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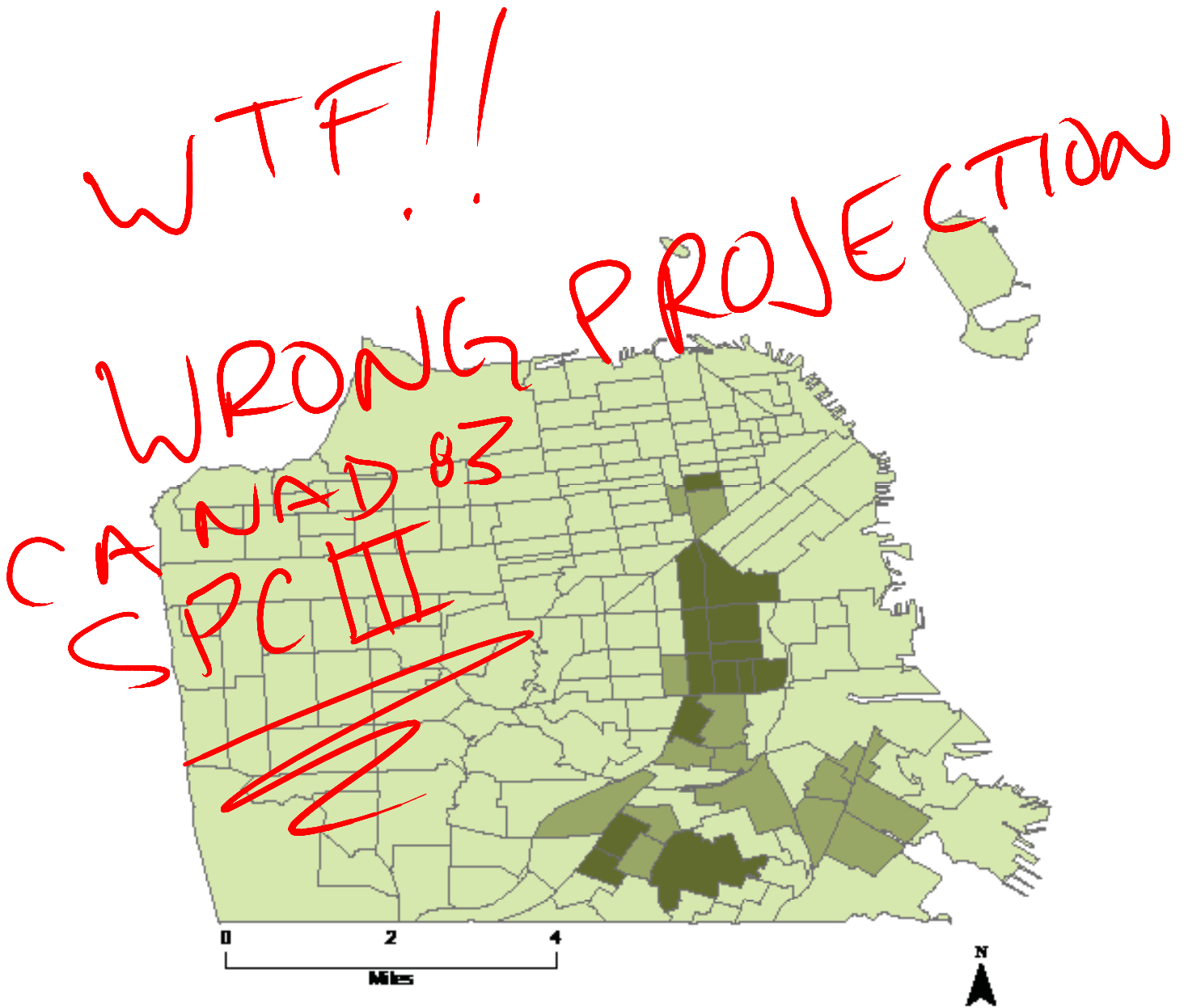


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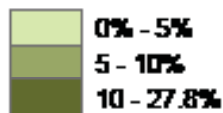
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San Francisco Percent Place of Birth: Mexico



Source: U.S. 2000 Census

Map by Jamie Rogers

An Analysis of Immigration: The Mexican Experience in America

Elizabeth Bartz

Immigration is a controversial issue that has its roots in urbanization. Before the industrial revolution, massive migration was unnecessary. People were mostly employed in the rural sector, often farming the land their ancestors had lived off of. But with industrialization came urbanization. Young adults and families had to migrate to large cities in order to get jobs in factories. As these cities began to be filled with more and more people, urban issues of overcrowding, sewage, vagrancy, and labor laws, among others began to emerge. Today, urban cities include complex infrastructures of social, political, and cultural diversity. Cities continue to draw in more and more people from the remaining rural areas (such as rural Mexico), because of the capitalist demand for low-wage workers. Thus, immigration is closely tied to urbanization, and they are social issues that are heavily intertwined.

Candalaria works in a sweatshop. She sews zippers onto jeans.

She is paid 75 cents for every 100. Since she has been doing it for a long time, it only takes Candalaria 5 seconds to sew each zipper. To make enough money, Candalaria has to work longer hours than labor laws allow. She does pay taxes on the money she makes, however she pays them to a government that does not know that she exists. Candalaria, like many of America's working poor, is an illegal immigrant. The sweatshop she works in makes garments in Los Angeles, CA (Shipler, 2004, p.84-85). About 5 million undocumented Mexican workers are estimated to be in the U.S (Shipler, 2004, p.114). These workers are here to pick our crops, make our shirts, clean our floors and nanny our children. In fact, as an American, "you can hardly go a day, much less observe a holiday, without the fruit of their labor in your life" (Shipler, 2004, p.97).

Illegal immigration is a very controversial subject. Undocumented immigrants have always been an element of migration. Because of nationalism, however, states have made borders and have been able to pass laws governing who is and is not allowed to migrate to the developed cities (Dulgnan & Gann, 1998). America has had a history of immigration laws that were racially biased. The Immigration Act of 1924 created a quota that kept "undesirable ethnic immigrants" out of America (Baynton, 2001; Bond, 1924). While this quota system was changed in the 1965 Immigration and National Services Act, immigration into America is still limited and the regulations vary by country of origin (Paral, 2005). These new policies favor immigrants from white countries, such as Poland and England (Johnson, 2004, p.27). Currently, U.S. citizenship policy admits "relatively few Mexican, or other Latin American workers" into the country each year (Paral, 2005, p.1). However, both "push and pull" (Castles & Miller, 2003, p.22) factors entice more Mexicans into America than our laws allow. The Immigrants who are unable to obtain legal means, but still come to America from Mexico as "illegal" immigrants, live in fear of deportation and are given little rights by our government (Shipler, 2004).

Mexicans are in America for a myriad of reasons. To begin with, some had ancestors who were natives to the American west coast when it was part of Mexico (Norberg, 1995). In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican American war. This treaty gave

America over 500,000 square miles of North Western Mexico. Mexicans who were natives to this area were given limited rights and experienced harsh discrimination. While this is not a main cause for undocumented immigration, it is important to note that Mexican labor and culture has been present in places like California and Texas before America took the land from Mexico, less than two centuries ago (Norberg, 1995). There are push factors that encourage Mexicans to leave their home country and come to the United States. Mexico has high rates of poverty compared to the U.S. (Walton & Lopez-Acevedo, 2004). At times, the poverty level in Mexico has been around 50 percent (Viveros, 2005). A history of colonization and economic dependency, paired with massive population growth over the past century, has led to high unemployment in the country, especially in the rural areas. The 1993 North American Free Trade Agreement (NAFTA) brought some new employment to Mexico, but these jobs are mostly low skilled and do not pay enough to keep a family out of poverty. Mexicans who come to American cities are often escaping from destitution. They make the journey “for the very survival of their families” (Wallach & Williams, 2003, p.1).

Immigrants are also pulled into American cities. One of the most notable examples of a lure Americans gave to Mexican immigrants was the Bracero Program. This was a guest worker program that America used to bring low cost laborers into the country. Because of the Immigration Act of 1924, cheap immigrant labor was scarce. American factories, mines, farms and railroad lines all needed a large amount of inexpensive workers. The Bracero Program was created to give the U.S. government control over 4.5 million temporary immigrant workers, who would work for a set amount of time in the U.S. and would be sent back to Mexico when their contracts expired (Monto, 1994; Norberg, 1995). The workers were recruited with promises of good wages and opportunity, but instead found prejudice and inequity. Besides being socially sanctioned for being dark skinned, the Mexicans were discriminated against economically. For example, Mexican timber men were paid \$2 per hour, while Anglo timber men were paid \$4 for the same exact work (Galan, 1992). White workers received benefits such as health care, standard housing, and pensions.

The Mexican workers, however, had poor housing situations, no health benefits and no chance of upward mobility (Galan, 1992). Despite the harsh living conditions, Mexicans wanted to work in the U.S. After their contracts were over, many Mexican workers from the Bracero program stayed in America as illegal workers (Monto, 1994, p.59). They began to settle into America, buying houses and starting families. Between 1949 and 1954, the number of illegal immigrant workers in the U.S. rose from 200,000 to over 900,000 (Monto, 1994, p.57). Instead of slowing immigration into the U.S., the guest worker program increased it, reflecting America's substantial need for cheap labor.

The American economy is still running off of low wage labor. For example, using immigrant workers for cheap labor allows textile manufacturers to keep their prices low and competitive. Low clothing prices lets urban Americans spend their left over money on other items, such as entertainment and education. Thus, low wage immigrant workers encourage an expanding consumer economy (Martin, 1998, p.81). Politicians in some cities have noticed the economic benefits of cheap immigrant labor. Many cities, including L.A., New York, and Chicago are considered to be sanctuary cities for illegal immigrants. In these places, law enforcement has been instructed not to cooperate with the federal government's "illegal" immigrant deportation program, because the economic benefits "illegal immigrants bring... outweigh the costs" (Hayes, 2003, p.1). Immigrants in California now dominate the workforce, making up over half of the total workers (McCarthy & Vernez, 1998). California's new immigrants are increasingly younger and less educated, a contrast with American citizens who are becoming more educated by the time they reach the labor force (McCarthy & Vernez, 1998, p.56). Nearly 60 percent of Mexican immigrants who come to America reside in California.

But what are the costs and benefits of immigration to the economy? Urban employers have benefited from illegal immigration (McCarthy & Vernez, 1998, p.64). Employers do not have to pay their immigrant workers as much money as non-immigrant workers (McCarthy & Vernez, 1998, p.65). Edna Bonacich describes this concept of equal work for unequal pay as the split labor market theory, in which people who are valued by society are given more money (than those who

are not valued by society) for the work they do (Portes, 1995). Employers see uneducated immigrant workers as cheaper, even though they are “hard working, motivated, and possess a strong work ethic” (McCarthy & Vernez, 1998, p.67). The manufacturing industry, for example, has quadrupled its productivity since 1960 (McCarthy & Vernez, 1998). With decreased labor costs and an increase in productivity, many employers are very pleased with low-wage immigrant workers.

McCarthy and Vernez (1998) found that the gain employers experienced came at a cost for both natives and immigrant workers. Immigrants are unable to make as much money as non-immigrants. However, the lower wages experienced in California are higher than wages in Mexico, so many immigrants still find an economic benefit out of their labor. Uneducated native workers suffer because of immigrant labor, as immigrant employment often is coupled with native unemployment. However, only native workers who are not educated (less than high school) experience these effects. The low-wage labor allows businesses to see larger profits, thus providing more jobs for educated natives (McCarthy & Vernez, 1998, p.68).

Immigrants are a necessity to the American economy. American business owners need massive amounts of cheap labor. While American ideology says we are a country open to immigration, we have treated Mexican immigrants very poorly, placing them in the lowest paying jobs in America and discriminating against them. Our consumer culture is based off participation of low-wage workers in the American economy, legal or illegal. Cheap labor produces goods that are also cheap, and allows Americans to spend the rest of their money in other areas of the economy. Although they actually contribute to the economy, Mexican illegal immigrants are often blamed for the nations economic problems. While Mexicans make up less than half of the overall illegal immigrants in the United States, “close to 90 percent of the deportations” are done to Mexican immigrants (Johnson, 2004, p.38). The idea that a Mexican might be an illegal immigrant allows Americans to discriminate against all Mexicans. Mexicans are often used as scapegoats, for problems such as “depressed wages... illiteracy, disease and lawlessness” (Johnson, 2004, p.28). Keeping

Mexicans in low paying jobs reproduces inequality and limits their chance to experience upward mobility. Our cities need immigrant workers. Thus, we should embrace them instead of denouncing them. After all, if it weren't for migration, our cities would not exist today.

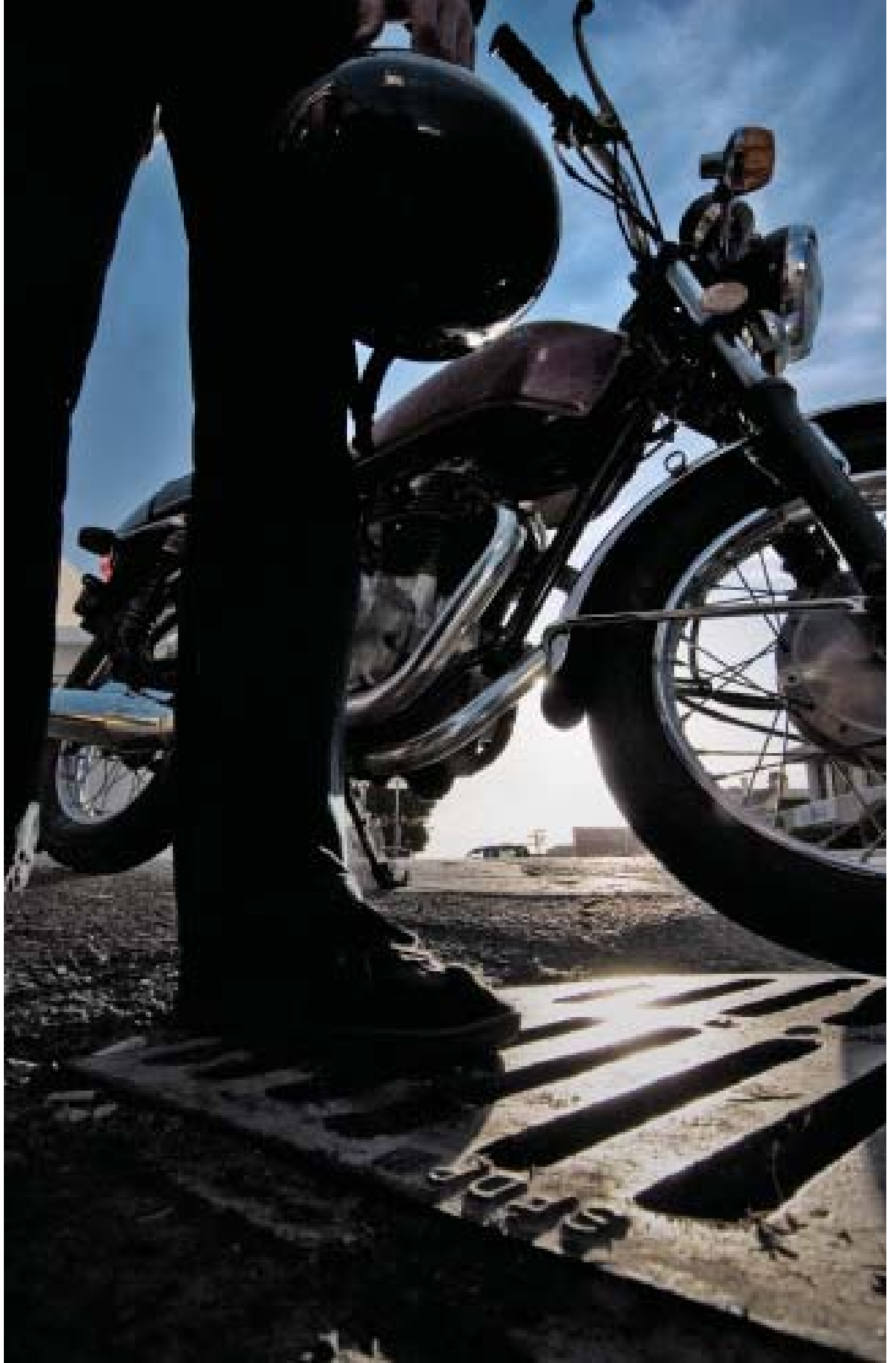


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The Motorcycle and Urban Mobility

Liam Campbell

This paper will examine the problem of sustainable personal urban transportation in Western cities today, and the role the motorcycle may have in resolving some of these issues. Personal transportation refers to modes of movement in which an individual has autonomy over the route and destination of the journey. Thus, public transit is not included in this investigation.

