

Additionally, as Jacobs points out, reused buildings will provide the raw materials for diversity in enterprise within a city. (Jacobs, 1961) People of various income levels, as well as businesses with varying customer bases, are necessary to the economic health of a city. Reused buildings become an incubator of sorts for this economic vitality, whereas new buildings usually cannot support this growth due to the high overhead costs associated with new construction and infrastructure development. Having a city district replaced by new construction is "inherently inefficient" and requires "forms of 'protectionism,'" (Jacobs, 1961) whereas the creation of cohousing in these case studies allowed for ownership and direct decision making by residents through the creation of non-profit limited liability groups to cover mortgages and fees. (Fenster, 1999)

In the case of Swan's Market, not only was the ownership of housing an important factor, but the mixed use, large scale development in an urban downtown setting presented a huge opportunity. "Swan's Market reactivated a landmark building that had been vacant for 20 years. The project spurred investment in an economically distressed neighborhood suffering from high vacancy rates, degraded sidewalks, and blighted storefronts. Swan's Marketplace has catalyzed additional retail in the surrounding area, helping to attract restaurants and apparel stores." (California Redevelopment Association, 2005)

At Temescal Creek, "not only are utility bills lower, but studies have found that the number of car trips made is considerably lower in cohousing communities, as neighbors tend to share rides to the market and other typical destinations, eat out less often (as a result of dinners in the common house), and fulfill at least some of their social life in their community." (Smith, 2002) Each of these factors helps to maintain a level of economic sustainability amongst the residents of the community — through the decreased need for additional infrastructure development, which is an enormous financial burden to cities — and help to maintain its attractiveness to people interested in cohousing created out of existing housing stock.

Again, in the case of the Doyle Street project, the proximity to existing infrastructure has helped to keep development costs at a minimum. Shared costs, including child care, errand-running, exchange of knowledge and skills, and common meals and social activities help to keep economic strains as low as possible. (Fenster, 1999) Additionally, the Doyle Street Cohousing project has shown to be a very desirable place to live, which demonstrates that "market demand supports value. Experience has shown that cohousing communities have excellent resale value. People are willing to pay for the added quality and community benefits." (Smith, 2002) Parties that have sold their cohousing units have seen their investments pay off very strongly.

The benefits created by incorporating building reuse and the development of cohousing communities are manifold. When development models incorporate value systems above and beyond financial gain, cities and the people who live in them will prosper. As can be seen from numberless examples, urban renewal is not at all the healthy solution to blight, decay, and aging neighborhoods. On the other hand, a system of thought based on the land ethic can provide a well-rounded and organic approach to urban development. Moreover, incorporating building reuse into land ethic-based development models can enhance social, historical, environmental, and economic coherence in urban and peri-urban areas. The opportunities for diversity in social life and economic development, environmental quality, and economic sustainability make building reuse a very attractive resource for future cohousing projects. While building reuse itself is not the ultimate answer to ills that have developed in urban areas throughout the United States in the past 60 years, the process has been shown in projects spanning the country to provide diversity, vitality, and a greener economy. ¤

HILLARY STROBEL is a Master's candidate in Social Science, Interdisciplinary Studies at San Francisco State University. Her thesis focuses on the ethical principles of reusing old buildings for new purposes and how this relates to environmental and social justice. She is the managing editor of the newsmagazine *emerging: the green city*.

References

Bunnell, Gene et al. 1977. *Built to Last.* Washington DC: The Preservation Press.

Burchell, Robert W. and David Listokin. 1981. *The Adaptive Reuse Handbook: Procedures to Inventory, Control, Manage, and Reemploy Surplus Municipal Properties.* New Jersey: Center for Urban Policy Research.

"Cohousing and Sustainability." [online] British Columbia: The Canadian Cohousing Network. [cited December 9, 2005]. Available from World Wide Web: http://cohousing.ca/sustain.htm

Fenster, Mark. 1999. "Community by Covenant, Process, and Design: Cohousing and the Contemporary Common Interest Community." *Journal of Land Use and Environmental Law.* 1999.

Foder, Eben. 1999. *Better, Not Bigger: How to Take Control of Urban Growth and Improve Your Community.* Canada: New Society Publishers.

Hester, Karen. 2005. "Retrofit Cohousing: A Different Kind of 'Fixer-Upper.'" *Cohousing Magazine.* January 2005.

Jacobs, Jane. 1961. *The Death and Life of Great American Cities.* New York: Random House.

Leopold, Aldo. "The Land Ethic." In: *The Sustainable Urban Development Reader* edited by Stephen M. Wheeler and Timothy Beatley. New York: Routledge, 2004.

Norwood, Ken and Kathleen Smith. 1995. *Rebuilding Community in America: Housing for Ecological Living, Personal Empowerment and the New Extended Family.* Berkeley: Shared Living Resource Center.

O'Rourke, Dara and Dr. Gregory A. Norris. "Industrial Ecology and Lifecycle Assessment." [online] Massachusetts: MIT, 2002. [last modified Fall 2002, cited November 29, 2005.] Available from World Wide Web: http://www.archinode.com/lca.html

"Our Home: Swan's Market Cohousing." [article online.] Oakland. Accessed November 29, 2005. Available from World Wide Web: www.swansway.com

Powell, Kenneth. 1999. Architecture Reborn: Converting Old Buildings for New Uses. New York: Rizzoli.

Smith,Charles. 2002. "Cohousing Coming of Age: 'Intentional communities' one answer to an increasingly alienated society." [Article online] The San Francisco Chronicle. Available from World Wide Web: www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2002/02/09/HO57808.DTL

"2001 Award of Excellence Winners: Mixed-Use Development." [online] California Redevelopment Association. [cited December 9,2005]. Available from World Wide Web: www.ca-redevelopment.org/AwardsSubmittal/MixedUseSubmittal/2001mixeduse.htm.

U.S.HUD Office of Policy Development and Research. 2005. "Swan's Market Offers Model for Mixed-Use Developments." [article online] Washington D.C.: U.S. Department of Housing and Urban Development. Accessed November 29, 2005. Available from World Wide Web: www.huduser.org/periodicals/fieldworks/0202/fworks5.html

Image Sources

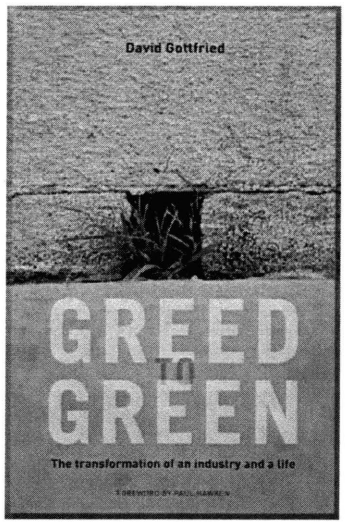
Figure 1: Photo by Jeff Pyle, courtesy of the Cohousing Company.

Figure 2: Photo by Evangeline Welch, courtesy of the Cohousing Company.

book review Greed to Green

The transformation of an industry and a life

by Hanah Snavely



Earth Commandments

I. We shall live in harmony with all life that flies through the air, swims in the waters, walks on the land, and that which remains rooted

II. We shall protect and preserve the Earth and all living systems for all generations

III. We shall restore that which has been damaged, especially, the air, water, and soil

IV. We shall not multiply beyond the capacity of Earth to sustain itself and all of life

V. We shall embrace and cherish the Planet Earth, as we were born to it; and together we shall become stewards of its future

VI. What have we forgotten?

-David Brower, an amendment to the 10 Commandments

Greed to Green is the true story of a businessman gone green. David Gottfried was born and raised in LA, graduated from Stanford, moved to Washington D.C. and jumped head first into a lucrative career in real estate development. Like many kids with similar backgrounds, David began his professional life with the built-in connections that only rich relatives can provide; he had no problem rapidly climbing his way up the corporate ladder. By 1987, at age 27, David had gathered enough resources to start his own real estate development company. He proceeded to make a killing in the real estate development market; his success was unprecedented and opportunities continuously fell at his feet. Despite his success, David felt empty and was never quite satisfied.

In 1992, David found himself in Boston for the annual American Institute of Architects national convention. He was not there because he was concerned for the future of the environment, or because he entertained great interest in greening up the real estate industry. David was there because it was the early 1990's, the real estate industry was sluggish, and the company he was working for was looking to "diversify." The convention served up David's first and most important "AH-HA!" moment that became pivotal in the fabric of his personal life and professional career.

It was at the Architects National Convention that David learned that buildings consume 40% of our energy, 20% of our water, and 40% of our wood. They contribute 20% to our landfill waste, and considering that we spend 90% of our lives in these

buildings, the poor circulated air in buildings continually makes people sick. Ah-ha. David was introduced to the concept of green building, a process that incorporates the use of healthy paints and glues, efficiency lights with occupancy sensors and daylight dimmers, water efficient urinals and faucets, and all natural un-dyed wool carpet. Ah-ha. David went back to Washington a man with reformed values.

David took his newfound inspired knowledge and applied it to the real estate development world back in D.C. He began a green building division of the real estate development company that employed him and devised a business plan with points of interest to builders. The fact that environmental buildings were able to reduce annual energy and water costs, lower landfill and transportation fees for the dumping of construction debris, and improve indoor air quality (which means fewer sick workers and therefore more productivity) were all massive selling points of green building. While David's intentions were good, his bids were too high and the market wasn't quite ready for his green business model. Defeated, David quit his job, gave away all of his fine designer suits, took up photography, and moved into a friend's guest bedroom in San Francisco.

Following months of self-loathing and a pathetic lack of productivity, the opportunity to form a non-profit organization intended to create and maintain a national green building standard fell into David's lap. Driven by the opportunity to gain federal grant funding for establishing a pan-national green building model, David and two colleagues formed the USGBC, the U.S. Green Building Council. The council eventually lost its ability to receive government funding, but restructured itself to sustain on a fee basis wherein its members (all organizations from various sectors of the building industry) pay an annual fee based on annual profits. The mission of the USGBC is to transform building design, construction, and operation from conventional practices to sustainable practices that optimize profit for both the business world and for the environment.

Following a tumultuous beginning, the USGBC went on to develop a national building rating system entitled Leadership in Energy and Environmental Design (LEED). The LEED rating is based on six environmental categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation and design process. Buildings structured to receive the LEED title are awarded grants of $800,000 from the Department of Energy. The incentive to receive this coveted title has had unprecedented effects on the building industry. Entire cities such as Seattle, and the entire state of Pennsylvania have required that all civic buildings meet LEED certification, and even the US NAVY asks for a LEED level of building. Private companies such as Ford, Toyota, Pottery Barn, Pier One, and PNC Bank have used LEED certification.

As the USGBC helped to streamline sustainable practices into the business of building, and green building became more widely used, the price of greening gradually reduced. In a study conducted in 2003, the USGBC found that the cost of greening a building had dropped 38% from 1995 to 2003. Another benefit found was that in green buildings, employee productivity rose from 6% to 16% due to lessening absenteeism; it was shown that over the course of a 30 year period, 3% of total cost of a building is for up front design and construction, 6% is for building maintenance, and 91% is for employee salaries. This is why employee productivity is so important and any increase to the well-being of the employee, i.e. better air quality in the office, is a major cost saver and efficiency booster.

The success and innovation of U.S. Green Building Council led to the creation of the World Green Building Council. The WGBC has eight nation state members to date, including Japan, Australia, England, Spain, Canada, Brazil, Mexico, and India. The WorldGBC operates with the notion that green buildings can contribute to a 40% reduction in a nation's Kyoto Protocol commitment, of which the U.S. is not a participant.

Greed to Green, while primarily a story of one man's journey to greatness from the hallows of greed to the ethical rewards of green, was very helpful in providing information regarding the basics of green design. Green building concepts that were discussed in depth within this tale include:

- Cool, light colored roofing
- Insulation for windows, roofing, walls, and flooring
- Occupancy day lighting sensors with dimmers
- Low volatile organic compound (VOC) emissions
- High efficiency water source heat pumps
- Lighting systems with direct (downward pointing) and indirect (bouncing light off of the ceiling) fixtures

- Solar film on windows
- Energy Star compliance
- Single tube lighting
- Waterless urinals
- Cistern to capture rainwater on rooftops
- Dual-plumbing gray water systems
- Dual air filters
- Building products with high recycled content including ceiling tile, insulation, ceramic bathroom tile, toilet partitions, fiberboard
- Recyclable building products including carpet, tiles, walls built for disassembling, movable work stations

What I find to be of primary importance in this book is the expressed need to incorporate sustainable tactics in already existing methods of infrastructure. It may be too radical to hope that any industry will be transformed from the root level by a passion for the thriving natural environment. I believe a more logical approach to "greening" the infrastructures of the global economy is to find tactics that promote economic growth while lessening the ecological footprint that our collective pursuit of "well-being" leaves behind. Those who are business-minded will pursue the dollar at all costs, and only if we can synchronize the proverbial "earning of the dollar" with a simultaneous greening of industry will we have hit on the precious duality. It is possible; business and environmental sustainability are not mutually exclusive; it is within the harmonization of these two worlds that our sustained future exists. ¤

HANAH SNAVELY is a senior in the Urban Studies program at San Francisco State University. Upon graduation in May, Hanah will travel through Central and South America, working with various community development programs. Hanah is often caught with pomegranate stained fingers and a guilty little smile, and her favorite word is sustainabling.

"As a tree torn from the soil, as a river separated from its source, the human soul wanes when detached from what is greater than itself.

Without the holy, the good turns chaotic, without the good, beauty becomes accidental.

It is attachment to what is spiritually superior, loyalty to a sacred idea, devotion to a noble friend or teacher, love for one's people or for humankind, which hold our inner life together.

Unless we aspire to the utmost, we shrink into inferiority."

-Abraham Joshua Herschel

References

Gottfried, D. 2004. *Greed to Green: The Transformation of an Industry and a Life.* Berkeley, CA: WorldBuild Publishing.

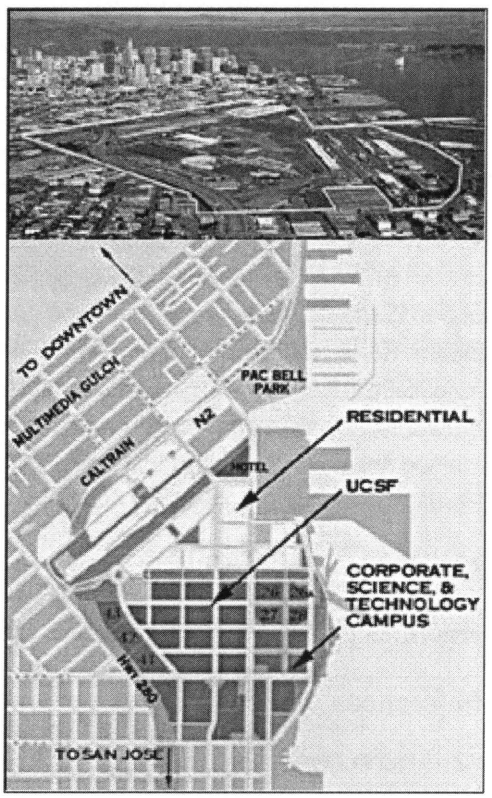
Vision of Green in the City of Gold: Sustainable Design in San Francisco

by Matthew Marceau

When I envision the future of San Francisco, I envision a historically, culturally, economically, and environmentally progressive city. I see walkable neighborhoods, mass public transportation, and most importantly sustainable architecture. In his 2005 State of the City Address, Mayor Gavin Newsom said "The time has come to advance architecture and urban design that elevates civic pride and inspires the mind" (Newsom, 2005). I see this address as being the outline for future development in the city in many different arenas, specifically green design. For the future of green design implementations, the Mayor also stated that "...we will set clear expectations for excellence. Engaging builders, architects, community leaders, and organizations in the understanding that every act to construct and change, however small, is a chance to improve our city's livability." One of the expectations mentioned by Newsom is "strong tides, high winds, constant waves, abundant sunshine, combined with our highly educated workforce and academic resources, uniquely positions our city to become an international leader in this emergent industry." These are very powerful and thought provoking words spoken by Newsom, but how will this practically play out?

San Francisco's big step toward a greener footprint

In terms of the future of a green economy in San Francisco, the Mayor went on to explain that "Clean Tech, which is projected to create up to 114,000 new jobs statewide in the next five years, is one of the most significant economic opportunities for San Francisco today." With all these jobs being created, who is going to control and guide from a governmental aspect of implementation? Newsom stated that "We will create a clean technology advisory council to advance the creation, adoption, and use of clean technology." He also went on to mention the work being done to create a payroll tax exemption in the industry with the help of Supervisor Jake McGoldrick, claiming that this credit will have the same progressive effect on clean technology as did the tax credit for biotech. So, with all of the groundwork laid out in this speech in order to follow a vision of green, how will this vision be implemented? Will it be put into place by builders and architects, fueled by the large job creation opportunities and subsidies offered by the city? If implemented, where exactly is this development going to take place? In my minds eye, I envision one area within the urban landscape that is ripe for the implementation of large-scale green design: Mission Bay and Rincon Hill. Mission Bay, labeled "the last great hole in the fabric of San Francisco," will be patched by a massive mixed use project according to the



Mission Bay site and plan.

San Francisco Cityscape Online Journal (SF Cityscape, 2001).

I chose to focus on these areas of the city because I believe these areas will lead San Francisco's development for the next fifteen years, being that they are the last area of town recognized by developers as places for growth. Not only are Rincon Hill and Mission Bay recognized by developers, but they are literally the last areas to have substantial development take place. Developers have the ability to start from scratch and take advantage of the freedom that this entails. They don't have to worry about going back and fixing the problems because the solutions will literally be enveloped in the structure (Henderson, 2005). This follows closely with the Precautionary Principle that the city has adopted as its new overarching principle. Green design principles, such as solar panels, water filtration systems, rain catchment systems, natural ventilation systems, fuel cells, absorbable energy transfer units, local materials, and recycled materials can be easily mapped out and adjusted to fit the needs of the area.

East Coast urbanites set the trend for a sustainable West

There exist today many working examples of sustainable development projects throughout the US and the world of similar scale as that of the potential Mission Bay project. I will be looking at three specific cases that I've chosen because of their relevance to San Francisco. The first is a residential complex in New York's Battery Park, called The Solaire at 20 River Terrace (Big & Green, 2001). The second is the Chicago Center for Green Technology in Chicago, Illinois, and the third is a high-rise building in New York called Four Times Square, located at the corner of Broadway and 42nd street (U.S. Green Building Council, 2003; High Performance Commercial Buildings, 2003). The first and second examples are perfect models for the new development taking place in Mission Bay, and the third is an excellent example of how San Francisco can implement green design in its urban core (Financial District and Rincon Hill). I purposely left out residential implementation because of the mental renovation that needs to take place, and focused instead on the vast amounts of resources that large scale buildings consume. Logically, this seems like a great place to start.

The future of Mission Bay forecasted by San Francisco Cityscape is a grand development scheme with mass

The Solaire in New York's Battery Park.

amounts of acreage used and medium scale buildings dominating the bay front. Their numbers show 6,000 units of mixed-income housing built on half of the site, a population density of 40,000 people per square mile, and 48 acres of park space. Also included in this plan is a UCSF medical research campus, a biotechnology-oriented office park, a 500-room hotel, and an elementary school. Mayor Newsom forecasted that "when completed, Mission Bay will be home to over 30,000 new permanent jobs in life sciences, biotech and related fields, 15,000 new homes over the next five years, more than 3,000 units a year, and build close to 5,000 new homes." Both Newsom and San Francisco Cityscape have a vision of Mission Bay, and I believe that the tactics used by these case studies can easily fit into this grand vision. The Solaire in New York's Battery Park is a great place to start. The Solaire, pictured here, is a for-profit housing development with very strict green design features.

The site breakdown is as follows:

- Consumes 35% less energy, and reduced peak demand for energy by 60%
- Requires 50% less potable water than a conventional residential high-rise building
- Photovoltaic panels generate 5% of the building's energy during at peak loading
- Multi-level humidification ventilation systems supply filtered fresh air to each residential units
- All residents include programmable digital thermostats
- On-site black water treatment and reuse system supplies the cooling tower and the buildings toilets

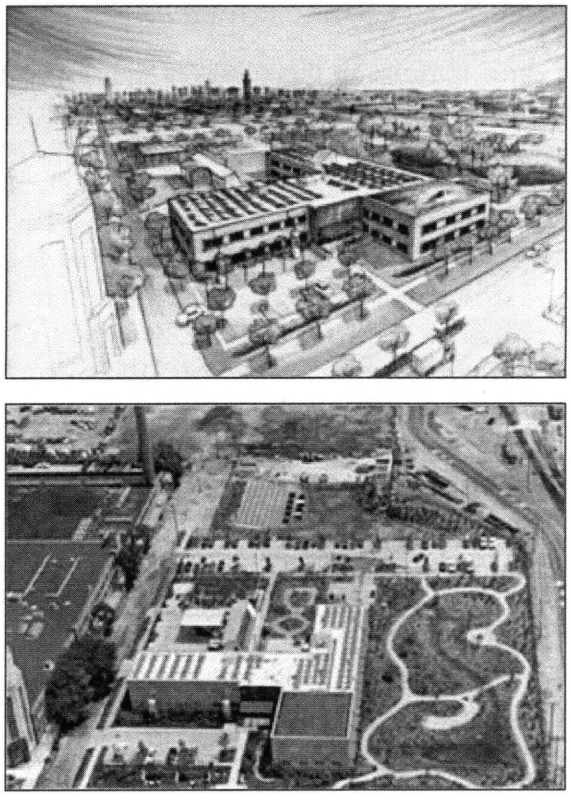
- Storm water catchment system provides irrigation to both a rooftop garden and the green roof
- 66.8% of materials are received within a 500-mile radius of the site
- Materials free of formaldehyde and contain low or no VOC's
- More than 93% of the waste of the project was recycled (U.S. Green Building Council, 2003)

All of these factors qualified for the LEED Gold standard for its green composition. Owned by Albanese Organizations, Inc. and Northwestern Mutual Life, this is the first green residential building in the nation. This building received multiple dimensions of financing with the help of The New York State Energy and Research Development Authority (NYSERDA). The financial breakdown is as follows:

- New York State Green Building Tax Credit, $2.8 million
- U.S. Department of Energy, $100k for commissioning
- NYSERDA through the New Construction Program (NCP) supplied $100k for LEED assistance, energy remodeling, $319k for reduced use of electricity, and $119k for commissioning
- NYSERDA then provided $90k for Photovoltaic cells
- Total amount of funding received: $3,528,079 (U.S. Green Building Council, 2003)

The total cost of this project was very substantial, reaching the final cost of $114,500,000. Because of the large initial investment in green technology the systems will be completely compensated for in only seven years. An important aspect of this project is the existence of a parking garage in the facility, something San Francisco might not have to worry about in the coming years. The waterfront aspect of this building makes it easy to imagine a building of its type in Mission Bay.

The Chicago Center for Green Technology is unsurpassed in its current technology. The campus-style building was destined for environmental efficiency from the very beginning. Owned in part by the Chicago Department of the Environment and local government, its primary purpose is profit. Inside this building there are a multitude of environmental specific firms and the facility itself is enveloped in a materials recycler. There was an initial investment of $9 million for clean up



The Chicago Center for Green Technology: Conceptual design and aerial view.

costs, and $1 million spent on remodeling costs. All of these efforts resulted in a final building that received a Platinum LEED rating and has a wide array of environmental aspects; which include:

- Photovoltaic cells
- Recycled Materials
- Environmental sensitive Smart Lighting
- Green roof
- Geothermal exchange system
- Rainwater collection for irrigation (U.S. Green Building Council, 2003)

With the scale of this project and the amount of investment that went into the rebuilding process, financing has been and remains to be an important factor. Chicago received the land from a settlement from the Sacramento Crushing Corporation for environmental regulation violations. The financial breakdown is as follows:

- Chicago received $100 million from the company as part of the settlement. The total cost of the entire development was only $19.8 million.

- With the breakdown being $14.4 million for project cost and
- $5.4 million going towards the renovation and construction of the site.

While this case had a large settlement attached to it to offset the cost, the amount of the project's total cost was reasonably within the cost range of many private developers in San Francisco. I envision this style of building coexisting with, or being a great design model for the elementary school or other office oriented uses that are going to dominate the redevelopment of the Mission Bay area.

Four Times Square, pictured here, is the first building in the nation of its size, with a towering 48 stories and was built with 1.6 million square feet of environmentally responsible design. It was developed by the Durst Organization and is an excellent example of the efforts of one U.S. city. This building is extremely extensive and complex in the systems that were used to complete it. The breakdown of green design technology used in the creation of this building is as follows:

- Windows that have shading coefficients and visible transmittance
- High-performance windows allowing maximum daylight into the interior
- Electric fluorescent fixtures with occupancy sensors
- Fans and pumps with high-efficiency variable-speed drives
- Photovoltaic panels integrated on the façade
- Fuel cells with a hot water byproduct heat the building and domestic water
- 50% more air than required by code is circulated
- Sustainably harvested wood and low water use equipment
- 65% of debris recycled
  (U.S. Department of Energy, 2001)

Four Times Square is one of the most visually stunning and technologically advanced buildings that exists today. It has far surpassed the stringent expectations put on it by New York City officials. While it has never received LEED certification because it was established before the LEED system had been implemented, it is recognized as a great achievement in the Manhattan cityscape. The building's finances are very simple in the way they were implemented. Here is the breakdown:

- NYSERDA and Rocky Mountain Institute provided grants for building simulations and weather simulations
- Real Estate Mortgage loan, $430 million in long term financing
- $500 million in initial construction costs
- Total project cost $270 million of the building with land excluded
  (U.S. Department of Energy, 2001)

This project is the 10th tallest building in New York and 38th in the U.S. and is a grand example of what can be done in any metropolitan area to ensure sustainability and resource-conscious development. Before the implementation of LEED standards, this building can be credited for introducing a new path in U.S. skyscraper design. Completed in 1999, it has set the mark for responsible building in the 21st century. I can imagine a building of this magnitude holding court in the center of the Financial District, or in the burgeoning Rincon Hill. Four Times Square possesses the grand scale and

Four Times Square in New York.

socially and environmentally responsible ideals that are ingrained in the great city of San Francisco. In the words of Mayor Gavin Newsom, "The state of our city is strong and growing stronger every day. Ahead of us lies great challenges and great days, but we are ready, we are a small city that dares big....bound only by our capacity to imagine." ¤

MATTHEW MARCEAU is a graduating senior at San Francisco State University majoring in Political Science with a minor in Urban Studies. Farther down the road he plans to attend graduate school in a green design related field and to start a firm specializing in green technologies and greener living, thereby pursuing a sustainable environmental and economic balance.

References

Gissen, D. (ed.). 2001. *Big & Green: Toward Sustainable Architecture in the 21st Century*. Princeton Architectural Press: New York and National Building Museum: Washington, D.C.

Henderson, J. 2005. "Envelope consists of height, setback, footprint, and the floor area ration (FAR), part of the Bulk of a building which is included in the Zoning Dimensions." Courtesy of Professor Jason Henderson, Fall 2005.

Newsom, G. 2005. "Why It Matters to be a San Franciscan: Second Annual State of the City Address." October 25.

San Francisco CITYSCAPE. 2001. "Mission Bay: The last great hole in the fabric of San Francisco will be patched by massive mixed-use project." *The Online Journal of the Bay Area Urban Design*. http://www.sfcityscape.com/printable/projects_mission_bay.html

U.S. Department of Energy. 2003. *High-Performance Commercial Buildings: A Technology Roadmap*. http://www.eere.energy.gov/buildings/documents/pdfs/roadmap_lowres.pdf

U.S. Department of Energy. 2001. National Renewable Energy Laboratory, DOE/GO-102001-1352. http://www.eere.energy.gov/buildings/info/documents/pdfs/29940.pdf

U.S. Green Building Council. 2003. LEED Certified Project Case Study, Chicago Center for Green Technology, Chicago, IL. http://leedcasestudies.usgbc.org/overview.cfm?ProjectID=97

U.S. Green Building Council. 2003. LEED Certified Project Case Study, 20 River Terrace – The Solaire, New York, NY. http://leedcasestudies.usgbc.org/overview.cfm?ProjectID=273

Image Sources

Figure 1: Courtesy of Mission Bay.

All others: Courtesy of United States Green Building Council.

What is the meaning of a sustainable development?

by Eliana Kaya

what is the meaning of a sustainable development?
guerilla greywater bathtubs
enschwarzeneggered hydrogen fuel stations
curitiban-compost-ice-cream trucks
how has the green agenda co-opted the brown one?
watch the hegemony spread beyond the borders of
Western philosophy to
Western medicine to
Western media to
Western fashion to
Western political institutions
which fund
the global international financial institutions
which fund
the multinational unaccountable (mega)corporations
which fund
the mainstream, censored, & mind-numbing media
which
perpetuates a public unaware of itself!

To put it another way...In Letters:
the US EU UN & G-8
fund the IMF WB WTO NASDAQ and NYSE
which create the FTA's
to carry out the obligations to shareholders of MNC's like
GM GE Disney Nike Gap Citi AT&T Bechtel & Boeing
through TRIPs TRIMs SAPs FTZs & EPZs...
But we get our information through
ABC CBS MSNBC CNN and don't forget F-O-X -
if we have time for news at all and
don't have to catch the MUNI or BART for our J-O-B.
So you don't really expect people to understand SD
cause simple definitions don't exist
in a globalized world
and the administration doubts all
the conclusions of the IPCC even
when the DOD reports that the science might after all be sound
and anyway
all the proper academics say there needs to be more R & D

But I say
Look at the victories of
Bolivia Japan Chile Bangladesh and India
water rights in Cochabamba
united resistance in the Valley of the Narmada
and the Landless peasants of Brazil.
Even as we learn about
apartheid debt in Azania
(on the richest continent in the world)
conditions exacted by an entrenched elite
which threaten the existence & survival of the people.
oil production is expected to Peak in the next few years
and that's a conservative estimate – a "UN Projection"

We gotta get busier with alternative infrastructure –
Look! at land distribution & dispossession
population density and coastal migration
explosions of algal blooms and waste lagoons
privatization of the remaining 1% of the global fresh water supply
outsourcing labor; dismantling trade unions
And my shoes
made by a Third World Sister's sweat
for centavos in "Free ? Trade Zone"
carry me to the Zero-emission bus
which takes me to the organic produce store
where i cut cheese to get free food
as hotel workers strike and get locked out
as the PG&E plant withers and further ghettoizes the residents of BayView
perpetuated ignorance and apathy of the privileged
we need a bioremediation of our minds
as the prison population climbs
and my black and brown sisters and brothers
pound out the plates for a government which denies them
the same license they made.
But even as the noose tightens on our opportunities
For education, employment, healthcare, housing, transportation & food
networks, coalitions, and communities break through the cracks
like a leak on Yucca Mountain
determined
to find the water for nourishment, for growth, for the chance to spread and influence
A perpetual struggle – a history of relentless resistance and strength
against the motherboard's propensity for
dispensing democracy and justice, American-Junta Style:
liberation by foreign death squad
the coup d'etat with Aristide has been a snack
for the Matrix
as the urban poor sift through imported computer dumps
in search of something to sell or use
and the survivors in Iraq make silverware with scraps from

the bombed out hulls of tanks left abandoned
after the depleted uranium bombs were launched.
A remote control war
with a 4.5 billion year half life

We can no longer digest the misconception of "free speech" in
these United States
But rather must lift our own voices in a random yet related
Mosaic of stories
Which ultimately links
the modern with the ancient
the exploiter with the resource base
the drought with the rain.
In the end, we are all one blood
One united and kindred spirit –
Our memories and aspirations; our thoughts and celebrations –
Our dust will return to the earth and give birth to new life
As always
As the circle continues in an endless cycle of souls

May we remember today (and everyday)
that we stand on the shoulders of giants from yesteryear
and may it give us the wisdom and courage to
Speak Truth and shed light as the Leaders of tomorrow.

ELIANA KAYA, a senior in the Environmental Studies Program at San Francisco State University, will graduate May 2006 with a concentration in Sustainability and Social Justice and a minor in Womens Studies. In addition to freelancing as a journalist with Free Speech Radio News, Eliana plans to continue working for social justice by contributing her two cents on various programs at KPFA. Originally given voice as a spoken word piece, this poem was inspired by a creative assignment opportunity in Professor Raquel Rivera Pinderhughes' course on Sustainable Development in Cities.

SALAM TALIB is studying wheelchair design with San Francisco State's project Whirlwind Wheelchairs International, enabling people with disabilities to be more independent. Born and reared in Iraq, Salam has been an active proponent of rights for the disabled in an environment of ongoing conflict. One of his most recent works since arriving in the U.S., he submitted this painting as a companion piece to express the interconnectedness between hope and despair.

The Power of Place: The Application of Environmental Psychology in Urban Planning

by Erika Lew

If asked to name your favorite place, how would you choose? You might first think of your home or, conversely, recall a faraway place that represents a personal ideal. You might think of a place of great natural beauty, a nice spot in the city, or even an ordinary place that is not outwardly special. Possibly few others would understand its appeal, but all the same this place makes you feel good. Being there, you feel especially energized, relaxed, or perhaps at peace with life.

Whether or not we can finally choose a favorite, this question prompts us to consider how much our surroundings affect us. Each place that comes to mind represents a mix of values and impressions rooted in both objective and subjective qualities. And just as places can make us feel good, they can have the opposite effect, or little effect at all. To what extent are our feelings grounded in the physical form of a place? Through our reflections, we can see that it is important to evaluate how we relate to our environments and examine what role they play in our experiences. Our surroundings shape how we live and how we feel.

This "favorite place" question gets to the heart of place meaning, a concept that refers to the layers of associations that we attach to places. Place meaning is a central area of study in the field of environmental psychology – a branch of psychology that is defined loosely as "the study of the interface between human behavior and the sociophysical environment" (Stokols, 1978). Simply put, environmental psychologists aim to identify the ways in which places affect people, and vice versa. Their research is practically relevant in the context of urban planning. By systematically evaluating places from a psychological perspective, in terms of how people perceive their environments, how they interact within them, how their attitudes and behaviors are affected, and in turn, how their behaviors shape the environment, we can discover ways to make cities more livable. The findings of environmental psychologists relate to everyone, and should be taken beyond the academic realm and put into practice by urban planners.

Interdisciplinary approaches to urban planning

In considering the life of cities – how they function, what they represent, and what they could be – planners integrate knowledge from a range of disciplines, from geography to sociology to history to political science. Psychology, though, is a field with slightly less obvious connections. As a student of both urban studies and psychology, I have often wondered whether there could be a more productive exchange between the two. Urban planners tend to the way the built environment affects our lives, typically exploring how economic, social, and cultural factors play out in the form and function of cities. Psychological factors seem to be given less attention, though. Because psychological affect is subjective and not immediately tangible, perhaps it is considered a secondary concern or a matter of aesthetics.