Since the advent of the automobile, personal mobility potential for most has increased significantly. Where previously the physical limitations of the human or animal creature constrained mobility through distance and speed of movement, motorized transport greatly extended the boundaries of feasible transport, in both urban and non-urban settings. However, the dominance of the automobile

today, and decline of other forms of both personal and public mobility, has created such conditions of congestion within urban centers in America, and throughout the world, that mobility is being hampered. The decline of other modes of transportation has left many in the community unable to drive, with significantly less mobility than the general populous. Further, the current urban travel pattern is significantly impacting the global environment, the quality of life in urban centers, and the overall health of human beings in cities. Thus, it is widely accepted that this pattern of travel needs to be modified (Hanson et al, 2004).

Improving and prioritizing public transportation is strongly supported as one method of addressing the aforementioned concerns. However, public transit cannot offer the level of flexibility and accessibility of personal movement, not at least without involving other personal transport trips. This paper aims to evaluate three dominant personal urban transport modes in the United States today and to enable an evaluation of the potential of another mode of personal transportation, the motorcycle. This vehicle has had a presence on urban streets similar to the lifeline of the automobile. However, it has not ever reached the same level of popularity. It also has been largely ignored by transport research and planning historically. Where it is even considered, it has usually been only in passing. The purpose of this paper is to determine if the motorcycle can offer a realistic alternative to the automobile, and fulfil a viable purpose in highly developed cities such as those in the United States. Firstly, a background and developmental history of the motorcycle will be given. The benefits and limitations or problems associated with the vessel of this mode of urban transport will be examined next. Finally, a solution will be presented which best address these issues in order to conclude on how best to accommodate

the motorcycle into the urban fabric.

In modern Western cities, the dominant forms of personal urban transportation can be classified into three basic categories: the automobile, the bicycle, and walking. Automobile usage has many negative effects on our environment, from generating air and noise pollution, to encouraging and requiring consumption of land and natural resources. Further, automobiles are a danger to physical safety and health, while the settlement pattern that has been facilitated by the automobile is widely held to be resulting in segregated and complacent communities. Overall, it seems that since our cities became designed for the automobile, the quality of life in the urban environment is markedly worse. Our current travel patterns simply cannot be supported by the natural environment for much longer (Hanson et al, 2004). The two other modes, bicycling and walking, have very few, if any, negative externalities. In fact, they generate many positive effects. These modes are highly energy efficient, inexpensive, produce no emissions or pollutants, require minimal urban space to operate, and improve physical fitness and health. The problems with these options are due to inescapable physical constraints which limit their practicality. Appropriate urban design and regulation of motor traffic can overcome safety, range and speed issues. Unfortunately, climatic and topographical factors are out of human control. Steep hills and inclement weather do not encourage walking or the use of a bicycle.

The motorcycle is a form of personal transport that has not received much consideration as to its role in the city. The evolution of motorcycle technology parallels that of the automobile, however it never became a highly popular modal choice, at least in developed cities.

Background

The first semblance of a motorised cycle appeared in 1868, with a small steam engine fixed upon a velocipede, an early version of the bicycle. This invention was, in fact, the first form of self-propelled, mechanized transport. Since then, the motorcycle has evolved considerably, often pioneering new technology in motorized transport. A regular market was established during the 1920s in the U.S. and throughout the developed world. However, the popularity of the more comfortable and safer automobile surged much higher during this period, and as a result, the motorcycle was left to a specialized, supporting role.

From this point, motorcycles developed a few different styles. Racing and recreational bikes emerged, as opposed to cycles for daily civilian transportation. During the mid-1900s, the motorcycle became a symbol and vessel of rebellion, and in doing so, diluted the practicality and applicability of the motorcycle in regular urban transport in the minds of many, North Americans in particular. The use of the motorbike in city transport declined further from its supporting role during the 1980s and 1990s. For example, people commuting to work on a motorcycle dropped 18 percent in Manhattan and 50 percent in the surrounding area from 1980 to 1990 (Grava, 2003, p.111). Today, ridership remains at minor proportions.

Developing nations provide an interesting comparison to the trends of North America. Over the latter half of last century, motorcycles became highly popular in developing nations. For example, in 1990, motorcycles represented 60 percent of registered vehicles in Kuala Lumpur, Malaysia and Jakarta, Indonesia to represent between 60 to 80 percent of trips made. In Thailand, motorcycles were calculated as accounting for 72.3 percent of all trips made in the country in 1998, with 430 in operation for every 1000 people. In Taipei, Taiwan there

were 2.6 registered motorcycles for every automobile in 1971 (Dimitriou, 1990, p.53).

The Contemporary Motorcycle

Today, a number of motorcycle varieties continue to exist around the world. A motorbike in general is typified by a vehicle under direct control by the rider, having two, sometimes three wheels and powered by a motor contained within the vessel. The vehicle accommodates usually no more than two people at once. Motorcycles are designed to fulfil a certain purpose: from basic transport, sports racing, cruising, touring, or combinations of the above. The bikes are classified in terms of engine size, which reflects power and performance capabilities. Smaller engine bikes (around 125cc to 350cc) are usually used for general purposes like city driving. Sports and touring bikes usually have capacity of around 1000cc (Grava, 2003, p.113-4).

Scooters are the main variant of the traditional form of motorcycles. These are smaller, lighter vehicles designed for basic transport over short distances, at lower speeds. They accommodate one or maybe two people with a step-through seat and flat footrest, small wheels, a plastic body and enclosed motor, and some enclosed baggage space. They have much smaller engines than the average motorcycle, usually between 50cc and 125cc (Grava, 2003, p.115). It is these vehicles which are the popular motorbike variant within developing cities, as well as in European centres. Table 1 below gives basic technical specifications to illustrate the differences in motorcycle variants.

Benefits

Compared to the automobile, a motorcycle of any form is a small and fuel-efficient vehicle. A bike does not extend much beyond

the physical size of the rider, and thus, the consumption of street and parking space is highly contained and efficient. The largest of motorcycles would not occupy more than a 9 by 3 foot area for parking – a six-fold saving compared to the 20 by 9 foot allocation required by the average automobile. A scooter would require perhaps only a 2 by 6 foot area (Grava, 2003, p.117, 177). This has huge implications for traffic flow within cities. If only around 10 to 15 percent of single-occupant autos converted to motorcycles, street congestion would cease to exist (Grava, 2003).

The small motorcycle engine pulls a much smaller vessel, and as a result, is very fuel efficient when compared to a car. A car has an av-

Table 1: Selected Motorcycle and Scooter specifications

(Grava, 2003, p. 122)

	Make and Model	Length (in)	Weight (lb)	Engine	Max Speed (mph)	Fuel Consumption (mpg)	Average Price
Motorcycles	Yamaha FZS600	88.9	417	4 cyl, 599cc	138	43	\$7,600
	Honda VFR800i	84	470	4 cyl, 781cc	153	40	\$12,000
	Harley Davidson Night Train	95	630	V2 cyl, 1450cc	110	40	\$16,200
Scooters	Peugeot Speed-flight	68.1	209	1 cyl, 100cc	62	100	\$2,900
	Piaggio Vespa T5	69.2	238	1 cyl, 124cc	59	65	\$2,700

erage fuel consumption of about 21 miles per gallon (mpg) – highly variable depending upon the size and make of vehicle. Motorcycle consumption averages around 50 mpg, while a scooter achieves consumption figures from around 70 mpg upwards to over 100 mpg. As automobile occupancy in North America averages between 1.1 to 1.3 people per vehicle, the use of space and fuel per passenger is heavily in favour of the motorcycle (Grava, 2003, p.117; Wright; 2005, p.13).

The motorcycle offers a level of accessibility unlike any other



mode of personal transport. An engine-driven cycle opens up a range and speed which far exceeds that which is possible using a bicycle. Whereas a bicycle averages around 10 mph and is limited in range by the capabilities of the rider, a motorcycle can comfortably travel at speeds from 20 to 60 mph, and greater with a higher powered machine (Grava, 2003, p.118). A motorcycle rider is not expending energy at anywhere near the same rate as a bicyclist, therefore they can comfortably undertake much longer trips. Thus, the overall range achievable with a motorcycle can be upwards of 5 times that possible on a bicycle. As the motorcycle can use the same road space as the automobile, almost all destinations are theoretically accessible with a motorcycle, at all times of the day. Travel does not require the consideration of schedules, waiting in transfers, or the accommoda-

tion of other passengers. Further, the size and manoeuvrability of a motorcycle allows it agility in traffic, where it can negotiate and thread its way through heavy auto traffic and allow much more direct access to destinations than an automobile. A bicycle, due to its smaller size and weight, allows still greater accessibility.

In terms of mechanized personal transport, motorcycles are inexpensive and obtainable for a much larger cohort of the population. Table 1 shows a new, quality scooter can be purchased for around \$2000, and a motorcycle for around \$7000. The cost of the cheapest new automobile remains around \$10000 (Grava, 200, p.122). Used vehicles have a much greater range in cost, but a used motorcycle could be purchased for even under \$1000. Additionally, as the motorcycle is a much smaller, simpler, and efficient machine, the cost of operation and maintenance is considerably lower than an automobile. Motorcycles, scooters in particular, also require little more skill to operate than a bicycle without requiring the level of fitness demanded by the bicycle. Thus, a motorcycle is an achievable personal transport option for a large section of any population, offering mobility to those who cannot afford an auto nor operate a bicycle (Grava, 2003).

Issues

The motorcycle has some clear advantages over other forms of personal transport, however, it is not the dominant mode of transport in the city. The next section will examine the issues inherent in motorcycle usage in an attempt to explain this situation.

The greatest issue with motorcycle travel, in both public perception and statistical reality, is that of personal safety. The high speeds reachable on a motorcycle combined with its small size and lack of any personal protection for riders besides helmets and leather clothing, has lead to an intimidating and highly concerning safety record. A wealth

of statistical data supports this. For example, in the US in 1998, motorcycles accounted for only 2 percent of the vehicle fleet and 0.4 percent of total miles travelled, but were associated with 5.5 percent of traffic fatalities. In 1999, the figure rose to 5.9 percent. For every 100 million miles travelled, the fatality rate was 1.3 people for automobiles, and 23.4 people for motorcycles: 18 times as high (Grava, 2003, p.119). Accident records are similar in developed nations around the world. Statistics from developing nations, where motorcycle usage is much greater, are unreliable or ill-reported. One study reports that 57 percent of accidents involve motorcycles in Surabaya, Indonesia. However, this figure mimics the motorcycle mode share rates (Dimitriou, 1990, p.64). There is some further evidence to suggest that the unsafety of motorcycles relates to their small mode share, and that safety can improve with increasing motorcycle traffic share. In a study undertaken by Loeb et al., statistics showed that fatalities to non-occupants (non-motorcycle riders) in accidents involving motorcycles increased with increasing motorcycle usage. However, fatalities to actual motorcycle occupants declined (Loeb et al., 1994, p.25-6). This suggests that with increasing motorcycle usage, riders become safer in numbers. The increase in non-rider fatalities in motorcycle accidents can be attributed simply to their greater presence on the road, and thus higher likelihood of being involved in an accident.

While being a much more efficient alternative to the private automobile, motorcycles do have notable environmental impacts. The small engines employed by the vehicles do not emit a comparatively large volume of emissions. However, these engines are not designed with pollution controls in mind. Due to their small body size, the emission control systems are minimal. As a result, the emission rates of dangerous pollutants of motorcycles are high. While technology

may enable higher standards of environmental control, the inherent size and simplicity of the motorcycle means the potential for improvement is limited (Loeb et al., 1994; Meyer, 1981; Dimitiou, 1990).

Motorcycles also generate high levels of noise in their operation. Motorcycles have been found to be among the largest noise polluters in urban areas. Where the average automobile generates around 73 decibels in its operation, the motorcycle emits around 83 decibels (Meyer, 1981: p.172-173). This equates to ten times the level of sound. The sound produced by motorcycles can vary greatly, with open-road touring bikes designed to produce strong engine noise and scooters, with their small engines, producing much less. However, it remains that motorcycles produce high noise pollution. Again, the size and simplicity of the machine limits its ability to improve its emissions. Technology and legislation can improve the situation, but the motorcycle will remain a noisy vehicle while powered by combustion engines (Meyer, 1981).

As small motorized vehicles, motorcycles do not readily fit with established transport infrastructure. True motorcycles are generally compatible with cars and trucks, and can mix reasonably safely on the same roadways. Their size and power enables greater visibility and presence. However, scooters do not easily mix with vehicle traffic on roadways. They are smaller, quieter, slower and more fragile and are vulnerable amongst much larger vehicles. Conversely, they are too large and fast to operate along sidewalks. They would conflict strongly with pedestrians and the result would be damaging. They are, in fact, most akin to bicycles. Scooters are not designed to travel at high speeds and require similar space for operation. It is feasible to imagine scooters sharing dedicated lanes with bicycles. However, no such provision was found to have been in cities worldwide.

Like the bicycle, climatic patterns have a significant bearing on the practicality of using motorcycles for everyday transport. Regions which experience extremes of weather – hot or cold, or high rainfall, are unattractive for regular motorcycle use. Riders are completely exposed to the elements, and protective clothing can only provide limited relief or comfort. Heat is probably less of an issue, as riders are exerting themselves physically and movement provides a breeze, but the rider is still exposed to the sun. Few people would readily ride in snow or rain. Thus, if a city embraces motorcycles as transport, days of inclement weather will likely place a significant burden on other transport options.

Solutions

It can be seen through the previous analysis that the motorcycle has potential as urban transport mode. However, there are a number of issues which must be addressed before it truly becomes a viable option.

Foremost, the issue of safety must be addressed. Motorcycles have a disconcerting record of fatalities and injury: well out of proportion to its modal share. In locations where the motorcycle is in high use, such as developing nations, the safety record is also not desirable. However, the lack of road regulation and order can be largely held responsible for this trend. If the motorcycle is to become popular on the ordered and regulated urban streets of the U.S., a solution must be proposed. Evidence has shown that increasing motorcycle number has an inverse effect on accidents and fatalities. However, other measures may be increasingly useful in improving safety. Speed is obviously one major danger when riding exposed and vulnerable. However, high speeds are not required or necessarily desired when

travelling in an urban area. Considering average public transit, cycling and driving speeds are in range of 10 to 20 mph during congestion periods; limiting motorcyclists to a similar speed of 25 mph at all times should limit dangerous accidents whilst still allowing swift travel.

Mixing motorcycles with other, significantly larger vehicles also poses a great threat to exposed motorcycle riders. An ideal situation would be to provide dedicated motorcycle lanes alongside regular traffic on city streets. However, this is largely unfeasible as road space is generally severely confined in urban centres. Bicycle lanes are being pushed in many cities in North America and are largely limited by lack of available road space. A potential solution is to facilitate dedicated lanes for both bicycles and motorcycles. As previously discussed, there is potential for motorized scooters and bicycles to share road space safely, due to the smaller, lighter and slower nature of scooters compared to other motorcycles. Open-road, touring and sports bikes would not be compatible with bicycle traffic. This concept compliments the proposal to limit motorized cycle traffic to low, safe speed, as scooters are designed for urban purposes and lower speeds and not for open-road touring or commuting. Thus, this paper proposes that any serious effort to encourage and accommodate motorcycle transport in urban centres should focus on scooter vehicles only, limiting speeds to somewhere around 25 mph. Further, a system of dedicated bicycle/scooter lanes should be developed. One suggestion is to remove on-street parking, or a lane of traffic on multi-lane roadways, divide it in half, and designate it to bicycles and scooters. The scooters would ideally travel on the outside half, adjacent to automobile traffic, as it would presumably be travelling at higher speeds than bicyclists and also be of greater visibility and presence. By removing road space for automobiles, and replacing automobiles with scooters, a great deal of urban land should

be freed up. As the scooter requires much less space for operation and parking, many roads would not need to be as wide, or designed for such high traffic flows. Further, many parking spaces and structures would not be needed, allowing this land to be redeveloped for other uses, and roadways to be rededicated for pedestrian purposes.



This proposal may address safety issues inherent in motorcycle transport, however many other issues still exist. The introduction of dedicated scooter lanes, and the increase in motorcycle traffic that would follow, will result in increased noise pollution. Motorcycles, including scooters travelling at low speeds, produce significantly more noise than an automobile and obviously a bicycle. The replacement of cars for scooters would magnify, not diminish, the problem of urban traffic noise. Further, as motorcycles emit more damaging but less volume of air pollutants, the issue of poor air quality in cities would remain largely unimproved by this solution. The only solution to these problems would be to legislate stricter air and noise emission standards for scooters, or replace the engines with quieter, cleaner technology. Currently, science has not advanced far enough today to

realistically support this.

Conclusion

This paper has examined benefits and issues associated with the use of motorcycles in order to determine their potential as a transport option, addressing the shortcomings of the dominant modes of personal urban transport today: the automobile, the bicycle, and walking. It was found that motorcycles have a number of issues associated with their use, whilst offering some benefits to users and the city as a whole. The proposed strategy to accommodate these vehicles into city streets addresses issues of safety and urban land demand. The solution would implement dedicated scooter lanes, whilst limiting speeds of scooters to 25 mph. This should minimise the safety dangers inherent in riding a scooter, whilst encouraging scooter traffic over automobile traffic. This, in turn, would free up road and parking space for other purposes.

However, a number of other issues are left unaddressed. Noise pollution would significantly worsen, whilst air pollution would remain a problem. Given that any transport or land-use decision in a city should improve the sustainability, equity and attractiveness of the city, the proposal should probably not be supported. Scooters only use less oil, and emit less pollution. It is likely that potential scooter-riders would now be public transit-dependant, or cyclists, rather than motorists. Thus, encouraging scooter travel is not sustainable long-term; nor would it make the city a more enjoyable place to live or visit. Therefore, this paper concludes that the motorcycle is not worthy of any particular support for use in the city. Forms of transport, which are genuinely sustainable and improve quality of life in the city, such as the bicycle, should be supported.

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UNACCEPTABLE
RESOLUTION

~~Target~~



Post-Proposition 13 Land Use Politics in California

William Kutz

The catalyst of the American tax revolt came with the passage of California's Proposition 13 of 1978. Howard Jarvis and Paul Gann, the chief sponsors of the proposition, which was also called the Jarvis-Gann Initiative, proposed tax cuts on all property to one percent of assessed value. With 1975-1976 as the base year, the proposition permitted no more than two percent annual inflation. Under change of ownership, excluding grandfathered land, the property would be reassessed at the new market value. Any new state tax increase would require the approval of a two-thirds supermajority in both houses for the budget. Any new local taxes would also require a two-thirds supermajority. Lastly, it prohibited no other sales or property taxes on real property, except transfer taxes (Tranter, 2006).

In the late 1970s, skyrocketing property taxes affected the majority of Californians, especially the poor and elderly whose very livelihoods were at stake. In the spring before the enactment of the

initiative, Los Angeles' assessed value increased by over 17 percent. With only one-third of properties assessed each year, the average assessment was believed to jump by nearly 50 percent (Tranter, 2006). The majority of Californians who overwhelmingly approved the initiative, they considered Proposition 13 a tool with two distinct purposes: to cap inflated property taxes for individuals and business, and to reduce the size of California's bloated government (Schrag, 1999). While the former intent has achieved its clearly defined purpose, the latter intent to starve the beast of government has led to a myriad of direct and indirect consequences that continues to plague California to this day. Broad effects include: state budgetary constraints in allocating funding for schools, deciding which roads should be paved, and deciding whether or not to realize a public works project. Effects are also as specific as individual decision-making: whether and where to buy or sell property, on what side to vote for a new development proposal, or whether one can afford to vacation in a California State Park. This paper's focus lies somewhere between the two, at the local decision-making level. Analyzes centers upon how financial constraints of local municipalities have affected their land-use decision-making. Proposition 13 impacts will be analyzed from two perspectives: that of fiscal priority and land-use. This text will begin with an introduction to Chapman's "club theory" highlighting the relationship of land use planning and the local budget. The second part will focus the fiscal impact of Proposition 13. The third part will highlight the initiative's land-use impacts. The last section will end with the potential solutions that Chapman's club theory has to offer for future land-use and fiscal decisions; specifically, how the fiscalization of land-use may be better managed to optimize benefits for both local finance and development.

Jeffrey Chapman used James Buchanan's club theory to relate land-use planning to the local budget. The club theory suggests that the size of the sharing group or population (read: "the club") is as important to the wellbeing of a particular individual as is the amount of goods or services that the individual consumes. An individual's perceived value from the consumption of a good depends upon the number of other people with whom he or she must share its benefits (Chapman, 1988). From this perspective a certain "maximization" of benefit can be extrapolated:

1. Club members associate the marginal benefits received from each good to the marginal costs of provision of each good.
2. The marginal rate of substitution between group size and the individual good is equal to the marginal rate of transformation between group size and the individual good. A balance is reached by either adding or subtracting club members.

Optimality is reached when both conditions are satisfied at once. Looking at it in another way, Chapman views Buchanan's model as determining the optimum size of the club (or jurisdiction's population) and the amount of public services to be provided (Chapman, 1988). Chapman's use of club theory helps us understand the relationship between the provision of public services to population size. Much like an efficiency curve in economics, the change between the ideal amount of people and services is continually in flux. And much like radical changes in supply or demand can affect Wall Street, Proposition 13 created a metaphorical crash in the service/population system. The fiscal deficiency caused by Proposition 13 affected the ability of local municipalities to provide services. As the ability to provide such services is directly tied to property tax revenue, land use is becoming increasingly fiscalized. By this, it is meant that decisions on how to use land are increasingly made simply by how much new the revenues will help fill municipal coffers.

California tax revenue in the 20 years following the Jarvis-Gann initiative fell by 20 percent, compared to a national decline of five percent (Schrag, 1999). In the year immediately after the passage of Proposition 13, California lost \$7 billion in revenue (Schrag, 1999; Tranter, 2006). These combined losses had a varied effect on the local level: some municipalities, like Lancaster, did not even collect property taxes, and thus experienced less impact. Others, however, like Bradbury, relied on property taxes for up to 50 percent of their total revenue (Chapman, 1981). For the state as a whole, revenue cuts have had a crushing effect on the basic provision of services and expenditures. In the year following the passage of Proposition 13, aggregate spending on libraries fell 9.2 percent; parks and recreation fell by 7.9 percent; full time professional staff within planning departments fell by 6.2 percent in cities and 8.4 percent in counties (Chap-

man, 1981). In education, California went from being among the top ten highest state spenders in the 1960s and 1970s to thirty-second by 1988. By 1996, California fell to forty-first place among the fifty states (Schrag, 1999).

The fundamental problem behind the “starve the beast theory” that Proposition 13 championed is that it inherently assumes that the government is too big for its shoes. When a government is supposedly “bloated” with tax revenues, it becomes wasteful, inefficient and corrupt. When this happens you must starve the government of its revenue to force it only spend on absolutely necessary items. Unfortunately, the proponents of this theory have no way of measuring or separating legitimate, necessary spending from illegitimate, wasteful spending. Such interpretations are entirely subjective. As the name implies, starving the beast has nothing to do with making the beast run faster or jump higher, but to cripple it: effectively rendering the beast even more inefficient than before. More so, as Chapman’s theory highlights, when the level of services falls below the equilibrium needed by the population, the result will be an attempt to increase those services at whatever cost.

The most frequently noted result of tax restrictions since Proposition 13 has been the dramatic increase in municipal fees and charges; creating what Peter Schrag (1999) calls an “unprecedented set of distortions.” Already, in the 5 months after the enactment of Proposition 13, 43 percent of cities and 74 percent of counties had increased their fees (Chapman, 1981). For every dollar that was lost from Proposition 13, total city charges increased by twenty cents (Chapman, 1981). In terms of land-use, the Association of Bay Area Governments (ABAG) in August 1979 listed four main types of fees that had increased for developers: planning fees, building fees, growth-impact fees and utility charges (Chapman, 1981). Planning fees included payments for general amendments, rezoning, use permits, map plans, encroachment permits and site-plan reviews. Building fees included building permits, plan checks, plumbing permits, electrical permits and mechanical permits. Growth-impact fees included expenses on parks and schools and residential construction. Utility charges included costs for storm drains, sewers and water, among others (Chapman, 1981).



Elevated fees and charges have had a direct impact on developers and prospective homebuyers. As local municipalities no longer have the revenue to properly maintain and develop infrastructure, they turn towards developers. As Schrag (1999) put it, “[Local governments] place the burden for the construction of new schools not on the entire community, (...) but on the new residents. Home developers estimate that fees, new infrastructure and other mandated expenses now run between \$30,000 and \$60,000 for each new home, ‘before they begin digging the first hole in the ground.’” Although locals are no longer paying as high of property taxes, the costs of these new developments inevitably pass onto them through increasing costs of new homes, and increasing the price of goods sold in new stores. On the other hand, despite the fact that many critics of Proposition 13 argue that the state can no longer provide basic public services because it is strapped for cash, now appears unfounded. Galles and Sexton (1998), in analyzing the effects of California’s Proposition 13 and Massachusetts’ Proposition 2 1/2, have shown that state revenues, since 1989, are actually greater than 1978 levels. Additionally, while it was thought that Proposition 13 would starve the beast, since 1986, California governments have been larger than their pre-Proposition 13 peaks in terms of expenditures. More than financially starving the beast, Proposition 13 has, through creative fees and charges, weakened financial accountability and increased the inequitable redistribution of those funds. For ex-

ample, while spending per student has decreased, teacher's wages have remained stable in real dollars (Schrag, 1999).

Thus far, we have seen that the financial effects of Proposition 13 have led to the restriction of select types of spending, and the increased dependency on fees and charges with limited accountability. Yet through the initiative's inherent design, local governments have remained dependant upon property taxes. However, these taxes must come from reassessed ownership and new developments. This dependency has led to the fiscalization of land-use. The suitability of land-use is no longer a factor of public need or benefit, but is determined by who is going to pay for the necessary infrastructure and how much the development will contribute to the local treasury (Chapman, 1981; Tranter, 2006). Preferential treatment is given to commercial development and large-scale subdivision. Commercial development not only reassesses the value of the land, previously urban fringe or agricultural land, more often through higher ownership turnover than residential uses, but also actively contributes to the municipal coffers through sales tax generation. Most importantly, such land-use distorts social and economic priorities.



This form of cash-box zoning creates a dichotomy between the developers who front the cost of infrastructure development and want the lowest possible property taxes, and the revenue hungry jurisdictions with often short-term solutions in mind (Sokolow, 1993). Sprawl has

been the most obvious result of these unbalanced differences. Developers need space for large-scale developments and big-box retail stores like Wal-Mart and Target. Yet, these same developers do not want to build on land near the immediate urban fringe, as that land is often the most expensive. Instead, leapfrog development has occurred in the extremity of the jurisdiction, where cheap land is available. If the municipality desires closer development, the developers will do so but only with the provision of better tax incentives. Corporations like the Oakland A's and Disneyland threaten to pull out of an area altogether if their taxes are not reduced (Schrag, 1999). As social geographer, David Harvey put it, "The National Football League – deserving welfare clients – calculates that \$3.8 billion of largely public money will be poured into new NFL stadiums between 1992 and 2002" (Harvey, 2000, p.141). Harvey calls this, 'Feeding the downtown monster,' the private-public relationship that means the public takes the risks and the private takes the profit, and "the citizenry waits for the benefits that never materialize" (Harvey, 2000, p.141).