Our surroundings shape how we live and how we feel.

Urban planning often benefits from interdisciplinary exchange in practice. One of the best-known applications of social science research in urban planning and design was William H. Whyte's Street Life Project, in which he set out to explain why some of New York's public plazas thrived while others sat nearly empty. By recording and observing activity in a number of spots, Whyte identified elements that either attracted or deterred people. His findings, detailed in the classic film The Social Life of Small Urban Spaces (1980), showed that the success of "small urban spaces" had much to do with their form: people were drawn to multiple seating options, street food, and features that create a feeling of enclosure. Though the findings seem simple,

Whyte's study was visionary; it changed New York planning policy and has since become a standard teaching in urban planning courses. It affirmed the importance of socially vital public places and demonstrated the practical value of psychological research. Though Whyte was a sociologist, the methods he used and the concepts he described were akin to those used by environmental psychologists.

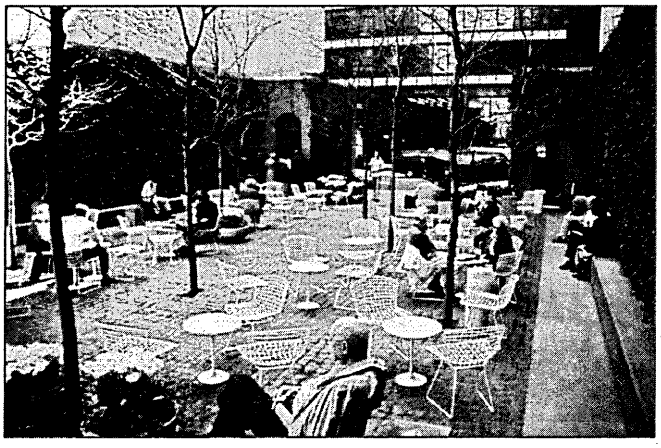
The field of environmental psychology

Environmental psychology emerged as a distinct field in the 1960s, largely as a practical response to socially relevant problems. While the term itself was first used during a study about how design elements of psychiatric hospitals affected patients' progress (Fisher, Bell, and Baum, 1984), work in the field quickly expanded to include environments of a larger scale. Psychologists, whose academic research was largely confined to isolated, controlled environments, sought to apply their efforts to real-world problems – for instance, the dangerous conditions of urban renewal-era housing projects.

In their characterization of the field, Bonnes and Secchiaroli (1995) describe the early days in which the new environmental psychologists sought to define their purpose and place within the spectrum of academic tradition. According to these authors, the early literature emphasized four key points that help to frame environmental psychology within the spectrum of urban study and planning practice:

1) the programmatic attention to spatio-physical characteristics of the environment where behavior takes place;
2) the peculiarity of the methods adopted;
3) the orientation towards problems having clear social relevance;
4) the interdisciplinary orientation of research (Bonnes and Secchiaroli, 59)

Though primarily associated with social psychology, the study of group behavior, environmental psychology draws upon every facet of psychological theory to answer a variety of questions. Some studies are grounded in theories of the biological processes of perception and cognition (How does lighting affect the way people assess their surroundings? What is the optimum level of stimulation for a particular environment? How do people interpret space to form mental maps?). Others might evaluate cities from a child-developmental perspective (Does the environment support or hinder children's independent exploration?). Still others study the relation of people to places on the basis of personality theory (How do extraverts and introverts differ in their assessment of various places?). This sampling represents the depth and breadth of environment-based psychological research.



Grace Plaza (top) and Paley Park in New York. These urban spaces, both studied by William H. Whyte, demonstrate a contrast in psychological effect and use. One is warm and inviting; the other is cold and alienating.

Recent research

Discussion of the underlying framework of environmental psychology – in terms of what basic premises are held about how people relate to the world – can spiral into philosophical realms. Rather than trying to resolve that complexity, it makes more sense to focus on questions and findings that are applicable to planning. The practical objective is "to identify components, properties, or overall dispositions of the physical environment which impede and/or facilitate people's behaviors and

actions" (Bonnes and Secchiaroli, 1984: 75). Essentially, environmental psychologists search for ways to create positive, beneficial energies between people and places. To this end it is fascinating to consider the potentials represented by recent research. Some examples include:

- An observation tool for helping to assess urban residential environments (Dunstan et al, 2005). The Residential Environment Assessment Tool (REAT) scores residential areas on the basis of 29 weighted factors grouped into categories such as "physical incivilities," "defensible space," and "natural environment." Relevant factors include property maintenance, number of trees, and commercial outlook. The tool, which was verified against an attitude survey that measured people's subjective assessment of the same places, can identify improvements by helping to clarify connections between the built environment, health, and quality of life.
- A study that explores the effects of neighborhoods on mental health (Leventhal and Brooks-Gunn, 2003). The results showed that parents and children had significantly fewer mental health problems, such as depression and anxiety, when they moved from high-poverty to low-poverty areas. This research is vitally important in that it can provide the evidence needed to influence decisions about housing policy.
- A study that explores how exposure to certain environments restores attentional capacity (Berto, 2005). Its findings about qualities that induce or alleviate mental fatigue suggest how indoor and urban environments can be designed to increase feelings of well-being.
- A study that analyzes the effects of "environmental values" (Reser and Bentrupperbaumer, 2005). Environmental values are "the individual and shared community or societal beliefs about the significance, importance, and well being of the natural environment, and how the natural world should be viewed and treated by humans." Because the way that environmental issues are conceptualized affects both individual and organizational behaviors, the researchers advocate care in defining and representing core values.
- A study concerning the well-being of aging people living in their own homes (Rioux, 2005). As the elderly population grows, questions about their needs within the urban environment (and society at large) become increasingly important. This French study focuses on physical, social, and activity-related factors that can promote a better quality of life. The dynamics of "people/place/activity combinations" are at the heart of environmental psychology.

Other interesting topics include: the effects of control over office workspace on perceptions of the work environment and work outcomes (Lee and Brand, 2005); the effects of mystery on preference for residential facades (Ikemi, 2005); and a review of intervention studies aimed at household energy conservation (Abrahamse et al, 2005). The latest studies can be found in journals such as *Environment and Behavior* and the *Journal of Environmental Psychology.*

Research methods

Environmental psychology is grounded in scientific research, the integrity of which is especially important because study findings have implications for policy and practice. To draw meaningful conclusions about how people relate to places, researchers have to operationalize their research questions to produce analyzable data. They must find ways to objectively measure seemingly subjective qualities and responses. Common research methods include interviews, attitude surveys, and field observation – all methods that are shared among the social sciences.

One interesting method is the adjective checklist, in which respondents rate places on numbered scales between opposite descriptors (e.g., good/bad). The criticisms against this type of instrument – the words may be too abstract, or subject to verbal stereotyping (Bechtel, 1987: 91) – underscore the challenge of measuring psychological affect. But the descriptors reveal salient environmental qualities. Table 1 shows Kasmar's list of environmental descriptors (1970), one of the first to be systematically tested (Bechtel, 1987). By eliminating the vague or biased descriptors that resulted in statistical imbalances, the original list of 197 descriptor pairs was narrowed down to these 67 pairs. The list represents a useful vocabulary; reading through it can help us analyze our own reactions to places. (For instance, how would your favorite place rate? Which of its qualities seem most important?)

This sampling of research topics and methods conveys the wide range of study in environmental psychology and the potential it represents. Much research is taking place internationally, which is encouraging. Social and

Table 1: Kasmar's list of environmental descriptors

adequate size/inadequate size	flashy colors/subdued colors	ornate/plain
appealing/unappealing	free space/restricted space	pleasant/unpleasant
attractive/unattractive	fresh odor/stale odor	pleasant odor/unpleasant odor
beautiful/ugly	functional/nonfunctional	private/public
bright colors/muted colors	gay/dreary	quiet/noisy
cheerful/gloomy	good acoustics/poor acoustics	roomy/cramped
clean/dirty	good colors/bad colors	soft lighting/harsh lighting
colorful/drab	good lighting/poor lighting	sparkling/dingy
comfortable/uncomfortable	good lines/bad lines	stylish/unstylish
comfortable temperature/ uncomfortable temperature	good temperature/bad temperature	tasteful/tasteless
	good ventilation/poor ventilation	tidy/untidy
complex/simple	huge/tiny	uncluttered/cluttered
contemporary/traditional	impressive/unimpressive	uncrowded/crowded
convenient/inconvenient	inviting/repelling	unusual/usual
diffuse lighting/direct lighting	large/small	useful/useless
distinctive/ordinary	light/dark	warm/cool
drafty/stuffy	modern/old-fashioned	well balanced/poorly balanced
efficient/inefficient	multiple/purpose/single purpose	well kept/rundown
elegant/unadorned	neat/messy	well organized/poorly organized
empty/full	new/old	well planned/poorly planned
expensive/cheap	orderly/chaotic	well scaled/poorly scaled
fashionable/unfashionable	organized/disorganized	wide/narrow

cultural differences in response to urban issues can provoke discussion and further development in the field. Whether directly through site-studies and consultation, or indirectly through the knowledge base of study findings, environmental psychologists can make valuable contributions to the planning process. The ever-growing body of research can inform the practice of planners, policy-makers, architects, landscape architects, advocacy groups, and others.

Environmental psychology in planning practice

Environmental psychologists have described a range of meaningful connections between people and places. While their study findings are interesting and informative, to what extent can they be put into practice? Where does environmental psychology fit within the puzzle of planning?

Certainly, it would be ideal for every place to be beautiful, dynamic, and restorative, but as with all urban issues we have to acknowledge the limitations posed by economics, power, and public opinion. For instance, the San Francisco Chronicle recently published an article whose title alone reflects conflict: "IN PRAISE OF SUBURBS: Suburbia often gets a bad rap, but government should accept that people want the picket fence ideal" (Kotkin, 2006). This article characterizes higher-density development, including community-oriented movements such as New Urbanism, as a planner's goal that does not match what people want for themselves. This raises an essential question – can planners influence the development of the built environment to the point of managing its psychological effects? Sprawl has been extensively criticized for being socially alienating in the way it patterns people's daily lives, yet most Californians (84 percent according to Kotkin) still desire single-family homes. So how can the research be made to matter, in real terms?

This question is too substantial for any easy answers. However, one way to approach it is for professionals to actively share their research findings with the public. The ideas behind environmental psychology should resound with everyone. For individuals to look critically at the way our environments affect our lives is an important first step. Public concern and in-depth dialogue can be a catalyst for change. It may be idealistic to hope for

this, but as with many issues a shift in consciousness is necessary.

From the other end, planners and environmental psychologists must continue to build knowledge and attempt to integrate it in practice. Most urban planning goals are interrelated, such as reduced auto use, increased density, and mixed-use development. Taken individually or together, these goals address issues of sustainability, environmental justice, and community development. The same goals can also be looked at in terms of their psychological effects: cars may disrupt our feelings of peace and safety; density can create feelings of closeness and belonging; mixed-use development can create an energized atmosphere. Of course, perceptions vary – many people value the freedom of cars, the spaciousness of low density, and the way that zoning separates public and private space. Dealing with competing visions is a basic challenge for planners.

In practice, it may be unwise to conceptualize goals separately. The study of environmental psychology is really part of a holistic approach to urban planning. Cities are not merely functional structures, nor are they all a matter of psychological affect. Understanding the dynamics of how we relate to our surroundings is just one more important aspect to consider in the quest to make our cities more livable. Through the continued study of environmental psychology and the application of its findings in planning practice, we can create more positive places. ▫

ERIKA LEW is is a senior in Urban Studies and Psychology at San Francisco State University. She likes thinking about connections between people and places and hopes to find ways to put promising ideas into practice. Her second-favorite city is Moscow, which is livable in its own way.

References

Abrahamse W., Steg, L., Vlek C., & Rothengatter, T. 2005. "A review of intervention studies aimed at household energy conservation." *Journal of Environmental Psychology* 25, 273–291.

Bechtel, R.B., Marans, R.W., & Michelson, W. (eds.) 1987. *Methods in environmental and behavioral research.* New York: Van Nostrand Reinhold.

Bonnes, M. and Secchiaroli, G. 1995. *Environmental psychology: A Psycho-social introduction.* London: Sage Publications.

Berto, R. 2005. "Exposure to restorative environments helps restore attentional capacity." *Journal of Environmental Psychology* 25: 249–259.

Dunstan, F., Weaver, N., Arayad, R., Bella, T., Lannon, S., Lewis,G., Patterson, J., Thomas, H., Jones, P., & Palmera, S. 2005. "An observation tool to assist with the assessment of urban residential environments." *Journal of Environmental Psychology* 25, 293–305

Fisher, J.D., Bell, P.A., & Baum, A. 1984. *Environmental psychology.* New York: CBS College Publishing.

Ikemi, M. 2005. "The effects of mystery on preference for residential facades." *Journal of Environmental Psychology* 25: 167–173

Kotkin, J. 2006. "IN PRAISE OF SUBURBS: Suburbia often gets a bad rap, but government should accept that people want the picket fence ideal." *San Francisco Chronicle*, 29 January.

Lee, S.Y., Brand, J.L. 2005. "Effects of control over office workspace on perceptions of the work environment and work outcomes". *Journal of Environmental Psychology* 25: 323–333.

Leventhal, T., Brooks-Gunn, J. 2003. "Moving to opportunity: An experimental study of neighborhood effects on mental health" *American Journal of Public Health*, 93: 1576–1592.

Resera, J.P., Bentrupperbaumer, J.M. 2005. "What and where are environmental values? Assessing the impacts of current diversity of use of 'environmental' and 'World Heritage' values." *Journal of Environmental Psychology* 25: 125–146

Whyte, W.H. 1980. *The social life of small urban spaces.* New York: Project for Public Spaces.

Image Sources

All photos: Project for Public Spaces

Amenity or Necessity: Parks and Open Space in San Francisco

by Michelle Jacques-Menegaz

City parks serve, day in and day out, as the primary green spaces for the majority of Americans.

- Bruce Babbitt

This paper was originally written for San Francisco State University Professor Qian Guo's Urban Geography course in the spring of 2005 in response to an option to write a paper on urban "amenities" such as parks. My intention was to demonstrate that parks and other open and green spaces are not amenities but necessities in urban life. Research conducted for the original paper has been complimented with additional supporting material. In academic and planning circles there is increasing recognition of the importance of nature in cities and a growing body of research supporting its value. The movement to improve urban spaces through greening and preservation has been gathering momentum over the past decade and thankfully, the future looks bright.

Seeing Green

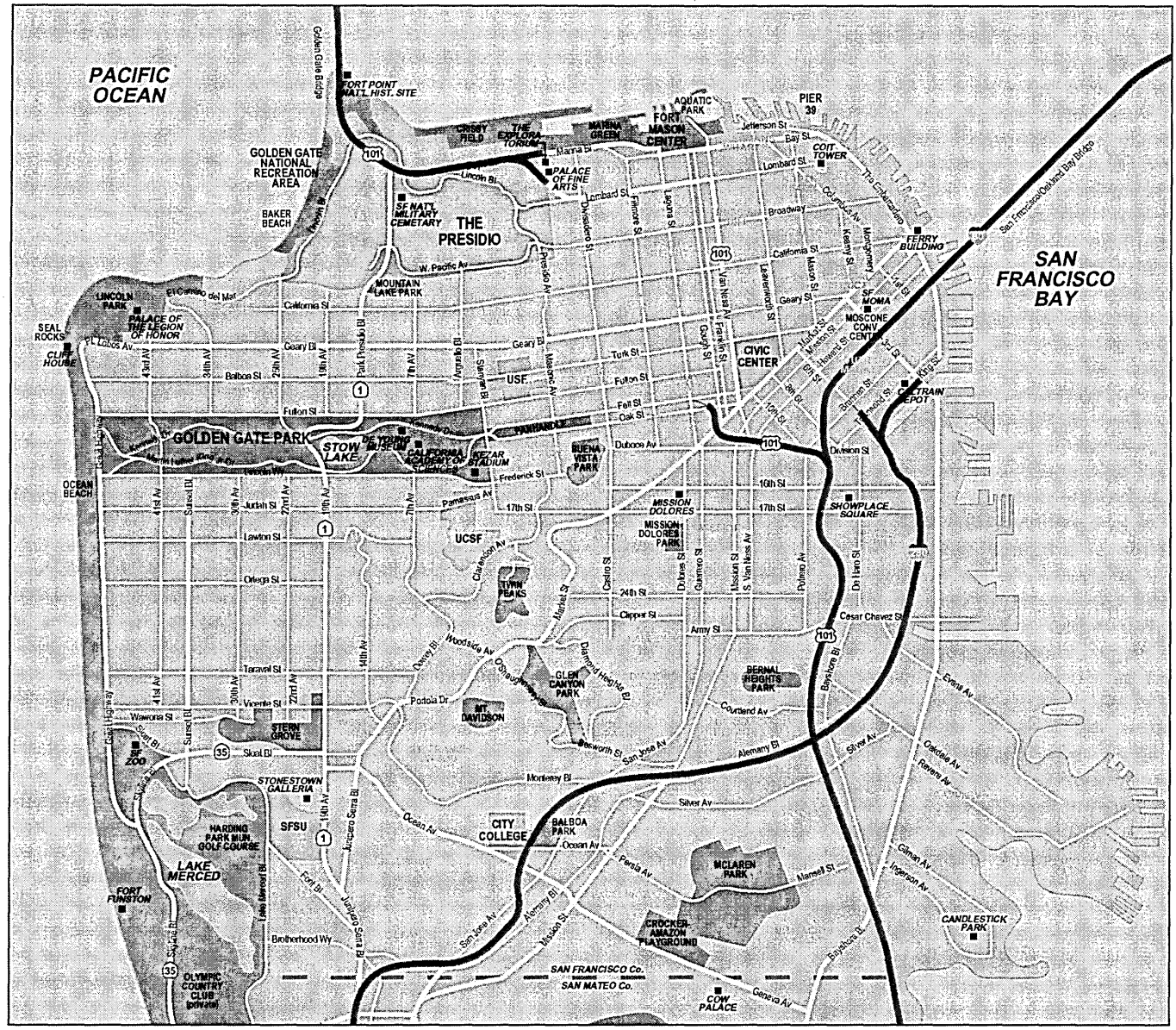
The San Francisco Bay Area boasts a richly diverse natural environment with countless microclimates and unique ecological zones. Unfortunately urban development and sprawl have already swallowed up a good portion of this wild landscape. Despite the known benefits of maintaining a balance between the built and natural environment, sprawl threatens to pave over 490,525 Greenbelt acres (AT RISK, 2000). Urban parks and other planned public open spaces are an attempt to regain this balance with nature in the context of the urban environment.

In addition to the loss of natural environment through increasing sprawl, the number of city parks in the United States is declining, this despite the potential of public open space to improve urban areas (Lawson, 1994). Parks being public, "they are a direct indicator of governmental interest in the urban environment" (Lawson, 1994) and Bay Area governments appear to be interested. Alex Amoroso, (former) Senior Regional Planner of the Association of Bay Area Governments (and an SFSU Urban Studies Alumni), is a strong supporter of so-called Smart Growth policies. Smart Growth seeks to limit the negative impact of continued development and create more livable communities through strategies such as in-fill, transit-oriented-development and the preservation of green space. A key player in the battle for open space is Greenbelt Alliance – "protecting the Bay Area's open space and promoting livable communities since 1958" (Greenbelt Alliance, 2005).

There is hope; according to a study released earlier this year, San Francisco has the highest percentage of parkland of all U.S. cities (Zlot, 2005). In addition, San Francisco boasts the third-largest urban park system, with 19.8 percent of the city's total land area devoted to parks and open spaces, and spends an average of $133 per resident on those parks and open spaces (Harnick, 2003). San Francisco also ranks first for the highest percentage of people who walk or bicycle for recreation and sixth for "utilitarian" walking and bicycling – getting from one place to another (Zlot, 2005).

Inequity of a Necessity

Many of the nation's great city parks, including San Francisco's Golden Gate Park, were built in the second half of the 19th century. The urban park movement of the 1860's through the 1880's reflected new ideas about the value of parks and urban nature (Benton, 1998). Early urban planners believed the parks would "improve public health, relieve the stresses of urban life, and create a democratizing public space where rich and poor would mix on equal terms" (Sherer, 2004). Unfortunately access to public green space is not equal for all and fails to live up to the democratizing dreams of many early urban planners. According to a 2004 report by The Trust for Public Land, in San Francisco – ranked third out of seven major US cities for provid-



Map of San Francisco's major city parks.

ing children's access to parks – 16,700 children do not have a park within walking distance (considered to be one-quarter of a mile) of their home (No Place to Play, 2004).

One look at a map of San Francisco's parks reveals the truth behind such statistics; the middle class and more affluent neighborhoods on the western side of the city boast a wealth of green space, while poorer communities on the city's eastern shore and in downtown neighborhoods such as Chinatown, are left out of the picture. "In addition, in low-income neighborhoods where there are parks, the equipment is often obsolete or unsafe: swing-sets lack swings, sandboxes are full of garbage and broken glass, drinking fountains overflow" (TPL, 2005).

Recent studies show that residents of less affluent communities are more likely to suffer the affects of ill health, including a disproportionately high rate of Type 2 diabetes. Researchers are finding that a lack of access to sufficient healthy food and exercise/recreational options play an important role in these disparities (Klenfield, 2005). These more heavily impacted communities are also more likely to be communities of color, raising the issue of social justice. Ensuring access to safe, healthy and health-promoting environments for all urban residents is one way to address this issue of inequity.

In one attempt to rectify this imbalance, the San Francisco Neighborhood Parks Council is working to create a "green" corridor for activity and discovery along the Southeast shore of San Francisco to provide "a much-

needed alternative transportation opportunity that is easily accessible for exercise, recreation and enjoyment of art and open space in the City's park-poor Southeastern Corridor" (SFNPC, 2006). The NPC is a coalition of community-based park groups actively involved in improving neighborhood parks throughout San Francisco. Since 1996, the NPC has grown to include over 120 park groups and 4,000 park volunteers. NPC advocates for "a superior, equitable and sustainable park and recreation system [and] provides leadership and support to park users through community-driven stewardship, education, planning and research" (SFNPC, 2005).

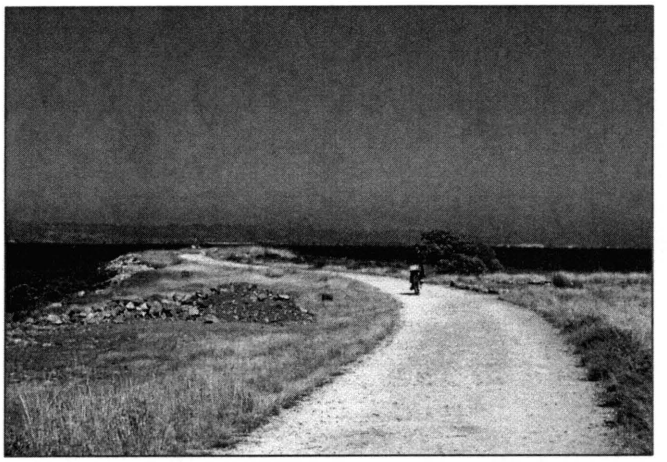
Through their Parks for People Program, the Trust for Public Land is also working to "redevelop small, underutilized parcels of land within the urban core of our Bay Area cities, revitalizing neighborhoods and providing the residents with more parks and open spaces close to home" (TPL, 2005). TPL partners with residents, public agencies and community organizations; cultivating community participation to "improve, create, and protect the Bay Area's parks and playgrounds" (TPL, 2005). Through community investment, this program helps to ensure long-term stewardship of new and rebuilt parks.

Benefits of Green Space

Fortunately a broader, more inclusive view of parks is emerging, calling attention to the valuable role they play in maintaining the vitality of communities and their residents through such opportunities as job training, youth development, public health and community building. In addition to such tangible contributions, parks "help build and strengthen ties among community residents by bringing people together, including those who are otherwise divided by race or class" (Walker, 2004). This "social capital" is a subtle but nonetheless crucial asset for communities.

The promise of social capital as a vital ingredient in neighborhood health rests on a solid scientific foundation. Recent research demonstrates... that a neighborhood's collective efficacy – people's connections with one another and their capacity to work together to achieve shared goals – can reduce crime and disorder, even in very poor communities (Walker, 2004).

Parks and other shared green spaces play an important role in the formation of such connections. Frances Kuo and William Sullivan, co-directors of the Human-Environment Research Laboratory at the University of



Biking in Heron's Head Park at Bayview-Hunters Point.

Chicago at Urbana-Champaign, have conducted several recent studies on the link between nature and healthy human functioning in inner city Chicago. In one study they found, "having grass and trees that are easily and readily accessible helps to grow social ties and a sense of community among residents in low-income, inner-city housing" (Ed., 1999). This is especially important for people with limited resources. "For families living in poverty, an important survival strategy is to share resources in larger social networks. Because common spaces with trees and grass bring people closer together, the addition of simple landscaping may promote this informal form of social security and reduce the reliance upon costly social services" (Ed., 1999).

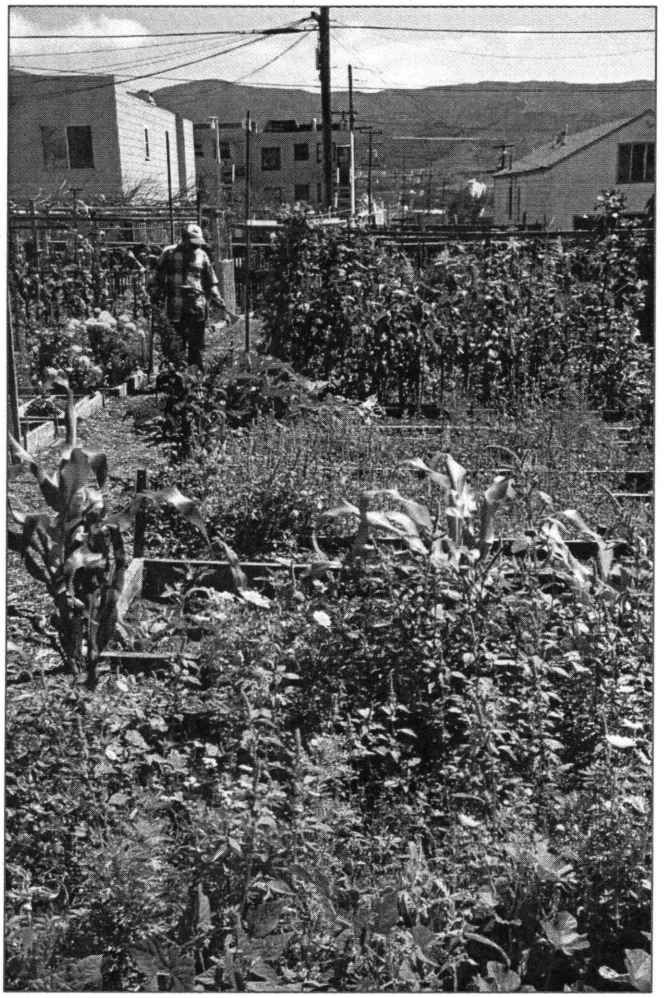
In another study, Kuo and Sullivan examined the effect of environment on aggression and fatigue, demonstrating "a link between nature and reduced aggression" in public housing residents with greater access to nature in their immediate surroundings (Kuo, 2001). This raises an interesting question with regard to the benefits of residential nature and begs the questions of how much nature is necessary to convey these benefits. Their work goes further, suggesting "the geographic distribution of natural areas matters. Although large central or regional parks are clearly important components of urban design, the results of this study suggest that a few major parks are not enough" (Kuo, 2001).

Additional research by Kuo and her colleagues demonstrates, "for girls, green space immediately outside the home can help them lead more effective, self-disciplined lives" (Taylor, 2002). The greener the girls' views, the "better they were able to concentrate, refrain from acting impulsively and delay gratification. The greener views translated into better self-discipline" (Taylor,

2002). These findings "strengthen arguments that city planners and housing developers should strategically incorporate views and access to nature to enhance the quality of life for residents" (Barlow, 2002).

Greenways – any land planted with grass, trees and/or shrubs which serve no other public function – located along busy traffic corridors also provide many benefits, including reducing carbon dioxide levels resulting from vehicle emissions, reducing interior and exterior residential sound levels from passing traffic, and providing a more visually pleasing environment, to both residents and commuters. A comparison between San Francisco's Sunset Boulevard and 19th Avenue transit corridors in the Sunset District provides an excellent example of the difference planned and well-integrated green space can make in a community.

19th Avenue, from the intersection of Junipero Serra to Lincoln Avenue at Golden Gate Park, serves as the urban route for California State Highway 101. In order to accommodate additional vehicular traffic and parking, the roadway has been widened over time to the fullest extent possible, eliminating space for vegetation, narrowing sidewalks and bringing traffic to residents' front doors. Public transportation and bicycle needs have not been well integrated, discouraging many people from using these alternate forms of transit. Car traffic is heavy at all times of the day and much of the night and noise from vehicles reverberates off the walls of the buildings lining the street. Pedestrian safety is a major issue – "on 19th Avenue alone there were 198 pedestrian injuries and three deaths in 2001, and 214 such injuries and two fatalities in 2002" (Governor, 2005).



A garden in Visitacion Valley, part of the Parks for People Program of the Trust for Public Land.

Sunset Boulevard, which runs parallel and to the west of 19th Avenue, stands in sharp contrast. With the same number of traffic lanes in each direction and often busy with cars during the commute hours, Sunset feels less hurried and frantic. A grassy meridian and green space featuring trees along both sides of the roadway contribute to a greater sense of calm. Signal lights are timed to coincide with a 35 mile-per-hour speed limit, reducing the amount of stop-and-go traffic as well as improving transit time. No parking is allowed along Sunset Boulevard, allowing for greater ease of operation of public transit vehicles. While still not ideally suited for bicycle travel, paved paths through the greenways allow for greater safety for cyclists and pedestrians.

Green Means

On the financial side, "numerous studies have shown that parks and open space increase the value of neighboring residential property. Growing evidence points to a similar benefit on commercial property value" (Sherer, 2004). As our cities face mounting losses of tax revenues due to residential, commercial, industrial and corporate suburban flight, it becomes increasingly important to look at different ways in which to attract new and retain existing renters, homeowners, and small and large businesses.

One way to encourage the increased integration of parks and green spaces is to provide proof of the benefits. However, "the benefits parks provide are spread over many areas, making them hard to quantify and easy to overlook" (Walker, 2004). One organization trying to close the gap between research and reality is the Trust for Public Land, a national organization headquartered in San Francisco that "conserves land for people to enjoy as parks, gardens, and other natural places, ensur-

ing livable communities for generations to come" (TPL, 2005).

In 2003, the Trust for Public Land published a report by Peter Harnick, co-founder of the Rails-to-Trails Conservancy, entitled, The Excellent City Park System. Section seven of the report, "Benefits for the City Beyond the Boundaries of the Park," describes an excellent park system as "a form of natural infrastructure that provides many goods for the city as a whole" such as:

- Cleaner air, as trees and vegetation filter out pollutants by day and produce oxygen by night;
- cleaner water, as roots trap silt and contaminants before they flow into streams, rivers and lakes;
- reduced health costs from sedentary syndromes such as obesity and diabetes, thanks to walking and running trails, sports fields, recreation centers, bikeways, golf courses, and other opportunities for physical fitness (many of San Francisco's parks contain tennis, racquetball, handball and *bocce* ball courts);
- improved learning opportunities from "outdoor classrooms" in forests, meadows, wetlands and even recovering brownfields and greyfields (also, "green" schoolyards and school gardens);
- increased urban tourism based on attractive, successful parks, with resulting increased commerce and sales tax revenue (i.e., Golden Gate Park with its museums, gardens and surrounding businesses);
- increased business vitality based on employer and employee attraction to quality parks; and
- natural beauty and respite from traffic and noise (Harnick, 2003).

Good parks also contribute to a greater sense of community and foster closer intergenerational ties among users. Many parks contain playgrounds and community clubhouses or recreation centers. These locations may offer pre-school, after-school and gaming services (checkers, chess, etc.) and can serve as social gathering places for the community's senior and teenage members fostering beneficial relationships between generations of residents. These intergenerational ties are vital to a community's longevity.

Shades of Green

Parks are not the only component in a healthy city's green plan. "Green" schoolyards, school and community gardens, greenways and other open public space all play an important part in making a city more livable. "Community gardens increase residents' sense of community ownership and stewardship, provide a focus for neighborhood activities, expose inner-city youth to nature, connect people from diverse cultures, reduce crime by cleaning up vacant lots and build community leaders" (Sherer, 2004). They also provide the opportunity for urban agriculture with its multiple benefits for cities and urban residents (Pinderhughes, 2004).

Children planting vegetables during a workshop sponsored by the San Francisco Green Schoolyard Alliance.

For more than ten years, "green" schoolyards have been cropping up all over, including in San Francisco. In 1995, Alice Waters of Chez Panisse helped launch the Edible Schoolyard at Martin Luther King, Jr. Middle School in Berkeley, California (Orenstein, 2004). In addition to a one-acre organic garden, hens, compost bins and pits, and a Japanese-joinery tool shed, the innovative program boasts a cooking and nutrition program poised to reach beyond the boundaries of the schoolyard and into the community (Edible Schoolyard, 2004).

Over the years many dedicated students, parents, teachers, administrators and other volunteers have struggled to bring their dreams of a school garden to fruition. Currently close to twenty public elementary schools in San Francisco are developing plans, funded by a voter-approved bond measure, to convert their existing facilities from flat, hard, unwelcoming asphalt yards into more natural, more creative learning and play environments. Teachers receive assistance and support in the form of training and curriculum development to incorporate the green schoolyard into their lesson plans. These efforts also may lead to the implementa-

tion of other improvements of school grounds resulting in safer, cleaner and more enjoyable spaces for the entire school community.

A major support for these sprouting school programs is the San Francisco Green Schoolyard Alliance. Formed in March 2001, the SFGSA "promotes inclusive, community driven processes that create and maintain healthy, environmentally sustainable learning environments in San Francisco's schools." But it goes just beyond a nicer place to play and learn. The SFGSA "envisions a future in which each school operates in concert with its neighborhood and local ecology to foster academic achievement, environmental stewardship, creativity, and community building" (SFGSA, 2005).

Growing the Future

To many the value of urban parks and public open space is obvious. "Parks have long been recognized as major contributors to the physical and aesthetic quality of urban neighborhoods" (Walker, 2004). "City parks and open space improve our physical and psychological health, strengthen our communities, and make our cities and neighborhoods more attractive places to live and work" (Sherer, 2004). For park visionaries such as Frederick Law Olmstead, chief architect of New York's Central Park, parks were not amenities but necessities, "providing recreation, inspiration and essential respite from the city's blare and bustle" (Rogers, 1972).