In addition to commercial development, residential development is also an important factor to consider. Suburban growth is seen as more beneficial than urban renewal or inner-city development as it can produce a far greater amount of market rate homes at a potentially lower cost to the city. These sorts of developments pay for and fund new schools, hospitals and police enforcement. The result is municipal favoritism towards developers that create local infrastructure rather than raising taxes to provide the optimum services for the local population. This system does not work: the older the suburb becomes, the less the jurisdiction's capped tax revenues will keep pace with inflation, the less valuable (or desirable) the property will become, the more people with lower incomes will move in, the greater the perceived need for police supervision and the less the municipality will be able to provide for it. This is proven by the fact that by the 1990s, 44 percent of Californians were paying taxes at 1978 levels, representing only 25 percent of total property tax revenues (Schrag, 1999). The Center for Budget and Policy Priorities has shown that since the 1980s, the value of California's basic infrastructure has fallen 18 percent (Schrag, 1999, p.120). In fact, this socio-economic distortion is so evident that in 1987, while

California's infrastructure, including libraries, schools, and highways crumbled, Governor Deukmajian refunded \$1.2 billion to taxpayers. The governor refunded the tax dollars to Californians as a symbol of a strengthened economy (Lindsey, 1987; Schrag, 1999).

The indirect result of this policy was increased city-city and city-county competition for tax revenues. Competition between cities has led to radical, unplanned policies for greater development at whatever cost. If a neighboring city is believed to be taking money away from the local tax base – often in the form of retail stores – the self-victimized city will retaliate by developing (the same) retail stores of its own so that the sales taxes stay within the jurisdiction (Schrag, 1999). Santa Cruz developer, Doug Kaplan, says this causes the “building of shopping centers and superstores with money that should have gone to public schools” (Schrag, 1999, p.180). This is becoming more apparent in the age of longer commutes, where people work great distances from their bedroom communities. Often these commuters will shop where it is most convenient, where more services are provided. In this case, the bedroom community often loses.

While city-city competition is perhaps more overt, city-county competition is potentially more problematic as it affects the management of one single jurisdiction. Contrary to cities, counties predominantly do not want urban growth. They are more inclined to protect the interests of local farmers and ranchers over those of city dwellers (Sokolow, 1993). Competitiveness occurs as a city follows the form of unchecked growth into the urban fringe. As the city grows, it annexes and incorporates land that formerly belonged to the county thereby claiming increasingly limited revenue from county hands. However, some suggest that annexations and incorporations into cities' jurisdictions cannot cover the full extent of services as originally believed, due to the outsourcing of public services to private firms (Schrag, 1999). Nonetheless, the city-county threat still exists. Annexation remains a legitimate danger to a county's ability to function properly. Whereas the city is made up of an array of economic modes of production that help fill its treasury, the county has a far narrower economy. As a result, whereas cities have been able to come up with far more diverse means of raising fees, but counties have consistently struggled to meet their

budgetary obligations (Sokolow, 1993). From 1978 to 1991, county general-purpose revenues fell ten percent while revenue for cities during the same period increased 43 percent. Counties during this same period became more dependent on state aid, expanding from 23 percent to 31 percent (Sokolow, 1993). In the 1990s, financial meltdown became a recurring theme for counties across California. While obligated to pick up whatever and whomever the system did not cover, cash-strapped counties begged the state for help. San Diego County's Board of Supervisors told then Governor Pete Wilson that if they and other counties did not get assistance, they would soon be bankrupt (Schrag, 1993).

Before Proposition 13 was enacted, city-county competition was more manageable. Then, counties had greater protection with policies such as the California Land Conservation Act (CLCA). CLCA provides for binding contracts between landowners and local governments in which land is restricted to agricultural or related uses for a minimum ten-year period in return for use-value assessments (Carman, 1984). However, Carman suggests that CLCA participation has reached its ceiling in participation levels. Although participation began to plateau before 1978, it is believed that prospective participants are discouraged from the CLCA as Proposition 13 has made the earlier tax advantage nearly insignificant as well as making the opportunity cost of contracting land for 10 years much greater (Carman, 1984). Recently, some cities and counties have begun policies of revenue sharing, in which the county allows for select parcels of land to be annexed to the city in return for splitting the revenue gains. For a more detailed account of this process, see Alvin Sokolow's (1993) study of city-county competition in California's Central Valley.

As the facts are presented, the outlook for municipal land-use and finance is bleak. Costs, fees and charges are increasing. Developer's costs are up, as are overheads to be shouldered by the homebuyer. The value of California's infrastructure continues to fall. Service provision is down. Commercial and residential development is up, often in the form of suburban sprawl. This unsustainable land use only increases as opportunity costs of holding onto land grows.

Despite these potentially overwhelming obstacles, there is still

hope. Revisiting the original discussion of Chapman's club theory, we see that there are direct links between the size of a population and the amount of services that will render an optimal level of utility. However, few people recognize the importance of this relationship. Most educated individuals broadly understand the laws of Supply and Demand; few people can say the same for the laws of Population and Service Provision. To understand this concept does not mean to reject growth, but to reject knee-jerk growth. Holding post-Proposition 13 issues constant, the underlying problem with land-use decision-making is its distortion as a necessary tool to provide jurisdictional revenue. Development (the fluctuation of population size, not necessarily lateral space) must be seen as a necessary process in constant shift with service provision - always striving towards optimization and equilibrium. Land-use decision-making, therefore, is a double-edged sword. On one hand, if carefully and expertly done it can bring about more equitable, safer, healthier communities, like those in the Central Valley. On the other hand, careless, shortsighted solutions, which occur far too often, can create unhealthy, unjust, and inequitable places to live. Understanding the difference between how short-term and long-term solutions are made makes the difference in maximizing the benefits of finance and public service provision in space and time.



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Postcard from Shanghai

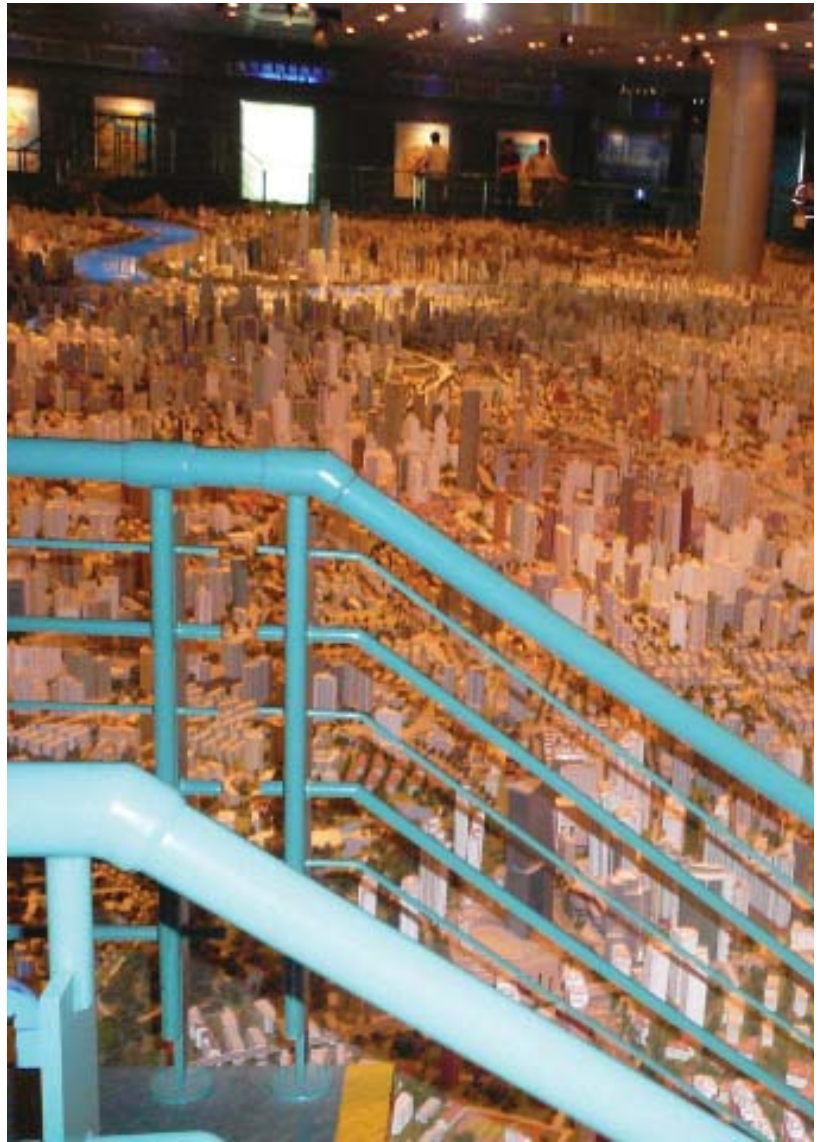
Richard Legates

Combine Paris and Las Vegas, add a floating population of construction workers and street vendors five times the population of San Francisco, shake well, pour into the confluence of the Yangtze River and the sea (the “head of the dragon”) and you have a pale approximation of Shanghai today. Neon lights zip up buildings taller than the Transamerica pyramid. Masses of people on the streets below mix cement, hawk watches, and tend plastic basins of fresh crabs, eels, shrimp, and sea cucumbers. French cuisine can be had for \$ 100 or excellent Chinese dinners for \$ 1. Some condo prices top \$ 15 million while students share flats for a fraction of San Francisco rents.

How do you plan an Asian megacity like Shanghai? The Department of Urban Planning at Tongji University where I have just finished lecturing for two weeks is working hard on the answers. When it re-opened in 1978 after the cultural revolution, Tongji’s Department of Urban Planning was the only urban planning program in

China. The first class—20 students—and their successors helped transform cities, urban planning, and urban planning education in China. There are now more university urban planning programs in China than in the United States and more practicing urban planners in China than in the United States and the European Union combined. Chinese students study for five years to get a degree in urban planning. They have strong engineering and architectural skills as well as planning skills. Only top students in China attend college and the best of these are admitted to the best universities in Beijing, Shanghai, and other big cities. The students I taught at Tongji are smart and motivated. They start studying English in middle school, so they have excellent English language skills.

Many of the Tongji students' values are very similar to San Francisco State Urban Studies students' values. They are interested in globalization, sustainable urban development, green architecture, transit-oriented development, regionalism, GIS and spatial analysis, and environmental justice. They value interdisciplinary approaches to urban studies and planning. They are familiar with American and European writers and concepts as well as Chinese material. They read *The City Reader*!



Shanghai students are proud of China's phenomenal economic transformation and the re-emergence of Shanghai as a sophisticated global city. They know that China faces tremendous challenges as millions continue to stream from the countryside into the cities. Urban problems that the U.S. has experienced are all magnified here:



terrible air and water pollution, urban sprawl into scarce prime farmland, traffic congestion, inequality between rich and poor. Will American solutions to urban problems work here? Should there be top-down Soviet-style planning, free-market planning, or a what? Faculty and students I met here think American city densities are too low, sprawl too great, reliance on the auto excessive. They like the ideas of new urbanism and smart growth, but struggle to apply them to the Chinese context.

European Jesuits shocked the 16th century Ming Emperors by convincing them that Beijing was not the center of the universe. As more S.F. State graduates interact with their Chinese counterparts they may realize that creative thinking

about cities and how to plan them is no longer centered in the United States and England. We will have much to learn from our Chinese colleagues in the future.

WIT-TOO

SARAH MARSHALL
PERSEPOLIS
THE BANDS VISIT

Motion Picture Houses:
A Restless Farewell

Pari Prima



I wish my life was a non-stop Hollywood movie show,
A fantasy world of celluloid villains and heroes,
Because celluloid heroes never feel any pain,
And celluloid heroes never really die.

-Ray Davies, The Kinks









TOU WIDE













58 Urban Action





60 Urban Action



~ ~ . 2012

Everybody's a dreamer and everybody's a star,
And everybody's in show biz,
It doesn't matter who you are.
Celluloid heroes never feel any pain-
Celluloid heroes never really die.

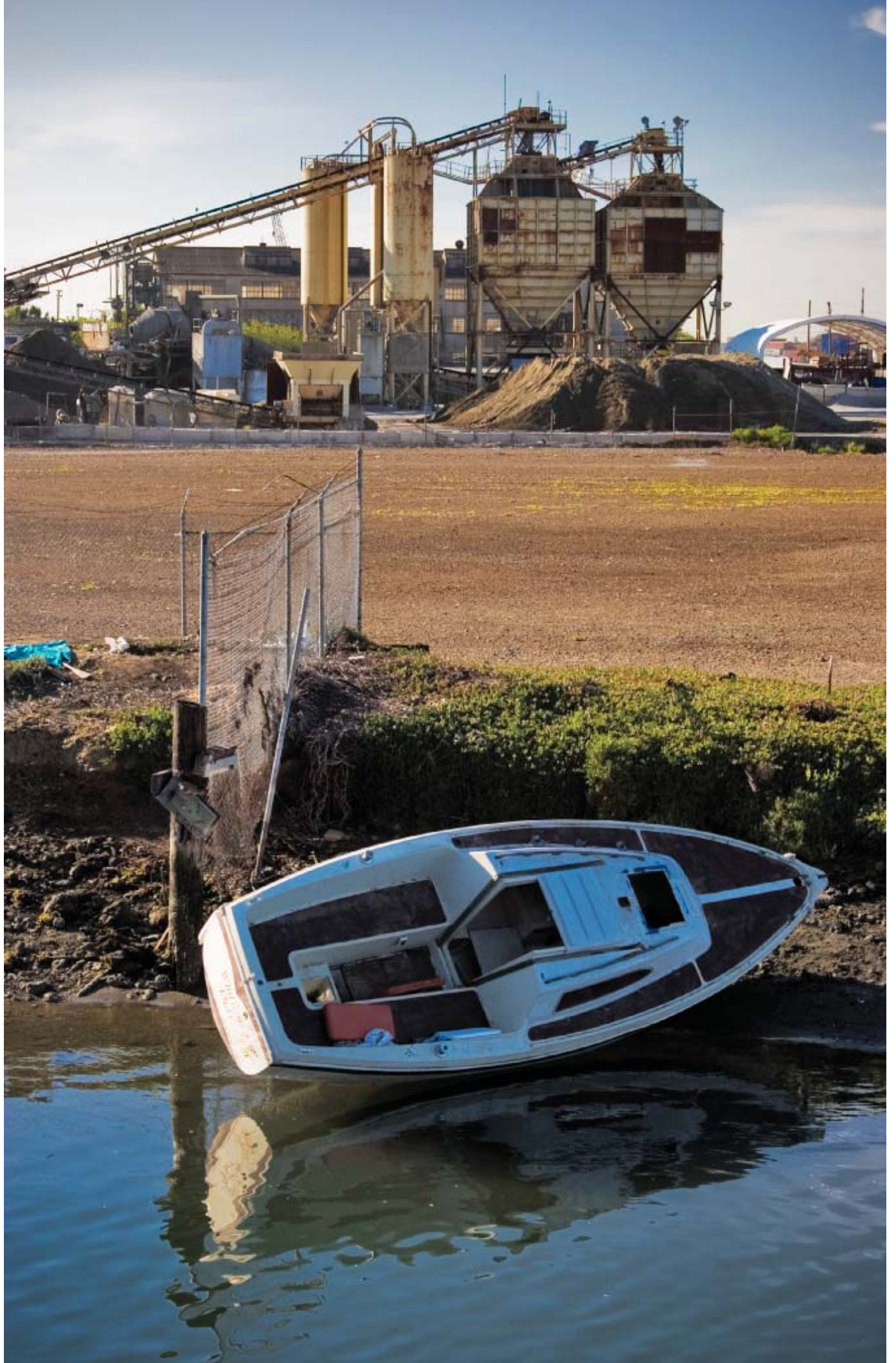
-Ray Davies, The Kinks



Aperture of Strange

Mako Matsuda

Every time this man says
“Abracadaver”
In a puff of smoke the carcass
Of a rodent appears in his outstretched hands
Poof, there it is!
I look of course from a safe distance
At his magic or majesty or
His way of just saying
“I’m trying to make money, but this is all I end up with”
In this carnival
On this city sidewalk
A trail of dead things to step over
Or skip over, or even better yet,
Grand jeté, a ballerina jump, over!
Oh well. Here look
A pile of soiled clothes
Locates where a man disappeared
And never again reappeared
Funny right?
The lunacy of it all is quite daunting
To answer for, or with, as if we are all
Harboring traveling flea circuses
Nevertheless
And then
Under the light post
The most ominous phenomenon
It does so much
Destroys me even
A payphone rings implacably
Again and again
Over and over
Who the hell is calling at this hour?