As government funding for many socially beneficial programs continues to decrease while the pressure to make the most of our public space increases, it is vital that we maintain those aspects of our communities that make them more enjoyable and beneficial to all residents and to think more creatively about how we can continue to meet the ever-growing demands of living in an urban environment. The Trust for Public Land calls for a revival of the city parks movement of the late 19th century to bring "parks, open spaces and greenways into the nation's neighborhoods where everyone can benefit from them" (Sherer, 2004). This is a call worth heeding. ▫

When not caring for her two amazing daughters, consulting for non-profits and supporting her husband's bookbinding business, Michelle Jacques-Menegaz is an Urban Studies major at San Francisco State University. Upon obtaining her bachelor's degree in the spring of 2007, Michelle plans to continue her participation in public school reform, schoolyard greening and urban sustainability. A resident for 18 years, Michelle considers herself a local (or is it *loca*?) and is committed to helping make San Francisco a more livable and socially just city for everyone.

References

AT RISK: The Bay Area Greenbelt. San Francisco: Greenbelt Alliance and GreenInfo Network. 2000.

Barlow, J. 2002. "Girls with views of nature have better chance of success." University of Illinois news bureau.

Benton, L. 1998. *The Presidio: From Army Post to National Park.* Northeastern University Press, Chicago, Illinois.

Edible Schoolyard, the, at Martin Luther King, Jr. Middle School in Berkeley, California. 2004. Brochure.

"Governor Vetoes Bill to Protect Pedestrians on 19th Avenue." 2005. Press Release from the office of Speaker pro Tem Leland Yee. 7 Sep. http://democrats.assembly.ca.gov/members/a12/press/p122005078.htm

Greenbelt Alliance. http://www.greenbelt.org. Accessed April 2005.

Harnik, P. 2000. *Inside City Parks.* The Urban Land Institute. Washington, DC.

Harnik, P. 2003. *The Excellent City Park System.* San Francisco, CA: The Trust for Public Land.

Klenfield, N. 2006. "Living at an Epicenter of Diabetes, Defiance and Despair." *The New York Times.* 10 Jan. SFSU Health 221 Spring 2006 Course Reader: 96-104.

Kuo, F. and W. Sullivan. 2001. "Aggression and Violence in the Inner City: Effects of Environment via Mental Fatigue." *Environment and Behavior.* Vol. 33 (4): 543-571.

Lawson, T. 1994. "The Loss of Inner Space." *Geographical,* 0016-741X.

No Place to Play: A Comparative Analysis of Park Access in Seven Major Cities. San Francisco, CA: The Trust for Public Land. 2004.

Orenstein, P. 2004. "Food Fighter." *The New York Times Magazine.* 7 Mar: 30-33.

Pinderhughes, R. 2004. *Alternative Urban Futures: Planning for Sustainable Development in Cities Throughout the World.* Lanham, Boulder, New York, Toronto, Oxford: Rowman & Littlefield Publishers.

Rogers, E. 1792. *Frederick Law Olmsted's New York.* New York: Praeger, in association with the Whitney Museum of American Art.

San Francisco Green Schoolyard Alliance. http://www.sfgreenschools.org. Accessed April 2005.

San Francisco Neighborhoods Parks Council. http://www.sfnpc.org. Accessed April 2005.

Sherer, P. 2004. *Parks for People: Why America Needs More City Parks and Open Space.* San Francisco, CA: The Trust for Public Land.

Taylor, A., F. Kuo and W. Sullivan. 2002. "Views of Nature and Self-Discipline: Evidence from Inner City Children." *Journal of Environmental Psychology.* Vol. 22(1-2): 49-63.

Trust for Public Land, The. http://www.tpl.org. Accessed April 2005.

Editor. 1999. "Trees, Green Space Foster Social Ties Among Families In Urban Housing." 10 May. http://www.sciencedaily.com/releases/1999/05/990510063610.htm.

Walker, C. 2004. "The Public Value of Urban Parks." *Beyond Recreation: A Broader View of Urban Parks.* Washington, DC: The Urban Institute.

Wheeler, S. 2002. *Smart Infill: Creating More Liveable Communities in the Bay Area.* San Francisco, CA: Greenbelt Alliance.

Zlot, A. and T. Schmid. 2005. "Relationships Among Community Characteristics and Walking and Bicycling for Transportation or Recreation." *American Journal of Health Promotion.* Vol. 19:14, 314.

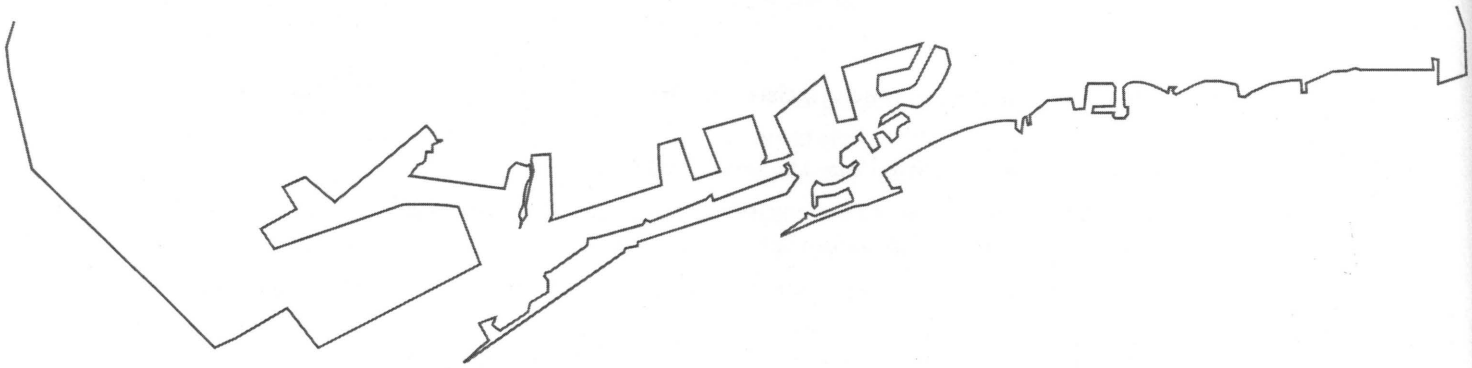
Image Sources

Figure 1: Map of San Francisco, California showing major parks and green spaces. http://www.sfgate.com/traveler/acrobat/maps/1998/sfcity01.pdf

Figure 2: Trust for Public Land File Photo.

Figure 3: San Francisco Neighborhood Parks Council File Photo.

Figure 4: Photo by Tamar Cooper, courtesy of Ecoschools and the San Francisco Green Schoolyard Alliance.



postcard from BARCELONA

by Elmer Tosta

As countries have united under the umbrella of the European Union (EU), so have many of the unique attributes that distinguished these countries from each other. One of the most obvious examples is the unification of currency, which eliminates a lot of math for border-crossing travelers. But as some differences between countries disappear, some regional differences become more pronounced. Catalonia in Spain is a fine example of a region that has emerged from years of Spanish dominance to put forward its culture and emphasize its differences from the rest of Spain. Barcelona is the principal city of Catalonia, one that takes its role as the center of Catalan culture very seriously. The death of General Franco in the 1980's, combined with the preparations for the 1992 Olympics, caused Barcelona to focus on redevelopment and new construction while safeguarding its strong stylistic traditions.

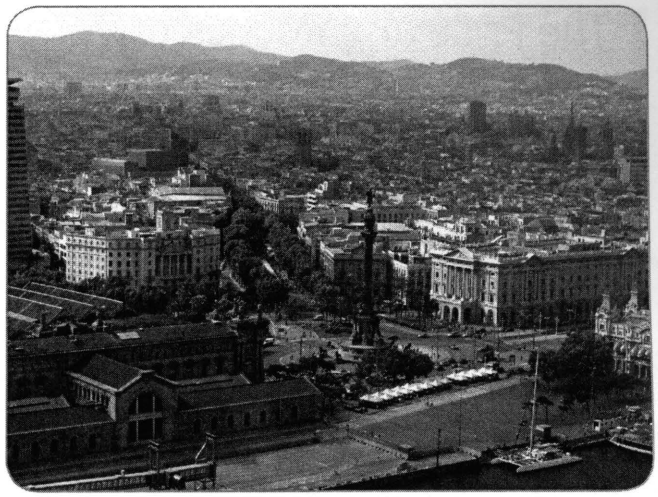
Barcelona's location on the Mediterranean implies a strong relationship with the sea. The populace had previously turned its back on this resource for recreation and leisure, using it only for industry (fishing and shipping), which was reflected in the lack of public amenities linking the city and the sea. A heavily used roadway ran along the waterfront, making it nearly impossible to cross to the water's edge, further reinforcing the disconnection between the population and its waterfront. There were no beach-related amenities and many of the waterfront sites were used for parking.

The end of the Franco regime in Spain, combined with the prospect of hosting the 1992 Olympics helped unify the Catalan region and inspire a redevelopment plan that would reestablish the relationship between the city and the sea. The plan was much more comprehensive than just the waterfront, but only the waterfront is being discussed here.

The tradition of strolling is important in the Catalan culture. Strolling is so significant that many of the strolling streets (*ramblas*) are planned to link neighborhoods as well as provide commercial space for cafe tables, street artists, and performers. In some cases ramblas sit atop subterranean parking

garages that serve neighborhood residents, but this feature is almost undetectable because the ramblas are level with intersecting streets and the garage entrances/exits are very small and well integrated into the designs. These streets are mostly for pedestrians with auto use limited to one lane on each side of the wide center walkway. Throughout the 1960's some of the walking streets near the waterfront were replaced with highways to help relieve the growing traffic congestion problem. This cultural conflict was resolved when the Catalonians began their redevelopment efforts in the 1980's. Although traffic was (and still is) a major problem that was not completely solved by adding traffic capacity, forward-thinking planners re-created pedestrian circulation over lengths of the ring roads (called *rondas* because they ring the perimeter of the city). Their visionary solution of restoring a pedestrian environment at crucial points along these roads was meant to separate cars from pedestrians by covering the roadway with pedestrian plazas and sending the traffic underground. The photos show an example of auto access as well as an example of the pedestrian space that links the city to the waterfront. The covered segments of roadway are below grade, which allows for a seamless pedestrian transition from the city to the waterfront, with the exception of light local traffic and transit. Transit is easily accessed from these pedestrian links. The overall effect is one of pleasant and easy pedestrian, bike, and transit access to Barcelona's waterfront and beaches.

The relationship with the sea has been reestablished, and judging from the crowds at the beaches during the summer months, this is an enduring relationship that will not be neglected in the future. ¤



Two views of Barcelona: Pedestrian space along the waterfront (top); auto access.

ELMER TOSTA completed his BA in Urban Studies in 2005 and is currently pursuing his MA in geography at San Francisco State University. His focus is on local land use *and transportation issues. He is also interested in foreign* cities and how their allocations of urban spaces compare and contrast with San Francisco. His career goal is teaching at the community college level.

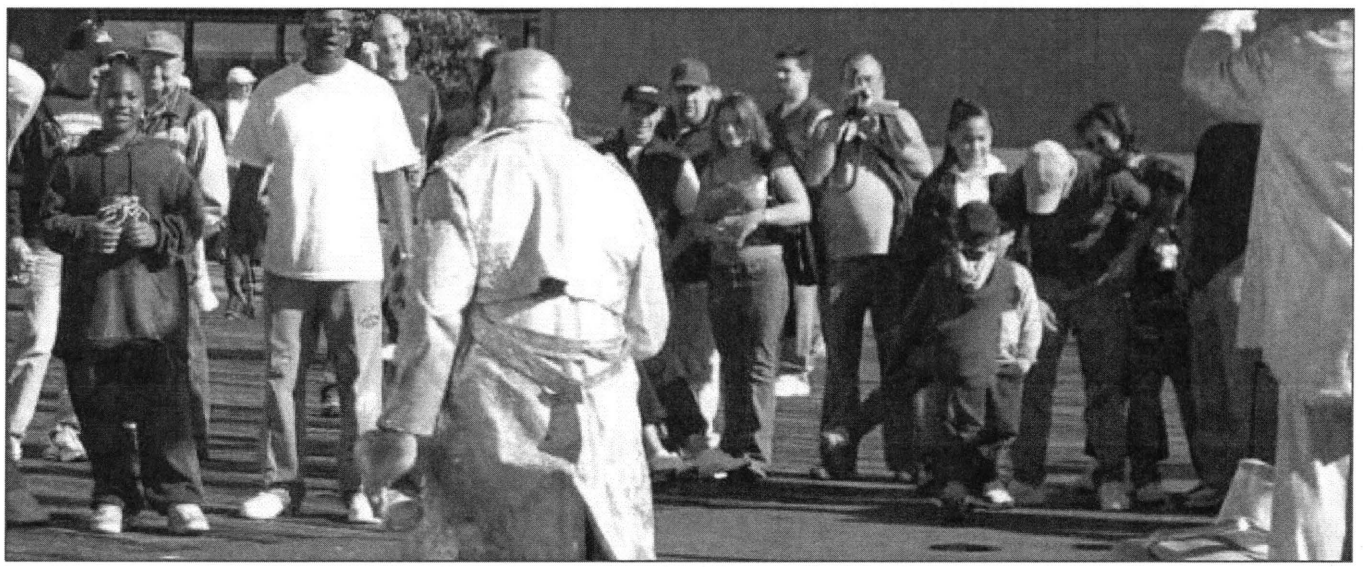
The Price and Politics of Performing

by Jessie McCracken

Due to increased citations from police officers, street performers in San Francisco have used collective action to place the issue of licensing on the city government's agenda. The City and County of San Francisco Board of Supervisors have begun to formulate a bill that if passed into law, will license street performers on an annual basis. Placing the issue of licensing for street performance on the city governmental agenda brings this marginalized group into the light. "The Price and Politics of Performing" examines street performance from an economic and social perspective in addition to the public policy process.

I designed and administered several original research projects to gain a clearer understanding of this issue as it pertains to San Francisco. Using key informant interviews, I compiled personal accounts from performers, policymakers, and members of the community. Unobtrusive field observation and two surveys allowed me to examine the externalities associated with street performance, from public safety to basic pedestrian enjoyment. I used both qualitative and quantitative research methodologies to conduct policy analysis on formulating this issue. Incorporating systematic analysis into the policy making process more accurately defines social problems. The street performer issue in San Francisco stems far beyond the mere selling of CDs. It also reflects the priorities for the city government and the power that some groups have over others.

Street performance has long been a part of the urban landscape in San Francisco. The city is conducive to this art form because of the temperate weather and collective acceptance of a progressive, even eccentric, mentality. Performers have become increasingly ticketed, harassed, and arrested for selling their own original CD recordings without a peddler's permit; though there is no existing permit for the performers to obtain. These citations are not a new trend, in her book *Passing the Hat: Street Performers in America* (1981), Patricia Campbell names San Francisco as the birthplace of "modern American street performing" (18). But Campbell also states that, "it is ironic that the performer runs the highest risk of being arrested in the city that talks the most of support-



Painted robot-mimes performing for an audience at Alcatraz.

ing street theatre" (23). Street performance is an important part of our urban street culture and San Francisco's cultural heritage, and their economic and social role is often overlooked. Placing this issue on the city governmental policy agenda illuminates the nature of street performance and the artists' contribution to the city.

The Economics of Entertainment

Due to high levels of pedestrian activity, street performers are predominantly located in the Fisherman's Wharf area and the downtown Union Square district. Economies of agglomeration explain the relationship between street performance, retail businesses, and tourism. One industry is attracted to a location because it can make use of contributions from another industry (Gray & Heilburn, 2001). Performers and retail businesses both rely upon the public. A performance would not be complete without an audience in the same way that a store needs customers. Tourism is a large part of San Francisco's economy and Fisherman's Wharf is the pinnacle of the local tourist market. Advertisements for Fisherman's Wharf use street performers as a part of the attraction. If Fisherman's Wharf is important to San Francisco and the street performers are important to Fisherman's Wharf, then the street performers must be important to San Francisco.

To identify the market for street performance in San Francisco, in August of 2005, I administered an original survey to pedestrians in the Union Square and Fisherman's Wharf areas. Four hundred pedestrians completed the survey, intercepted through random sampling on the street. The survey questions identified the respondent's demographics, their pattern of donating to street performers, and their general opinion regarding the performer's presence in the area. A survey of twenty-one street performers administered in September of 2005, collected information on several variables: the demographics of the street performers, the percentage of income earned through street performing, and opinions regarding licensing. This was an attempt to construct a profile for a San Francisco street performer. Surveying both pedestrians and performers allowed me to investigate the supply and demand for street performance in San Francisco.

Echoes from a Concrete Jungle

There are many positive externalities associated with street performance. Street performance is an art form accessible to all, absent of an admission's fee. It diminishes urban ambiguity by bringing people together in what Erving Goffman describes as a focused interaction (as cited in Tenanbaum, 1995) where strangers become neighbors as they enjoy the spectacle. Street performers encourage individuals to see their environment in a new way. This can increase the level of safety on the streets by making pedestrians more aware of their surroundings and help stimulate activity for neighboring businesses by generating more interest around the store. Though these theories have yet to be scientifically proven through empirical studies, conducting research will benefit the art form's credibility and standing in the community.

In 2005, I facilitated an original research project entitled "Keeping the Peace through Performance." My hypothesis was that the presence of street performers positively contributes to public safety in a given area. Public safety is of great importance to public administrators. Identifying which factors positively contribute to safer streets will help city planners and other administrators take a proactive approach towards decreasing criminal acts in a given area. Using unobtrusive field observation in the Union Square area, it was identified where and when the presence of both police officers and street performers was observed. This information was then correlated with secondary crime data from the San Francisco Police Department's "Crime Maps". During the month of April 2005, I collected data over a period of a total of forty-one hours. This research project was important to the overriding policy analysis because of its investigation into how street performance affects the city. A decrease in street performance due to regulation, will affect the externalities associated with this activity.

Social scientists have seen the effect individuals have on the immediate environment, especially in regards to public safety. In her book *Underground Harmonies* (1995), Susie Tanenbaum writes, "musical performances increase safety in the subways by pacifying potential criminals- for example, pickpockets. Further research is needed to verify such a theory" (90). Street performance also makes the area less desirable for criminals because it increases witness potential. Stimulated pedestrians see more actively and the performers act as guardians on the street. In her book *The Death and Life of Great American Cities* (1961), Jane Jacobs discusses three qualities a safe city and neighborhood must possess: a clear distinction between public and private spaces, eyes on the street

belonging to natural proprietors, and sidewalks with a continuous stream of users (35).

> The first thing to understand is that the public peace of cities is not kept primarily by the police, necessary as police are. It is kept primarily by an intricate, almost unconscious, network of voluntary controls and standards among the people themselves and enforced by the people themselves. (Jacobs, 1961: 32)

Street performance is a distinctive part of our urban environment, becoming a part of the larger social web.

Public safety is most often the reasoning given for the regulation of street performance. Space obstruction occurs when pedestrians stop to watch a performance and hampers the flow of pedestrian traffic on the sidewalk. This infringes upon public safety and goes against the Americans with Disabilities Act. The ever-questionable line between begging and performing can also put a negative stigma upon this art form and depict street performers as vagrants. Additionally, any dangerous or harassing content incorporated into a performance can result in complaints.

The so-called "Bushman" has been at the heart of this issue. On Thursday, March 18, 2004, a jury acquitted David Johnson (the Bushman) of four criminal misdemeanor charges of being a public nuisance. According to an article featured in the San Francisco Independent, "he figures he has been arrested close to 1,000 times" (Dineen, 2004). Johnson, 51, has been surprising strangers from behind two branches for over twenty-five years. The Bushman waits, crouched behind branches he holds, until an unsuspecting pedestrian walks by then he reveals himself with a 'Boo.' He has created quite a bit of controversy around this unique form of street theatre. Some claim that he is cruel and a health hazard while others enjoy his humorous antics. These varying views are a perfect example of the freedom of expression inherent in art that is uninhibited by regulations, closed doors, and censorship.

The Conflict

On September 23, 2004 an article by JK Dineen appeared in the San Francisco Examiner that focused on Emerson Ortiz, the "Barry White of Fisherman's Wharf", arrested for selling CDs without a city issued peddler's license. Dineen states:

"The street musician crackdown exposes a hole in city laws: there are no city codes which regulate street performers. The city has a program regulating street artists and artisans, who pay $400 a year for the privilege of selling their artwork on the street. But no permit or peddlers license caters to street-corner crooners."

I interviewed Emerson who has been performing at the corner of Taylor and Jefferson for fifteen years. On approaching him I said, "I would like to talk to you about what is happening with the street performer legislation here at Fisherman's Wharf." What was once a beaming showman-like face turned serious, "It's important to know how it started." He said that police officers were actively cracking down on performers and in the past 8 months he has received 28 tickets. "Now I have never been in trouble with the law before so this is upsetting to me." The corner of Jefferson and Taylor where people wait to get on charter boat trips and eat clam chowder in bread bowls has become a main point of conflict between performers and law enforcement officers. It is important to note that this corner of Taylor and Jefferson is under the jurisdiction of the Port Commission, a public enterprise, and to include this space in a licensing program would require their approval.

For thirty years, San Francisco has been licensing artists to sell their original wares on the street. The Street Artist Program (SAP), facilitated by the San Francisco Arts Commission, does not include an option for licensing street performers. If covered by the Street Artist Program, the street performers would be included in the weekly lottery for space and would pay a $400 annual fee. Currently, licensed craft-artisans can legally conduct their business on city streets but the street per-

David Johnson (the Bushman) waiting for unsuspecting passerby.

formers cannot. This leaves police with fuzzy boundaries when faced with a performer who wishes to sell his/her own original compact disc recordings. This also leaves those performers that do not sell any merchandise in a gray area somewhere between noise ordinances and sidewalk obstruction. Edward Jackson, who has been performing at the Powell Street Trolley Turn-Around at Hallidie Plaza for nearly nine years made these remarks in a conversation on November 28, 2004: "I can't afford to get a license every year. I am not making any money at this. I live in a residence hotel. I claim all my earnings as an independent contractor. This is my job. If they call for a license, I'll take my tap shoes to Europe."

People may naturally drop out of the market if it is regulated. My concern is that once we see a decrease in street performers we will also see a decline in the positive externalities with which they are associated, like public safety, cultural awareness, and community building.

These are the People in My Neighborhood

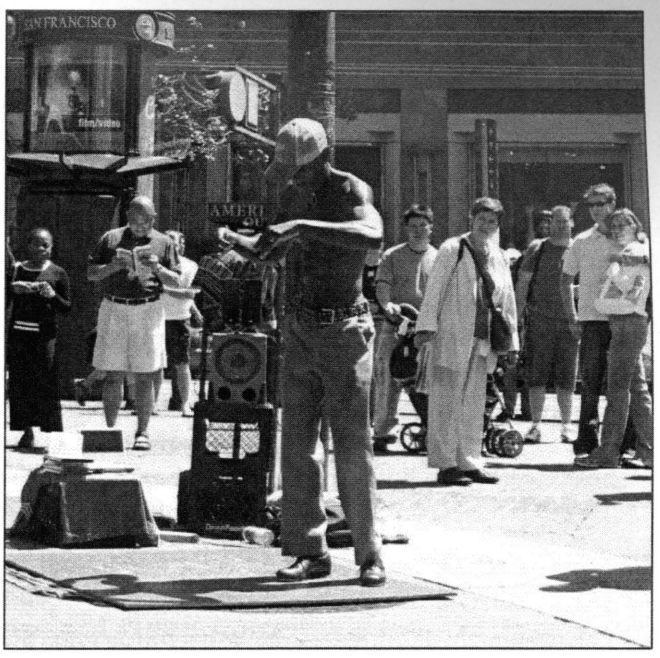
A public character, as described by Jane Jacobs (1961) in *The Death and Life of Great American Cities*, is a crucial component to a cohesive community:

> The social structure of sidewalk life hangs partly on what can be called self-appointed public characters. A public character is anyone who is in frequent contact with a wide range of people and who is sufficiently interested to make himself a public character. (68)

Public sidewalk characters can be informal — as with storekeepers or bar tenders, flower stand owners and food vendors — or more formalized — as with police officers and postal workers. They are the cast of characters that become our informal newscasters, our mentors, and our local celebrities. Street performers are public sidewalk characters. I would like to highlight one performer as such. Edward Jackson with his "spirit and soul" tap dancing, as his business card states, spoke to me of his motives behind performing on the street.

"I wanted to affect the environment in a positive way. This four by four square of plywood (on which he dances) is my little piece of freedom, my venue for self-expression. I wanted to spread that to the people in hopes that it will reconnect us all." (2004)

Edward Jackson voluntarily partakes in a social service, not only entertaining the tourists but also acting as an epicenter for the residents in the area. Someone that is familiar in an ever-changing landscape. A mentor



Edward Jackson performing at Powell and Market.

for children, a friend to many, and a teacher to those willing to learn, Ed is a part of an informal history of the city.

As I was watching Ed perform one day, a man toting his luggage also stopped to watch when he received a cell phone call. He told the individual on the other end of the line that he was, "in San Francisco for the weekend," that he was, "downtown watching a tap dancer," and, "hey, next time you're in San Francisco make sure you bring your tap shoes." For the individual on the other end of the line, Ed was San Francisco.

Conclusion

My request to the city government is that they gain a clearer understanding of the nature of an issue before taking steps to solve a problem. By bringing systematic analysis into the policy making process, policies respond to more accurately defined social problems. A major issue is that the licensing of street performers is the regulation of the First Amendment Right to Freedom of Speech. Once a government regulates an activity, people are naturally excluded from that activity because they cannot or will not purchase the license. We must not exclude people from the First Amendment Right to the Freedom of Speech. In addition, there is the issue that the businesses control the economy in the United States and that the economy controls the government. The public and cultural aspects of the art form of street performance have been completely overlooked because

the street performers are not generating any income for the city government.

A license protects the street performers from discretionary actions of the police. The question left to ask is why are the police paying such close attention to the performers? Urban planner William Whyte (1988) made a career of asking such questions:

> Left to their own judgments, cops usually take a live-and-let-live stance. When one does move against an entertainer he may tell him he's sorry but the captain has been on his back. And he has been so because the merchants have been on his back. Merchants have been the main force against street entertainers. It is odd that people who champion the free market are against such a pure expression of it. (36)

Whyte was interested in environmental design and its effect on pedestrians' use of space.

This statement illuminates the issue concerning the street performers in San Francisco, which goes beyond the mere selling of CDs, and reflects the priorities and perspectives of both the private sector and city government in San Francisco. I believe that the Merchant's Associations for both Fisherman's Wharf and Union Square see street performance as blemish, as if the street performer's use of free space distracts or displeases tourists. City officials should work with business-leaders and the street performers to create a plan that will satisfy the freedoms of the performers and the priorities of the merchants. Comprehensively utilizing the public space will require input from all stakeholders. An opportunity exists to highlight San Francisco as the birthplace of "modern American street theatre" (Campbell, 1981); a city whose streets are alive with arts and culture. ▫

JESSIE McCRACKEN earned a Masters of Public Administration Program at San Francisco State University in December 2005 with an emphasis in Nonprofit Arts Administration and Cultural Policy. Ms. McCracken's career objective is to use the arts as a vehicle for social change.

References

Campbell, P. J. 1981. *Passing the Hat: Street Performers in America*. New York: Delacorte Press.

Dineen, J.K. 2004. "Beware the Bushman: Scary City Street Performer Acquitted of Nuisance Charges". *The San Francisco Independent*. March 19. http://www.sfindependent.com/article/index.cfm/i/031904n_bushman.

Dineen, J.K. 2004. Musicians Pay Price to Perform. *San Francisco Examiner*. September 23. http://www.sfexaminer.com/article/index.cfm/i/092304n_performers.

Gray, C.M. and James Heilbrun. 2001. *The Economics of Art and Culture* (2nd ed.). New York: Cambridge University Press.

Jacobs, J. 1961. *The Death and Life of Great American Cities*. New York: Vintage Books.

Tanenbaum, S.J. 1995. *Underground Harmonies: Music and Politics in the Subways of New York*. Ithaca: Cornell University Press.

Whyte, W.H. 1988. *City: Rediscovering the Center*. New York: Doubleday.

Urban Agriculture as a Solution to Food Insecurity: West Oakland and People's Grocery

by Nina Haletky and Owen Taylor
with Jennifer Weidner and Summer Gerbing

This research was originally conducted as a senior project for the Urban Studies program with the goal of making the case for the plausibility of and need for urban agriculture in West Oakland to gain the support of city officials. Our client was People's Grocery, a community based food justice organization developed in response to the problems of food insecurity in West Oakland, California. By running a mobile market, growing food in urban gardens and providing youth education through employment programs, they work to find creative solutions to the food needs of West Oakland residents.

The original project proposal included the desire to build the case for urban agriculture as a feasible strategy for helping to establish a locally based thriving urban food system. The lack of city planning for food security in the U.S. and subsequent hunger and malnutrition in impoverished areas has pushed food issues to an urgent level. It is important for people accustomed to eating food from the far corners of the earth to understand the value of local food production. Those who have little or no access to healthy food need to know there are alternative ways to produce and consume food. Included in this article is the literature review from the original project detailing the broad problems of food insecurity and the multiple solutions urban agriculture has to offer cities and an examination of the West Oakland based People's Grocery organization to see how they are using urban agriculture as a way to strive for food justice. We acquired our data for the literature review and West Oakland information by examining academic studies, technical documents and online reports. Our information about People's Grocery was acquired from interviewing two of the co-founders Brahm Ahmadi and Malaika Edwards, and supplemented with information from their website, annual report and media coverage. The argument People's Grocery makes and that this paper supports is that urban agriculture is a vital tool for building a local, just, sustainable food economy, and that West Oakland has the potential to do just this.

Lack of Food Planning in the United States

A food system is defined as a "chain of activities connecting food production, processing, distribution, consumption, and waste management, as well as all the associated regulatory institutions and activities" (Pothukuchi & Kaufman 2000). Unfortunately the planning field does not currently value food systems planning as much as other areas of planning, such as housing or transportation (Biehler et al 1999, Pinderhughes 2004). A revealing study conducted by two urban planning research

Chard growing in the 55th street community garden in West Oakland.

experts, Kameshwari Pothukuchi and Jerome Kaufman (2000), in which twenty-two planning agencies were surveyed, reveals low levels of involvement in food planning for the following perceived reasons: food issues are not in the realm of the urban built environment, food issues are driven primarily by the private market, there is insufficient federal funding, and a lack of knowledge about food systems.

The planning profession "lays claim to being comprehensive in scope, future-oriented, and public interest driven, and of wanting to enhance the livability of human settlements" (Pothukuchi & Kaufman 2000). Planners are in unique positions of power to mediate the connections between the different stakeholders in a food system. They are trained to analyze the interconnectedness of systems in cities and understand communities as a whole (Campbell 2004, Pinderhughes 2004, Pothukuchi 2004). This implication of interconnectedness "should lead planners directly to a concern about food systems, as the food system is so intricately connected to the land and land use and so central to health and the goal of improving human settlements" (Pinderhughes 2004). Pothukuchi and Kaufman (2000) give many practical reasons why food systems should be integral to the planning field's scope, including (but certainly not limited to), the important role food plays in the local economy; high employment in the food sector and the significant amount of income spent on food; housing costs competing with food purchasing power; as well as public health concerns.

Fortunately planners are taking notice – in the last few years, food system planning has appeared as a featured theme at major planners conferences such as the American Planning Association conference and the Association of Collegiate Schools of Planning conference (Nasr 2005). Many cities and states have established food policy councils that have begun to address the food issues in many U.S. cities, so the future looks hopeful for incorporating food planning into government agendas.

Food Insecurity

Over the past several decades food production, processing and distribution has grown more concentrated in the hands of a few global corporate powers in a process known as vertical integration (Campbell 2004, Pothukuchi 2004). Increasingly, small regional and local farms find it impossible to compete in the global industrialized food system dominated by the "free" market (Pothukuchi 2004). Large scale, industrial agriculture is characterized by high yields, productivity, efficiency and the domination of the food system through mass production of raw agricultural materials, centralized control over the processing, distributing, marketing, as well as import and export of food over vast distances (Brown & Carter 2003, Campbell 2004, Pinderhughes 2004, Pothukuchi 2004). Despite the high yields and great abundance of the food supply, 10% of all households in the United States (approximately 33 million people) go hungry on a regular basis (Brown & Carter 2003, Pinderhughes 2004, Pothukuchi 2004).

In particular, low-income urban communities (disproportionately communities of color) are especially devastated by inadequate access to fresh, healthy food (Eisenhauer 2001). This is due to many factors including insufficient food planning, food industry consolidation, the closing of large-scale supermarkets and subsequent "supermarket redlining" in low-income urban areas, and poor access to transportation (Brown & Carter 2003, Clifton 2004, Eisenhauer 2001, Pinderhughes 2004, Pothukuchi 2004). This leads to a dependence on fast food restaurants and small neighborhood convenience stores and markets which tend to have higher prices and considerably more processed and less healthy food options than their large scale grocery store counterparts in higher-income areas (Brown & Carter 2003, Campbell 2004, Clifton 2004, Eisenhauer 2001). These limited food options create patterns of hunger and poor nutrition and result in illnesses and diseases such as obesity, diabetes, hypertension, heart failure, strokes, and various forms of cancer (Campbell 2004, Pinderhughes 2004, Pothukuchi 2004). To address the food insecurity issues in low-income urban areas a significant hunger relief network has been developed including food banks, food pantries, produce gleaning operations, and surplus commodity distribution (Campbell 2004). However, this network tends to rely upon the corporate dominated food system and still leaves wide gaps in food security (Campbell 2004, Pothukuchi 2004).

Food security can be defined as all persons living in a community at all times having access to safe, culturally acceptable, nutritionally adequate food through a local, sustainable, self-reliant, socially just, non-emergency food system (Brown & Carter 2003, Pothukuchi 2004). A food secure city should emphasize local sources of production and processing within a food system that supports economic and environmental sustainability but

focuses primarily on creating food access, especially for low-income people (Rimkus 2003). "Community food security cannot be expected to solve all the ills emerging from the current global food system," nor "is it intended as a replacement for federal entitlement programs aimed at poor and vulnerable residents" (Pothukuchi 2004). Instead it aims to fill the gaps that these current paths for food production and distribution neglect and offers an alternative approach that supplements and strengthens a local food system.

Urban Agriculture's Multiple Benefits

Urban Agriculture involves the growing of crops and/or livestock within urban areas or at their periphery (Pinderhughes 2004). Urban agriculture is a key component to developing a sustainable community food system, and if planned properly, can alleviate many of the problems of food insecurity. The Community Food Security Coalition (CFSC) maintains a committee whose "primary purpose is to utilize urban agriculture as a means for the food insecure to gain access to fresh, affordable, nutritious food" (Brown & Carter 2003). The existence of this national committee represents a growing movement in the planning field, which asserts that urban agriculture is essential for maintaining healthy, food secure cities.

While urban agriculture is central to the lives of hundreds of millions of people throughout the world (Brown & Carter 2003), in the United States planning and policy arena, "very little emphasis has been placed on the role that a well-planned, well-supported, urban agricultural sector can play in reducing poverty, food insecurity, and waste in cities" (Pinderhughes 2004). A city's ability to feed itself is a valuable component of sustainable development (Howe 2002). As the global food economy becomes further and further removed from life in cities, the opportunity is ripe for cities to encourage urban agriculture – an activity that alleviates food injustices by increasing access to healthy food and simultaneously improves many other economic, social, and environmental conditions.

Urban agriculture brings numerous benefits to communities in which it is sown and nurtured. An initial goal for this research was to focus on the economic viability of urban agriculture. However, when measuring economic successes from entrepreneurial agriculture endeavors alone, the profits are modest at best and self-sufficiency is low (Feenstra, McGrew, and Campbell

City Slicker Farms' Center Street Farm in West Oakland. City chickens provide eggs, pest and weed control, potent fertilizer, and a great opportunity to learn about where our food comes from.

1999, Kaufman and Bailkey 2000). To accurately capture the development potential of urban gardening, the possibility for building social capital must be acknowledged. There still however remains a need for proving the economic viability to funders and policy-makers, who remain under the influence of traditional economic development standards (Lazarus 2000). While it is possible to provide these economic benefits, disseminating the multiple benefits of urban agriculture as a whole can be a highly effective advocating strategy.

Urban agriculture's economic benefits include increased economic vitality from the start-up of local entrepreneurial businesses, additional community investment from local food sales, and job training and employment. Food makes up a significant portion of a local economy (generally about 20% of retail sales and 20% of service jobs) (Clancy 2005), and as over 90% of the West Oakland purchasing power is spent outside of the area (Farfan-Ramirez 2003), there is great potential for the growth of a local food economy through entrepreneurial urban agriculture projects. Growing niche products, such as mixed greens for restaurants can help financially sustain a program and fund community-based projects.

Urban agriculture can provide an important, relatively affordable source of fresh, nutritious produce. This reduces pressure on low-income residents' limited family budgets while increasing the intake of much needed fresh fruits and vegetables. Between 15 and 30% of household budgets are spent on food (USDA Economic Research Service 2003). However, while food budgets are elastic compared to more rigid expenses

such as rent, the poorest families must often make the terrible choice between paying rent and eating adequately and healthfully. The food money saved by growing food can be invested in other areas of the local economy. A study by the Philadelphia Urban Gardening Project found that low-income people who garden each save an average of $150 in food costs per growing season (Rhoden and Steele 2002, Pinderhughes 2003). Most ate fresh produce 5 months of the year, preserved some for off-season consumption, and shared their produce with friends, family, neighbors and community organizations (Pinderhughes 2003).

In communities with high rates of joblessness and underemployment, urban gardens and farms have proved to be excellent vehicles for job training, and have been effective in providing programs for marginalized youth and adults. Berkeley Youth Alternatives (BYA) runs a half-acre garden in West Berkeley, California, and offers training to low-income teens who earn $6/hr working 15 to 20 hours per week during the school year, and 20-30 hours per week in the summer (Pinderhughes 2003). The All People's Garden, founded in 1978 in Manhattan, runs a program for juvenile first time offenders, a teen drug prevention project, a HeadStart program for 4- to 12-year-olds, and a program that connects youth with local artists (Pinderhughes 2003). Other programs have had highly successful rehabilitation efforts through providing jobs and job training to prisoner, homeless and substance abuse populations (Pinderhughes 2003).

Community involvement in neighborhood revitalization through urban agriculture prevents violence, provides remediation of blighted property and fosters community empowerment. Lack of green space is considered one of the most significant problems leading to unrest and crime (Trust for Public Land 2005). Gardens are a source of pride, community cohesion and local leadership in the face of the toxic vacant lots and lack of services that come with disinvestment and ghettoization (Trust for Public Land 2005). During the L.A. riots in 1992, the areas around the community gardens remarkably escaped destruction (Trust for Public Land 2005). Burglaries and thefts in the vicinity of a newly created community garden in Philadelphia plummeted from about forty incidents per month to four (Pinderhughes 2003). A new garden in the Mission District of San Francisco led to the formation of a Neighborhood Watch group, which made the area unattractive to drug dealers. There was a 28% drop in crime around the garden after the first year (Pinderhughes 2003).

Vacant lots such as this proliferate in West Oakland and can be transformed into thriving community gardens.

The use of urban agriculture for greening blighted vacant lots proves to be highly effective. In the Mission District of San Francisco, Parque Ninos Unidos and Treat Commons Community Garden were built on a formerly toxic vacant lot, which housed drug users and served illegally as place to dump trash. As there was no other nearby green space, children were using this lot as a play space. It is now a safe and beautiful place to gather, play and garden (Taylor, Gerbing and Weidner 2004). The City of Chicago, recognizing the power of urban gardening to relieve blight, has established Greencorps, a strong citywide greening program in which qualified community groups are given workshops, soil amendments, tools, plants, and other materials to conduct landscaping and gardening projects on vacant land (Kaufman and Bailkey 2000).

Other environmental benefits include the improvement of human and environmental health through the use of local sustainable production and processing techniques (Brown & Carter 2003, Pinderhughes 2004). As prime farmland in the U.S. is consumed by sprawl at dramatic rates, we rely more and more upon imported mass produced food. "Food products typically travel between 1,500 and 2,500 miles from farm to plate" (Brown & Carter 2003). The practices of industrial agriculture result in massive environmental degradation. The heavy use of chemicals and pesticides leads to the depletion and contamination of surface water, groundwater and soil and causes air pollution and serious health risks for farm workers and surrounding communities (Brown & Carter 2003, Campbell 2004,

Pinderhughes 2004). When carefully planned and skillfully applied, certain urban agriculture techniques can provide impressive yields using very little space, reducing the strain on land and water resources (Brown & Carter 2003, Pinderhughes 2004). Also, the possibility for food to reach a consumer the same day that it is harvested challenges the fuel-dependent conventional food system. When managed properly, composting and reuse of waste water for urban agriculture can significantly decrease the amount of solid and liquid waste in a city (Brown & Carter 2003, Pinderhughes 2004).

Despite the immense potential of urban agriculture to stimulate the local economy, alleviate food insecurity, revitalize blighted areas and provide an alternative sustainable approach to destructive industrial agricultural practices, negative perceptions and lack of awareness has created obstacles to growing food in U.S. cities. With proper support and planning through collaboration between private, community and government interests, a new movement towards food secure cities can be realized.

West Oakland

To document West Oakland's food insecurity problems, we used information from an unpublished research study on food security in West Oakland and interviewed the researcher who led the study. Using many of the indicators from that study as the basis for our documentation, we updated some information using 2000 census data available online. We also created a GIS map of liquor/convenience store locations and grocery store locations to visually represent the lack of access to healthy food, as well as poverty levels in West Oakland.

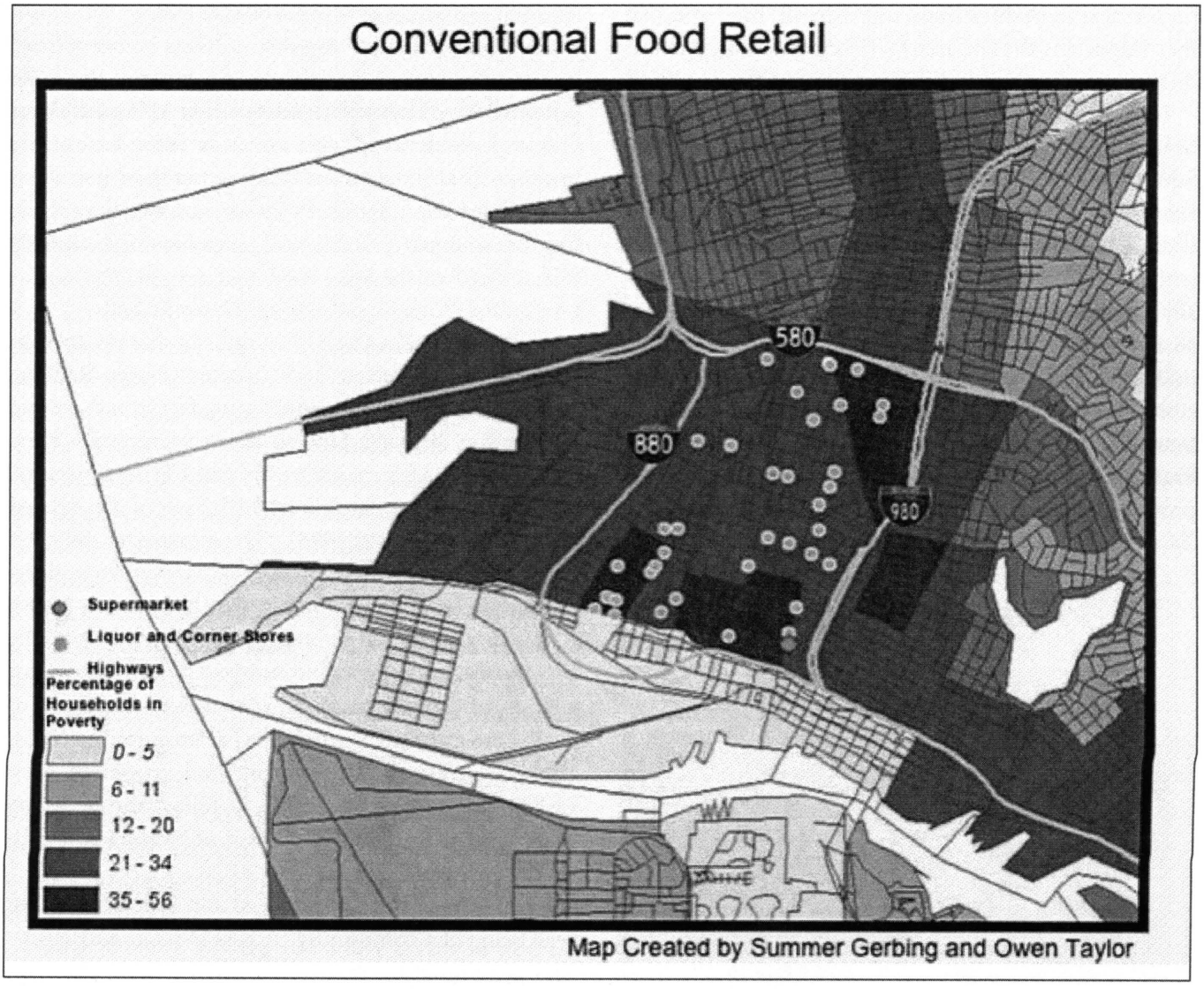
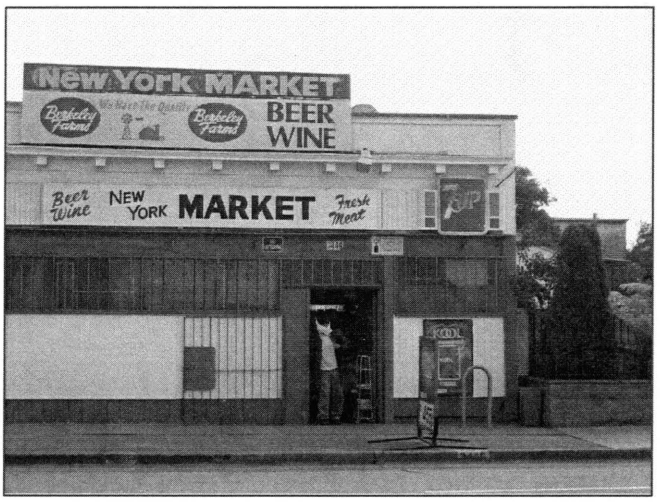


Figure 1. GIS map showing liquor and corner store locations in West Oakland.

There are 24,477 people residing in seven West Oakland neighborhoods (Census 2000). West Oakland is a mostly African American community, with increasing populations of Latinos and Asians (Farfan-Ramirez 2005). The residents of West Oakland live in a community experiencing very high rates of poverty. West Oakland's median family income of $29,124 is significantly lower than surrounding areas. The City of Oakland's median family income is $44,384, and Alameda County's median family income is $65,857 (Census 2000). In West Oakland, only 44% of workers over the age of 16 are employed, and an alarming 37% of residents are living in poverty (Census 2000). According to 1990 figures, "the number of children under 18 living in poverty is approximately 58%" (Farfan-Ramirez 2003). As "poverty is a significant inhibitor of food security," these figures predict that West Oakland residents have poor access to healthy, fresh, unprocessed food and that they (especially the children) will be more susceptible to diet-related diseases (Farfan-Ramirez 2003).

Indeed, there are few opportunities to purchase healthy food in West Oakland. While there are about 40 liquor and corner stores located in West Oakland, there is only one supermarket. See figure 1 for a map of West Oakland's conventional food retail locations contrasted with the level of poverty. Liquor and corner stores generally carry processed junk food, and none of the liquor or corner stores in this neighborhood carry chemical-free or organic foods. These stores are expensive – at corner stores, food items are typically priced 30-100% higher than their supermarket counterparts (Mittal 2004). Transportation is also an issue, as it is difficult for a care provider with children or senior residents to make the journey across town to the only supermarket in order to get the necessary foods to nourish themselves and their family (Clifton 2004).



A small neighborhood market in West Oakland.

Due to this drastic food insecurity in West Oakland, the demand for emergency food services is increasing. Again, while there is only one supermarket, there are 32 emergency food sites in West Oakland. "In West Oakland, there are an estimated 4,988 people seeking emergency food at soup kitchens, food pantries, and shelters every month" (Farfan-Ramirez 2003). This means that 25% of the West Oakland population regularly relies on the emergency food system. Many individuals and families rely exclusively on this system for their daily food intake (Farfan-Ramirez 2003). Dependence on the emergency food system is an indicator of low community food security and efforts must be made to provide accessible, affordable, healthy food in a sustainable and socially acceptable manner (Rimkus 2003).

The Food Stamp Program is being underutilized. In West Oakland, 2,726 people benefit from the 8,776 potential food stamp recipients - only 31% of all West Oakland residents eligible for this federal nutrition program (Farfan-Ramirez 2003). Increased participation in the Food Stamp Program would relieve stress on the emergency food sites, increase food security and strengthen the local food system by increasing the amount of money spent within the community.

West Oakland has high levels of heart disease, anemia, lead poisoning, cancer and diabetes (Farfan-Ramirez 2003). "Diet is a major contributing factor in these and many other diseases. Low-income communities, especially Latino, African-American and Native American, suffer disproportionately form high rates of diet-related diseases" (Bettencourt 1998). Current research indicates links between diet and chronic diseases such as heart disease, diabetes and some cancers (Bettencourt 1998). Cancer is also increasing in Alameda County, especially in African-American communities. "The most recent analysis of cancer causes shows that over 40 percent of deaths are attributable to diet" (Farfan-Ramirez 2003). Without access to healthy fruits and vegetables, West Oakland residents are unable to follow the necessary diets needed to reduce their risk of cancers and diet-related diseases.

Health is a basic human need and it determines the well being of a community. Access to fruits and vegetables is essential for improving public health, especially for children living in poverty. West Oakland children

living in poverty are especially at risk for diet-related diseases such as lead poisoning, which particularly affects undernourished children. With limited health care facilities and providers, and lack of adequate health insurance, residents must rely on emergency services (Farfan-Ramirez 2003). Strengthening the local food system, particularly through urban agriculture, is necessary for sustainable development and food security.

People's Grocery

People's Grocery is a local non-profit organization that supports "economic self-sufficiency and local entrepreneurship in West Oakland through development of innovative youth-focused micro-enterprises within a sustainable regional food system" (People's Grocery Annual Report 2003-2004). People's Grocery uses urban agriculture as a change agent for West Oakland's food insecurity problems, additionally reaping the multiple benefits urban agriculture has to offer. People's Grocery considers "people growing their own food as a radical act of resistance to the global industrial food economy," and works with "students, neighbors of all ages, and other community organizations to build a network of food independence in West Oakland" (Annual Report). The co-founders Brahm Ahmadi, Malaika Edwards and Leander Sellers felt the need to fight for food justice through their personal experience with West Oakland as a "food desert." Only one supermarket serves some 32,000 residents, but fast food restaurants and 36 liquor and convenience stores proliferate in the community where 76% of the residents are below the poverty line (Green 2003). People's Grocery seeks to provide alternative solutions to this problem but also strives to build "a diversified system of activities spread out across an entire food system with the aim of creating a new localized and sustainable food economy, rooted in self-sufficiency and social justice" (Annual Report). More details are available at the People's Grocery website: www.peoplesgrocery.org. Current activities of People's Grocery include:

Mobile Market – A converted postal truck run on bio-diesel with a solar powered sound system travels through West Oakland Tuesdays and Saturdays to various pre-designated locations "selling fresh, natural, affordable produce, packaged foods, and bulk goods" (Annual Report). Besides providing access to healthy food, the mobile market is also a way of spreading *awareness about nutrition and health.*

Fresh produce from the People's Grocery Mobile Market truck.

Collards N' Commerce Youth Program – Five youth from the community are trained in business, community outreach, nutrition, conflict resolution and public speaking, and employed by People's Grocery to run the mobile market, maintain community gardens and give presentations to their peers.

Urban Rootz Food and Justice Camps – Free summer program for Bay Area youth to learn skills in gardening, cooking, nutrition, and community building. People's Grocery partners with other regional food related youth organizations in this program.

Urban Agriculture Community Gardens – People's Grocery partners with local community gardens to provide organic produce to sell at the mobile market and the gardens serve as sites for education and community building. The gardens are constantly improving and progressing and employ techniques such as raised bed gardening and composting, among others.

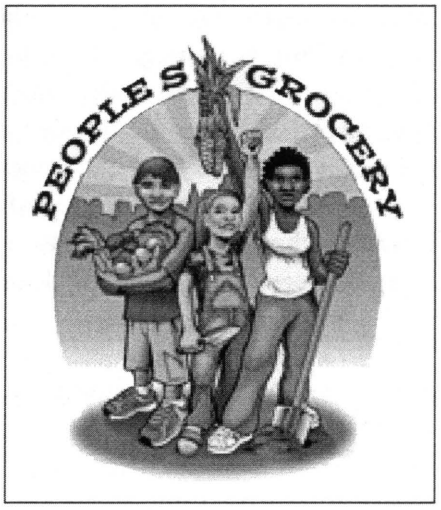
YMCA Snack Stop Shop – In the lobby of the M. Robinson YMCA in West Oakland a youth run snack stand provides healthy affordable snacks for YMCA children and families. Upstairs in the same building is the People's Grocery headquarters.

People's Grocery hopes to broaden their activities in the next few years. Future plans include expanding the mobile market's hours, increasing garden productivity through improved urban farming techniques, working with residents to develop backyard gardens, the utilization of a greenhouse at a middle school, doubling the number of youth employees, and expanding education for youth and adults (Annual Report). Other goals for the future include finding more land, bringing in more *consultancy and management, urban farm infrastruc-*

ture developments (such as a hot house or chicken coop) and growing for added value products (such as herbal body care), and those are just the short term goals (Ahmadi and Edwards 2005). Long term goals include having a vision for a cooperative grocery with a farm on-site as well as for an Urban Farmer's Cooperative comprised of community members, and advocating for the Oakland City government to encourage policy favoring urban agriculture development for Oakland's residents by providing access to land, resources, and services (Ahmadi and Edwards 2005).

People's grocery relies mostly on grants and donations to survive, but Ahmadi and Edwards (2005) want to push away from the philanthropic model and move towards economic self-sufficiency. Already praised by members of the community, self-sufficiency will give their programs more long-term stability. Their struggle for food justice is an excellent example of the impact just a few people can have on their communities. Imagine the potential future change if entire communities took responsibility for their own food security.

If widespread acceptance of the food system as an integral part of urban planning at the national, state, and municipal level can occur, and urban agriculture projects are supported through ideology and policy, then the practice of growing food sustainably in U.S. cities can contribute to the overall food security of cities. Such projects will provide vital improvements in nutrition and health, community building and relief from blight in impoverished areas. Though the economic benefits of urban agriculture are modest, when paired with the social and environmental benefits, they are invaluable to urban areas. If given the attention and supportive efforts of city officials, community leaders and members, urban agriculture will be an investment in the long term health and justice of our cities. ¤



NINA HALETKY is a graduating senior of the Urban Studies program at San Francisco State University who has plans to work towards a more sustainable urban future and raise her son Akiles Eli to be a responsible and loving adult.

OWEN TAYLOR graduated from the Urban Studies program at San Francisco State University in the spring of 2005 with a focus on sustainable food systems and urban agriculture. He now works for the Brooklyn Center for the Urban Environment as an instructor of urban design and urban ecology in New York City public schools. He is also helping NYC farmers and gardeners learn to keep chickens legally and healthfully as a research consultant intern for Just Food.

References

Ahmadi, Brahm and Edwards, Malaika. 2005. Personal Interview in March 2005.

Bettencourt, Maria., et al. *Our Bodies, Ourselves: For the New Century*. New York: Simon and Schuster, 1998.

Biehler, Dawn et al. March 1999. *Getting Food on the Table: An Action Guide to Local Food Policy*. Community Food Security Coalition's California Sustainable Agriculture Work Group (SAWG).

Brown, Katherine H. and Carter, Anne. October 2003. *Urban Agriculture & Community Food Security in the U.S: Farming from the City Center to the Urban Fringe*. Primer prepared by Community Food Security Coalition's North American Urban Agriculture Committee. http: //www.foodsecurity.org/PrimerCFSCUAC.pdf.

California Environmental Quality Agency. http: //ceres.ca. gov/ topic env_law/ceqa/guidelines/art19.html 12 May 2005.

Campbell, Marcia Caton. 2004. "Building A Common Table: The Role for Planning in Community Food Systems." *Journal of Planning Education and Research*. Vol. 23.

Clancy, Kate. Panel Presentation, 2005. "A Tasty Dish: Planning for the Community Food System." American Planning Association's 2005 National Planning Conference. 20 March.

Clifton, Kelly J. 2004. "Mobility Strategies and Food Shopping for Low-Income Families." *Journal of Planning Education and Research*. Vol. 23.

Eisenhauer, Elizabeth. 2001. "In Poor Health: Supermarket Redlining and Urban Nutrition." *GeoJournal*.

Farfan-Rameriz, Lucrecia. 2003. "Cultivating Health: A West Oakland Food Security Planning Project: A Profile of West Oakland Neighborhoods–Part I." Unpublished Work

Farfan-Ramirez, Lucrecia. Personal interview April 6, 2005.

Feenstra, Gail, McGrew, Sharyl and Campbell, David. 1999. "Entrepreneurial Community Gardens: Growing Food, Skills, Jobs, and Communities." Sustainable Agriculture Research & Education Program. UC Davis.

Green, Green, Matthew. Sept. 20, 2003. "Mobile Market Delivers Fresh Fare." *Oakland Tribune*.

Howe, Joe. 2002. "Planning for Urban Food: The Experience of Two UK Cities." *Planning and Practice Research*, Vol.17, No.2.

Kaufman, Jerry and Bailkey, Martin. 2000. "Farming Inside Cities: Entrepreneurial Urban Agriculture in the United States." Lincoln Institute of Land Policy Working Paper. (WP00JK1).

Lazarus, Chris. 2000. "Urban Agriculture: Join the Revolution." *New Village Journal*. Iss#2.

Mittal, Ahuradha. 2004. "Hunger in America." *Commondream*. 10 Dec. http://www.commondream.org/view04/1210:22.htm.

Nasr, Joe. Email communication. April 26, 2005.

People's Grocery. 2003-2004. Annual Report Document.

Pinderhughes, Raquel. 2004. *Alternative Urban Futures: Planning for Sustainable Development in Cities Throughout the World*. Lanham, Boulder, New York, Toronto, Oxford: Rowman & Littlefield Publishers.

Pinderhughes, Raquel. Eds. James K. Boyce and Barry G. Shelly 2003. *Natural Assets: Democratizing Environmental Ownership*. Chapter 16: Poverty and the Environment: The Urban Agriculture Connection. Washington: Island Press.

Pothukuchi, Kameshwari and Kaufman, Jerome L. Spring, 2000. "The Food System: A Stranger to the Planning Field." *American Planning Association Journal*, Vol. 66, No 2.

Pothukuchi, Kameshwari. 2004. "Community Food Assessment: A First Step for Planning for Community Food Security." *Journal of Planning Education and Research*, 23.

Rhoden, Jodi and Heather Steele. 2002. "Growing Healthy Communities through Urban Gardening." *New Life Journal*. June/July. Accessed on April 26 from website: http://www.newlifejournal.com/junjul02/rhoden.shtml.

Rimkus, Leah, ed. 2003. *The San Francisco Food Systems Guidebook*. San Francisco, CA: San Francisco Food Systems.

Taylor, Owen, Summer Gerbing and Jennifer Weidner. 2004. "Urban Food Growing and the Greening of San Francisco." Unpublished Term Paper for Land Use Planning.

Trust for Public Land. "Urban Neglect Adds to Rising Crime." Accessed on May 1, 2005. http://www.tpl.org/tier3_cdl.cfm?content_item_id=889&folder_id=728

U.S. Census Bureau. Accessed March-May 2005. http://www.census.gov.

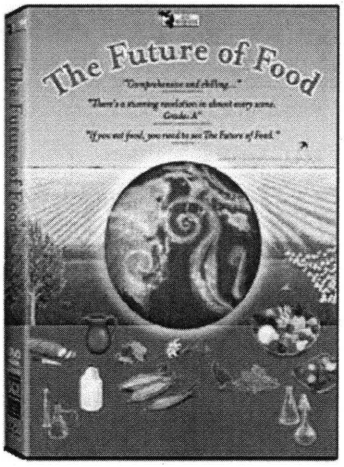
Image Sources

All photos: Owen Taylor and Summer Gerbing.

film review The Future of Food

by Michelle Jacques-Menegaz

"Released last year to rave reviews, The Future of Food investigates the truth behind genetically engineered food and its devastating cost to our agriculture heritage."
- Andrea Arria-Devoe,
edible SAN FRANCISCO, Spring 2006



Food for Thought

A lot of us don't know what it takes to grow food.

Food – we all eat it, we all need it. Yet, as farmer Judith Redmond states at the beginning of the film *The Future of Food*, "We used to be a nation of farmers, but now... a lot of us don't know what it takes to grow food." Nor are many of us aware of the high cost contemporary food production is exacting on our health, the planet, and people the world over.

Before this film I thought myself an educated food consumer. I was aware of many of the benefits to my family, farm workers and the community of buying organic and locally produced foods. What I didn't realize is that this is only a small part of the larger picture of food production and food security.

Deborah Koons Garcia didn't know the whole picture either, nor do most people. As Garcia states in a recent interview, "Only 30% of Americans think they've eaten genetically modified foods, and, according to government conducted studies, when they find out that most likely they have, they're outraged" (Arria-Devoe, 2006). Initially motivated to make a film about pesticides, Garcia changed course when an organic farmer friend clued her in about genetic engineering. When she learned about the existence of RoundUp-ready seeds and soil bacterium in corn, she thought, "Ew. That's disgusting!" (Arria-Devoe, 2006).

Fortunately, Garcia was not only disgusted but also highly motivated. After conducting a year of research, she took her camera crew to Canada to film Percy Schwieser, one of many small farmers in North America being sued by fertilizer and seed giant Monsanto over patent infringement. Once there, she realized, "in order to understand what happened to [him] you'd have to understand [seed] patenting and the context of the green and gene revolutions" (Arria-Devoe, 2006).

In The Future of Food, Deborah Koons Garcia does an excellent job of succinctly explaining both the green and gene revolutions – the technological innovations made possible by petrochemical fertilizers and pesticides, and biotechnology, respectively –

and of interweaving the many complex issues involved in the modern production of food. Looming over all of it is Monsanto, casting an increasingly large and sinister shadow across the farmlands and supermarkets of North America. Once a pesticide manufacturer, Monsanto began buying up seed companies in 1995 and now controls the market. In addition, Monsanto currently holds over 11,000 seed patents. As the film states, "Whoever owns the seed controls the food" (The Future of Food, 2004).

Food is a complicated and often emotional subject. Garcia manages to educate about a variety of food production facets in a clear, accessible way. The film stresses that diversity is key to the future of food security. I found the piece on the variety of foods grown now in comparison to a century ago very informative. For example, "97% of the varieties of vegetables grown a hundred years ago are now extinct" (Future of Food, 2004). Garcia demonstrates how the changes in food production in America are affecting the agriculture and cultural heritage of other countries, such as Mexico.

A Different Food Future

After a brief history of modern food production and details about what's wrong with the way things are currently being done, the question is asked, "What would it take to change the American food system to make farming more sustainable and improve public health and environmental quality?" (Future of Food, 2004) Deborah Koons Garcia offers sustainable agriculture, community supported agriculture – where patrons "subscribe" to farms and are shipped weekly boxes of fresh produce – and farmers markets as answers to this question.

According to The Future of Food, the goal of sustainable agriculture "is to use resources that are in the local ecology and recycle those resources within the system" rather than drawing on resources from outside. We should also be using renewable energy sources such as solar and wind to power our systems, "as nature does, rather than relying on imported petroleum" (Future of Food, 2004).

A century ago people relied upon locally produced foods; today, food in a supermarket has traveled an average of 1,500 miles. This requires more petroleum and increases our dependency upon other countries for food (Future of Food, 2004). However, with community-supported agriculture, such as the program at Full Belly Farm in California's Capay Valley, food ships an average of 50 miles. There's also greater field and farm-wide diversity and a more intimate relationship between the farm and consumers.

As one of the farmers in the film puts it, organic farming "restores the human relationship to agriculture" and ensures confidence in the safety of the food for human consumption. It also provides a "diverse, healthy and sustainable" alternative to large, corporate farming (Future of Food, 2004). (Here it's important to differentiate between independently owned and operated small farms and large, corporate-controlled farms because organic food is becoming a big business.)

Whoever owns the seed controls the food.

The film calls the resurgent interest in farmers markets a "counter-revolution." While the benefits to the farmer, the consumer and the environment are unquestionable, we must also be certain that these benefits are distributed equitably throughout communities. For example, the Ferry Building Farmers Market in San Francisco is more focused on providing unique, gourmet choices to economically successful patrons that it is about providing healthy food choices to disadvantaged urban residents.

Hungry for More

When asked in a recent interview what her next project might be, Deborah Koons Garcia replied that she might finally get to do her film on pesticides (Arria-Devoe, 2006). I would suggest a more pressing topic, one The Future of Food does not adequately address: access to safe, healthy food for everyone.

During a panel discussion at a screening and benefit held at the Castro Theater in San Francisco in November 2004 (available on The Future of Food's Special Features disk), an audience member asks the question, "How economically accessible is organic farming in terms of consumers...and what can we do to make it more accessible?" Michael Pollan, an awarding-winning journalist and professor, responds by reframing the question – "Yes, we could say 'Why is organic food more expensive?' or we could say 'Why is conventional food so cheap?'" In his response, Pollan acknowledges that economic accessibility to organic foods is a tremendous problem and one not likely to be solved any time soon.

He outlines the price consumers pay for conventional food versus the real costs in terms of the environment and public health, and he emphasizes subsidies and how they figure into the food cost equation. However, while illuminating, his response falls short of addressing equity of access to safe and healthy foods.

For most people, there's no choice between organic or conventional foods; the higher cost of organic foods precludes them from being an option. And for many, simply having access to fresh, healthy foods within their community is a daily struggle. For these people the arguments presented by Pollan ring hollow in the face of reality.

But there is hope. Organizations like Literacy for Environmental Justice in San Francisco's Bayview Hunters Point and People's Grocery in West Oakland, California are working to improve food security in their communities. Garcia ends The Future of Food with the statement, "It's up to you." I believe it's up to all of us to ensure access to safe, healthy food for all members of our communities and in so doing, to help ensure a better future for us all. ¤

Food is one of the most intimate things we do.

Food is one of Michelle's favorite things; she especially enjoys preparing and sharing meals with family and friends, and feels blessed and delighted by the diverse bounty of the Bay Area.

References

To gain a better understanding of what it takes to get food from the farm to the table, I also recommend *Diet for a Dead Planet: How the Food Industry is Killing Us* by Chris Cook (The New Press, New York, 2004). It's an examination of the food production industry and the high cost our cheap food supply system is exacting in human and environmental terms.

Arria-Devoe, A. 2006. "The Future of Deborah Koons Garcia." *Edible SAN FRANCISCO.* Winter. 22-24.

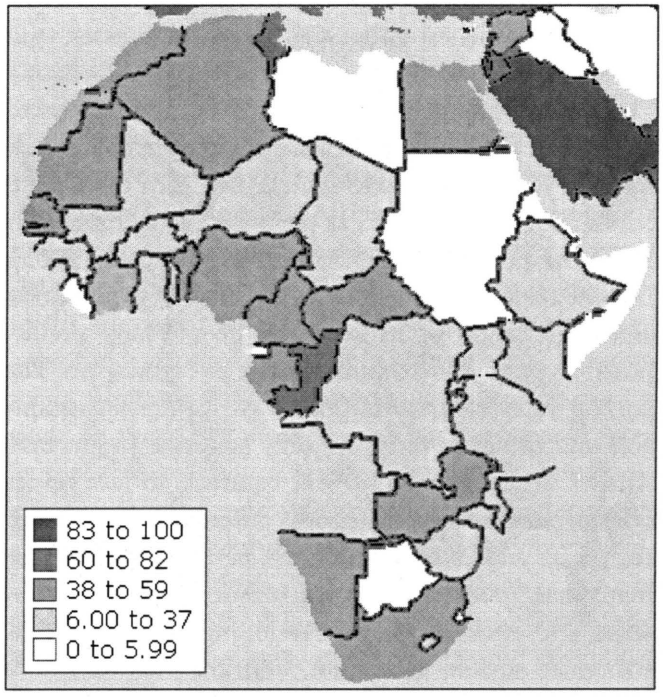
Future of Food, The. 2004. Lily Films, Inc. Directed by Deborah Koons Garcia. Produced by Deborah Koons Garcia and Sarah Maamouri. (Disks I and II.)

African Cities and the Rising Price of Urbanization

by Deidre Nolan

The face of Africa is being transformed by the growth of cities and massive population shifts from a land composed primarily of small villages into a land punctuated by rapidly expanding cities. Urbanization is rampantly occurring throughout Africa. This process of urbanization refers to an increase in the proportion of the population living in cities and its surrounding areas. According to the United Nations Population Information Network (2003), about 38% of Africa's population now lives in urban areas compared to about 15% in 1950. The urban population of Africa has steadily increased over the past four decades at an annual rate of four percent (Auclair 2005). African cities have been experiencing the fastest population growth in the world and the slowest rates of economic growth (Auclair 2005). By the year 2020, it is estimated that Africa will contain five of the world's mega-cities with populations over 5 million (Population Reference Bureau 2004). Lagos, Nigeria is considered to be among the largest in the world with a population of nearly 11 million and is expected to reach 23 million by the year 2030 (PRB 2004). As this trend spreads rapidly throughout the continent, residents are beginning to pay the price for over-population and the lack of resources in many African cities.