Redevelopment in Oakland: Oak to Ninth Project

Lena Mik

The Oak to Ninth project encompasses about 64 acres of waterfront property. The site is located between Jack London Square and San Antonio District on the Oakland Estuary in the city of Oakland. It is bounded by Embarcadero, Fallon Street and Tenth Avenue; southwest of it is Coast Guard Island and Alameda Island. Oak to Ninth is a mixed-use redevelopment project that consists of 3,100 units of market-rate and affordable housing including a variety of townhouses, condominiums, apartments, studios, and work-lofts. These units would be available both for rent and for sale. 200,000 square feet will be dedicated to retail and commercial space serving both residents and visitors. Also included in the project are two marinas, in which 200 marina slips would be available for monthly and daily rentals. A portion of the Ninth Avenue Terminal building will be renovated in order to build a

Maritime Museum and community center. And finally, there will be 30 acres dedicated to open space (EPP, 2006, p.1-18).

Since the project was first proposed in 2001, it has stirred numerous debates. Although many of the debates focused on environmental impacts, historic preservation, and density, the biggest concern has centered on the proposed 3,100 residential units, principally because of their magnitude. Should this project be completed, it will be the single biggest housing development project in Oakland since the post-WWII boom (Zamora & Johnson, November 30, 2005). Agencies supporting the project include: Oakland Harbor Partners, which is the developer for the project; the City of Oakland, which is the lead agency; and the Port of Oakland, which owns the land after having consolidated parcels from various landowners.

The project was inspired by community effort to connect the waterfront, an area once heavily industrialized due to commercial activities at the port, with the rest of the community. The Oakland Estuary Policy Plan (EPP) developed in 1999, six years before the Oak to Ninth project was proposed, expresses the community's collective, long-time concern over the isolation of the Oakland waterfront. The policy has inspired two other projects in Oakland as well: Jack London and San Antonio/Fruitvale. These projects also stress the importance of connecting the waterfront to the rest of Oakland (EPP, 2006, p.1-30).

History and Topology of the Site

The Oak to Ninth site has had a history of development running over a hundred years. As one of Oakland's most urbanized locations and most economically prosperous areas, the estuary, on which the Oak to Ninth site is located, has remained a significant symbol of Oakland's birth as a competitive economic center. Much of this prosperity was due to its convenient position as a nexus for the Bay Area, as shown in Figure 1. The Oakland shoreline extends 19 miles from San Leandro Bay to the Bay Bridge and lies prominently between Oakland International Airport at its southern end and the Port of Oakland's marine terminals at its northern end. The five and

a half mile estuary shoreline stretches between these two terminals. Flanked by Jack London Square to the north and San Antonio District to the south, the Oak to Ninth site extends into this estuary along its waterfront. Unlike other bodies of water in the Bay Area, which tend to be wider and broader in size, the estuary looks more like a river dividing Alameda and Oakland. Finally, because of these narrow proportions, its waterfront offers an ideal locale for human-



Figure 1: Planning Area (Source: EPP, 2006, p.7).

scale activity to occur and for visitors to view the San Francisco and Oakland skylines (EPP, 2006, p.3-5).

In addition to its convenient location, the estuary is a significant part of Oakland because it endures as a remnant of Oakland’s early history. Initial settlements of the city began here, at the “transshipment point where water-borne goods were off-loaded and transferred to transport and land networks” (EPP, 2006, p.11), and most of the city’s developments were fueled by the Port of Oakland’s extensive rail connections, which played a crucial role in making Oakland one of the largest container ports on the West Coast. Together with the airport as one the fastest growing air passenger and cargo facilities in the United States, the Port of Oakland, because of its central location within the Bay Area, provided more than 20,000 jobs to the region. Many of these jobs, however, were in heavy industrial work; this made it difficult not only for residential developments to occur alongside, but also for people to access the waterfront. Although the area had very little open space and vegetative areas, the waterfront was one of the most thriving places in the city. Indeed, the estuary holds a distinction

as both “birthplace and birthright” of the modern City of Oakland and as its national transportation hub (EPP, 2005, p.11-12). Modern Oakland, as we now know it, grew as a result of prosperity from these waterfront activities.

Further improvements continued. In the early 1900s the City attempted to improve the area by incorporating municipal docks, quays, wharves and beltline railways into the waterfront. Then, in 1920, the City acquired land for a commercial airport. Shortly after this boon, the San Francisco-Oakland Bay Bridge was completed in 1936, helping increase personal automobile travel across the Bay. Thirteen years later, in 1949, the I-880, a six-lane freeway (at the time called the East Shore Freeway), was constructed through Oakland. Following the post-World War II years, the Port of Oakland shifted its facilities to the Outer Port, extending their activities northwards into the bay and significantly accelerating both its commercial trade and influence. Subsequent growth at the port stimulated commercial developments along nearby inland areas such as San Antonio, Fruitvale and East Oakland. But, while freight and trade became major economic components for developments in Oakland, they also created barriers and fragmentation in local circulation. On top of this, freeway construction through the city during this period and until the 1960s disrupted many middle-class neighborhoods in Oakland and accelerated white flight to the suburbs. Residential construction in Oakland came to a halt. Few developments occurred until the late 1990s (EPP, 2006, p.11-15).

Current Barriers and Deterioration

Even though the waterfront served as the center of commercial activities in Oakland, its trade and port activities created barriers which prohibited access and which still remain today. Barriers to the waterfront included rail yards, rail and BART corridors, and the I-880 Freeway, all of which forced the fragmentation of land parcels, dividing them up incongruently and making it hard for pedestrians, bicyclists, and automobiles to visit the area and make sense of the series of confusing street patterns and lane changes. Other physical barriers such as a major sewer line and the

freeway overhead both physically and visually prohibit continuity between Lake Merritt and the estuary. Because of this limited access and poor visibility, the waterfront has become almost completely isolated from the rest of the city (EPP, 2006, p.14-15).

In addition to these barrier issues, the Oak to Ninth site also faces deterioration. Over the years, some of the rail facilities have aged and little improvements have been made to them. The shorelines need to be reinforced, and the port can no longer use this land for shipping because the estuary is too shallow for modern container ships. While the City of Oakland continues to lack funds to maintain the site, the list of problems goes on: underutilized facilities, contamination of the land, deteriorated shorelines, among others. Responding to all of these concerns, the City has found it imperative to hand the land over to a private developer with the hope that the latter can facilitate a positive solution. That said, the City and the Port of Oakland envision this project as a great opportunity not only to redevelop an area which is plagued by underutilized facilities, but also to revive the waterfront and convert it into a forum for commercial and retail resurgence around the greater waterfront area. Connected to this, the City of Oakland also views the project as an opportunity to bring in business and tax revenues.

General Plan and Zoning

Under the amendment of the Estuary Plan, last updated June 1999, the City of Oakland rezoned the area from Heavy Industrial (M-40) to Planned Waterfront Zoning District (PWD-4), Open Space-Regional Serving Park (OS-RSP), and to the Civic Center/ Design Review Combining Zone (S-2/S-4), in order to allow mixed-use activities to occur. Chapter 17 of the zoning ordinance approved on July 18, 2006, established Oak to Ninth as a mixed-use development. The ordinance goals were: (A) to encourage the creation of a mixed-use district that integrates a combination of residential, commercial, public open space, and civic uses; (B) to establish development standards that allow the features to compatibly co-exist; (C) to provide a balance of private

development and public open space that encourages convenient access to public open space and the waterfront; (D) to improve access to the waterfront by creating recreational opportunities, including boat launches, marinas, and water sports; (E) to encourage quality and variety in building and landscape design, as well as compatibility in use and form; and (F) to encourage development that is respectful of the environment qualities that the site has to offer (EPP, 2006, PWD-4).

To a large degree, these goals reflect those of the Estuary Plan, with main objectives as (A) to enhance connection between the Oakland estuary and nearby facilities, (B) to call for a system of open spaces and shoreline access that provides recreational use opportunities, environment enhancement, interpretive experiences, visual amenities, and significant gathering places; and (C) to recreate a continuous landscaped recreational parkway, accommodating pedestrians and bicycles, as well as transit and vehicular access (EPP, 2006, p.vii- ix.). These two documents work together to act as guidelines for the project.

Oakland Harbor Partners

In the spring of 2001 the Port of Oakland issued a request for qualification. In November 2003, it executed an Option and Purchase Sale Agreement with Oakland Harbor Partners, a company made up of two East Bay-based developers: Signature Properties and Reynold's & Brown, who have worked on several other projects in Oakland and are experienced in converting brownfield properties into new urban areas. Their plan is to transform this former industrial district into a new "vibrant waterfront district" (Roma Design Group). As of now, the project's estimated year of completion is 2014, with the residential units completed between 2007-2010.

The project promotes infill development by reusing and redeveloping existing facilities. The developer plans to renovate the Clinton Basin and 5th Avenue marinas and transform the Embarcadero into a tree-lined boulevard in order to enhance connection between Lake Merritt, the channel, and the estuary. The 3,100 residential units will range from about six to 24 stories

high. Whereas the Developer argues that the project has to be built at such density in order to make up for the cost, residents and citizen groups have countered that such density would create a wall between the city and the estuary, as a result creating disconnection and not connection.

Public Concerns:

The key issues this project faces are: (A) coordination with surrounding communities, (B) accessibility to the public, (C) view corridors, (D) historic resource preservation and (E) design. Throughout the public review process—which included nine small group interviews with 40 local community organizations and two community-wide public meetings—community members expressed their concerns over the possible impacts the project might have, not only on the environment but on the residents and retailers who will be leasing or buying the units there. At the September 28, 2005 meeting, there were 140 different community representatives, many of which included elected officials, government agencies, community organizations and interested residents (DEIR). Although most of the participants embraced the idea of bringing in more housing and more open space, most were displeased with the density of the project, the demolition of the Ninth Avenue Terminal, and the overall design. They believed that the project was not consistent with the Estuary Policy Plan and that the project essentially would turn the waterfront into an area composed of expensive private properties instead of a place the public can access. Members also feared that the proposed parking spaces would not be enough to accommodate the residential and retail units proposed, therefore causing traffic jams or spillovers into nearby neighborhoods.

Since isolation of the waterfront was what first prompted the EPP to be written, the public wanted to make sure that the project would truly connect the waterfront with the rest of the city. But many did not believe that the approved design would accomplish this. The project included buildings ranging from six to twenty-four stories high. This, according to Rev. Scott Denman, a

member of the Oak to Ninth Coalition, is a “dividing wall” between the community and the Oakland waterfront (Rosynsky, March 31, 2005). Activist groups also felt that the project’s transportation design did not include enough street access to the area.



Another agency concerned with the project was the Historic Preservation Group, that especially objected to demolishing the Ninth Avenue Terminal. This building was built between 1925-1930, along with the pier as part of the “City Beautiful Movement, a movement which promoted civic order with careful design and siting of buildings and other civic features” (Perry, 2005, p.5). Historic preservationists believed that demolishing the terminal buildings would denigrate the historical qualities of Oakland city at large.

The issue of affordable housing was also raised as a key concern. Coalition groups felt that the project in the current plan did not include enough affordable housing. Groups wanted at least 25 percent of the project to be set aside for families with incomes less than \$25,000 year (Rosynsky, March 4, 2005). Coalition groups feared that without a high percentage of affordable housing, the project will turn into an area where only rich people live and shop,

and as a result property values will increase, causing gentrification in the Lower San Antonio district, an area which currently accommodates lower income residents. Since, over the past decade, home prices in Oakland have already been rising, there has already been some gentrification in the Fruitvale area, west of Interstate 580 (Zamora & Johnson, November 30, 2005).

Environmental Impact Report (EIR)

Although the Oak to Ninth project reflects Oakland's genuine effort to improve growth around the waterfront, the project is not free of environmental concerns. The Initial Study, completed May 5, 2004, required the project to undergo a full EIR, pointing to possible significant impacts in categories: Aesthetics, Air Quality, Biological Resources, Cultural/Historical Resources, Geological and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Service and Recreation, Transportation and Traffic, and Utilities and Service Systems. A draft EIR was published on September 1, 2005 informing the public of these potential environment impacts. It was then circulated for public review. The Planning Commission, the Parks and Recreation Advisory Commission, and the Landmarks Preservation Advisory Board then each held separate public hearings to obtain public inputs. The Final EIR, which incorporated the public's comments and responses, as well as the mitigations, was finalized in February 2006. In a letter issued by the Sierra Club (included in the EIR), the agency expressed concern over the proposed residential units and their close proximity to the freeways (I-880 and I-980), stating that children living a quarter mile from the freeway increase their risk of becoming asthmatic by 89 percent (EIR VI-50). The EIR response to this issue, however, pointed out that children would be subject to this risk if the project was downwind of the freeways, but the project site is located upwind of the freeways, so this risk would not apply to the residents there.

In total, there were 18 impacts listed, but the developer decided to make no changes to the total units proposed to be built.

The City of Oakland also decided to stick to its original proposals despite the probable effects. Although the EIR raised much public awareness and pointed to imperative environmental problems, in the end, it made little impact in steering the project into a more environmentally conscientious direction.



Technical Memorandum/ Project Costs and Revenues

In an analysis to project final costs and revenues, Economic Planning Systems (EPS) determined the following breakdowns: cost for construction ranges from \$150 per square foot to \$300 per square foot for residential, retail, restaurant, conference, cultural/ educational and recreational space; direct construction for a hotel from \$122 per square foot to \$171 per square foot; and an

additional \$15,750 per parking space within the structure and \$25 per square foot for direct site improvements. There will also be a \$15 to \$50 per square foot cost for tenant improvement for retail/restaurant, conference and cultural/educational/recreational space.