Colonialism has influenced nearly all aspects of African life and it has significantly affected the growth and development of African cities by shaping the locations of urban settlements. Rural to urban migration is another crucial element that contributes to population growth in urban regions (Soumare and Gerald 2003). The allure of the city and its variety of opportunities for advancement and achievement still attracts much of Africa's rural populations. The displacement of people due to civil conflicts within Africa has also prompted the upsurge in urban growth. The population of African cities swells each year as a stream of unskilled laborers from rural areas continue to arrive; Cairo, Nairobi,



Percentage of population living in urban areas.

Lagos, and even smaller African cities have been unable to adequately accommodate the new migrants and their basic human needs. African cities have become the sites of extreme disparities between the rich and the poor. With the growth of cities in Africa, urban poverty has become much more prevalent. The lack of resources along with inadequate governance has made it extremely difficult to handle critical issues such as high rates of overpopulation, diseases, child and infant mortality, unemployment, and crime.

Many of Africa's urban population live in poverty, which is considered at a global level as surviving on less than one U.S. dollar a day. The extensive level of poverty in Africa has crippled the ability of many of its states to develop and combat the constant onslaught of problems that disturb the region. In 2005, several international forums including the G-8 summits, the World

Trade Organization meetings, and the United Nations conference were held to address the extent of poverty in the developing world; Africa was a major focus of these agendas (Tyrangiel 2005). A critical objective of the United Nations millennium goals is to cut the number of people living below poverty in half by the year 2015. The organization known as DATA (Data, AIDS, Trade, Africa or democracy accountability, transparency, in Africa) is a policy advocacy group founded in part by Bono of U2. DATA and other international human rights advocacy groups have been instrumental in encouraging governments of the richest nations in the world to assist with human rights and debt relief for Africa (DATA.2006). The African continent has received an unprecedented amount of pledged support including over $50 billion by 2010 for campaigns to fight AIDS from the United States and Britain as well as promises of debt relief for 18 of the poorest African countries (Tyrangiel 2005). Despite these prospects, Africa's history of exploitation and degradation of its land and people have predisposed its population to unfavorable circumstances. The current rates of urbanization in Africa are unsustainable and urban poverty will only continue to increase. Africa's urban population will continue to face severe odds of survival unless the root causes of poverty in this region are addressed. Conditions, particularly for those living in the poorest slums, will only improve with assistance and efforts towards developing adequate infrastructure, shelter, education, and medical assistance from African states and the international community. The repercussions of colonialism including conflict, debt, and land and human exploitation have devastated many African states and have left local governments without the ability to service and provide resources for their rapidly growing urban inhabitants. The environment for African's urban populations will improve with the continued aid and support of international development organizations that are dedicated to providing emergency relief, solutions for poverty and economic empowerment. It is also important for these agencies to work with local and regional governments of Africa to address policies that have negatively affected Africa and advocate new measures that will increase Africa's access to world trade market, information and communication technology and production.

The Early Development of African Cities

The continent of Africa had traditionally functioned as an agrarian society, comprised of a variety of peoples with unique cultures, dialects and traditions that spread across the vast land. Urban settlements like Timbuktu, Djenne, and Bamako existed in Africa long before the advent of its colonization (Falola 2003). At the beginning of the 20th century all of Africa with the exception of Liberia and Ethiopia was governed by colonial powers. In an effort to capitalize from their possessions, colonial rulers began to establish production sites for cash crops such as cotton, maize, sugar and tobacco. Colonial administrations soon began to settle in several harbor towns, which later became cities and important zones of commerce and trade. The railroad system was implemented in order to transport goods from production sites to harbor town for export. As the railway system developed, new cities emerged along the railroad lines. Cities also developed in mining areas like Johannesburg and Kimberly in South Africa (Falola 2003). Migrants, particularly young men, began to leave their families behind and flock to cities in search of employment despite the poor conditions for African workers.

Following World War II, the long struggle for independence from foreign rule began; city centers were the focal point of these movements. Cities throughout Africa grew rapidly during the post-colonial era motivated primarily from the economic and administrative needs of colonial powers. A new culture developed in African cities; the urban way of life relied less on African traditions and practices and instead relied on new forms of technology, transportation and communication (Falola 2003). Life in the city was an extreme transition from the subsistence living that was the predominant way of life in rural areas. As the rural populations diminished so did the production of the agriculture in these areas. City dwellers became dependent on foreign goods and increasingly adapted figments of Western music, clothing and trends (Falola 2003). Social stratification and segregation were common in the city in nearly all aspects of African life from housing to education. Only the elite of African cities could afford residences with features such as sanitation, roads, and electricity while slums began to expand with the city's poorest residents. The slums of African cities are without clean water and adequate provisions for human life and have become breeding grounds for lethal and hazardous conditions for the residents.

Modern African Cities

The majority of cities in Africa are relatively small with populations of less than 10,000 (PRB 2004). Although it is often difficult to gain an accurate count of the population in many African cities, urban growth is on the rise. If the trends continue, Africa's urban population is expected to transition to a majority and is estimated to be nearly 87 percent by the year 2030 (PRB 2004). Some of Africa's cities like Dakar, Johannesburg, and Cairo boast modern skylines and are filled with all the features of a cosmopolitan city. These urban regions are centers of commerce and life comprised of bustling markets, parks, hotels, restaurants and opportunities for jobs, education and training. Although many African cities contain educational institutions for all levels, high rates of illiteracy still exist particularly for females and those in the poorest regions of the city. Those who move to cities may be forced to live in polluted environments that are already overpopulated and overcrowded.

Rates of urbanization vary among African nations. Urban growth in countries like Rwanda, Malawi and Burundi has been slow and hesitated by factors like famine and conflict. Within Africa, about one out of three nations is currently engaged in or experiencing internal conflict and, as a result, thousands of people have become displaced and severely impoverished (Auclair 2003). War has not only taken the lives of millions of men, women, and children, but has also destroyed massive amounts of land, crops and livestock, devastating the livelihood of those who once inhabited these regions. War-torn regions such as Rwanda and the Democratic Republic of Congo, or more recently Sudan, have produced thousands of refugees. Conflict has taken a tremendous toll on many African urban residents. Conflict and war have displaced thousands of urban dwellers from their homes and forced them to seek refuge in neighboring countries. Chad, for example, has absorbed a significant amount of Sudan's refugee population from Darfur and now struggles to provide adequate shelter and resources for its new residents. The displacements of urban and rural populations due to conflict and resulting refugee communities that flow into neighboring countries often ignite violence, insecurity, and political and social tension (Auclair 2005).

In an effort to develop cities and implement modern infrastructure like transport and road systems, African nations have received enormous conditional loans from international institutions and banks like the World Bank and the International Monetary Fund. Today it is estimated that nearly 40 percent of the GDP of African nations is dedicated to debt repayment, and in 2004, Africa's total debt to multinational organizations was nearly $300 billion (Shomade 2004). The significant amount of funds dedicated to repayment of debt each year hinders the growth of African countries. The conditions that accompany the loans are often geared towards

Debt is a serious inhibitor to the alleviation of poverty for African countries.

improvements and investments in export economies that require cutbacks in social spending in areas such as health care and housing. Africa pays nearly $15 billion in debt repayments each year to the wealthier nations of the world (Shomade 2004). Debt is a serious inhibitor to the alleviation of poverty for African countries and goals for development are not being met by the development programs set up by international lending institutions. In many instances poverty has been exacerbated by these flawed programs which have extremely rigorous demands for approval and high interest repayments and have produced minimal results. In rapidly expanding urban populations, it is of the utmost importance to provide adequate housing, education, health care, and the basic necessities such as clean water and sanitation. The conditional loan programs have been overly focused on economic growth as a measure of success rather than quality of life for most Africans (Stiglitz 2003), and have seriously undermined African states' abilities to provide basic needs by restricting government spending as a condition for receiving loans.

Urban Slums

In a conference for African Housing and Urban Development, UN-HABITAT's Executive Director Anna Tibaijuka cited that nearly two-thirds of Africa's population lived in informal settlements and did not have access to water, sanitation, transport, or health services. Much of the growth in African cities is in squatter communities. In 2001, about 72 percent of the urban population in Africa (totaling more than 166 million people) lived in slums (Auclair 2003). The squatter settlements, more commonly known as slums, shanties, or ghettoes, are a common feature of many African cities.

Tibaijuka also pointed out that Africa is poorer today than in the 1960s mainly because of the poor economies within Africa that resulted from adverse terms within the international trade market (AMCHUD 2005). Although there is a growing number of urban educated middle class, it is only a small fraction of the population in comparison to the majority of urban poor. The severe uneven distribution of wealth is a factor that has remained constant over time in African cities. Control of land, resources, and power is limited to an elite class of traditional African or foreign rulers. In rapidly growing cities of Africa such as Dakar, Abuja, Dar es Salaam, and Nairobi, there is steep variation between the residents who have access the modern amenities and those who exist without vital provisions (Falola 2003). Some of the most negative aspects of the rapid growth of informal sectors represented by the increasing number of squatter settlements are the illegal economic sectors or so-called prostitute and thief economies. Dire poverty causes many urban residents to turn to illegal activities or means to earn a living.

People living in slums have to exist in an unsafe environment in desolate conditions without adequate shelter, clean water, and means to dispose of solid waste. The lack of clean water and proper waste disposal methods causes infection to occur and to spread. Deadly diseases like malaria, typhoid, and cholera (now preventable by modern medicine) have been common throughout Africa for centuries, but none have devastated the continent over the last century like the AIDS virus. In 2005, an estimated 7.2% of the Sub Saharan population was living with AIDS, and approximately 2.4 million people died from the disease (UNAIDS and WHO 2005). AIDS has had a tremendous effect on the entire African population; it has orphaned countless children and has had a devastating effect on many communities. Life expectancy in African nations like Zimbabwe and Malawi is approximately 38 years old due to the rising prevalence of deaths from AIDS (CARE 2006).

Nairobi

The city of Nairobi emerged as an important center of commerce in East Africa for British colonialists as headquarters of the Uganda Railway. It quickly developed as an important financial center and attracted many migrant workers from other parts of East Africa. Nairobi became the capital city of Kenya following its independence in 1963 and it has progressed into a cosmopolitan city that is home to many modern amenities, theme parks, hotels, restaurants, and international organizations. Although Nairobi is among the most modern developed cities in Africa it displays astounding differences in lifestyles among the cities residents. Many of Nairobi residents are unfamiliar with the amenities and leisure of urban life; they live without basic water, sanitation, and electricity despite their proximity to this urban center. The city of Nairobi exemplifies many of the challenges that many other urban regions face in Africa. As urban growth increased in the city at a rate of 7% annually between 1970 and 1995, the rate of the GDP declined at a rate of 1% each year (APHRC 2004). Nairobi's population has also been boosted by a massive influx of refugees from conflict in the neighboring countries of Somalia, Ethiopia, and Sudan. Nairobi is the most populated city in East Africa with an estimated 3 to 4 million people.

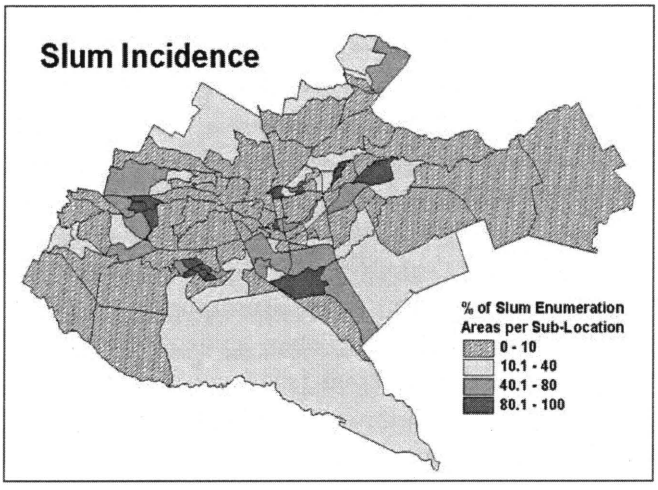
Nairobi is characterized by its abundance of squatter communities or slums, a common feature of many African cities. Slums around Nairobi such as Kibera and

SUB-SAHARAN AFRICA

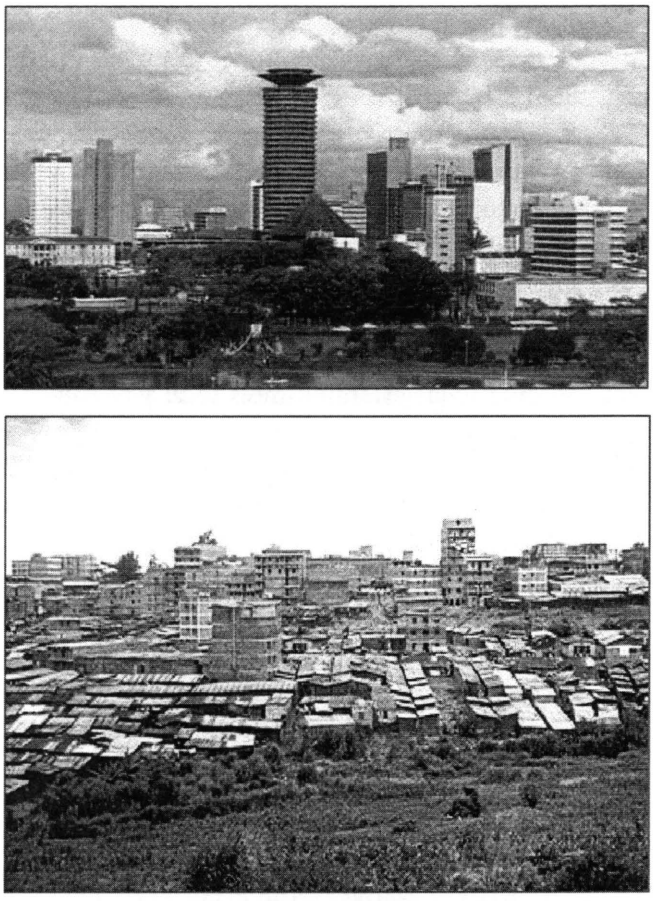
HIV and AIDS statistics and features, in 2003 and 2005

	Adults and children living with HIV	Number of women living with HIV	Adults and children newly infected with HIV	Adult prevalence (%)*	Adult and child deaths due to AIDS
2005	25.8 million [23.8–28.9 million]	13.5 million [12.5–15.1 million]	3.2 million [2.8–3.9 million]	7.2 [6.6–8.0]	2.4 million [2.1–2.7 million]
2003	24.9 million [23.0–27.9 million]	13.1 million [12.1–14.6 million]	3.0 million [2.7–3.7 million]	7.3 [6.7–8.1]	2.1 million [1.9–2.4 million]

Recent HIV and AIDS statistics for Sub-Saharan Africa.



Slum incidence in Nairobi.



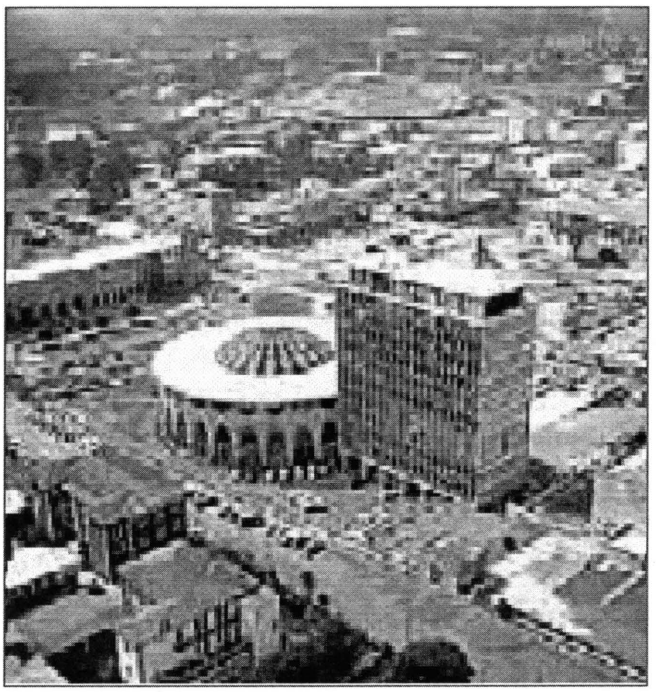
Two views of Nairobi: Downtown (top) and Mathare slum.

Mathare have become infamous examples of the deterioration and danger of urban squatter communities. They display many aspects of extreme urban poverty and have tremendous problems with access to clean water, drainage and sanitation, solid waste management, and crime among other issues. In a report titled "The Challenge of Slums: Global Reports on Human Settlements 2003," the United Nations Human Settlements Programme highlighted that Nairobi slums cover about 5 percent of the city's land but they are home to about 60 percent of its residents. In the informal districts of Nairobi, residents, in particular children, have the lowest chances of survival because of the poor environment. An estimated 11.3% of children from slum areas died before the age of five in Nairobi, in comparison with 0.78% of those not from slums (Auclair 2005).

Addressing the poor conditions and upgrading slums to livable environments has been a major focus of local and international agencies in the region. The Nairobi Urban Health and Poverty Project (NUHPP) is an organization that has been developed by the Africa Population and Human Resource Center to monitor and research the impact of programs for aiming to improve the mortality, health, income, and migration of urban slum residents in Nairobi (APHRC 2004). The research by NUHPP in conjunction with collaborative efforts with international organizations such as PATH and CARE will be used to advocate policy and reform in other regions of Africa that have experienced similar patterns of urbanization (APHRC 2004). The development and introduction of information and communication technologies (ICTs) is also being used a means to ultimately improve the lives of residents in the city's most impoverished regions (Warah 2004). The new influx of ICTs in the city is designed to increase opportunities for economic empowerment and education for many of the city's slum dwellers and severely poor residents.

Addis Ababa

Addis Ababa, flower in Amharic, has been the capital city of Ethiopia for approximately a hundred years. Addis Ababa is home to more than 3 million people and serves as the country's center for politics, culture, commerce, and education and is home to foreign embassies and international organizations (Kervella 2005). It became the capital city of Ethiopia under the reign of Emperor Menelik and later, under Emperor Haile Selassie, experienced much development compared to surrounding regions (Falola 2003). In 1894, a railroad was built connecting Addis Ababa, which is centrally located to the southern parts of Ethiopia, and the city attracted thousands of residents from rural villages. This trend continued for decades and from 1967-1975 many urban centers emerged that were conveniently located off the Addis Ababa-Nairobi freeway like Awasa, Shashamane and Goba (Falola 2003). After this period, a number of land reforms were initiated to decrease the amount of rural migration. However, as conflict with neighboring Etritea increased, many people began to seek refuge in Addis Ababa. The city faced many challenges resulting from poor governance and also many problems with unemployment, shelter, education, health, crime and environmental degradation. Ethiopia is now governed by a democratic government after the demise of the dictatorial regime of the Derge and decades of conflict with neighboring Eritrea. In a 1992 World Bank Study, 60 % of the urban population of Ethiopia lived in poverty. This has been exacerbated by recent droughts, which have led to famines and destroyed the income and crops



Addis Ababa, Ethiopia.

of many farmers, pushing them to the city in search of work (UNDP 2000).

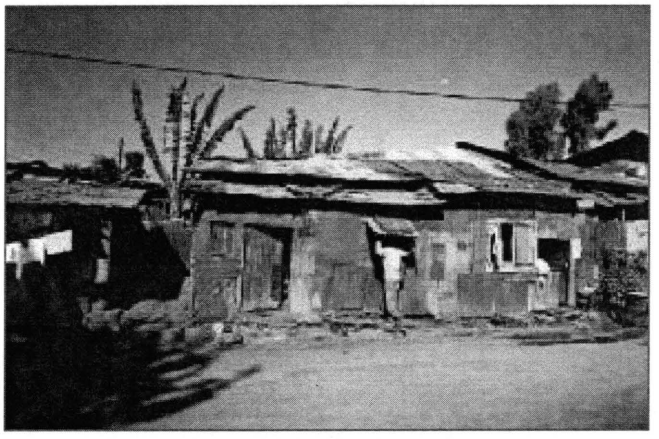
Addis Ababa is by far the dominant primate city of Ethiopia and receives the majority of the country's private investment and infrastructure development for education, roads, and shelter. However, many of the city's residents are still severely impoverished. The city's mayor, Arkebe Oqubay, aims to transform Addis Ababa into 'The Diplomatic City of Africa' by reversing the trends that have contributed to urban decay and poverty. In a recent address on the website of city mayors he stated, "we vigorously undertook four core interrelated policy reforms aimed at improving the overall urban governance of Addis Ababa: decentralization, community participation, civil service reform and improvement of service delivery" (Oqubay 2005). The Mayor's plan for the city has proven to be successful with major advances in 2005: the construction of about 50,000 housing units, 40,000 new jobs, and continued efforts to reduce slums and upgrade development (Oqubay 2005). Addis Ababa is still a long way from alleviating urban poverty and its root causes but has taken crucial steps towards improvement and can be viewed as model of progress for many African cities.

Future Outlook

Christine Auclair, urban policy analyst at the Global Urban Observatory of the United Nations Human Settlements Programme (UN-HABITAT) in Nairobi, suggests that the current conditions will be unsustainable for the future. Considerations must be taken in order to provide effective solutions to alleviate poverty and its root causes. Addressing the health crisis of AIDS is also a major area of concern because it has taken a tremendous toll on life; thousands die each year and many children will continue to be orphaned for lack of access to vaccinations, treatment, and education about disease. Conditions in the slums of many African cities will continue to deteriorate unless local governments make efforts to improve conditions. It is also important for agricultural sectors to continue to develop and increase production in order to reduce dependence on foreign goods.

Some authors suggests that increasing trade with Western nations may be the key to boosting economic growth in Africa. Others suggest that improving information communication and technology (ITCs) is also important. Despite their efforts to increase trade and develop markets, many African nations have extreme difficulty meeting international standards because of the debt crisis, low foreign direct investment, degradation to the environment, widespread corruption, and inefficient civil service. Eliminating trade barriers and policies that prevent African countries from receiving access to world markets and technological advances in health and education is crucial. Raising awareness and supporting organizations that make efforts to provide relief and advocate growth and development for Africa is also necessary. Without adequate resources and international support it will be impossible for African cities to progress and alleviate poverty.

Unconditional debt relief must occur for the most heavily indebted countries in Africa. If this cycle of



Addis Ababa squatter settlement.

dependency can be broken there is a chance that quality of life for the poorest urban residents can improve. Local industries must develop in African cities to provide employment for urban residents. Infrastructure improvements can provide jobs, whether government or privately employed. International efforts must be increased; sustainable programs must be implemented that will involve not just short-term aid, but long-term staying power. Africans themselves need to implement and take over the administration of such efforts. Slum communities must demand better conditions and governments must seriously address the needs of the most impoverished. The alleviation of urban poverty must be predicated on a systematic overhaul of political economies in Africa. The gap between the prosperous and the impoverished will only grow bigger in African cities if a new way of doing things is not implemented. ¤

DEIDRE NOLAN is an Urban Studies major graduating from San Francisco State University in May 2006. She plans to continue studying urban policy issues in graduate school in the areas of health and education in Africa and the Caribbean. She is interested in pursuing a career in international development.

References

African Population and Health Research Center (APHRC) Research Focus Urban Health and Poverty accessed 2006 http://www.aphrc.org/strategicplan/researchfocus.html

African Ministerial Conference on Housing and Urban Development (AMCHD). 2005. Feb.4. "Conference places urban poverty on top of Africa's agenda" UN-Habitat United Nations Human Settlement Programme. http://hq.unhabitat.org/amchud/conference_places.asp

Auclair, Christine. 2005. February 2. "Charting a framework for sustainable urban centres in Africa." *UN Chronicle Online Edition*. page 26. http://www.un.org/Pubs/chronicle/2005/issue2/0205p26.html

Cooperative for Assistance and Relief Everywhere, Inc (CARE) 2006 www.care.org

DATA: Data, AIDS, Trade, Africa or democracy accountability, transparency, in Africa. www.DATA.org Accessed 2006.

Falola, Toyin, Ed. *Africa Volume 3: Colonial Africa 1885-1939*. Durham, North Carolina: Carolina Academic Press. 2003.

Kervella, Guy. "Broad support for Mayor's overhaul of Addis Ababa" City Mayors 2005. http://www.citymayors.com/mayors/addis_mayor.html

Nairobi Slum Map International Institute for Geo-Information Science and Earth Observation ITC 2003 retrieved February 6, 2006 http://www.itc.nl/news_events/archive/projects/urban_poverty_nairobi.asp

Oqubay, Mayor Arkebe 2005. "Making Addis Ababa the Diplomatic City of Africa." World Mayors: The 2005 Finalist Mayors. http://www.worldmayor.com/manifestos05/addis_ababa_05.html

Population Reference Bureau. (2006) "Human Population: Fundamentals of Growth Patterns of World Urbanization." http://www.prb.org/Content/NavigationMenu/PRB/Educators/Human_Population/Urbanization2/Patterns_of_World_Urbanization1.htm

Shomade, Niyi. 2004. November 2. "US Foreign Policy on Africa – A Bomb is a Bomb!" www.dissidentvoice.org

Soumarè, Mohamed and Gerard,Jèrome. 2000. "Reducing urban poverty in Africa: Towards a new paradigm?" United Nations for Human Settlement. Vol.6. No.4

Stiglitz, Joseph E. 2003. *Globalization and its Discontents*. New York and London: W.W. Norton and Company.

Tyrangiel, Josh "Persons of the Year: The Constant Charmer" *TIME Magazine*, December 26, 2005 to January 2, 2006 Vol 166 No. 26 Pages 47-62

UNDP 2000. January. The Federal Democratic Republic of Ethiopia, Ministry of Works and Urban Development, Ministry of Economic Development and Cooperation (MEDAC) Addis Ababa City Government UNDP / UNCHS Habitat "CAPACITY BUILDING FOR SUSTAINABLE URBAN DEVELOPMENT IN ETHIOPIA AN OVERVIEW OF URBAN POVERTY IN ADDIS ABABA" Poverty Reduction and the Development of a sustainable living environment in Addis Ababa. United Nations Centre for Human Settlements UNCHS (Habitat).

Warah, Rasna. 2004. February 2. Divided City: Information Poverty in Nairobi's Slums" *UN Chronicle Online Edition.* pg. 74 http://www.un.org/Pubs/chronicle/2004/issue2/0204p74.asp

World Health Organization and UNAIDS "AIDS Epidemic Update 2005" http://www.who.int/hiv/epi-update2005_en.pdf

Urban Development, Ministry of Economic Development and Cooperation (MEDAC) Addis Ababa City Government UNDP / UNCHS Habitat. "CAPACITY BUILDING FOR SUSTAINABLE URBAN DEVELOPMENT IN ETHIOPIA AN OVERVIEW OF URBAN POVERTY IN ADDIS ABABA." Poverty Reduction and the Development of a sustainable living environment in Addis Ababa. United Nations Centre for Human Settlements UNCHS (Habitat).

Warah, Rasna. 2004. February 2. Divided City: Information Poverty in Nairobi's Slums" *UN Chronicle Online Edition.* pg. 74 http://www.un.org/Pubs/chronicle/2004/issue2/0204p74.asp

World Health Organization and UNAIDS "AIDS Epidemic Update 2005." http://www.who.int/hiv/epi-update2005_en.pdf

Image Sources

Figure 1: Overpopulation.com

Figure 2: World Health Organization and UNAIDS EIDS Epidemic Update 2005

Figure 3: International Institute for Geo-Information Science and Earth Observation 2003

Figure 4: The Talking Drum www.thetalkingdrum.com/cities.html

Figure 5: Rasna Warah

Figure 6: The Talking Drum www.thetalkingdrum.com/cities.html

Figure 7: The Association of Ethiopian Health and Health-related Professionals in Sweden (AEHHPS)

Urban Management Challenges in Mega-Cities: A Survey of Catastrophic Events in the Developing and Developed World

by Bronwen Trice

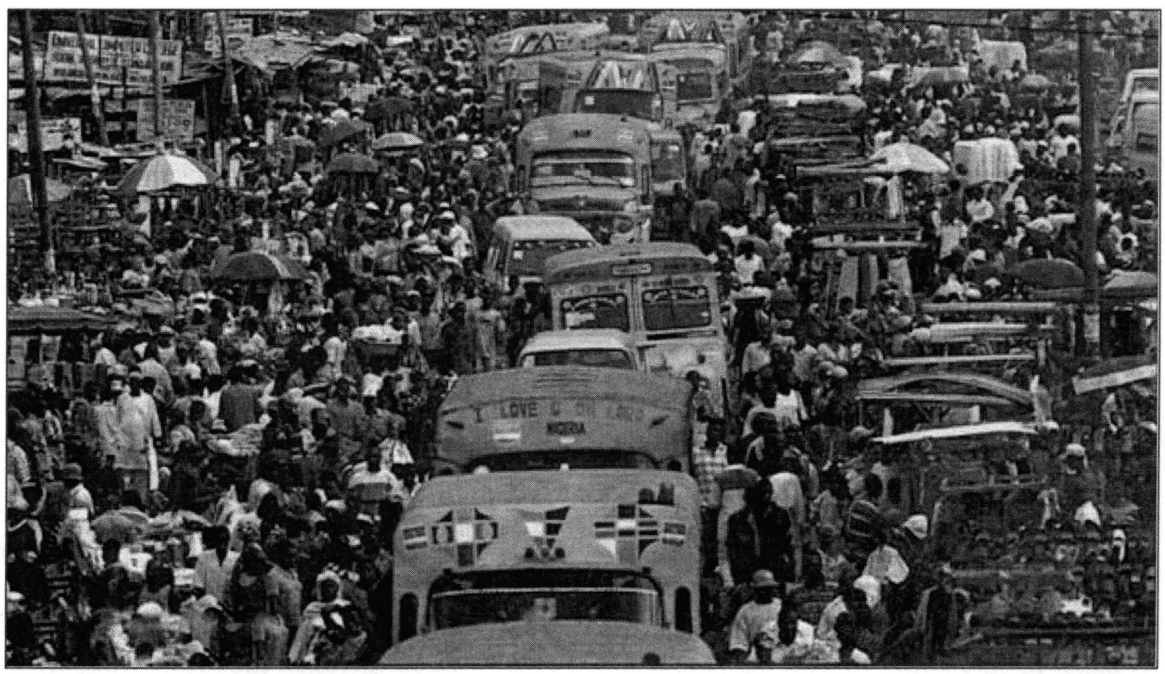
Methodology

During the aftermath of Hurricane Katrina, I wondered why U.S. administrators were struggling to handle the large-scale disaster and what was needed to mitigate and plan for large, urban disasters in the future. In this paper, I addressed two main questions: 1) Why are urban areas vulnerable to disasters? and 2) What can we learn from the experiences in New Orleans, Kobe, Istanbul, and Mexico City to become better prepared? I studied a variety of literature on major disasters in the developing and developed world and disaster management best practices. My advisor Professor Ayse Pamuk gave me expert guidance and invaluable support. I also greatly benefited from the books by professors Aseem Inam (*Planning for the Unplanned: Recovering from Crises in Megacities*) and Mary Comerio (*Disaster Hits Home: New Policy for Urban Housing Recovery*).

Introduction

Mega-cities, defined as greater metropolitan regions with over ten million inhabitants, are currently swelling in size and number all over the world (Linden, 2003, as cited in Inam, 2005, p. 10). While mega-cities offer opportunities for an improved quality of life for residents and economic growth for countries, they simultaneously present massive urban management challenges. Mitigating and responding to disaster are among the most difficult – and critical - of these challenges. We should examine emergency management case studies in order to develop more robust capabilities to prepare for and respond to future disasters or unexpected events. As exemplified by the tsunami in Asia (December 26, 2004), the landslide in Guatemala (October 6, 2005), and the earthquake in Pakistan (October 8, 2005), the developing world is desperate for such disaster management strategies. As the recent response failure of Hurricane Katrina in the U.S. (August 29, 2005) has demonstrated,

Lagos, Nigeria.



disaster management capabilities for high density urban areas are seriously needed in the developed world as well.

In this paper I will discuss the growth of the mega-city in the developed and the developing world and explore the special challenges either face in responding to natural disasters. Then I will survey emergency management, planning and preparedness in four global cities, looking at the specific disaster experiences. These will include Mexico City (earthquake, 1985), Kocaeli, Sakarya, and Duzce, Turkey (earthquake, 1999), Kobe City, Japan (earthquake, 1995), and New Orleans, Louisiana, USA (Hurricane Katrina, 2005). I will compare and contrast emergency responses and recoveries in developing countries to those in developed countries. Finally, I will set out a list of emergency management best practices for mega-cities throughout the world. With the world population rising rapidly especially in mega-cities there is an urgency to examine past practices and strategize for any future disasters.

Why are Mega-Cities Vulnerable to Disasters?

Between 1994 and 2004, 7,000 'natural disasters' occurred, killing more than 300,000 people and resulting in over $800 billion in economic losses (Briceno, 2004, p. 234). Because of their growing size and number, mega-cities have increasingly been affected by disasters. According to the United Nations World Population Data Sheet, the global population will increase 46 percent between now and 2050 to about 9 billion (as cited in Motavalli, et al., 2005, p. 1). This population explosion is happening mostly in urban areas. According to Werner Fornos, president of the Population Institute, "By 2050, an estimated two-thirds of the world's population will live in urban areas" (as cited in Motavalli, et al., 2005, p. 3). In addition, the growth of urban areas and mega-cities reveals stark contrasts between the developing and developed world. As G. Shabbir Cheema (1994) wrote, "the share of the world's urban population living in developing countries will increase dramatically over the next decades" and the larger cities will grow even faster than the smaller cities (p. 413). By the year 2015 there will be 33 mega-cities and 27 of them will be in the developing world, 22 of those in Asia (as cited in Motavalli, et al., 2005, p. 3).

Why have mega-cities grown so much over the past 40 years – and why has the developing world absorbed so much of this growth? Cheema (1994) noted that in addition to natural population increases the main cause of rapid urbanization is rural-to-urban migration (p. 414). Internal rural-to-urban migration can be explained by several factors. In developing countries mega-cities offer a number of competitive advantages: higher wages, education, healthcare, and social and cultural attractions, that all result in a better quality of life for the poorest members of society. The primary so-called "pull" factors are jobs that can increase a migrant's economic status. On the other hand, unemployment, dependency relationships, and low-income levels in rural areas act as the "push" factors driving people away from their agrarian lives (p. 414).

Mega-cities are host to colossal urban management challenges and developing countries are hardest hit (Cheema, p. 416). Congestion overwhelms finite urban spaces, and, as a result, the demands for housing, infrastructure, transportation, water and sewer, and other basic urban services skyrocket. Yet these demands increasingly cannot be met, as urban governments are often stricken by budget crises and simply do not have the funds to provide the services (Linn and Wetzel, 1994, p. 258). Due to the dearth of low-income housing, the poorest city residents are forced to live in often atrocious conditions and build informal "slum and squatter settlements" themselves. This allows them to live on land near city centers, but without having to pay taxes or meet standard building codes. Informal settlements are increasingly the norm in mega-cities: Dar as Salaam 60 %, Lagos 58 %, Mamba 57 %, Mexico City 40 %, Calcutta 40 %, Nairobi 34 %, and Sao Paolo 32 % (Quarantelli, 2003, p. 213).

According to Ben Wisner (2003), mega-cities are particularly susceptible to disasters for four main reasons. First, their "sheer scale and geographic complexity" make it difficult to provide the lifeline and transportation infrastructure necessary for risk reduction (p. 182). Second, mega-cities' massive environmental "footprint" can act as both a trigger and an indirect effect of a disaster situation. In other words, because they require so much energy, food, water, and dispose of so much waste, mega-cities' urban ecologies can "exacerbate a natural hazard". Third, many mega-cities are usually located in geographically hazardous locations such as coastal areas or seismically active zones, making them susceptible to floods, windstorms, wild fires, earthquakes, tsunamis, and volcanoes. Fourth, mega-cities contain incredible social diversity, the greatest disparities in wealth, and

large-scale "illegal" immigrants and squatter settlements, leaving marginalized groups particularly vulnerable (p. 182). Poorer residents are likely to take the risk of living in the path of a natural and technological hazard as it is their only option (Quarantelli, 2003, p. 212).

Quarantelli (2003) noted that concentrations of industry also exacerbate mega-cities' disaster vulnerability. Should a disaster hit the area, the economic impact would be felt far into the future due to the loss of jobs from the destroyed industrial center (p. 212). As Quarantelli wrote, if it seems that disasters are increasing, it is only an illusion. Rather, "high-density population concentrations in floodplains, inadequate and unenforced building codes, housing on volcanic slopes, and inadequate warning systems increase the damage from natural occurrences" (Quarantelli, p. 214). Humans are increasingly putting themselves in harm's way – particularly in developing countries where informal settlements are growing steadily.

Why Compare Disaster Management Challenges in Different Mega-Cities?

Analyzing the pathologies and successes of disaster strategies in developing and developed countries will improve future preparedness and response throughout the world. Mega-cities across the world share many of the same urban management challenges and opportunities, "including the continual threat of crises, whether natural disasters or human created ones" (Inam, p. 13). Aseem Inam (2005) explained that there are three basic assumptions that accompany the definition of mega-city: 1) Mega-cities possess a set of common physical and managerial issues, 2) These issues are no different from regular urban problems, but they are more exaggerated in mega-cities, and 3) As centers of research and technology, mega-cities provide the resources to design innovative solutions to their challenges (Inam, p. 10).

In addition, different perceptions of disaster risk can uncover different responses to disaster planning and response. As James Mitchell asserted, "A pathological perspective on cities is readily paired with an emphasis on disaster vulnerability; a more optimistic perspective underscores the potential for resilience" (as cited in Inam, p. 11). The optimistic perspective suggests that individuals and institutions can overcome crises while the pathological perspective implies that individuals and groups are passive victims and thus, undermines their capacity for action. For example, Quarantelli (2003) noted that while Western engineers define the flooding of Bangladesh's Brahmaputra-Jamuna River islands as an event that needs to be controlled to protect the "helpless", the local residents have developed "extensive knowledge and strategies to cope with their environment" (p. 211).

The rest of this paper reports results of analysis of the following case studies: the earthquakes in Mexico City (1985), Western Turkey (1999), Kobe City, Japan (1995) and Hurricane Katrina in the Gulf Coast, United States (2005). The analysis will help show best practices that can prepare all mega-cities to better meet the disaster management challenges of the future. Comparing and contrasting disaster management in two developing countries versus two developed urban areas will reveal what did and didn't work in similar and different mega-city contexts.

Catastrophic Event Case Studies: The

Earthquake Damage in Mexico City, Mexico, September 19, 1985.

Developing World and the Developed World

Mexico City, Mexico, Earthquake, 1985

On September 19, 1985, a magnitude 8.1 earthquake occurred off the Pacific coast of Mexico. Out of a population of 18 million, 10,000 people were killed (although the official death toll was 4,287) and 50,000 were injured (Inam, p. 62). In addition, 250,000 people lost their homes and total economic loss was estimated at $4 billion (Comerio, 1998, p. 130). At first, the government's reaction was slow, but it began to mobilize in face of local mass protests and international demands (Inam, p. 64). Soon after the earthquake, the government established a National Reconstruction Fund, an emergency housing program, and Renovacion Habitacional Popular (RHP), a housing recovery program that would "reconstruct the most badly affected low-income areas" (Inam, p. 65)

Mexico City suffered tremendously after the 1985 earthquake. Yet it successfully recovered because the institutional bureaucracy was able to respond to the needs of its citizenry (p. 59). Inam (2005) wrote that there are five key components to successful disaster recovery: 1) rapid action, 2) massive funding, 3) improved conditions, 4) community outreach, and 5) institutional coordination (p. 48). All five of these requirements were met with RHP. RHP was implemented relatively quickly and effectively. Massive funding was available through the Mexican government and the World Bank, totaling $392 million in 1985 U.S. dollars (Inam, 2005, p. 67). Also, the Mexican government already had in place an experienced and knowledgeable housing finance agency - National Fund for Popular Housing (FONHAPO) - that greatly assisted with RHP's implementation (p. 69).

RHP improved conditions for residents as architects and planners rebuilt better, bigger, more attractive apartments in their original locations instead of relocating residents to the outskirts of the city and residents were able to transition from renting to owning their apartments. Community outreach for RHP was made possible through the *convenio*, a social and political agreement that incorporated citizen participation and decision making into the government program. In addition, RHP's institutional coordination of public-private partnerships enabled 48,749 housing units to be completed and three other programs built or repaired another 47,000 units in just two years (Inam, 2005, p. 76; Comerio, 1998, 142).

Kocaeli, Sakarya, and Duzce Provinces, Turkey – The Marmara Earthquakes, 1999

On August 17, 1999, a 7.6 magnitude earthquake struck Western Turkey's provinces of Kocaeli and Sakarya. Only a few months later, on November 12, 1999, a 7.2 magnitude quake struck the Duzce district (Lahidji, 2004, p. 14). The areas affected by the quakes contained 23 percent of Turkey's population (p. 14). Together, the quakes killed 18,373 people, injured almost 50,000, and left 600,000 people homeless (Brauch, 2003, p. 158). Over one hundred thousand homes/businesses collapsed and 249,000 were damaged (Lahidji, 2004 p. 14). In addition, the economic losses were especially crippling because the epicenter of the quake was located in Turkey's industrial heartland. The affected areas had produced 34 percent of Turkey's DNP and 46 percent of its industrial output (Lahidji, 2004, p. 14). 321,000 people lost their jobs and many industrial production sites were forced to interrupt work (Erdik and Durukal, 2003, p. 290). The quakes caused the highest economic loss – between $9 and $13 billion – and the second-highest number of fatalities in the 20th century (Akgiray, V. G. Barbarosoglu and M. Erdik, 2003; Brauch, 2003, p. 158).

Brauch (2003), explained that Turkey's increasing urbanization, combined with its growing number of informal housing settlements, disregard for building codes, and increasing number of industrial centers built wherever there was space produced the country's enormous vulnerability to natural disasters (p. 158). According to Erdik and Durukal (2003), the "Kocaeli earthquake is considered the largest to have damaged an industrial area since the 1906 San Francisco and 1923 Tokyo earthquakes" (p. 289). Akgiray, Barbarosoglu, and Erdik (2004) explained that individuals and organizations were also unprepared to meet the relief needs

Earthquake Damage in Turkey, 1999.

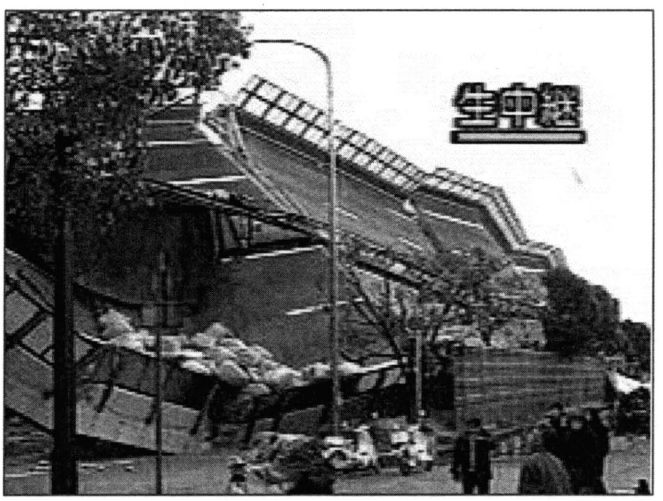
immediately following the quake. Despite valiant efforts by volunteers and the government, "management chaos, duplication of efforts, and lack of address for responsibility were all observed" (p. 90). Although there was an outline for emergency action, there was no national disaster management coordinating agency in Turkey until 2000 when the General Directorate of Emergency Management was formed (Quarantelli, 2003, p. 217; Akgiray, Barbarosoglu, and Erdik, 2004, p. 90).

Emergency shelters of tent cities helped families in need in the short term and 40,000 prefabricated housing units were erected for temporary housing (Akgiray, Barbarosoglu, and Erdik, 2004, p. 90). Many families also received "light damage" and "repair assistance" in grants from the government. Quake recovery efforts were bolstered by international response. The World Bank joined forces with UNDP, the European Union, the European Investment Bank and others to supply $737.11 million for the Marmara Earthquake Emergency Reconstruction (MEER) project. MEER was charged with implementing, along with other mitigation plans, long-term rehabilitation and reconstruction (Akgiray, Barbarosoglu, and Erdik, p. 90).

Kobe, Japan – Hyogo-ken Nanbu Earthquake, 1995

On the morning of January 17, 1995 a 7.2 magnitude earthquake rocked the city of Kobe, Japan (near the mega-city of Osaka) and several other sites along the coast of Osaka Bay. The OECD (2004) reported that out of a population of 14 million in the Osaka-Kobe metropolitan region, 6,430 people died and more than 41,000 were injured (as cited in Lahidji, 2004, p. 12). 105,000 houses were destroyed, 144,000 were damaged, 310,000 people were evacuated in shelters, and property damage totaled an unprecedented $130 billion (Lahidji, 2004, p. 12). A lack of immediate response by the Japanese government to the Kobe City quake was harshly criticized. It took two days before the first soldiers arrived and three days before the Prime Minister Tomiichi Murayama came to visit (*The Economist*, 1995, p. 34). Two weeks after the quake *The Economist* (1995) reported, "Hundreds of people who survived the earthquake but died in its aftermath might have been saved by faster action" (p. 34).

Comerio (1998) explained that the recovery has taken years. While much of the public and business sectors were reconstructed relatively quickly, the destroyed housing sectors languished as the government did not



Earthquake Damage in Kobe City, Japan, 1995 – Freeways Collapsed

take an aggressive approach to reconstruction and victims did not have access to agencies such as FEMA in the U.S. for loans or grants. Comerio noted the private sector would be more responsible for the repair of housing in Kobe than the government (p. 157). She added that Takumi Ogawa, deputy mayor of Kobe, in charge of rebuilding the city was so frustrated by the inadequacies of Japanese bureaucracy he committed suicide fourteen months after the quake.

New Orleans, Louisiana – Hurricane Katrina, 2005

The recent devastation wrought by Hurricane Katrina in the greater metropolitan areas of New Orleans and the Gulf Coast has demonstrated that the United States is just as vulnerable to catastrophe. On Monday, August 29, 2005, Katrina hit Louisiana at 6:10 am CDT as a Category 4 hurricane (Wikipedia, 2005, Hurricane Katrina). Out of Greater New Orleans' pre-hurricane population of half a million, 300,000 were forced to flee the region. Katrina killed more than 1,053 people and destroyed nearly 284,000 homes. Estimates of total damage range from $70 to $130 billion, "the costliest tropical cyclone of all time" (Thomas, 2005, p. 32; Wikipedia, 2005, Hurricane Katrina). Michael Olivier, Louisiana's secretary of economic development noted that Katrina was responsible for shutting down 71,000 business and the subsequent Hurricane Rita closed another 10,000: "We're looking at potentially the largest business insolvency since the Depression, and a government insolvency" (Thomas, 2005, p. 35).

The potential for devastation in New Orleans was widely-predicted. As Mary Comerio (1998) had warned in her book *Disaster Hits Home*:

> The housing losses sustained in recent hurricanes and earthquakes clearly demonstrate the vulnerability of an urban housing stock, even in moderate-intensity suburban disasters...What would happen if the eye of a category 5 hurricane crossed the center of Miami or New Orleans or another eastern seaboard city? (p. 179).

As the *New Orleans Times-Picayune* newspaper reported in 2002, "it was only a matter of time before South Louisiana takes a direct hit from a major hurricane" and the levee system – built for a Category 3 hurricane - would not be able to stand up to a larger strength storm (as cited in Wikipedia, 2005, Experts: prediction, Risks and Preparation). While it was well-documented New Orleans was physically vulnerable, failures of government response only exacerbated the social effects of the disaster. The local government was able to coordinate the evacuation of 80 percent of the city, but failed to transport the 20 percent left behind. Many of these people simply did not have cars or other transportation options necessary for evacuating – and they would have had to travel at least 80 miles to fully evacuate (Thompson, et al., 2005). Others were frail and elderly or had special needs and still others simply refused to leave. Botched evacuation efforts meant that people left behind had to take refuge at the New Orleans Superdome and Convention Center, forced to ride out the storm in deplorable conditions.

It was the crucial 72 hours after Hurricane Katrina hit when the state and local governments desperately needed the federal government to assume leadership in response coordination. Yet as Thompson, et al. (2005) explained, "the tiered response, whereby state and local officials are responsible for the first few days doesn't work in a mega disaster". The size of the storm simply overwhelmed the vertical and horizontal emergency management systems that were in place. Communications systems failed and the necessary mutual aid coordination was unavailable for police, fire, and other local responders (Thompson, et al., 2005). The local government had simulated response to a giant hurricane in 2004 (Hurricane Pam) and predicted that transportation would be a problem. However, local response agencies had not subsequently developed systems to deal with the enormous evacuation challenges. State and national support was also

Hurricane Katrina Damage in Biloxi, Mississippi

slow to arrive. After Governor Kathleen Babineaux Blanco asked the President for "everything you've got", it didn't arrive. FEMA had promised that it would supply bus transportation from the Superdome but failed to do so (Thompson, et al., 2005). Arguments about federalizing the National Guard troops continued for days after the hurricane, further aggravating the delays.

In reflecting on the mistakes that occurred after Hurricane Katrina in an email communication, Professor of City and Regional Planning at Cal Poly San Luis Obispo William Siembieda (2005) explained that there was a clear lack of "vertical integrations and network coherence." Siembieda asserted that a country with exceptional *assets* was no better off when it could not facilitate *access* to those assets in a timely manner:

> Using an asset-access model is a useful tool in pre-event capacity planning in order to understand what is needed to assure that critical assets are available when needed and the vertical and horizontal systems of support and coordination are in place to deliver the resources when required. (Siembieda, 2005)

Furthermore, he noted that "any future response needs to be built on stronger local capacity as first responders and a higher reliance on integrating more robust 'life-line' systems."

Comparison of the Case Studies

The table on the next page provides a comparison of the case studies. Mary Comerio, Professor of Architecture at U.C. Berkeley, analyzed several disaster case studies by using a catastrophe index of three criteria (incidence of a short term housing crisis, recovery financing crisis, and longer term housing crisis) to determine the severity of the housing crises (Comerio, 1998, p. 151). In the Mexico City earthquake, there was a short term housing

*Comparison of the Case Studies**

City/ Conurbation	Date	Nature of Disaster	Number of Deaths	Total Population (in millions)	Housing Loss	Economic Loss
Mexico City, Mexico	September 19, 1985	Earthquake, magnitude (mag.) 8.1	10,000; injured 50,000	18	250,000 people lost homes	$4 billion
Kocaeli, Sakarya, and Duzce Provinces, Turkey	August 17, 1999; November 12, 1999	Earthquake, mag. 7.6; Earthquake mag. 7.1	18,373; injured 50,000	12.8†	109,000 homes destroyed; 249,000 damaged	$9–13 billion
Kobe City, Japan	January 17, 1995	Earthquake mag. 7.2	6,430; injured 41,000	14	105,000 destroyed; 144,000 damaged	$130 billion
New Orleans, Louisiana, USA	August 29, 2005	Hurricane, Category 4	1,053	1/2 million	284,000 destroyed	$70–130 billion estimated‡

* Unless otherwise noted, table statistics are drawn from citations in the Case Studies section of this paper.

† Brauch (2003) and Lahidji (2004).

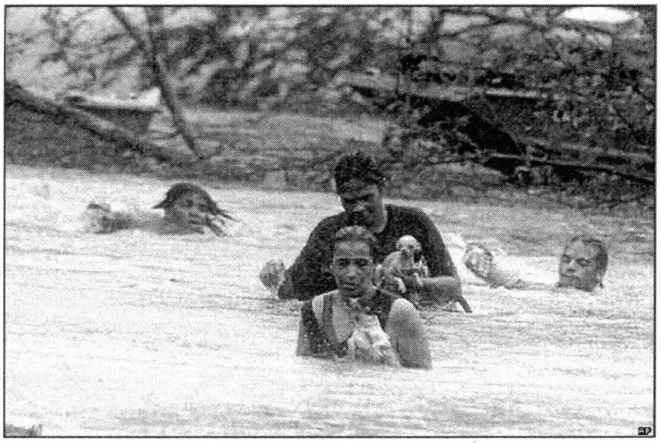
‡ Total Gulf Coast economic losses.

crisis because thirty to fifty thousand people lost their homes but there was no alternative available shelter for them, considering that the city was already experiencing a 30 percent housing shortage. However, she determined that it did not have recovery finance or housing crises. Motivated by mass protests and a desire to prevent a housing or political disaster, the government sponsored a tremendous reconstruction effort (RHP) funded in part by the World Bank and thereby secured successful housing recovery (Comerio, 1998, p. 175).

The case of *recovery* for Kobe City, Japan was very different from Mexico City. While only one percent of the housing units in Mexico City were damaged by the 1985 quake, almost half of the population of Kobe City was affected by the 1995 quake (Comerio, p. 152). Comerio noted that in Kobe there was a short-term housing crisis, a finance recovery crisis, and a general housing crisis. It was reported that by the time the city completely rebuilds, many victims will have moved away outside the city. The Kobe City recovery efforts have relied much more on the private sector efforts than on government assistance (Comerio, p. 176). In addition, Inam noted (citing the study of Louise Comfort) that the mistakes in the Kobe government's *response* were the result of its over-reliance on technology. Instead of investing in communications or local preparedness measures, the Japanese government relied on seismic safety through sturdy engineering. When this "earthquake safe" engineering proved insufficient, the City of Kobe and its institutions were unprepared for communicating effectively on the ground (Inam, 2005, p. 174).

The Kobe City 1995 and Kocaeli, Sakarya, and Duzce Provinces, 1999 quakes were similar in that damage occurred in the countries' major centers of industry. The resulting economic losses were consequently devastating. However in Japan, industry has recovered more quickly than in Turkey where international response efforts have focused more on housing (Comerio, p. 176). Both the Japanese and Turkish governments were sluggish in their response and recovery efforts after the quakes. On a positive note, Turkey and Japan have since adopted national emergency response coordinating agencies to be better prepared in the future (Comerio, p. 176; Akgiray, Barbarosoglu, and Erdik, 2004, p. 90).

The U. S. government Katrina response is also reminiscent of the Japanese government response to the 1995, Kobe City earthquake. After the local response systems failed in Kobe City, the federal government was so slow to act that a "vast mafia outfit with headquarters in Kobe" was the main relief organization handing out free noodles (*The Economist*, 1995). Similarly a private ambulance became the primary communications center outside of New Orleans after the hurricane (Thompson, et al., 2005). Like Kobe City, New Orleans did not have



Hurricane Katrina, USA

an adequate communications system. Other states such as Florida, Texas, and California have high-tech, horizontally linked satellite telephones and mutual aid systems that would have greatly benefited Louisiana.

Comerio (1998) would likely argue that Hurricane Katrina satisfied all three of her criteria, labeling it a severe housing crisis. She foresaw that while the physical losses of "a future urban disaster" would be comparable to other domestic disasters (i.e. the Northridge earthquake or Hurricane Andrew), the economic losses would be as high as Kobe City:

The federal government is unlikely to provide massive reconstruction subsidies and private insurance is less likely to cover the full cost of repairs....Thousands will be forced to relocate outside the city....The old, the poor, and all those without private resources will wait for years in temporary shelters or they will be forced to leave the area....Redevelopment plans will take years to realize....The quality of existing rental housing will deteriorate....The housing crisis will be real. (Comerio, 1998, p. 188)

There has been an incredible outpouring of private donations and international and NGO charitable response to the hurricane that enabled the American Red Cross, Salvation Army, and other organizations to aid New Orleans evacuees (Wikipedia, Disaster Response). However, as the reconstruction and recovery efforts begin, Comerio's predictions are coming true. Out of the $63.2 billion appropriated by Congress (plus $8.6 billion in tax breaks and programs) to help hurricane victims, only $25 billion has been designated and only $6.2 billion has been spent (*Time*, 2005, p. 35). Furthermore, Thomas (2005) reported, "There are signals the White House is not about to move forward with any grand coastal plan" (Thomas, 2005, p. 35).

Recommendations for Mega-City Disaster Preparedness and Response

In 1906 A. C. Bradley noted, "[C]alamities...do not simply happen, nor are they sent: they proceed mainly from action, and those the actions of men" (p. 11 as cited in Quarantelli 2003, p. 214). Large concentrations of people and industry in cities have made us more physically vulnerable to disasters than ever before (Mitchell, p. 477). Burgeoning mega-cities in both the developing and developed world lack institutional coordination and communication responses that can dramatically mitigate a disaster's damage. The four case studies above show that actions of humans truly impact the degree that "natural" disasters inflict damage. The following recommendations provide specific strategies for planners and urban managers to improve our emergency management preparedness and response systems in mega-cities.

1. Promote Hazard-Resistant Building and Planning Practices

The cases analyzed in this paper could have been saved massive damage if they had required building codes, construction materials, and planning practices that more seriously considered disaster potential in the built environment. However, many developing countries do not have access to such resources (Quarantelli, 2003, p. 224). Furthermore, as the Kobe City earthquake demonstrated, over-reliance on "disaster-safe" building codes without consideration for communication and response can be disastrous. Thus, disaster-sensitive building and planning techniques and new tools for natural disaster study must be buttressed with robust emergency services, formal warning and evacuation technologies and active participation of informal information networks (Mitchell, p. 480). *Recommendation: Promote hazard-resistant building planning practices in all cities and utilize technology to study how natural disasters could impact an urban area* (Quarantelli, 2003, p. 226).

2. Invest in Institutions, Emergency Services, Warning and Evacuation Technologies

As Inam (2005) noted "the best predictor of what people will do when a crisis occurs, is what people did before a crisis" (p. 138). Thus routines are not just useful for response to mundane situations, they are also the most practical solutions in novel situations such as crises. As Quarantelli (2003) described,

> If a flow of communication is needed to respond to a disaster and that communication is absent under normal circumstances, it will not jump into existence during a disaster. Improved technologies cannot help either, unless people are trained to use them. Better radios, for example, do not translate into better communication unless put into use earlier as part of a normal functioning system. (p. 226)

The strength of Mexico City's routines and its institutional bureaucracy helped it recover from the 1985 earthquake. Inam argued that the RHP was successful because it had "institutional legitimacy, institutional specialization, and institutional fit" (p. 138). In contrast the lack of institutional routines for hurricane warning and evacuation led to the chaos after Hurricane Katrina. *Recommendation: Invest in the institutional government infrastructure, emergency services, and evacuation technologies before a crisis and rehearse routines, so that systems are in place and ready for action.*

3. Build Local Capacity, Coordination, and Communication

Crises call for numerous organizations to work together to rapidly respond to complex needs. As Phillip Cooper (1998) explained, with so many organizations involved in the same area of activity at the same time it can be immensely difficult to plan, coordinate, and operate in a unified way. As demonstrated by the case studies, many local governments are unable to coordinate and communicate in a timely manner to help residents in need. However inter-organizational coordination and communication *can* be achieved by building capacity for emergency response at all levels and giving localities a lead role. As Quarantelli (2003) asserted, "The strengthening of [local agency] capacities for all levels of a crisis means that fewer crises will become emergencies, fewer emergencies will become disasters, and fewer disasters will become catastrophes" (p. 220). *Recommendation: Establish clear lines of responsibility, systems of emergency response coordination, communication networks, target audiences, and solicit feedback to enable all agencies to respond rapidly and decisively in a disaster.*

4. Involve "Lay" Residents and Harness the Strength of Human Capital

The capacity of human potential was demonstrated in August, 2005 when the flooding of Metropolitan Mumbai (population 15 million) caused the coastal region in the south to go under five to eight feet of water and stopped all transportation, food, and water lines. Residents were able to survive the flooding and get back on their feet without any government presence for the first three days because they had developed such solid informal networks of neighbors, relatives, and friends. According to Ben Wisner (2003), mega-cities are home to two main groups: institutions and civil society. Institutions have the technical capabilities of risk management but lack the knowledge about individuals and the specialized needs of communities. Conversely, civil society (NGOs, local communities) have the knowledge and understanding of their communities, but lack the institutional capacity (Wisner, 2003, p. 181). If connected these disparate groups would make the ideal disaster planning, response and recovery team. If disconnected residents can become passive "victims" of a disaster while if connected they can help form robust emergency management systems. For disaster vulnerabilities to be reduced, the walls of mistrust between institutions and civil society must fall and incentives must be in place to encourage working together (Wisner, p. 181). *Recommendation: Foster active community participation in disaster preparedness, planning and response through media campaigns, education, community outreach, private sector involvement, and informal disaster networks.*

Conclusion

While mega-city disasters in developing countries result in larger losses of life and larger percentages of domestic economic losses, it is important to consider that globalization increases natural disaster losses for *everyone*. As Quarantelli (2003) noted, "Due to complex social links in the modern world, future disasters could have catastrophic potential even if they do not result in casualties or physical impact" (p. 224). For example when the 1999 earthquakes in Turkey destroyed Turkish weaving factories, the cotton-production in Sub-Saharan Africa was affected as the cotton market was reduced and unemployment rose (Quarantelli, 2003, p. 224). Our complex interconnectedness makes disaster preparedness and response in mega-cities that much more important throughout the world. As the world rapidly urbanizes, disaster preparedness, management, and response should be at the forefront of urban management study. The cases presented here demonstrate that mega-city planners and managers have an opportunity to create urban institutions and routines that can

make their cities less vulnerable to natural disasters. Implementation of these best practices has the potential to improve the lives of people throughout the world. ¤

BRONWEN TRICE has a Master in Public Administration from San Francisco State University. She was a Teaching Assistant for Professor Ayse Pamuk's Fall, 2005 undergraduate course "Dynamics of the American City". Bronwen has also worked for a San Francisco Supervisor and the Tenderloin Neighborhood Development Corporation. After living in San Francisco for almost seven years, she has recently moved to Los Angeles. Bronwen is a native of Napa, California and has a B.A. in Political Science from Stanford University.

Bibliography

Akgiray, Vedat, Gulay, Barbarasoglu and Mustafa Erdik. (2004). Chapter 3: Case Study. The 1999 Marmara earthquakes in Turkey. In Organization for Economic Co-Operation and Development (OECD), *Large-scale Disasters: Lessons Learned.* Paris, France: OECD Publications.

Briceno, Salvano. (2004, August). Natural Resources Forum. Vol. 28, Issue 3.

Brauch, Hans Gunter. (2003). Urbanization and Natural Disasters in the Mediterranean: Population Growth and Climate Change in the 21st Century. In Alcira Kreimer, Margaret Arnold, and Anne Carlin (Eds.), *Building Safer Cities: The Future of Disaster Risk.* Washington, D.C.: The World Bank.

Comerio, Mary. (1998). *Disaster Hits Home: New Policy for Urban Housing Recovery.* Berkeley and Los Angeles, California: University of California Press.

Cooper, Phillip J., et al. (1998). *Public Administration for the Twenty-First Century.* Orlando, FL: Harcourt Brace & Company.

The Economist. (2005). Aftershocks in Japan. Vol. 334, Issue 7899.

Erkid, Mustafa and Eser Durakal. (2003). Damage to and Vulnerability of Industry in the 1999 Kocaeli, Turkey, Earthquake. In Alcira Kreimer, Margaret Arnold, and Anne Carlin (Eds.), *Building Safer Cities: The Future of Disaster Risk.* Washington, D.C.: The World Bank.

Inam, Aseem. (2005). *Planning for the Unplanned: Recovering from Crises in Megacities.* New York: Routledge.

Lahidji, Reza. (2004). Chapter One: Lessons Learned. In Organization for Economic Co-Operation and Development (OECD), *Large-scale Disasters: Lessons Learned.* Paris, France: OECD Publications.

Mitchell, James K. (Ed.). (1999). *Crucibles of Hazard: Mega-cities and Disaster in Transition.* New York: The United Nations University Press.

Motavalli, Jim. (2005, Sept./Oct.). Cities of the Future. *E Magazine: The Environmental Magazine.* Vol. 16, Issue 5. Retrieved March 8, 2006, from http://www.emagazine.com/view/?2849

Quarantelli, E. L. (2003). Urban Vulnerability to Disasters in Developing Countries: Managing Risks. In Alcira Kreimer, Margaret Arnold, and Anne Carlin (Eds.), *Building Safer Cities: The Future of Disaster Risk.* Washington, D.C.: The World Bank.

Thomas, Cathy Booth. (2005, November 28). Hurricane Katrina: The Cleanup. *Time.* pp. 32-37.

Thompson, Mark, Amanda Ripley, Karen Tumulty and James Carney. (2005a, September 19). *Time.* Four Places Where the System Broke Down. Volume, 166, Issue 12, p. 34.

UNESCO Courier. (1999). The Urban Explosion. Vol. 52, Issue 6.

Wikipedia. (2005). Hurricane Katrina. Retrieved November 28, 2005, from http://en.wikipedia.org/wiki/Hurricane_katrina

Wisner, Ben. (2003). Disaster Risk Reduction in Megacities: Making the Most of Human and Social Capital. In Alcira Kreimer, Margaret Arnold, and Anne Carlin (Eds.), *Building Safer Cities: The Future of Disaster Risk.* Washington, D.C.: The World Bank.

Image Sources

Figure 1: Motavelli, Cities of the Future. *E Magazine: The Environmental Magazine*, 2005, Retrieved March 8, 2006, from http://www.emagazine.com/view/?2849

Figure 2: National Geophysical Data Center (NGDC), NOAA Satellite and Information Service, Geologic Hazard Photos. Retrieved March 8, 2006, from http://www.ngdc.noaa.gov/seg/hazard/slideset/3/3_slides.shtml

Figure 3: National Geophysical Data Center (NGDC), NOAA Satellite and Information Service, Geologic Hazard Photos. Retrieved March 8, 2006, from http://quake.wr.usgs.gov/research/geology/turkey/

Figure 4: Japan/Kobe Earthquake Images. Retrieved March 8, 2006, from http://www.niksula.cs.hut.fi/~haa/kobe/images-inlined.html

Figure 5: BBC News, Hurricane Katrina, Picture Highlights. Retrieved March 8, 2006, from http://news.bbc.co.uk/1/hi/in_depth/americas/2005/hurricane_katrina/default.stm

Figure 6: BBC News, Hurricane Katrina, Picture Highlights. Retrieved March 8, 2006, from http://news.bbc.co.uk/1/hi/in_depth/americas/2005/hurricane_katrina/default.stm

postcard from Kingston

by Deidre Nolan

The city of Kingston stretches from the harbor at Port Royal to the foothills of the Blue Mountains. Though Jamaica is a former British colony, the island has a varied range of influences from all parts of the world. People in Jamaica are mainly from African backgrounds, but are also a blend of East Indian, European, Chinese, Lebanese, Syrian, German and other descents. Many of the rural population on the island migrate to Jamaica's capital city in search of employment and higher learning, while many others choose to leave Jamaica in search of opportunities in the U.S, England, and beyond. The population of the greater Kingston region is estimated to be approximately 700,000, including residents who live comfortably in gated properties as well as those living in squatter communities along side the city's massive gullies.

In Kingston, everything is for sale; there is a price to pay for almost anything you could possibly conceive. From the carts of street-side vendors and *higglas*, to the upscale plazas of New Kingston, there is no shortage of access to a diverse array of the latest commodities on the market. This vibrant and lively capital city of Jamaica is the island's center of commerce and administration. Although Jamaica is regarded as a prime tourist vacation site, Kingston, which lies in the Southeast part of the island, is not considered to be a popular destination due to its reputation as one of the most dangerous locations in the world. Tourism is only a small sector of Kingston's economy compared to other Jamaican cities like Ocho Rios and Montego Bay. From the lavish hillside estates in Jacks Hill to the rundown ghettos of Tivoli Gardens and into the modern business and entertainment district of New Kingston, Kingston's urban landscape is as diverse as its people. However, the cost of living a decent life in Kingston is well beyond what many of its residents can afford.

A higgla pushes his cart filled with flip-flops in every color and size out of harm's way.

Within Kingston there is a pronounced disparity between the rich and poor. Many residing in the city's squatter communities live without basic sanitation services and running water, while

wealthier residents have all the finest comforts urban life has to offer. The divisions in Kingston are less racial and more socio-economic and the city is often classified into uptown and downtown, devoid of a significant middle class. The city itself suffers from many common effects of rapid urban expansion: overcrowding, overpopulation, violence, traffic congestion and pollution, though certain neighborhoods appear exempt from these issues. The standard and cost of living continue to rise each year and so does the distance between the haves and have-nots. Most Jamaicans are forced to be resourceful in order to live, especially in a country where the government offers few subsidies for the poor. People hustle on the streets in any way they can, selling any item imaginable, from crafts to shoes. It is not uncommon to see children roaming the city streets attempting to wash windows or asking for change.

For those that live at the bottom of the socio-economic ladder in this city, urban life can be a harsh reality. Without the basic tools to prosper and develop in life, the cycle of poverty persists for many residents. The cost of education is relatively high and some families simply cannot afford to pay the price. The wealthier inhabitants of Kingston are able to enjoy a much different lifestyle, tucked away behind their high fences and in their gated communities. Their children can attend the best private schools, while they attend exquisite parties and vacation at the island's most luxurious resorts.