The land acquisition costs for the whole project is \$18 million. This does not include cost for on-site improvements (such as onsite demolition, utilities, roadway improvements and landscaping, etc.), off-site improvements (such as off-site demolition, roadway improvements, etc.), agency fees (includes public works, planning and zoning, building services, etc), marina construction (170 marina slips, dredging Clinton Basin, gangways, and a harbor master's office), Ninth Avenue Terminal Shed retrofit (hard cost and tenant improvements), soft cost (architecture and engineering, permits and fees, legal project management, and finance cost), and the contingency cost, which is an additional 10 to 15 percent of the total construction costs. So in addition to the \$18 million, Signature Properties plans to spend another \$7.8 million to demolish buildings on property, \$11.9 million for off-site cost related to infrastructure, and \$3.1 million to truck in 256,800 cubic of soil to shore. According to the developer, the costs for maintaining the 40 to 42 acres open space and public park is roughly \$22,000 per acre per year or a fixed \$500,000 per year. This includes building security, management, and insurance. These costs will either be paid for by the residents or the City of Oakland.

The EPS projected the following for revenue:

Residential:	\$440,000 for live/work units - 833 sq f.
	\$627,000 flats/lofts/townhomes - 1000 to 1,250 sq f.
Retail:	\$2.00 to \$2.50 per square foot per month (triple net)
Conference Space:	\$1.00 to \$1.50 per square foot per month
Cultural/Educational/ Recreational:	\$1.00 per square foot per month (triple net) and \$1.50 per square foot per month (triple net for Alternative 1B)
Hotels:	\$1.46 per square foot average daily room rate for limited service hotel
	\$1.76 per square foot for full service rooms

Analysis & Suggestions

The waterfront property is one of the largest parcels of public land left in Oakland. Given the above issues, therefore, the public may have reasonable grounds for being so concerned about the handing over of this property to a private developer, particularly when it comes to proposals for private development within the site. Because of the public's disposition and history of the site, the residents hope to preserve access to Oak to Ninth as a space which all can visit and enjoy as a center available to the broader community. In particular, Oakland residents want to retain their right to secure access to the waterfront, and private developments could hinder this. Admittedly, though, in its current state the area is used very infrequently, and access will remain limited as long as the area remains dilapidated and in disrepair. To prevent friction between these two parties, Oakland would benefit from mitigating some of the concerns about access that the community raised at the public hearings, such as the density problem and design issues – in particular those which would block view corridors to the waterfront, as 24-story, private residential units would. The City of Oakland and developers could mitigate these problems by ensuring the public that access will be available through such conduits as bicycle routes and pedestrian ways. Another option is for the developer to reconfigure the layout of the overall site so that private residential units do not block views of the waterfront once it is finally renovated into a desirable area. It is also very possible that once the houses are built, the prices of these waterfront residential units will be too high and thus create an income gap in the area segregating the surrounding populations from the rich neighborhood. The site could easily become a luxury neighborhood, such as some neighborhoods in Laguna Beach in Southern California, for instance, where only upper class private houses populate the waterfront and where the shops and markets nearby are geared towards people with higher incomes, causing outsiders to avoid the area. Since a good portion of Oakland residents near the site (especially San Antonio and Fruitvale) are people of low to middle income brackets, this can culminate into an issue not only of access but gentrification.

Still, for those on both sides there are good reasons for

understanding the Oakland's desire to develop this land. The Oak to Ninth project represents a good example of the City's need to increase its tax base, not to mention its need to redevelop a blighted area and to improve the complexion of the city. Former Mayor Brown said in SF Gate that the key to Oakland's long-term success is to bring in wealthier residents who have extra money to spend, and who will live in the inner city (ibid.). It is true that Oakland has suffered from the loss of tax dollars as a result of white flight since the I-880 Freeway construction. It has, because of this, generated little tax revenue, and has large populations of low-income residents whom the City ends up needing to support with a struggling economy.

Weighing the two sides, on the one hand, Oakland does need growth and tax revenues, but on the other, it is advisable that the City exercises caution about whom it is affecting as a result and at whose broader expense it is building. Connected with this, it is also important in urban planning that cities not create developments that reinforce existing blight patterns in the process of trying to eliminate it. The community's aforementioned concerns over social and physical fragmentations (access, gentrification, environmental and health concerns etc.) present a range of potentialities of this character. Thus, it is crucial that public agencies and community members work together not only to produce and achieve a more unified vision for the project, but also to enhance growth in the interests of Oakland as a whole.

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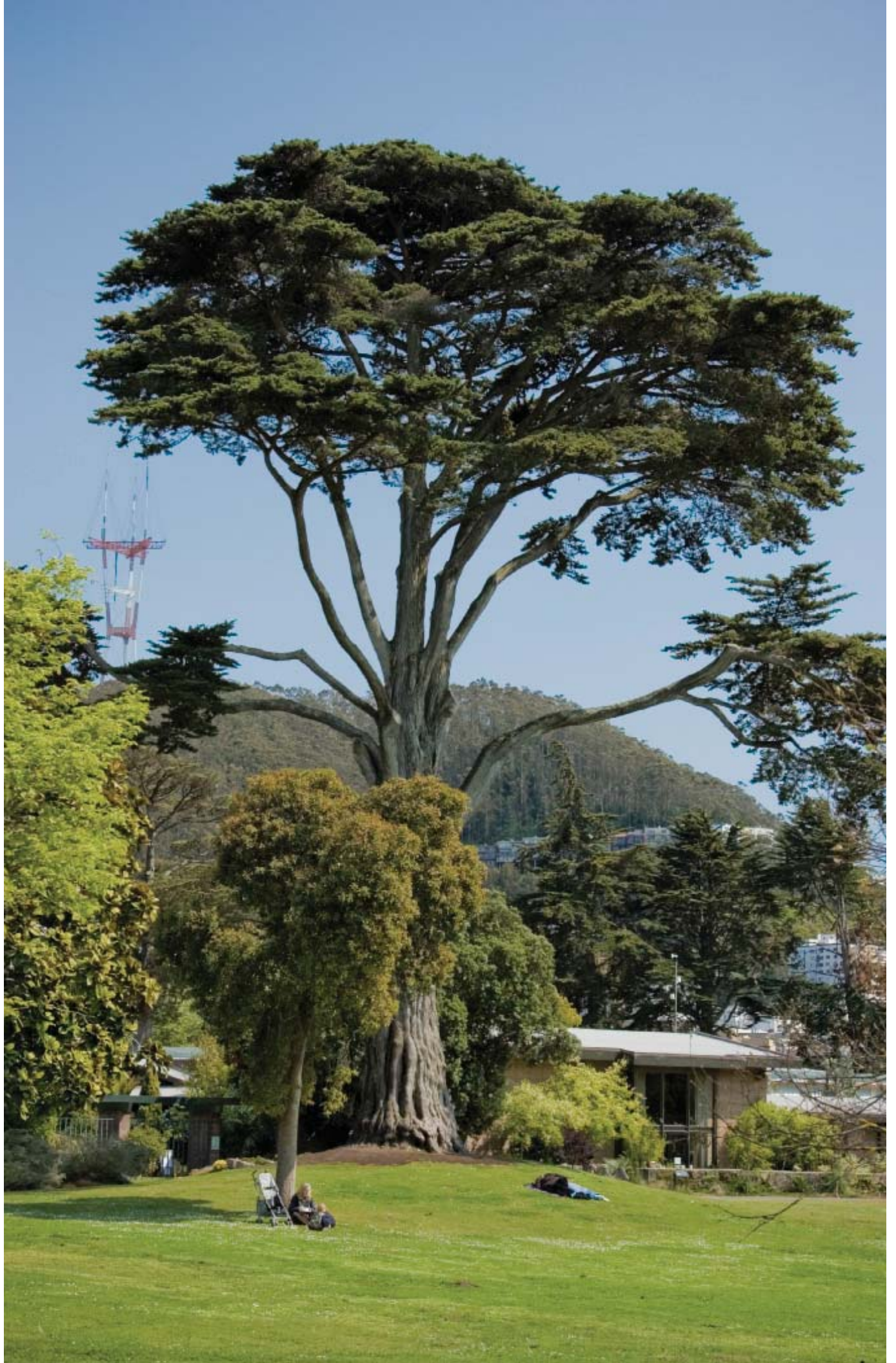
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Cosmopolis of Science: The Strybing Arboretum and Botanical Gardens

Jeffrey Mitchell

~~There, happy in our welcome, we flung ourselves down
On couches of fragrant reeds and fresh cut vine leaves.
Above our heads a grove of elms and poplars
Stirred gently. We could hear the noise the water,
A lively stream running from the cave of the Nymphs.
Sun burnt cicadas, perched in the shadowy thickets,
Kept up their rasping chatter; a distant tree-frog
Muttered harshly as it picked its way among thorns;
Larks and linnets were singing, a dove made moan
And brown bees loitered, flitting about the springs.
The tall air smelt of summer, it smelt of ripeness.
We lay stretched out in plenty, pears at our feet,
Apples at our sides and plum trees reaching down,
Branches pulled earthward by the weight of fruit.
The seal broken from the wine jars was four years old.~~

--The Idylls of Theocritus, 7, The Harvest Festival

During the Hellenistic Age, as the Mediterranean world became more Greek, the Syracusan poet Theocritus (300-260 B.C.) expressed a view of nature as it looked from the urban landscape. This romantic pastoralism reflected an interest in nature not as it occurred naturally, but how it might be most aesthetically pleasing. The Strybing Arboretum and Botanical Gardens, in San Francisco's Golden Gate Park, reflect this romantic pastoralism in providing residents a view of nature at its very finest. For as soon as the city assumed importance in the U.S. as a staging area for the California Gold Rush, the inhabitants of the city "wanted a periodic break from their urban experience," specifically, what older cities of the U.S. eastern seaboard and Europe possessed: city parks. In their earlier pursuit of riches in California, the "American Mediterranean," the residents of San Francisco faced a dilemma. Because primarily eastern fauna were the objects their desire, the green spaces made up of these species withered in the local climate. As city park planners struggled with the problem of climate, they soon encountered a unique solution for their rural representation: combining their desire for green parks with an appreciation for the native environment by cultivating exotic varieties of international plants. Nestled within San Francisco's Golden Gate Park, the Strybing Arboretum and Botanical Gardens (SABG) are the result of this historic combination. By nurturing a series of sections devoted to plants from around the world, the Garden has not only succeeded, it has become a leader in the scientific field of horticulture.

To help organize the vast sources that were collected from the Helen Crocker Russell Library of Horticulture it is important to place the Strybing Arboretum and Botanical Gardens (SABG) into historical context with Golden Gate Park. In a recent book written by Terence Young, entitled, *Building San Francisco's Parks, 1850-1930*, Golden Gate Park is viewed as part of the larger urban parks movement. He goes on to show that the park was influenced by a rationalist theory that views urban parks as sources of public education. This paper takes that view, but goes further in focusing on the science of climate and rigorous plant selections as a greater part of the success of the SABG.

Young describes how the Mediterranean climate of San Francisco initially presented a problem for the creation of Golden Gate

Park. These natural challenges were eventually overcome by the planting of a series of resourceful plans that were suited to the climate. William Hammond Hall, author of Golden Gate Park's first design plan and its inaugural superintendent, set the course for using the region's habitat as a natural medium (Young, 2005, p.75). Initially, Hall recognized that a park in San Francisco would stand out from all others because of nothing other than the "Mediterranean environment" (p.86) Hall's admiration for Frederick Law Olmsted, the creator of Central Park in New York City played a bigger role. Olmsted had also recognized the inherent problem of San Francisco's Mediterranean environment. Thereupon, Hall adapted his own plans to fit Olmsted's conclusion. San Francisco's park required a design that was "sensitive to the local conditions." Thus, Hall created a "pan-Mediterranean" design, where plants from Mediterranean regions were used to make the Park successful. Young points out that ten out of the twenty-four plant species used to reclaim Golden Gate's sand dunes came from the Mediterranean proper, with others from California. Very quickly, as Young describes, "this inexpensive biological approach gave the commission some financial breathing room," while also serving as a source of "valuable public success" (p.87).



The idea for using plants that thrive in conditions similar to the climate of San Francisco was neither innovative nor revolutionary; in the end, the solution was merely practical. Furthermore, the climate allowed for creative landscaping. When Hall used the Medi-

terranean influence, he spoke of a “natural state” that he wanted to leave alone. “‘The art of improving grounds,’ Hall declared...[is] ‘to leave nature as nearly in her normal state as possible’” (Young, 2005, p.82). Yet, early on, somewhere in this thinking about the natural state, a taste for eclectic plants became part of Golden Gate Park. Hall was inspired by Olmsted’s reputation as “an eclectic plants-man,” for Olmsted’s plans for a San Francisco park had mingled native and exotic species. Where else to find enticing plants, but from around the world; for as Olmsted suggested, international plants could be used “in so far as they would suit the situation” (p.55). Even Hall’s successor, Scottish-born gardener by the name of John McClaren, used the natural ambiance to determine his plants selections; and he made his selections by looking internationally. Yet, as McClaren went about segmenting “the romantic landscape... into specialized functions,” he continued a tradition born under Hall’s chief gardener, Frederick William Poppey. According to him, success required “invention, not adaptation” (p.145). Poppey described his selection of plants as an art form grounded in science, and admitted that a landscape gardener had to possess a consciousness that referred “extensively to the natural world” (p.143).

Young’s history of Golden Gate Park does not prove that the selection of plants based upon climate is a radical approach to building a park. However, his book does show that some particularly good ideas have come from environmental adversity. The poetic way that Poppey explained his botanical design-objective describes the visual pleasures of today’s Golden Gate Park. But Poppey’s statement also reveals another influence at work, an impression that has justified the collection of international plants; and it does not imply bowing out to what the environmental medium will permit. This combination of “art and science” has made Golden Gate Park a place for the public to be educated; not only by the natural world, but by the intellectual world within museums, both natural and of the liberal arts. Samples used to determine what kinds of plants would survive, purposely created an aesthetically pleasing experience. By blending the realm of the sublime with the kingdom of science, the environment has become a giant outdoor greenhouse that allows plants from around the world

to be studied by visitors from across the globe.

The Strybing Arboretum and Botanical Gardens (SABG) directly credits its success to its unique climate; specifically the seasonal conditions that allow the Garden to flourish. Scientific reports generated by the Garden favorably describe the area's summer overcast conditions, where the 75 to 95 percent humidity near the ocean and the "frequent drizzle of misty conditions" is beneficial to the Garden (Climate Report, n.d.). This process, called transpiration, permits a favorable eight to ten inches of precipitation, most of which comes from tree drippings. The annual rainfall of the Golden Gate Park, and the time of the year that it occurs, is also viewed favorably. This average, worked on over a 40-year observation period by the SABG, is about 10 percent more than downtown San Francisco. Thus, the combination of humidity and the rainfall place the SABG within a microclimate. This microclimate with warmer sections than in most of the park, allows for the growth of a wide variety of plants that are not frost hardy. In conclusion, these favorable observations about temperatures that drop to 32 degrees but no lower are described as a key work in the success of the Arboretum (SF Dept Park and Rec, 1970).