Kingston is a bustling urban environment filled with entertainment, culture, and nightlife all week long. It is a place where American chains such as McDonalds, Wendy's and TGI Fridays are common. Throughout the streets of Kingston you can hear the vibrant sounds of life and music beating steadily throughout the night from roadside bars and houses in the hills. Music has always been an essential part of Jamaican culture, reflecting the heartbeat of this colorful city renowned as the home of Reggae music. Kingston continues to be the hub and inspiration of this musical genre, which has become popular around the world.

Jamaicans are considered to be an extremely resilient and aggressive people who can persevere in almost any environment. This is especially true for those who live in Kingston where jobs are scarce and wages are low. Life in Kingston can be thrilling yet perilous. Regardless of the city's notoriety, Kingston is a place many are proud to call home; thought life may be difficult, as the popular tourist slogan says, "Jamaica. No problem man." ¤

On a recent visit to Jamaica, Deidre was able to observe some of Kingston's diverse scenery and people and gain insight into the varying lifestyles of the city's residents.

A Rasta man spends his days weaving and selling his unique crafts outside the Constant Spring Golf Course.

Children walk home from school past the MegaMart compound along Waterloo Road.

The relatively new central business district of New Kingston is becoming a popular zone for commerce, entertainment, and nightlife.

New Orleans: Built and Altered

by Ryan Dodge

New Orleans has been actively engaged in trying to keep nature out of the city for nearly 300 years. Flood prevention techniques have mostly kept the Mississippi River out of the city for the last 100 years. The physical transformation of the city has helped prevent the river from flooding it, but has consequentially created conditions further downstream that have left New Orleans more vulnerable than ever to hurricane-related damage. New Orleans is essentially a bowl of land below sea-level, surrounded by water (see Figure 1). Up until the 20th century, development concentrated on the higher-ground areas of the city as a safeguard against flooding. At the turn of the century, water pump and drainage canal construction opened the back swamp between the Mississippi River and Lake Pontchartrain to low-density sprawl development (Hayes, 2005). According to Adam Cohen of Times.com, "Everyone told the first settlers this was the wrong place to build a city. It is wedged precariously between the mighty Mississippi and Lake Pontchartrain, and most of it was once swampland" (Cohen, 2005). The combination of river diversions, levee construction, draining for development, and canal construction in the area of New Orleans has helped alleviate flooding issues while simultaneously destroying the area's natural protection against storm surges and hurricanes. This article outlines the idea that the disaster of Hurricane Katrina on New Orleans was a human disaster versus being a natural disaster. This article uses archival research to create a general overview of the site and situation of New Orleans leading up to Hurricanes Katrina and Rita in fall 2005. This is a modified version that was written for the Urban Studies 400/History 489 Dynamics of the American City course taught by Dr. Richard LeGates at SFSU during the fall 2005 semester.

Keeping Water Out of the City

New Orleans originally developed in the 1700's along the Mississippi River's natural levees, where higher ground was created by river flooding over time (Colten, 2002). The original settlement started in 1718, was above sea level, yet still subject to flooding from the river. Settlers constructed a three-foot high, mile-long earthen levee around the city and considered the area flood-proof by 1727. Property owners were in charge of constructing their own levees until the United States Congress created the Mississippi River Commission in 1879, of which flood control was its primary responsibility. The commission utilized levees as the only tool to protect against flooding. According to author John McPhee, the Corps officials proclaimed the river under control "before the great floods of 1884, 1890, 1891, 1897, 1898 and 1903, and . . . again before 1912, 1913, 1922 and 1927" (Grunwald and Glasser, 2005). The flood of 1927 was particularly devastating and prompted the construction of subsequent levees in the 1930's. Flood prevention was the main focus. Hurricanes were less of a focus at this time in part due to mostly intact wetlands and barrier islands throughout southeastern Louisiana which offered great protection against storm surges and hurricanes. As late as the 1930's, sediment from the Mississippi River was still being carried to the southeastern portion of Louisiana. This process helped create the wetlands and barrier islands in the region. The post-1930's levee system was effective in protecting New Orleans against flooding, but the levee system greatly diverted the Mississippi River and its land-creating sediment, which would later leave inland areas more prone to surges and hurricanes. It is important to understand the role the Mississippi River played in the formation of Louisiana and how it allowed for New Orleans to exist in the first place.

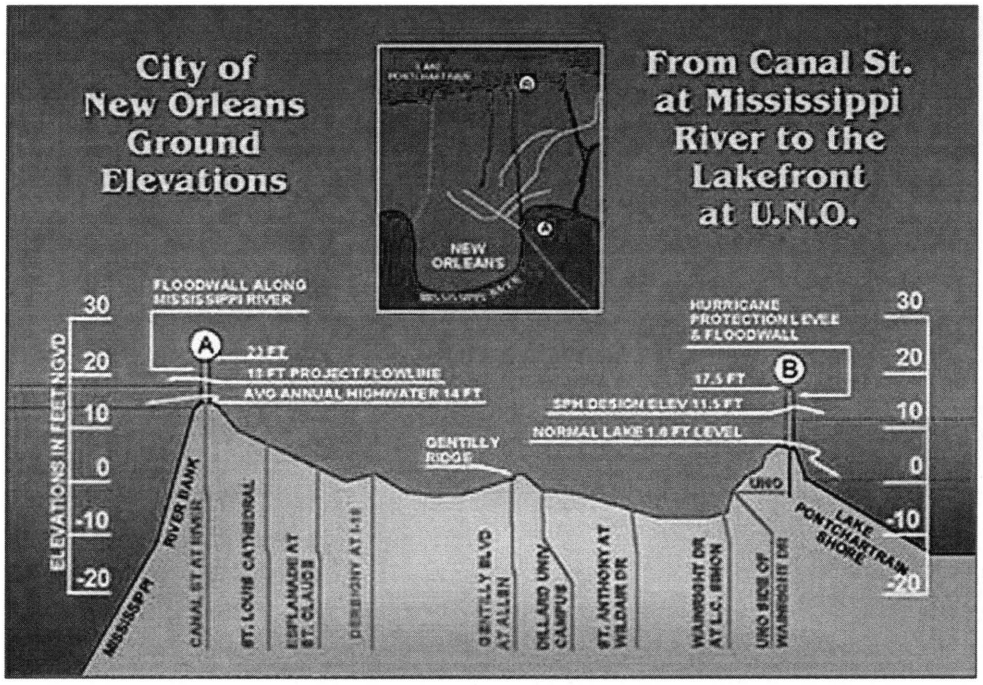


Figure 1. Diagram of ground elevations in New Orleans.

The River and the City

The Mississippi River and its tributaries drain a large portion of the United States. Mud and sediment from 31 states flow down river into the area of New Orleans and southeastern Louisiana. For 7,000 years this sediment created land in the region (WaterMarks, 2005). The Mississippi River system and its tributaries is the seventh largest delta on earth and, according to Tauzin (2004), it is the third largest watershed in the world. Starting in the 20th century, 2,000 miles of dams along the Mississippi River (Tauzin, 2004) reduced the amount of sediment in the river by 67% (Black, 2006). A majority of the remaining sediment is transferred to the deep waters of the Gulf. The many floodplains and wetlands built up over seven millennia by river flooding and sediment deposits no longer received new implants of material from the river, causing widespread subsidence of land. With no new inputs from the river, much of coastal Louisiana has disintegrated into the gulf.

New Orleans not only stopped the river from creating new land in the city, but also drained the swampland within its borders. According to Black (2006), the main reason that New Orleans is below sea level has been due to, "Draining land for agriculture, roads, canals, and urban development," which has caused soil subsidence. Black also says oil and gas mining have created cavities which cause further sinking as well. These alterations to the city have allowed New Orleans to sprawl beyond its high-ground areas. The levees and canals created an environment where water can cause more damage through storm surges and hurricanes than as a flood in a back swamp.

Human-made levees in the 1930's helped the river take sediment far out into the Gulf of Mexico instead of spreading it inland. The levees were made to prevent flooding in the city of New Orleans after two dozen events in the 19th century. Canals were also built but, along with levees, they were overtopped or breached in the hurricanes of 1946, '56, '64, '65, and '69 (Colten, 2005). A flood in 1983 also overtopped a canal. The result of levee and canal construction halted sediment deposits from building up the floodplain and wetlands. Land began to sink, blow, and wash away.

Within the last 70 years approximately 1,900 square miles or 1.2 million acres of land has disappeared from Louisiana (Schweiger, 2005). The coast is much further inland and closer to New Orleans than it used to be (see Figure 2 for New Orleans area land loss and projections). Not only is the city closer to the gulf but it no longer has a vast buffer zone of wetlands to protect it from storm surges and hurricanes. Due to the dams, levees, and canals constructed to dispel floods, the river and its sediment bypassed the wetlands of the coast and left New Orleans unprotected. The Army Corps of Engineers built 14 canals for ships to access inland ports in the 1960's (Ufner, 2004). These canals allowed saltwater to intrude, further destroying wetlands. Ufner wrote, "Removal of millions of barrels of oil and trillions of

cubic feet of natural gas caused a drop in subsurface pressure that led to underground faults. This caused the land to slip and then slump, thus putting more wetlands under water." This is a theory known as regional depressurization. The Mississippi River through its creation of wetlands created a vast expanse of land that previously separated New Orleans from the Gulf of Mexico. It is important to understand the vital role of wetlands in protecting inland communities. Wetlands have many functions and benefits to people and the Earth. The loss of wetlands in southeastern Louisiana has had a devastating effect on New Orleans, Louisiana, and everything that is connected to the region.

Defense Systems of New Orleans

Wetlands and barrier islands function as the last line of defense for New Orleans against storm surges and hurricanes. According the US EPA, an acre of wetland can store 1–1.5 million gallons of floodwater (2001). It has also been widely reported that every 2.7 miles of wetlands absorbs one foot of storm surge. Wetlands also slow wind currents which can reduce the strength and intensity of a hurricane. For Louisiana and New Orleans, the loss of 1,900 square miles of wetlands has opened up previously protected areas to wind and water damage. Southern Louisiana continues to lose 25 to 35 square miles of land annually (Hayes, 2005). As former Louisiana state Legislator Tauzin said, "Some of the same storm surges that hit our state years ago – causing virtually no flooding – would put over 20 feet of water in the city of New Orleans today." (Tauzin, 2004). So it has been widely acknowledged that much of the land in southern Louisiana is disappearing and communities in the area of New Orleans are no longer protected. While the wetlands were being destroyed during the last thirty years, New Orleans has been preparing to protect itself against a Category-3 hurricane, with substandard infrastructure of levees and canals.

Figure 2: Map showing historical and projected land loss in Southeast Louisiana.

According to University of California, Berkeley civil engineer Raymond Seed, "If the levees had done what they were designed to do, a lot of the flooding would not have happened," during the aftermath of Hurricanes Katrina and Rita (Kintisch, 2005). The levees and canals in New Orleans failed to keep water out of the city when Hurricane Katrina occurred and once the water was inside the city, water pumps were useless. The system was built to withstand a Category-3 hurricane but according to a New York Times editorial, "winds over Lake Pontchartrain reached only 95 miles per hour, even less than the winds of 111 to 130 miles per hour in a Category 3 storm" (NYT, 2005). Many experts agree that the system should have been designed to withstand a Category-5 hurricane. Yet the system did not even withstand a less-than Category-3 storm. The Army Corps of Engineers plans to complete a study of findings by June 2006 that aims to explore the deficiencies in the city's defense system.

Recent reports on damage due to Hurricane Katrina show breaching, overtopping, and under-seepages of levees, causing major flooding (Kintisch, 2005). There were at least 10 separate breaches in levees according to engineers (Drew and Schwartz, 2005). Once water entered the city the volume was too much for the pumps to make an impact. The widespread coverage of non-porous sprawling concrete (i.e. roads, parking lots, driveways, etc.) in the city did not allow for quick absorption of water. Hurricane Katrina was the first serious test of the flood walls, said Stevan Spencer, chief engineer for the Orleans Levee District, and it "just overwhelmed the system." (Drew and Revkin, 2005). The effects of Hurricane Katrina shocked many people, but according to Hayes (2005): "Experts on hurricanes and on New Orleans say that no one should have been surprised by the impact of Katrina on the city." Indeed many people were aware of the potential for widespread destruction brought on by levees, canals, and wetland loss. According to Grunwald and Glasser (2005): In a hearing two months before Hurricane Katrina, Sen. David Vitter (R-La.) gave a chilling preview of its rampage. "This isn't a simulation of World War III, or 'The Day After Tomorrow,' or Atlantis – but one day, it may be Atlantis." He then displayed a computer model of a Category 4 hurricane smashing New Orleans and flooding the city under 18 feet of water. "It's not a question of if," Vitter said. "It's a question of when." Congressman W.J. "Billy" Tauzin (R-La.) along with Coast 2050 presented a $14 billion wetland restoration plan that went mostly unfunded; $540 million was awarded over four years (Grunwald and Glasser, 2005). Before Tauzin left Congress in 2004 he supported a bill for restoration of wetlands to help New Orleans, and he said:

> You've been watching the 9/11 commission hearings, people . . . saying if only, if only we had talked to one another . . . if only. I'm telling you now, before this disaster, please don't let it happen in Louisiana. It won't be al Qaeda, it won't be some other enemy of this country. It will be Mother Nature . . . because we could have acted in time but we didn't. Please don't let's have a commission where all of us, red- faced, say we saw it coming and didn't do anything. Please don't let that happen. (Grunwald and Glasser, 2005)

A Future

In Timothy Kusky's article "Time to Move to Higher Ground" in late September 2005 he says about New Orleans that:

> The projected setting of the city in 2100 is in a hole up to 18 feet below sea level directly on the hurricane-prone coast. The city will look like a fish tank battered by coastal waves, surrounded by 50- to 100-foot-high seawalls that are barely able to protect it from hurricanes that are only as strong as Katrina... Katrina (even before Rita) was a warning: New Orleans is sinking unbearably below sea level, and it's time to move to higher ground. (Kusky, 2005)

Before Hurricane Katrina, costs of protecting the city were estimated at $14 billion (Cohen, 2005). Louisiana State Secretary of Natural Resources Scott Angelle testified that, "the 3.5 million acres of wetlands that line Louisiana's coast today have storm protection values of $728 million to $3.1 billion." (Angelle, 2004). The executive director of the Orleans Levee District, Max Hearn, said that the flood wall system most likely could not be upgraded to Category-5 protection, even if the federal government was willing to pay for it (Drew and Revkin, 2005).

Another factor mentioned in the media concerning Hurricane Katrina and the damage it caused, is global warming. Black (2006) states that, "human-caused climate change is perhaps the most obvious potential cause of Katrina's destructive power." Katrina entered the Gulf as a Category-1 storm but quickly became a Category-5 storm in the warmer August waters. Schweiger (2005) wrote that:

In August, a researcher at the Massachusetts Institute of Technology reported in the journal 'Nature' the results of a study in which he examined 50 years of hurricane data. His conclusion: Storms worldwide are twice as powerful today as they were 30 years ago. He found that hurricanes are both more intense and longer lasting, developments that correlate with tropical-sea surface temperatures. He predicts that global warming will yield increasingly destructive hurricanes.

Conclusion

Throughout the history of New Orleans there were many causes that led to Hurricane Katrina's damage to the city. These stem mostly from the implementation of policy decisions made over time. Among these was the construction of levees and canals to prevent flooding. This contributed to the destruction of valuable wetlands. Infrastructure was not competent enough to withstand Katrina, and the sprawling conditions of paved-over swampland only worsened the situation. Global warming may be the main cause overall, along with the general design of the city and its situation in the region. The accumulation of these and other variables has influenced the damage done to New Orleans. ◻

RYAN DODGE will graduate from San Francisco State University in the spring of 2007 with a double major in Urban Studies and Geography and a minor in Political Science. He is interested in the interrelationships of all things contained on this planet and within the universe. Dodge is most grateful to Dr. Carl Sjovold of Sacramento City College for his guidance on essay writing, Dr. Jason Henderson of SFSU for inspiring the article on New Orleans, and Dr. Richard LeGates of SFSU for encouraging the submission to Urban Action.

References

Angelle, Scott. (2004). "American Outdoors Act". Testimony of Secretary Scott Angelle. Louisiana Department of Natural Resources. U.S. Senate Committee on Energy and Natural Resources. July 20, 2004.

Black, Carrie. (2006). "Six reasons we lost New Orleans" *Earth Island Journal.* Vol. 20 Issue 4. Winter 2006. p. 40-1.

Cohen, Adam. (2005). "The Big Easy on the Brink". Times.com http://www.time.com/time/reports/mississippi/orleans.html accessed November 29, 2005

Colten, Craig L. (2005). *An Unnatural Metropolis: Wresting New Orleans from Nature.* Baton Rouge: Louisiana State University Press.

Drew, Christopher and Andrew C. Revkin. (2005). "Design Flaws Seen in New Orleans Flood Walls". *The New York Times.* New York, N.Y. Sep. 21, 2005. pg. A.1

Drew, Christopher and John Schwartz. (2005). "Engineers Offer a New Explanation of How Levees Broke". *The New York Times.* New York, N.Y. Oct. 8, 2005. pg. A13

Editorial. (2005). "Faulty Levees". *The New York Times.* New York, N.Y. Sep. 22, 2005. pg. A.30.

Grunwald, Michael and Susan B. Glasser. (2005). *The Washington Post.* Washington D.C. Oct. 9, 2005. pg. A.01.

Hayes, Brian (2005). "Natural and Unnatural Disasters" Nov/Dec2005, Vol. 93 Issue 6, p496-499, 4p, 2 maps, 1c

Kintisch, Eli. (2005). "How New Orleans Levees Buckled". *Science Now.* Nov. 2, 2005. pg. 1-1, 2/3 p.

Kusky, Timothy M. (2005). "Time to Move to Higher Ground". *Boston Globe.* Boston, Mass. Sep. 25, 2005. pg. D.12.

Schweiger, Larry J. (2005). "Lessons to Learn From Nature's Fury". *National Wildlife.* Oct/Nov 2005, Vol 43, Issue 6.

Tauzin, W.J. (2004). Testimony. Subcommittee on Water Resources & Environment. House Transportation & Infrastructure Committee. July 15, 2004.

Ufner, Julie. (2004). "NACo visits Louisiana's near-devastated wetlands". *County News Online.* Dec. 27, 2004. http://www.naco.org/CountyNewsTemplate.cfm?template=/ContentManagement/ContentDisplay.cfm&ContentID=14710. Accessed October 26, 2005.

US EPA (United States Environmental Protection Agency). (2001). "Functions and Values of Wetlands". September 2001. www.epa.gov/owow/wetlands. Accessed November 12, 2005.

Image Sources

Figure 1: Elevation Map of New Orleans: Sewerage and Water Board of New Orleans/US Army Corps of Engineers New Orleans District. Retrieved from http://www.globalsecurity.org/military/facility/new-orleans-elevation1.htm

Figure 2: Historical and Projected Land Loss of Southeastern Louisiana 1932-2050: USGS. Retrieved from http://www.lacoast.gov/maps/2004SElandloss/index.htm

New Orleans: A Perspective on the Rebuild

by Jason Henderson

Density is the balance between ecological stewardship and social justice.

New Orleans is listing but this was not the "Big One." The storm passed the city to the east, and was considerably weaker than what had been expected. The city did get hit by the infamous storm surge from the east and north. The "bowl effect" came into play as the backswamp sprawl of the metropolitan area, covered in auto-oriented, low-density segregated land uses and subsiding as low as 10 feet below sea-level, went under.

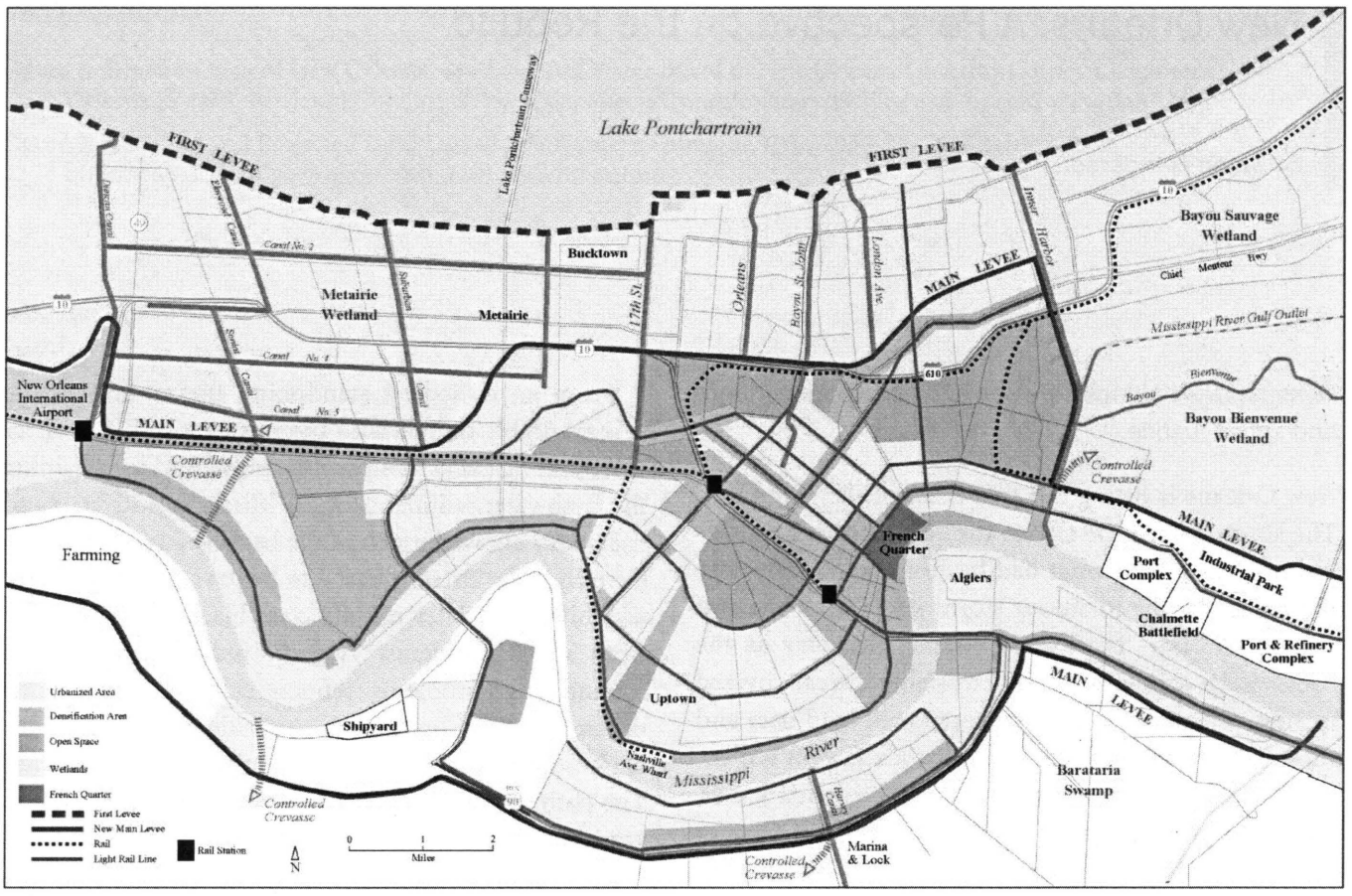
The storm surges, overtopped and breached levees, and complete submergence of large swaths of Greater New Orleans had been predicted, modeled, and prophesied for decades. It had been taught in grammar schools, high schools, and universities. Local television stations and the *Times Picayune*, even National Geographic, had run special reports. The usual political response was that we need to raise the levees higher and higher, build bigger, better pumps, and spend billions to accommodate the sprawl belt surrounding the city. Since the city has been hit, this is exactly what political leaders and an unwitting public continue to call for – bigger levees, better pumps, a continued faith that technology will save us. Moreover, race and class have complicated the discussion of how to rebuild, with calls for reducing the city's footprint in order to return some areas to wetlands rebuked by those concerned that reducing the footprint is really a scheme for African American removal.

If New Orleans is to survive the next hurricane, its citizens and this nation must reflect and learn from this disaster in a holistic way. But unfortunately, the overall debate about how much of the city to rebuild is degenerating into either reducing the footprint and population or rebuilding all. It has degenerated into ecological stewardship versus social justice. If left unresolved, it threatens limbo and will leave people in the city even more exposed to future hurricanes.

From an ecological standpoint, the rebuild debate is inextricably bound with the mistakes of paving over surrounding backswamps with sprawl and constraining the freshwater sediments of the Mississippi River. Land use policy allowed much of the backswamp – Lakeview, Gentilly, New Orleans East – to be paved over on behalf of whites, and later middle class blacks, moving away from social problems. They moved there instead of solving tough problems (schools, crime, poverty) in the urban core. Ecologically, this subsiding and vulnerable backswamp sprawl should be returned to wetlands. The pathway of the Industrial Canal should be used to send Mississippi River sediments into the northern and eastern flanks of the city to shore up wetland defenses. The IC would act as a pipeline splaying mud into replenished wetlands which would function as storm surge buffers, stormwater runoff basins, habitat for seafood and timber supply, and as an education tool for our children and eco-tourism.

Obviously this regeneration of wetlands will require relocation of thousands of New Orleanians – both white and black, taking us back to social justice and how to balance it with ecological stewardship. That balance is moderate densification on the less vulnerable ground along the natural levee of the Mississippi River and south of the Metairie-Gentilly Ridge. This can be done by maximizing development on surface parking lots scattered throughout this part of the city. Consider this: in a typical lot, the average parking space consumes 350 square feet, 400 with landscaping. Three parking spaces approach the size of a comfortable two-bedroom home. Today parking and streets consume upwards of 50% of the land area of an American city. This leads to the question – is New Orleans for people or cars?

Instead of providing vast acreages of parking around the high and dry Wal-Mart, dignified mid-rise, mixed use developments should be constructed with ground-floor retail below 3-4 stories of housing. These devel-



Author's proposal for future land use in New Orleans.
Source: Jason Henderson/Ellen McIlhenny

opments would consist of inclusive housing, built with solid craftsmanship and providing a range of incomes and household sizes, from small efficiencies to 3-bedroom family housing units. They would respect the traditional grid and original human scale of the city, and not be characterized by garagescapes or walls of bleak high rises. Repeat this throughout the city, from smaller lots, such as the A & P on Magazine, to the Winn-Dixies, Roberts' and Save-a-Centers. Spread the densification using the template of surface parking while preserving existing housing stock.

New Orleanians will need to re-orient their approach towards transportation. The re-oriented city would be a compact, walkable, transit-oriented city with bicycling, car-sharing, and taxis as essential components. Passenger rail would connect the city to Baton Rouge, Armstrong Airport, and the rest of the Southeast. Rail would also operate as a much needed tool for evacuation when the next storm arrives. All of this should be funded through petroleum taxes. Additionally, all publicly owned on-street parking throughout the city should be priced at fair market value with revenues going to the city.

A holistic approach for ensuring a viable future for New Orleans includes rethinking density and transportation. Densification on surface parking lots is one possible balance between ecological stewardship and social justice. ¤

JASON HENDERSON is an assistant professor in Geography at San Francisco State University and is currently conducting research on the New Orleans rebuild debate. He was born and raised in New Orleans.

Rebuilding on Common Ground: Social and Environmental Justice in New Orleans

by Nina Haletky

In August 2005 flooding and wind from Hurricane Katrina devastated the city of New Orleans and the surrounding Gulf Coast region. The devastation in New Orleans is considered to be more than just a natural disaster; it is a human engineering and a social justice disaster as well. The high level of poverty and the accompanying environmental racism existing in New Orleans prior to Katrina were magnified by the plight of those who stayed or were left behind to weather the storm — overwhelmingly low-income people of color. The fact that the majority of the damage was caused not by the hurricane itself but by the flooding which resulted from breaches in weakened levees did not come as a surprise to many. Local, state, and federal governments have known for years that this was a potential disaster, yet improvements to the levee system were not considered a priority. More than six months after the flood waters have receded there is still unending need to clean up the destruction, rebuild broken communities, and assist residents who, despite great obstacles, wish to return home. In the vacuum left by inadequate response from federal programs and lack of funds, a volunteer organization has sprung from the ground in New Orleans to step up to the challenge of rebuilding the city. With the principles of environmental and social justice as a foundation for organizing relief work, the Common Ground Collective has grown from just three volunteers providing immediate relief for Gulf Coast residents into an enormous network with hundreds of volunteers employing 40 full time organizers (Common Ground Collective 2006). Volunteers are involved in all aspects of relief work and community building including skilled labor, health care, soil remediation, housing rights advocacy, technical assistance and, integral to the mission of the collective, community organizing (CGC 2006). CGC strives to "ensure that historically neglected communities are able to come back together for a more just and sustainable future" (CGC 2006). The CGC is intent on addressing racism and corruption in the rebuilding process of New Orleans and is welcoming residents home into a community embrace that will hopefully result in the rebirth of an improved and equitable New Orleans, rather than a gentrified one.

This article will address issues of social and environmental justice existing in New Orleans and Louisiana before and after hurricanes Katrina and Rita, and also contentious debates that are underway on who, what, where, and how to recover and rebuild a historic American city laid bare by disaster. The rebuilding process must include those most disenfranchised by the disaster. The "new" New Orleans in utero is more in need of a peoples' movement than ever before, as the very character of the city lies in a precarious balance of timely decisions. There is debate about changing the face of an urban area as opposed to improving it for those who reside there. There is also an argument made that communitarian effort is an effective form of relief, as exemplified by the Common Ground Collective.

A destroyed home in the Lower Ninth Ward.

Race, class and environmental injustice in pre-Katrina New Orleans

Before Hurricane Katrina, New Orleans was a predominantly African American city (67.9%) (U.S.Census 2004). Dr. Beverly Wright of the Deep South Center for Environmental Justice spoke at a symposium at UC Berkeley on March 10, 2006 about the need to keep in mind the rich culture and history of New Orleans. One of the oldest cities in the United States, New Orleans has Black families that go back as many as ten generations. Some families have worked their way up into real prosperity from the days of slavery and have created rare legacies to pass on to future generations. But then Katrina hit and now many of the large African American population of inherited homeowners will have to start over from scratch. Wright acknowledges the plight of the most impoverished of the city, but she stresses the importance of recognizing the political strength of the African American presence in New Orleans before the disaster. Wright is frustrated by the emphasis by mainstream media on the portrayal of New Orleans African Americans as only disenfranchised and marginalized people. Wright contends that while there is an extremely high poverty rate in New Orleans of approximately 35% (U.S.Census 2004) with approximately 80% of those African Americans (U.S.Census 2000), African Americans hold all major political offices such as mayor, police chief, city council and school board members, etc. There is a significant Black middle class and an even larger lower middle and working class. The political strength and involvement of the African American majority in New Orleans is unique for an American city. Wright reports that voter turnout for elections is impressive, even in the lowest income neighborhoods.

Activists have been fighting for environmental justice in New Orleans and Louisiana for decades.

Racial polarization is the norm in New Orleans. Neighborhood space is racialized meaning certain neighborhoods are almost completely African American while others predominantly Caucasian. Schools are also polarized; charter schools do well while public schools struggle. African American students make up 93% of the Orleans Parish Public School System (Kirby 2004), and previous to Katrina the state had planned to take over the administration of New Orleans public schools claiming the takeover as "the only hope for the district" (Nossiter 2005). The board members were split on the decision, those for the takeover (the White board members) believed it to be the best response to the financial distress of the New Orleans public school system while those against it (the Black board members) "denounced the takeover as racist" (Nossiter 2005). Dr. Beverly Wright contends that gentrification had also been occurring in historically Black neighborhoods, replacing older structures with high cost condos and newer single family homes. Racial polarization also becomes a health issue when environmental racism disproportionately impacts low-income people of color.

Louisiana is home to an infamous environmental justice problem area known as "Cancer Alley," a stretch of about a hundred miles between Baton Rouge and New Orleans along the Mississippi River dominated by industrial chemical facilities. This area is by no means the only place in Louisiana where environmental injustice occurs; throughout the state there are hundreds of facilities spewing billions of pounds of pollution into the air, water and soil near neighboring communities and schools, many of them predominantly African American and/or impoverished. Louisiana ranks second highest in the country for cancer mortality rates (EnviroHealthAction 2006). The intersection of race and class with environmental pollution and the resulting health problems is not unique to Louisiana, however this disturbing pattern is exemplified there in the high concentrations of African Americans living in poverty and struggling with health problems while living in close proximity to environmentally contaminated sites and toxic facilities. Activists have been fighting for environmental justice in New Orleans and Louisiana for decades, but the disproportionate impacts born by the area's African American and poorest residents have been exposed by mainstream media and brought to the forefront of the American consciousness as a result of the devastation of hurricanes Katrina and Rita.

The chaos after the storm

When New Orleans flooded, Americans watched horrified as images of Black people wading in filthy flood water and stranded on roofs of houses pervaded the mainstream news channels. Some 120,000 residents left behind during the storm were either elderly, without transportation, or without a place to evacuate to

(Rostrum et al. 2006). Many survivors were taken to the Superdome convention center and left there without adequate food, water, beds, or personal security. Civil Rights leader Reverend Jessie Jackson called conditions there comparable to the bowels of slave ships. Raymond Rock III, a survivor of the flood who was inside the Superdome for 10 hours, spoke at the Katrina symposium at UC Berkeley in March about the hellish conditions there. Rock told how 30 to 40 thousand survivors waited for days for relief and supplies while people were forced to defecate in the halls and in bathrooms with no plumbing or electricity. Medical attention was insufficient and food rations were limited. According to Rock, the National Guard was called in with guns when what people really needed were supplies. He claims people were not allowed to leave the Superdome, but he managed to escape to a friend's house. Rachana Patel, an Emergency Medical Technician stationed in the Superdome during the flooding, described the feeling of immense loss there and claimed that out of all the problems at the Superdome the thing most lacking was the capability to deal with the psychological impact of the trauma.

In the flood waters corpses floated around and people waded through to find food and clean water to drink. So-called "looters" reached stores to get survival supplies and were arrested by police. "Over 900 people were arrested for offenses related to feeding and clothing themselves post Katrina" (Critical Resistance 2006). White vigilantes perused the streets looking for the Blacks they saw portrayed in the media as criminals and shot at them (Democracy Now 2006, March 6). Malik Rahim, a founder of the Common Ground Collective and veteran of the Black Panther Party, demanded inquiry into the killings of several African American men and called for amnesty for everyone arrested for charges of looting (Democracy Now 2005, October 24).

Louisiana has one of the highest incarceration rates in the country (67% higher than the national rate) and New Orleans Parish Prison is one of the largest prisons in the country housing thousands of inmates (Critical Resistance 2006). Tamika Middleton, Southern Regional Coordinator for Critical Resistance spoke at the UC Berkeley Katrina symposium about how during the flooding, the prisoners were abandoned and stood for days without food or drinking water in filthy sewage-tainted floodwater. Later on, many were shackled and held at gunpoint on a bridge before being transported to various prisons around the state. Middleton contends some of the incarcerated have been victims of a racist and corrupt police department in New Orleans and tells how some prisoners spend up to a year without a trial or access to an attorney. Prisoners set to be released or being held on petty charges remained incarcerated for

Prisoners were abandoned and stood for days without food or drinking water in filthy sewage-tainted floodwater.

weeks and months after their release dates due to the disaster (Critical Resistance 2006). A makeshift jail was set up at a Greyhound bus station and run by a warden from the notoriously rough Louisiana Angola Prison. Survivors with Robin Hood intentions — some prefer the term liberators to looters — were being locked up at this "jail" and charged with looting, a felony offense threatening 15 years incarceration. Middleton and Critical Resistance question the policy of imprisonment as a public safety measure and work to fight against the powerful prison industrial complex.

The extensive damages resulting from Katrina have caused this to be called one of the worst disasters in American history. The storm's flooding caused six major oil spills releasing 7.4 million gallons of oil (approximately 61% of the 1989 Exxon Valdez oil spill) (Wright 2006). The storm ravaged 160 underground storage tanks, five superfund sites, and 466 industrial facilities with dangerous chemicals, and disabled 1,000 drinking water systems (Wright 2006). In March 2006 water was potable in all zip codes except the Ninth Ward but sewer systems in seven out of 18 zip codes were still deemed inoperative (City of New Orleans 2006). Approximately 22 million tons of debris was strewn about southeastern Louisiana (Royte 2006), 12.5 million tons in the Orleans Parish alone (Nossiter 2006, March 7). The amount spent towards cleanup of debris so far is more than 1.3 billion dollars (Eaton 2006), and the job is nowhere near finished. Roughly 220,000 homes are reported as destroyed (Thomas and Bailey 2006), with those sustaining damages over 50% required to be demolished unless the owners can pay tens of thousands of dollars to rebuild up to flood safety standards (Nossiter 2006, February 5). The mess left from the storm and flooding has resulted in what some are calling a "toxic soup." In addition, an extremely dangerous mold

has taken hold in many buildings and houses throughout the city. Though this mess has in some way affected all New Orleans residents, the level of impact varies greatly; those without economic security are much less likely to be able to return and rebuild, should they want to. Whether or not the impacts of this disaster continue to be born in a disproportionate manner will largely be determined by how things are cleaned up and rebuilt and how decisions are made during this process.

The right to return home

In the face of redevelopment plans there is a growing movement for the right of all New Orleans residents to return. Mainstream media is reporting on the "changing face of New Orleans" and presumes the possibility that many African Americans may not return to the city. One New York Times article says the continued absence of "many Black residents...[suggests] a demographic and cultural shift in the offing for a city that now has more whites than blacks for the first time in decades" (Barry and Nossiter 2006). Three quarters of a million people have yet to return home from being displaced by the hurricane (Democracy Now 2006, February 28). It is estimated that 100,000–300,000 people who lived in Louisiana may end up displaced permanently (Wright 2005). The obstacles to returning are incredibly daunting. Many have lost everything and have to start completely from scratch. There is still toxic mold covering many structures. Katrina survivor Raymond Rock III said he returned to New Orleans after leaving for a few months and after 15 minutes of being back in New Orleans his eyes started itching and watering. Many have developed a "Katrina cough." According to Dr. Beverly Wright, the issue of environmental health deserves the highest priority, yet this topic has been afforded little attention in the rebuilding process (Wright 2006). Because the Ninth Ward as well as other areas are in such terrible shape, the city will condemn the homes there as a public health/safety issue. The Lower Ninth Ward is the only area still under a "look and leave" visitation order (City of New Orleans 2006).

Mainstream media is reporting on the "changing face of New Orleans"

Just over half of New Orleans residents are renters (Nossiter 2006, March 15), and 45% of the destroyed homes were renter occupied (Democracy Now 2006, February 28). With many developers and property owners hoping to build condominiums or single-family homes for resale instead of replacing the rental stock, New Orleans is vulnerable to a potentially large loss of low-to-middle wage earners. Thousands have been left homeless and low to medium income renters are being evicted for unsound reasons, such as not paying rent for the month or two they were evacuated from the city. (Black 2006). Some tenants describe seeing their neighbors' belongings being moved out of the house and left on the sidewalk before they have had a chance to come back. The two days immediately following the end of the Louisiana governor's 60-day moratorium on evictions, approximately 3,500 eviction notices were given out in three counties (Jeremy 2005). Margeret Morley, of a long established free legal clinic in New Orleans that now collaborates with Common Ground, speaks out about how an association of landlords had a meeting with the city officials wanting to streamline the eviction process. The result was a five day eviction notice followed by a one day notice (Rostrum et al 2006). A note on the door of a home is not an effective way of reaching someone who hasn't been able to get back from wherever they were dislocated to during the disaster.

Federal and state governments have acknowledged the need to address the renters' right to return by creating a plan to allocate 1.75 billion dollars towards the rebuilding or development of rental housing (Nossiter 2006, March 15). Some of this money would be used as incentive for small landlords in the form of no interest loans to fix up apartments with the conditions being the lower the rents, the larger the loan. The other money would be offered to developers to build mixed income housing in order "to avoid the islands of poverty" (Nossiter 2006, March 15). Reminiscent of the HOPE VI program, the idea is that less concentrated poverty is supposed to mean less poverty. Also like HOPE VI, without the right to return firmly in place, this scattering of former residents changes the face of a neighborhood and indeed the character in classist and often racist ways; a punishment for being poor. Many renters consider New Orleans their home and can't imagine living anywhere else. There are strong efforts by residents and activist groups like Common Ground and the Deep South Center for Environmental Justice to ensure the right for residents to return is securely in place whether they own their homes or rent them.

There is major concern from activists and advocates that developers are going to be granted rebuilding money to participate in "one of the biggest land grabs in modern history" (Jeremy 2005). Dr. Beverley Wright claims that city plans have shown that certain neighborhoods have been marked for redevelopment without any input at all from the people that live there. This includes predominantly Black middle class neighborhoods as well as the hardest hit working class and impoverished neighborhoods. Wright feels the biggest losses from the disaster are in the areas of the Black majority political structure, Black voting strength, minority owned businesses, inherited land, Black homeownership, Black middle and working class, cultural heritage and community. This is why it is so crucial that African Americans return to New Orleans to seize this moment to begin again and in so doing, secure the legacy of rich culture and identity of New Orleans while hopefully surmounting the legacy of poverty and racism.

The gap from policy to practice

The federal Robert T. Stafford Disaster Assistance and Emergency Relief Act states that disaster victims are entitled to certain needs if the President sees fit to authorize them, such as clearing debris, provision of temporary schools or other community facilities, housing, and among other needs, "reduction of immediate threats to life, property, and public health and safety" (United States Code 2000). This is not happening in New Orleans, as for far too many people the immediate threat to property, health, and safety is still quite present. The threat posed to public health by the mold and land and water contamination is very real, and is not being made enough of a priority. Public schools are still closed and there is limited access to health care (Posner 2006). There are massive amounts of debris (toxic and non-toxic) yet to be cleared and more to come from future demolitions.

There has been much controversy over the removal of debris from public property. Huge contracts were given to primary contractors such as Halliburton who in turn pass along jobs to sub contractors who then hire on-the-ground workers to clear the debris. Although this could have been a good opportunity for an efficient government-funded clean up effort that provided jobs for many local companies and workers, it has turned into a political maelstrom smacking of corruption and violation of labor laws. Bill Chandler of the Mississippi Immigrant Rights Alliance details how primary contractors are awarded huge federal contracts to clean up debris, and as they subcontract out to so many smaller companies, the money is diminished so that by the time it gets to the contactors who hire the on-the-ground workers it can be reduced to less than a fifth of the original contract amount (Democracy Now 2005, Dec.16). Chandler's group has filed several complaints against subcontractors in the Gulfport region on behalf of clean up workers who were not paid for the jobs they did and in some cases were abandoned by the subcontractors. Tina Susman, a reporter for Newsday, covered the story of a group of homeless men who came to New Orleans to work for debris removal but were never paid for several weeks of hard work (Democracy Now 2005, Dec.16). The lack of accountability for the abuse of immigrants and homeless trying to make an honest living from providing much needed clean up efforts is not only despicable but also undermines recovery efforts.

The immediate threat to property, health, and safety is still quite present.

There are also concerns about the use and distribution of relief money. The Red Cross, one of the world's most well-known volunteer disaster relief agencies and the recipient of 60% of the 3.6 billion in Katrina aid, is suffering a scandal of alleged mismanagement of millions of dollars worth of relief supplies by senior management officials (NYT 2006). Some professionals looking to volunteer their skills to the relief effort have actually been turned away or ignored by the Red Cross (Rostrum et al 2006). Some Red Cross locations have even fallen prey to racist practices on the part of shelter management. In one case in Long Beach, a Red Cross shelter manager forcibly evicted Latinos with the help of law enforcement and the INS, and several others followed suit, claiming that the Latinos were all out of state workers with no right to stay at the shelters (Democracy Now 2005, Dec.16). Although Red Cross officials deny these happenings, it is well documented that on the ground, Latinos were singled out for exclusion from shelters all over the coast (Democracy Now 2005, Dec.16). The huge gaps that exist between the insertion of capital, management of it, and actual on-the-ground practices have been quite normalized in the general context of our society. But in a state of disaster these

disparities become glaring critiques of societal management. This is where the Common Ground Collective comes into play.

Common Ground: The collective maverick

The Common Ground Collective (CGC) is a grassroots solution to disaster relief. They are an example of what people can do when they organize in solidarity and use the principles of environmental justice. CGC is on the ground, providing stability and hope to thousands as they offer much needed community services and basic needs. Common Ground sets out to provide a comprehensive community support network in which people can receive not just basic needs like food, clothes, or health care, but also guidance in the forms of legal support or health and safety education and assistance. The general approach is put well by Sakura Koni of the CGC when she says "it's up to the community, we got the supplies, it's what the people want to do" (Rostrum et al 2006). Full community involvement in decision making is a major principle of environmental justice. Without input from the community, decisions lack the element of justice needed to create healthy neighborhoods and cities.

CGC provides significant doses of relief and community support for the most devastated areas of New Orleans. They have established media centers with free internet and phone access. They provide a tool lending library and hot meals program. They have distribution outlets for donations of clothing, food, water, safety gear and cleaning supplies, and other household toiletries and necessities (CGC 206). These are also the locations for receiving free health services and legal advice about insurance, evictions, police brutality, etc. There are two health clinics in predominantly Black low-income neighborhoods previously lacking in health care services, one in Algiers and one in the Ninth Ward, as well as a mobile unit. Clinic #1 in Algiers saw 3,500 people in just three months (Rostrum 2006). Common Ground volunteers also go out to talk to residents to assess the communities' needs, and provide emergency repair. Crews of volunteers provide clean up assistance, clearing out moldy debris and walls from homes and buildings; it takes a five person crew one week of full time work to gut a house which can save the owner up to $10,000 (Rostrum et al 2006).

It is dangerous to do this kind of work, and outside of the necessity to train volunteers on safety hazards, the CGC provides a mold abatement and construction training program for anyone returning to clean up their house (CGC 2006). Emily Posner of Common Ground's bioremediation division has stressed the importance that people not be so daunted by the mold that they are discouraged from coming home. Posner claims the Common Ground functions to educate and provide support on how to clean up a property and this extends to the healing of yards and soil. The bioremediation division of the CGC goes to assist in planting gardens

The possibility of entire lower class neighborhoods being bulldozed is a much feared scenario.

(community or individual) specifically designed to remediate toxic soil using plants, compost tea and mushrooms (Posner 2006). There was already contaminated soil present in many parts of New Orleans and Louisiana before Katrina, and the effects of this clean up will have long lasting results for the land blessed by the gardening project.

Common Ground Collective is working urgently to turn these most devastated areas of New Orleans back into livable communities; the longer buildings and infrastructure are left toxic and uninhabitable the greater the chance they'll be demolished. CGC must support the right to return as quickly as possible because the city's attention for redevelopment has been focused primarily on middle and upper class neighborhoods while the possibility of entire lower class neighborhoods being bulldozed is a much feared scenario (CGC 2006). A key aspect of Common Ground is their community outreach and education. Long-term goals are not just to supply people with relief but to supply them with a solid foundation for the future in which community strength, political awareness, and subsequent action become a way of life for New Orleans residents. Meeting immediate and basic needs is the medium Common Ground uses to get these messages across, providing a model of how on-the-ground activity can embody the principles of environmental and social justice. Common Ground is focused on rebuilding community centers (such as child care centers and churches) as a priority for the establishment of community kitchens, distribution and support centers, free childcare and education, health clinics, etc.(CGC 2006). These types of places can

provide stability and foundation for the re-growth of neighborhoods and give people a sense of community upon returning.

Though there are no solid, clear solutions to the immense and complex problems this disaster has created and exacerbated, the model Common Ground provides is a start. The connections between the on the ground activists and the policy makers are vital; Common Ground strives to advocate for justice in the offices of politicians as well as on the ground, and it is crucial that the politicians acknowledge and act to include the people's right to participate in their own future. Equally important is the need to address public health in the rebuilding process. The Deep South Center for Environmental Justice plays an invaluable role in advocating these needs. Some of the DSCEJ's post-Katrina objectives for New Orleans include facilitating: the people's participation in the rebuilding design; the flow of information and dialogue among the people so they can be aware about and act upon cleanup standards that can affect their health; linkages between residents, health professionals, scientific researchers, government officials and others to address disparities and justice in re-entry and housing re-construction (Wright 2006). The DSCEJ also closely monitors government and commerce for signs that the right to return is being hindered (Wright 2006). The DSCEJ is also training displaced citizens and finding them jobs in the cleanup effort. These objectives and examples set forth by the DSCEJ and the CGC are at the heart of the environmental justice movement. The injustices in the aftermath of Katrina have mobilized people in ways that unfortunately only tragedy can. As Emily Posner of Common Ground exclaims, "the social momentum is unbelievable" (Rostrum et al 2006). Relief workers, while providing much needed services, are in turn inspired by the people coming home that are committed to the preservation of New Orleans across class and race (Posner 2006). The struggle for justice is a long and compromising one, but this never ending struggle is the backbone of our humanity.

Common Ground depends upon the support of volunteers and donations and thus is in constant need for more help from conscious people concerned with the plight of New Orleanians returning home. There is great need at this time for supplies and materials such as tarps, drywall, sheetrock, respirators, gas cards, generators and solar panels among others (Rostrum 2006). CGC needs volunteers and financial support and puts to good use every person and dollar that comes through to help. Visit the website www.commongroundrelief.org to find out more information about Common Ground and on volunteering and donating to the recovery effort. ¤

NINA HALETKY is a graduating senior of the Urban Studies program at San Francisco State University who has plans to work towards a more sustainable urban future and raise her son Akiles Eli to be a responsible and loving adult.

References

Barry, Dan and Nossiter, Adam. 2006. "Mardi Gras Set for City Stripped of All but Pride." *New York Times*. February 17.

Black, Mary Beth. 2006. Common Ground Video: "Voices of the Evicted: Housing Rights and Homelessness in Post Hurricane New Orleans. February 5. http://www.peoplesvideo.org/video/VoicesOfTheEvicted_60Kbps.mov Accessed March 2006.

Chideya, Farai. 2006. "Who will own the "New" New Orleans" NPR. March 7. http://www.npr.org/templates/story/story.php?storyId=5248641

City of New Orleans. 2006. Situation Report for New Orleans. March 29. http://www.cityofno.com/portal.aspx Accessed March 2006.

Common Ground Collective. http://www.commongroundrelief.org Accessed March 2006.

Critical Resistance. 2006. Amnesty for survivors of Hurricane Katrina. Fact Sheet. http://www.criticalresistance.org/katrina/factsht-post.html Accessed March 2006.

Democracy Now. 2006. March 6. "Come Hell or High Water: Michael Eric Dyson on Hurricane Katrina and the Color of Disaster." http://www.democracynow.org/article.pl?sid=06/03/06/1424232&mode=thread&tid=25

Democracy Now. 2006. March 3. "Katrina Six Months Later: Activists Discuss Grassroots Disaster Relief, Evictions, Racism, and the Struggle to Help Those Left Behind." http://www.democracynow.org/article.pl?sid=06/03/03/151204&mode=thread&tid=25

Democracy Now. 2006. February 28. "Six months after Katrina, New Report Shows Poor Still Being Left Behind." http://www.democracynow.org/article.pl?sid=06/02/28/1427246&mode=thread&tid=25

Democracy Now. 2005. December 16. "Workers in New Orleans Denied Pay, Proper Housing, and Threatened with Deportation." http://www.democracynow.org/article.pl?sid=05/12/16/1457237&mode=thread&tid=25

Democracy Now. 2005. October 24. "New Orleans Community Organizer Malik Rahim Demands Inquiry into Hurricane Katrina Deaths and Amnesty for 'Looters'." http://www.democracynow.org/article.pl?sid=05/10/24/1414214&mode=thread&tid=25

Eaton, Leslie. 2006. "After Hurricanes, Come Tempests Over Cleanups." *New York Times*. February 24.

EnviroHealthAction. "Linking Chronic Disease and the Environment." http://www.envirohealthaction.org/environment/disease_tracking/articles.cfm?article_ID=212 Accessed March 2006.

Jeremy. 2005. November. "1,000 families being evicted a day in New Orleans." On The Ground: Jeremy's Notes from New Orleans. http://bringdownbush.org/blog/?page_id=43 Accessed March 23, 2006.

Kirby, Peggy C. PhD. 2004. "I Can Learn" http://www.icanlearnresults.com/pdf/E-LA-ORLE-04-01.pdf. Accessed March 2006.

Nossiter, Adam. 2006. "Louisiana Turns to the Needs of Renters." *New York Times*. March 15.

Nossiter, Adam. 2006. "Demolition of Homes Begins In Sections of New Orleans." *New York Times*. March 7.

Nossiter, Adam . 2006. "Sparing Houses in New Orleans Spoils Planning." *New York Times*. February 5.

Nossiter, Adam. 2005. "New Orleans schools OK state takeover." Boston Globe. May 23.

NYT. 2006. "Red Cross Fires 3rd Volunteer Amid Inquiry." *New York Times*. March 26.

Posner, Emily. 2006 March. Personal Correspondence.

Rostrum, Flux, et al. 2006. Common Ground Video: "Solidarity Not Charity." March 13. http://www.commongroundrelief.org/node/70 Accessed March 2006.

Royte, Elizabeth. 2006. "Rough Burial." Onearth. Spring Issue. http://www.nrdc.org/onearth/06spr/katrina.asp Accessed March 2006.

Thomas, Evan and Bailey, Holly. 2006. "A Katrina Brownout." *Newsweek*. February 20.

United States Census Bureau. 2004. 2000. American FactFinder. http://factfinder.census.gov/home/saff/main.html Accessed March 2006.

United States Code. 2000. Title 42. The Public Health and Welfare. Chapter 68. Disaster Relief. http://www.fema.gov/library/stafact.shtm#sec308 Accessed March 2006.

Wright, Beverly Ph.D. Director of the Deep South Center for Environmental Justice. Letter To Fellow New Orleanians and Katrina Fact Sheet. http://www.dscej.com/katrina.htm Accessed March 2006.

Wright, Beverly PhD. 2005. September 29. Testimony before the Subcommittee on Environment and Hazardous Materials of the Committee on Energy and Commerce. U.S. House of Representatives. http://www.dscej.com/news%20and%20events/katrina_testimony.html

Image Sources

Photo: Hillary Strobel

My Experience with **Common Ground**
a photo essay

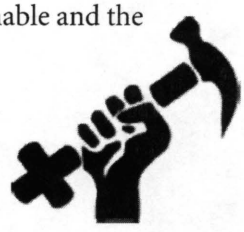
by Hillary Strobel

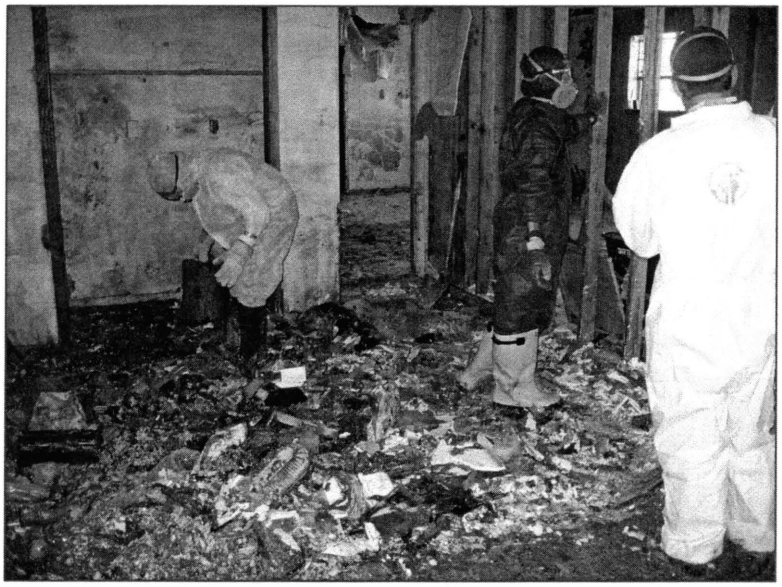
In March and April of 2006, I worked with Common Ground Relief – a volunteer organization started by two New Orleans residents and Hurricane Katrina survivors during the days after the storm to focus on rebuilding the devastated Ninth Ward area. Common Ground has quite a bit of power in the Ninth Ward, not because they impose it, but because the community endows it. As a result, volunteering with this group is among the most powerful experiences I am likely to have. The work is incredibly difficult and overwhelming, because it is about human beings reaching out to their fellows and acknowledging solidarity, which is never a simple or short term process.

My first volunteer stint revolved around gutting – the process of removing all items from a building, tearing out walls, insulation, fixtures, cabinets, and personal items like furniture, photos, books, toys and clothes, because these things are saturated with toxic flood water. Once the building is stripped to its skeleton, it is environmentally remediated and can be rebuilt. I gutted both a house and a pre-kindergarten classroom at Martin Luther King Jr. Elementary School. The ceiling of the house I gutted collapsed on my head, giving me a concussion; the smell at the school made the whole work crew sick.

My second shift as a volunteer centered on bio-remediation of the soil in New Orleans, again at MLK Jr. Elementary School and at St Mary of the Angels, a Catholic school, the building that Common Ground uses as a dormitory. The Church hopes to reopen the school next year so concerns over health and safety of the soil were preeminent. In both school yards, application of compost and the planting of sunflower seeds were the preferred methods of bioremediation. I am in complete support of rebuilding New Orleans and getting residents back to their homes, their communities and their lives, and I also think that not enough attention is being paid to long term health effects of the toxicity in our basic life support systems: the air, the soil, and the water.

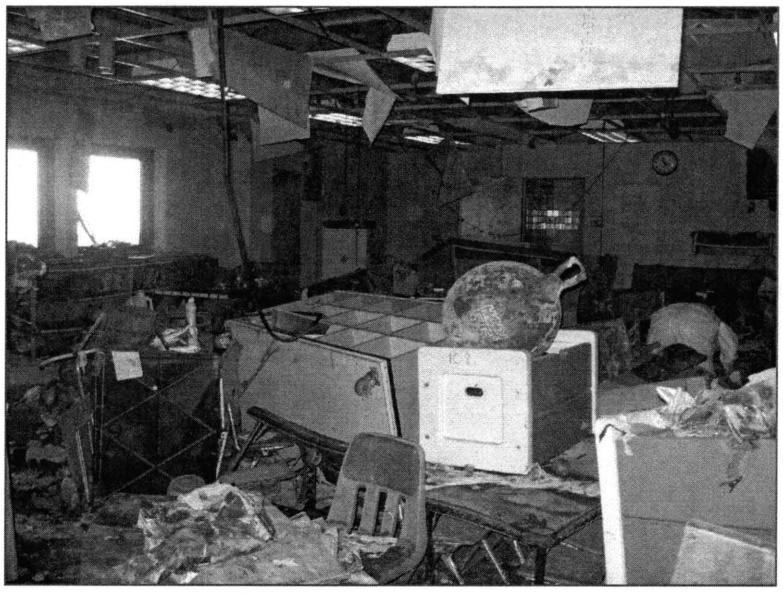
This experience is something I wish every dedicated and passionate person gets involved in. What happened in New Orleans is a difficult and brutal lesson, to be sure, and an utterly important one: the way things have been done in the past is completely, wholly, bitterly, and unfairly unsustainable and the time has come to change. Right now.





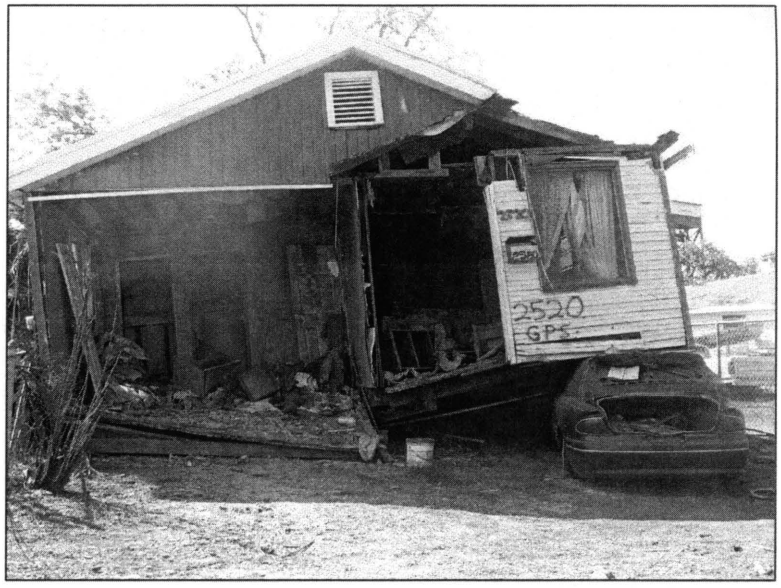
My work crew gutting a house in the Lower Ninth Ward. This room once was the master bedroom- the walls and insulation separating it from the living room were removed and we were passing shovels full of debris through the studs.

The couple who own the house my crew gutted. They helped briefly with the demolition process but didn't have the proper safety gear, so they began sifting through their belongings on the sidewalk to see if anything could be salvaged. They saved one coin collection and three photos. The remaining pile was eventually picked up by the city's garbage service and thrown into landfill.



The pre-kindergarten classroom at MLK Jr. Elementary School. The door to this room had to be kicked in by a volunteer because so much debris had settled in front of it. The windows were glued shut from the mold, so the smell, which had been festering for 7 months, was so bad we all got sick. We were told by the Federal Emergency Management Agency to inventory every item in the room- a Herculean task. We spent an entire day doing nothing but cleaning, before the inventory could even happen. Every clock in the school was stopped at 3:56.

The damage is so severe in the Lower Ninth Ward that GIS and GPS systems had to be brought in to identify houses. Many were found to be far away from their original locations because they were lifted and carried by the surging floodwaters.

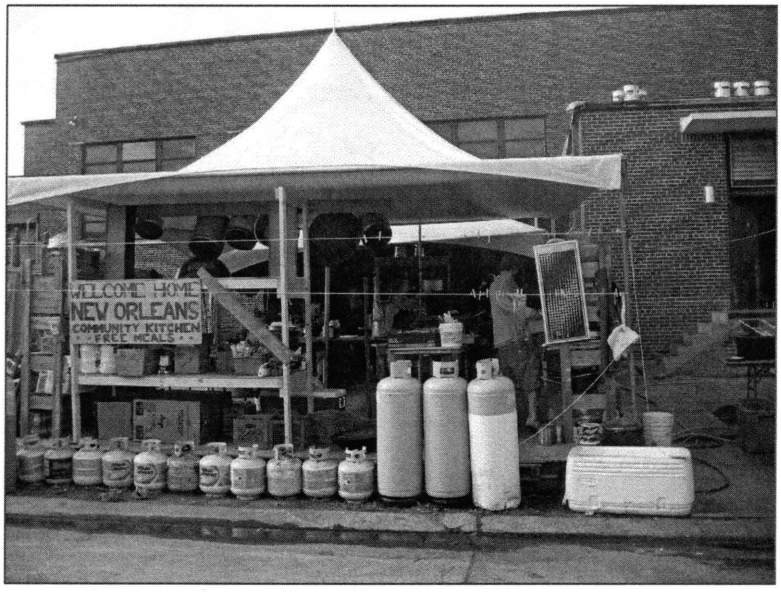


A house and car in the Lower Ninth Ward. I believe this photo speaks for itself.

A family rebuilding their home and family grocery store in the Lower Ninth Ward. The area around this building was completely leveled, but this one house remained. These men spoke to us about how much they wanted to reopen the family business in spite of overwhelming odds.

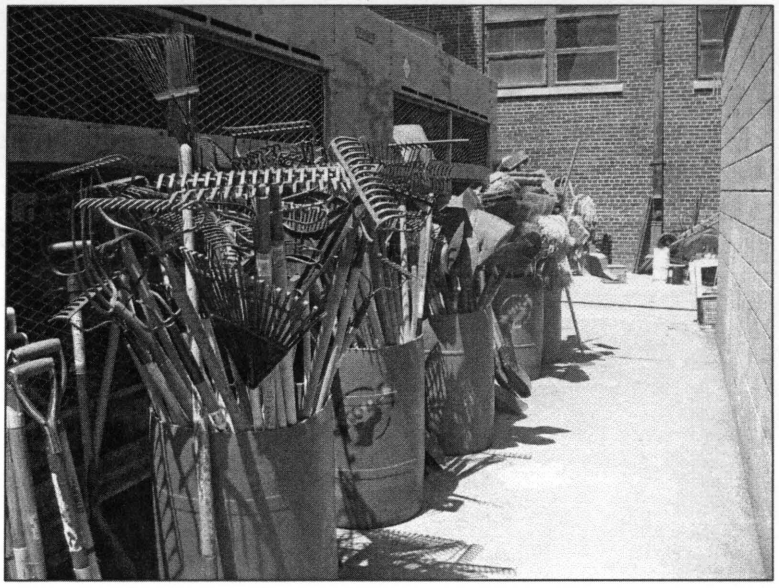
The compost bin built by myself and another volunteer, which will supply compost materials for the bioremediation of the soil at St Mary of the Angels School in the Upper Ninth Ward. All of the wood used was salvaged from various places around the neighborhood, and then decontaminated with bleach before being used. The trees were painted by a Common Ground long-term volunteer.

The new compost bin at St Mary of the Angels School, next to the former playing field. When ceiling tiles were removed from the school so it could be cleaned and used as a dormitory, they were put in this garden; later the tiles were found to be contaminated with huge amounts of asbestos. The garden is now known as the "Asbestos Playground." The application of compost will help remediate some of this toxic damage.

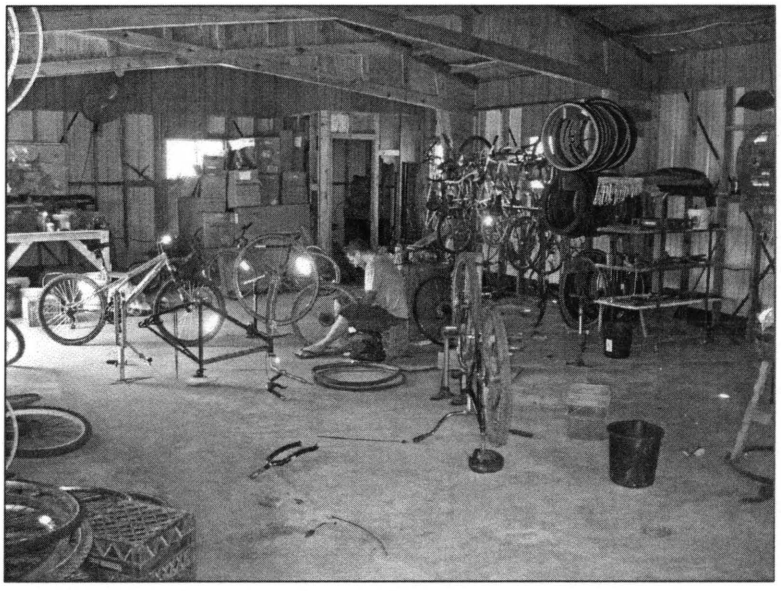


The kitchen at St Mary of the Angels. Most of the food has come from donations; often volunteers on the kitchen work crews spend hours sorting through moldy produce to find edible portions. In addition to feeding anywhere from 300-800 volunteers three meals a day, the kitchen provides free meals to community members. This is a fun crew to work with: instead of smelling like mold at the end of the day, I smelled like garlic, and really incredible local music is played all day on the radio.

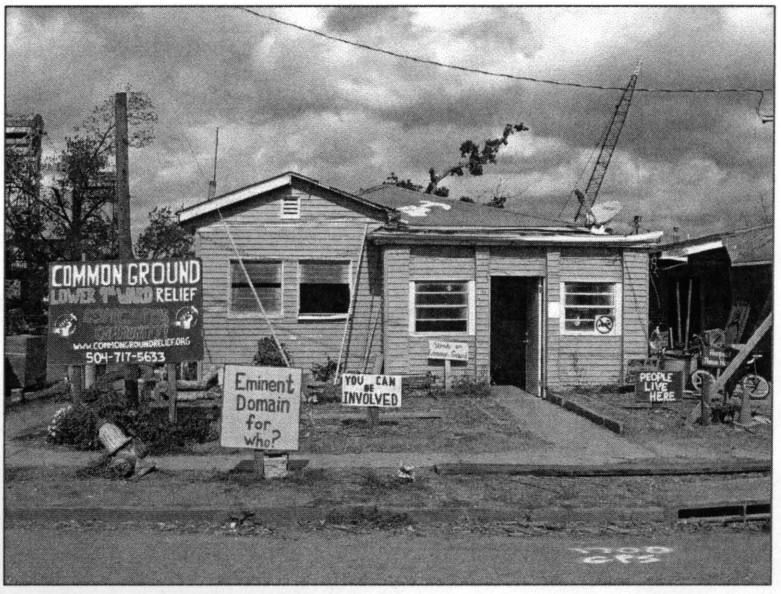
The tool room at St Mary's. The tool manager, Cameron Taylor, has been with Common Ground for five months and has made this part of the operation thrive. Often, community members come here with salvaged electronics- air conditioners, radios, and so on- and fix them up. On my second to last day in April, a group of volunteers brought a van full of power tools with them from home to donate to Common Ground.



The bike shop at St Mary's. Common Ground fixes any bike that a community member brings in; they also fix up abandoned salvaged bikes for the communal use of volunteers. These are called "commie bikes." During my visit in April, a fixed up bike was auctioned off to a volunteer for $60 and the money was given to the bike shop for locks, pumps, and materials.



Common Ground's headquarters in the Lower Ninth Ward, known as The Blue House, located two blocks from one of the levee breaks. From here is run a tool room, administration offices, and a distribution center. The cranes in the background are part of the levee repair operation.




CLOCK TOWER
Ghirardelli


CHECKS
CASHED
MONEY ORDERS
ATM