At this point it needs to be mentioned that the establishment of scientific institutions was another driving force behind the design of the SABG; beginning with the 1929 bequest by Helene Strybing, the wife of a wealthy San Francisco businessman. Helene specifically stipulated that a garden would be in the vicinity of the California Academy of Sciences (Moore, 1941). But she specifically envisioned a garden that possessed "trees, shrubs, and plants indigenous to or characteristic of California" (Moore, 1941). The interest would be for science learning, as all plants were to be labeled distinctly for purposes of information and instruction (Moore, 1941). What makes the Strybing bequest for a garden unique is that it deviated from all previous plans for creating a botanical garden in the park. Elizabeth McClintock, the late expert on the SABG's plantings, points out that Helene's phrase "arboretum and botanical gardens" was a departure from earlier plans that called for the cultivation of "woody plants" (McClintock, 1970). Therefore, the Strybing bequest has been fundamentally formative for the design of the SABG.

Since, there have been significant modifications to her idea, innovations that emphasize geographical sections with plants accustomed to climates similar to that of Coastal California. This idea belongs to two men, John McClaren, the director of Golden Gate Park, and Eric Walther, curator of what was then called Strybing Arboretum. With help from the Federal Works Project Administration ground was broken in 1937, and the Garden was set on its future course of a climatic theme with collections based on geographical principles. At first the unifying force of the environment was used for no other reason than practicality. As Walther explained, the strategy of grouping all plants from the same source helped solve what he called the “water-question” (Walther, 1957). Nevertheless, his use of climate obeyed the Strybing bequest. “[S]pecial groups...and various genera” were considered if they were “suited to the central California area.” Eric Walther understood that the limitations in surrounding land did not have to be avoided; he allowed the natural situations to make the decisions, saying that “the intelligent selection of proper plants... requires both long experience and sound judgment, taking into account all local conditions.” Focusing his energies on using the climate for the benefit of the Garden, Walther scoured the Pacific Coast of California and Mexico looking for new plants. Unsuccessful, he decided that the success of the SABG rested in other native climates. Surprisingly, he sought climatically suited plants that were in progressive European botanical gardens. With San Francisco’s natural conditions in mind, Walther visited more than a dozen botanical gardens in Europe. Impressed by the help that he received from the horticultural staffs, he found what he had been looking for: plants that would survive in San Francisco’s setting (Walther, 1957).

Walther did not know it at the time, but he had set the model for how the SABG would operate: climate would be the overriding factor in how the Garden operated. For upon the retirement of Eric Walther in 1957, an Advisory Committee was faced with replacing him. They realized that they needed an arboretum director with experience and experimentation with plants adaptable to a Mediterranean climate. The SABG, under the advisory-directorship of the Strybing Arboretum Society, continued to follow Walther’s plan using plants

specifically for their “origin, place of nativity and climatic requirements” (McDevitt, 1957). This was done for the reasons of beauty, but it was also done so the observer would have a chance to understand how the plant introductions had been carried out using consideration of soil, sunlight, shade, and moisture. Even today, the Strybing Arboretum Society’s intentions for the collections of plants, educates the public so it will understand that plants from California do best in California’s environment.

The SABG has also broadened its use of the word climate; in the case of the Mediterranean habitat that is used to define California’s milieu, special attention has been given to the global locales that are similar to California. This climatic consciousness goes beyond national boundaries, and it is seen most clearly in the 1983 re-design of the SABG, when the plant collecting committee mentioned an emphasis on the “geographical areas whose climates most closely match our own” (Davies, n.d.). This idea is not only similar to Eric Walther’s original 1937 geographical plan, it is an ingenious expansion of the use of the environment: the natural state has become a shared experience that links California to other parts of the world. Like Walther’s jaunts across the globe, in the pursuit of plants from other nations to grow in San Francisco, so too has the Garden globalized its own backdrop and integrated international plants adjacent to one another for sake of comparison (Walther, 1957).



In the end, this use of environmental consciousness has also been done for scientific knowledge, but that is more evident when the process of selecting plants is explained. In short, the story begins even before the SABG was created. For in many ways in the late 19th Century there was no grand plan for selecting plants. Selections had occurred long before the Garden was created. As Elizabeth McClintock explains, the Twenty-sixth Annual Report in 1897 specified that plantings in Golden Gate Park had already possessed specimens from foreign countries, with many plantings coming from foreign countries with Mediterranean climates, such as “Chile, South Africa... [and] Australia” (McClintock, 1970, p.16-22). In short, the Garden was a consolidation of plants that were already successful in the Park. The fact that many were international plants, brought from places like New Zealand during the 1915 Pan-American Exposition, was a matter of coincidence. If plants from other countries were to be arranged with conscious design, they needed a landscape gardener with an aptitude of “art founded on science” (Park Commission, 1942). It needed someone like Eric Walther, not only to decide which plants would be collected, but how they would be arranged in the Garden.

The science of collection was used in conjunction with plant layouts developed along the way; when it was a mere appendage of the Garden’s goals. In short, scientific inquiry had to take a back seat to a successful introduction of international plants. First and foremost, for this art founded on science, collecting plants depended on practicality. Eric Walther, interviewed in a 1940 edition of the *Journal of Horticultural Society*, said that he brought plants from different climates together to create “labor-saving methods of watering” (Walther, 1957). But even using plants that were climatically similar to California’s climate at that time considered risky. As the 1942 Park Commission admitted, the early plant introductions along geographic lines had been viewed as an experiment, during a “topsy-turvy beginning” when “there was little organized planning.” Yet regardless of the pessimism, the experiment worked. The early Garden was soon praised for its success with nonnative plants, especially the Garden’s ability to nurture “plants and flowers under near-original conditions of soil and climate” (McClintock, 1970, p.16-22). Optimism that

this experiment could be repeated followed Eric Walther through the years; and furthermore, it was an experiment that Walther continued to use to select plants.

Success was no accident; when Eric Walther became the curator of the Garden in 1937, he made trips to Europe searching for nothing less than the perfect plants, and at the same time, noticed that the most noteworthy botanical gardens had chosen plants based upon their own natural environments. He noticed this most when he traveled through the Mediterranean countries, where he was drawn to plants that would survive in California's climate. Believing that the prosperity of the Garden had to do with careful foresight of future planting, he rationalized collecting international plants with another reason: educational purposes. For the same reasons that these European botanical gardens had collected exotic plants, he recommended that the SABG pursue a similar administrative program that encouraged "facilities for study" and "publications and publicity" (Walther, 1957). For the Strybing Arboretum, the guiding principle behind the collection of plants from around the world was not only to provide a place for the learning of plant science, but to establish its "reputation...as a leader in plant introduction" (SABG, 1964).

To see how Eric Walther's plans upon retirement were followed through, the example of his 1957 target goal, the development of the Pan-American Section, proves how his plans came to be a model for the future. For even after he had been retired for ten years, his objective of collecting plants from around the world continued. It became an adventure, according to a letter from collectors writing back to Jock Brydon, a later director of the Strybing Arboretum. But even if it was not looked upon as a great adventure, there still was a greater desire to travel to foreign climates for plants. Collectors who could endure the conditions in South America described the habitat as "affording the rich collecting," of indigenous plants (Paul, 1964). This optimism has changed little over time: the Garden has viewed collecting plants from around the world just as rewarding as it was when Eric Walther first geographically collected plants. As recent as 1989, the SABG created a Collections Policy that once again emphasized the collection of plants from around the world. In the body of the policy letter, Acquisitioning

was to take place in “areas of the world with similar Mediterranean climates.” Plants were soon collected from the Mediterranean-like areas of South Africa, Australia and South America (SABG, 1989).

On the surface, collecting plants from around the world, done to beautify San Francisco’s natural backdrop explains the success of the Garden. But there is a motivation that best describes every rationalization to collect a plant from another part of the world, the primary reason for the creation of the Garden: the pursuit of science. Three years after breaking ground on the Strybing Arboretum in 1937, Eric Walther already looked upon the varieties of 4,000 species that grew in the greater advantages of the local climate. He also looked upon them in a most scientific way, saying that they demonstrated a “valuable lesson to all students of nature, botany, horticulture, and all gardeners” (Walther, 1957). In 1957, on the eve of his retirement, he recalled what he had been doing all these years: traveling extensively to the gardens of Europe and talking with horticultural experts regarding what international plants would be successful in San Francisco’s environmental context. Not only did he learn what plants would be successful, he also learned how European gardens were universally recognized as training grounds for student gardeners (Walther, 1957). This formed the crux of his plans for making the Strybing Arboretum a leader in the scientific field of botany and horticulture; and once again his efforts were not forgotten.

Rather than being an obstacle to the Garden’s success, the climate of the San Francisco Bay Area is a tool for its success, and helps it to serve as a place where plants from far corners of the world can be scientifically studied. The beautiful and scientific achievement of the Strybing Arboretum and Botanical Gardens may also have inspired the cosmopolitan citizenry of the city to see itself as an integral part of a larger world. As Terence Young asks in his book *Building San Francisco’s Park’s*, “If ‘trees and plants indigenous to the soil of many countries’ could go together to be a park, then why not many nationalities work together to be San Francisco?”

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Towards a Collective Future: The Balboa Park Better Neighborhoods Plan

Robin Abad Ocubillo

The Bay Area is facing an affordable housing crisis, and the crisis is most critical in the city of San Francisco. In order to accommodate population growth while protecting open space, the region must densify. The Association of Bay Area Governments (ABAG) has developed a regional Smart Growth Strategy, which strongly suggests locating new development within already developed areas in the form of mixed-use infill. The long-term effect of this policy not only protects open space and agricultural land, but places housing in the city near jobs – reducing commuter volume. The policy also ensures the most efficient use of space on already developed land.

The Balboa Park Neighborhood in San Francisco represents a cluster of underutilized parcels ripe for redevelopment. The neighborhood is already well-served by transit, making it ideal for transit-oriented densification.

The SF Better Neighborhoods Program: Background

The 1990s were a period of great economic advancement for the Bay Area. At this time, some cities such as San Jose developed rapidly, while San Francisco seemed paralyzed by groups opposed to unchecked development (SF Planning Dept, 2002). To balance job growth, housing needs, and quality of life against development forces, the Planning Department initiated the Citywide Action Plan. The Better Neighborhoods Program is a central feature of that Action Plan.

The Better Neighborhoods Program (BNP) was initiated in 1999. The plan identified three critical neighborhoods in need of revitalization and with key opportunities for infill development. The three pilot neighborhoods were: Octavia-Market, the Central Waterfront, and Balboa Park (see Fig. 1).

This program, facilitated by the SF Planning Department, is structured to accommodate a high degree of cooperation between many different stakeholders, especially citizens. In the case of Balboa Park, a major transit node where municipal transit, regional transit, and a freeway coalesce, solutions were developed through a dialogue between local, regional and state authorities.

Citizen participation is a key feature of the BNP, making it unique when compared to most city planning processes around the country. Since its inception in the late nineties, residents and institutions in each pilot neighborhood participated actively in planning workshops. Through these community meetings, city planners identified key problems affecting the local populace, brainstormed solutions, and incorporated suggestions in the Draft Plan for each neighborhood. Through workshops, a set of “Eight Elements of a Good Neighborhood” were established to guide development in each BNP area (see Appendix 1). These “Elements” reflect transit-oriented and Smart Growth principles, especially as laid out by



Fig 1. Better Neighborhood Plan Areas (SF Planning Department, 2005)

ABAG.

The SF Planning Department's progressive approach draws on local and regional input. The inclusive structure of the BNP reflects this. Consequently, very little friction has resulted between a diverse group of authorities, including city government, Muni, BART, CalTrans, and the SF School District. Other entities include local neighborhood and business associations, SF Parks & Recreation, and the Bicycle Coalition. The Balboa Park Plan (BPP) as a whole faces virtually no opposition from any one group, while at the same time being backed by its diverse stakeholders.

Balboa Park: Current Conditions

Many factors made the Balboa Park area ideal for revitalization through the BNP program. A diverse set of public assets comprises the Plan Area, while at the same time the current infrastructure and lack of coherent design make many of these assets difficult to access. Much of the land area is poorly and inefficiently utilized, having been developed around the automobile. Vast parcels, such as the Reservoir and Kragen Auto Parts sites along Ocean Avenue, are left open for parking or sprawling, single-story buildings. An anemic two-story commercial district lines Ocean Avenue. These form the greatest short-term opportunities for infill housing and other mixed-use development.

At the same time, the vicinity is extremely transit rich, hosting half a dozen Muni buses and three light rail lines. The Muni station itself serves as terminus and service yard for the light rail fleet. The adjacent BART station, poorly integrated with its Muni counterpart, is the first northbound stop within the city limits, providing connections from SFO to the Oakland airport. The proximity of underdeveloped parcels in the vicinity of this node provides an excellent opportunity for high-density transit-oriented development.

Interstate 280 bisects this once contiguous streetcar suburb (see Fig. 2). Once a right-of way for the Southern-Pacific Railroad (BART, 2002), the freeway forms a deep gouge that physically and psychologically separates the eastern quadrant from the western quadrants. The destructive nature of large highways on neighborhood

cohesiveness has been well documented (Barnett, 2003). The design and placement of on-ramps and off-ramps in the direct vicinity of the transit station create a dangerous environment for pedestrians and cyclists

Other community facilities include the main campus of San Francisco City College, Lick-Wilmerding High School, and Balboa Park itself. The BPP seeks to link these now-disparate institutions with one another through planning firmly rooted in New Urbanism and Smart Growth.

The Balboa Park Plan vs. San Francisco General Plan

The Balboa Park Plan (BPP) is essentially a group of “Eleven Key Strategies” developed by the SF Planning Department with input from local and regional stakeholders (see Appendix 2). The plan “Strat-



*Fig 1. Balboa Park Plan Area
(SF Planning Department, 2002)*

egies” respond directly to regional Smart Growth principles identified by ABAG.

As a product of the SF Planning Department, the BPP also agrees fully with objectives outlined in the city’s General Plan. It actively addresses in great detail the areas of arts, commerce, community facilities, safety, housing, open space, transportation and urban design.

By aligning itself with regional goals and municipal mandates, the BPP has the best chance of becoming adopted by the city as part of its official development policies. However, some parcels within the plan area would require rezoning in order for the project's full potential to be realized.

San Francisco is proud of its heritage in arts and culture. Balboa Park "Key Strategy 11: Enrich the Plan Area with Public Art" creates opportunities for artists to help shape the built environment. Placing permanent or temporary art in the public realm "promotes a diverse and stimulating cultural environment to enrich the lives of the city's residents, visitors, and employees" (SF Planning Dept, 2002, p.91). In Los Angeles, Providence, Rhode Island, and Miami, Florida, public art installations have played an invaluable role in neighborhood revitalization (SF Planning Dept, 2002, p.93-6; Barnett, p.240). In San Francisco at present, evocative sculptures two stories high adorn the Hayes Green and Civic Center Plaza. Artists have designed Muni light rail stops at San Francisco State University and King Streets. For an artist to design the new Balboa Park station is an exciting possibility. City College, as part of its Master Plan, will construct a new performing arts center on the edge of its campus behind the Phelan Loop. The historic Geneva Office Building, undergoing restoration by the nonprofit Friends of the Geneva Office Building, is slated to become an arts and/or youth center (SF Planning Dept, 2002).

Ocean Avenue forms the principal thoroughway for the entire plan area, and hosts the majority of businesses. At present, this commercial district provides only some services required by residents and commuters. "Walk to Shops" is the first BNP "Element of a Good Neighborhood," and cites that "a great neighborhood has stores and shops that satisfy everyday needs within an easy walk from home" (SF Planning Dept, 2002, p.24). "Key Strategy 7: Revitalize the Ocean Avenue Commercial District" calls explicitly for a grocery and hardware store. To enliven the commercial district and its functions, Strategy 7 also suggests replacing the one- and two-story storefronts with four-story mixed-use development. This addresses the second Smart Growth element – "Infill Development" – directly. The Strat-

egy also responds to the first and third Smart Growth elements indirectly by concentrating development in a transit-rich neighborhood, and increasing the number of center-city dwellings thus reducing the net amount of regional sprawl.

In order to implement the Ocean Avenue revitalization efforts, the SF Zoning Ordinance must be changed. Most of the NC-2 district (“Neighborhood Commercial District, Small-Scale 2 Story”) would have to be rezoned, probably as an RC-3 or RC-4 (“Residential-Commercial Combined District”) (SF Zoning Ordinance, 2005). The parking requirement might also receive adjustment, discussed later in the section

Enhancement of community facilities, safety, and open space are addressed by several Balboa Park Key Strategies, most notably: de-



Fig 3. Current Zoning within the Plan Area (SF Planning Dept., 2005)

sign streets for people; create a system of parks, plazas and open space; integrate City College into the community; and protect and enhance the surrounding neighborhoods.

At present, Balboa Park itself is cut off from the surrounding neighborhood by the freeway, and hemmed in by the busy Ocean and San Jose Avenues. In his book *Redesigning Cities* (2003), Jonathan Barnett emphasizes the importance of making public spaces legible. Improvements along the park’s perimeter, including redesigned entrances, will make the park a more visible and prominent feature of the neighborhood. Other facilities’ improvements include access to

City College, the addition of a branch library, and arts center at the Geneva Office Building.

The BPP contains highly detailed Urban Design Guidelines, for use on new mixed-use infill development and improvements on existing built elements. Modification of key intersections, especially those with freeway access, will vastly improve pedestrian and bicycle safety. Other policies attempt to control curb cuts through parcel maximums or exactions.

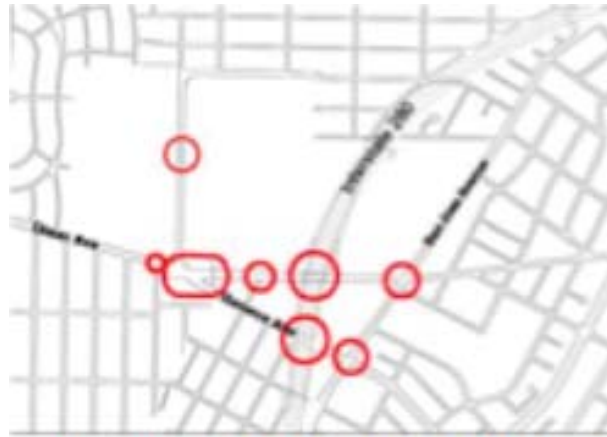


Fig 4. Major Pedestrian Improvements at Intersecti
(SF Planning Department, 20

Housing provision forms a major component of the BNP Plans, as evidenced by the “Housing Choices” element. “Key Strategy 3: Encourage New Mixed-Use Infill Development, Emphasizing Housing” speaks directly to ABAG Smart Growth guidelines and the city’s housing dilemma. Housing development is proposed throughout the plan area, and can contribute up to 2,600 units towards the city’s 20-year goal of 30,000 new units

Planning Process and Program Finance

Table 1-59
Estimated Housing Potential With Proposed Re-Zoning of Select Neighborhoods

Area	Under Current Zoning			With Proposed Re-Zoning*	
	Undeveloped	Soft Sites	Total Estimate	Total New Estimate	Additional Potential Units with Re-zoning
Better Neighborhoods Program					
Balboa Park	276	210	486	900 to 3,150	314 to 2,664
Central Waterfront	317	367	684	1,100 to 1,500	416 to 816
Market & Octavia	1,470	575	2,045	7,500 to 13,000	5,455 to 10,955
Sub-Total	4,515	1,152	3,215	9,400 to 17,650	6,185 to 14,435
Eastern Neighborhoods Community Planning Area					
South of Market	1,112	266	1,378	6,000 to 11,400	4,622 to 10,022
Mission	961	128	1,089	4,600 to 6,600	3,511 to 5,511
Potrero / Showplace Square	321	25	346	3,800 to 6,900	3,454 to 6,554
South Bayshore	1,731	296	2,027	1,800 to 3,600	- 227 to 1,573
Visitacion Valley	390	183	573	1,313	740**
Sub-Total	4,515	898	5,413	17,513 to 29,813	12,100 to 24,400
TOTALS	9,030	2,050	8,628	26,913 to 47,463	18,285 to 38,835

* Re-zoning proposals include a range of scenarios.
** Re-zoning of the Schlage Lock site.

(Table 1. Estimated Housing Potential with proposed Re-Zoning
(Housing Element, SF General Plan, 2005)

The planning process for the Balboa Park neighborhood began in 1999 and is still in its final stages. After three years of public dialogue and careful documentation, the Balboa Park Public Review Draft Plan was published in 2002. The next stage, Environmental Review, began more than two years later in the spring of 2005.

The delay over funding the Balboa Park Environmental Impact Report (EIR) has frustrated many residents, developers, and planners alike. When queried, Judson True of Supervisor Sandoval's Office (District 11) cited issues of "geographical equity," suggesting that since Balboa Park is more on the outskirts of the city ("...it's not Octavia Boulevard") that city government is less inclined to push development rapidly (True, 2005). However, upon further study of the issue, this theory seems to oversimplify a complex set of circumstances. The Balboa Park plan area is somewhat larger than the Octavia-Market plan, increasing the expenses associated with environmental review on this scale. Whereas Octavia-Market already had a strong mixed-use character, Balboa Park is newly introducing this building type on an expanded scale, enlarging the potential impacts and therefore depth of environmental review. Also, the plan was developed by the city for an area encompassing parcels owned by a variety of entities, thus the burden and expense of a Program Environmental Review at this stage falls on the city and not private developers. Funding a review of this magnitude must require careful allocation, and may provide insight as to why the city only recently accommodated it in the 2004-2005 budget.

After the EIR is published in January 2006, and public scoping meetings held that spring, the plan should be adopted by the Planning Commission and approved by the Board of Supervisors (SF Planning Dept, 2005). After integration into the city's General Plan, implementation and construction could occur over the next twenty, or even forty, years.

It should be noted that other agencies involved with the BPP area are conducting their own planning and implementation processes alongside the SF Planning Department. In 2002, BART released its own plan for the Balboa Park station. From reading this plan, it is

evident that it developed in parallel with the BNP process: both planning documents cite the same goals and solutions. City College is also undergoing a Master Planning process while in close communication with BNP officers.

While the planning process was facilitated by the SF Planning Department, the various projects within the BPP will themselves be funded by different groups. BART and Muni station remodeling, estimated at over \$50 million (BART, 2002), will be paid for by their respective agencies. SF Public Works has provenance over streetscape improvements and the addition of public plazas. SF Arts Commission will grant artists the needed resources for creating public art pieces. Parcel landowners and private developers will manage the costs of demolishing and constructing new mixed-use buildings. According to Ken Rich of the SF Planning Department at a Balboa Park community meeting, the freeway decking project will receive state funding through CalTans, and possibly federal money as well (Rich, 9 November 2005).

Environmental Impact Report and Mitigations

A revitalization program of this magnitude, with its many objectives and corresponding construction activities, can have manifold impacts. Since the plan area is situated within the city and has long since been developed, concerns with habitat and species preservation are somewhat moot. Some projects within the program area are statutorily exempt from environmental review, notably progressive improvements and eventual remodeling of the BART/Muni station. The review will surely identify the Geneva Office Building as a historic building (as it has already been identified by the BNP-BPP) and prioritize it for protection while deeming it categorically exempt from review. Other categorical exemptions include small (less than 5 acre) infill sites scattered throughout.

Since the plan area sits on a major transit node and contains segments of several major cross-city auto corridors, circulation analyses will likely form a considerable portion of the review. Ocean Avenue performs many circulatory functions, running east-west through the commercial district and touching City College, the intermodal

station, Balboa Park, and the freeway. It hosts automobiles, light rail, buses, bicycles and pedestrians.

To prevent congestion along this arterial from becoming worse, the BPP outlines very careful development policies that minimize auto use and corresponding parking requirements while encouraging pedestrian mobility. The major feature in these policies is the mixed-use element coupled with a parking requirement reduction. This model is based on the documented successes of transit-oriented neighborhoods in western Europe and other cities such as Portland, Oregon, where residents with immediate access to public transit are less likely to own automobiles. In concert with the mixed-use component, a reduction in the parking requirement is suggested to attract and encourage renters without cars: lowering the parking space per unit from 1:1 to 1:2 or less. This ratio change thus allocates available space from auto storage to housing:

“Increased density starts to create sites that can be served by rapid transit. If a new rapid transit line allows a building owner with at-grade parking to reduce the parking ratio, the land made available is effectively free. Any development is made more feasible by free land” (Barnett, 2003, p.55).

Each Strategy of the BPP, from “Infill Housing” to “Protect the Surrounding Neighborhoods,” contains thoughtful measures for mitigating circulatory problems. The purpose of many mitigation measures is to assuage residents’ concerns over parking. The high density development slated for Ocean Avenue is perceived as a threat to the availability of free street parking in the surrounding neighborhoods. The residents also fear more traffic in their neighborhoods: “...a study of streets in San Francisco neighborhoods by Don Appleyard demonstrated that... keeping through traffic off local streets within neighborhoods is a big issue in local politics” (Barnett, p.108).

To help maintain parking equilibrium, three major mitigations have been offered. The first involves the introduction of parking meters along and surrounding the Ocean Avenue commercial district. This would work in tangent with the second measure, which would revise the residential neighborhoods’ parking permits, granting only those residents with street parking rights. The third measure

would force mixed-use developers to provide off-street parking for merchants as well, probably in the form of below-grade structures (SF Planning Dept, 2005). Mitigation of through-traffic in surrounding neighborhoods is offered in the form of traffic-calming street elements, such as bulb-outs, tighter corner radii, and roundabouts.

Mobility and Transit

The current circumstances regarding the area's highly inhospitable pedestrian environment were mentioned briefly earlier. A more detailed description of extant problems, and the proposed solutions, will be given here.

The Balboa Park station is the busiest node in the entire BART network (besides downtown SF), handling over 22,000 commuters each day (BART, 2002). Unfortunately, this ridership is severely underserved by the facilities and infrastructure in and around the station. Its layout is haphazard and confusing for riders. Transfers between BART, Muni streetcars, and buses are convoluted and spread vertically over several different levels. The street-level bus stop often surpasses capacity during rush hour, serving more people and vehicles than is physically safe (see Figs. 6 and 7). This forces buses to double-park along the station entrance, and for commuters to filter through waiting vehicles when boarding and disembarking. The most dangerous area for pedestrians and cyclists is at the station's southwest corner, where yards away from the bus stop and main station entrance, an intersection handles high-speed autos entering and exiting the freeway.

The BPP responds to these access and safety issues with an ambitious proposal. Drawing on similar solutions implemented by Boston, Seattle, and Cincinnati (SF Planning Dept, 2002), the BPP calls for a decking-over of the sunken freeway at street level (see Fig. 8). This project's positive impacts are manifold. Firstly, it would integrate and centralize each transit line through one cohesive station redesign, facilitating easier transfers for commuters. The street-level bus stop would expand into a plaza that accommodates passengers safely.

The physical and psychological barriers associated with a

sunken freeway were mentioned earlier; the freeway deck eliminates this barrier and allows for better pedestrian mobility between the eastern and western quadrants of the plan area. The deck would effectively reclaim the spatial continuity of the area, and increase the public realm in the form of interlinked transit plazas. These plazas could also increase the station's overall capacity by hosting taxi "kiss-and-ride" and other drop-off zones.



*Fig 6. Double-Parked Buses
Photo by Tony Louey*



*Fig 7. Double-Parked Buses
Photo by Tony Louey*

The freeway-deck plan reconfigures freeway on- and off-ramps into a "Single-Point Urban Interchange." This reduces overall land area used by roadway, freeing part of the old ramps' right-of-way for infill development. This also allows for better management of surface-to-freeway circulation, especially traffic calming in the immediate vicinity of ramps.

In the BPP "Key Strategy 1: Design Streets for People," and "2: Create a System of Parks, Plazas, and Open Space," the streetscape modifications are outlined with exacting thoughtfulness and detail. Policies include: "Use widened sidewalks and boldly marked crosswalks at intersections on major streets to make the pedestrian crossings shorter and thereby safer," "Design safe and active spaces," and "Pay attention to transit waiting areas" (SF Planning Dept 2002, p.33 – 46).

Directives under those policies closely mirror Jonathan Barnett's suggestions for comfortable pedestrian environments, such as "make seating available," "provide good lighting," and the elimination of long blank walls and skyways (p.231 – 238).

Another Policy of Key Strategy 1 states: "Improve bicycle con-

nections and safety throughout the plan area” (SF Planning Dept 2002, p.34). This measure seems especially salient in light of the high percentage of multi-modal commuters accessing the area, and was no doubt informed by the participation of the San Francisco Bicycle Coalition since the first stages of planning.

Social Dimensions

The myriad of improvements suggested by the BPP will benefit the local community in many ways, in terms of physical cohesiveness and identity, local services, transit access, and safety. The freeway deck has already been discussed from a construction standpoint; its social and psychological effects are also important. It would effectively reunify, both physically and psychologically, a suburb once closely knit by a single railway.

However some aspects of the planning process, and the potential outcomes, raise questions around social and economic justice. While the BNP should be applauded for its dedication to community dialogue (and the high degree of cooperation it encouraged between various authorities) it is unclear if all segments of the community



Fig 8. Freeway Deck with improvement to transit station, reconfigured on/off ramps,

were involved in the creation of the BPP itself.

At the community meeting held at Lick-Wilmerding High School on 9 November 2005, the attendees seemed relatively homogenous. For example it was evident that most residents in attendance

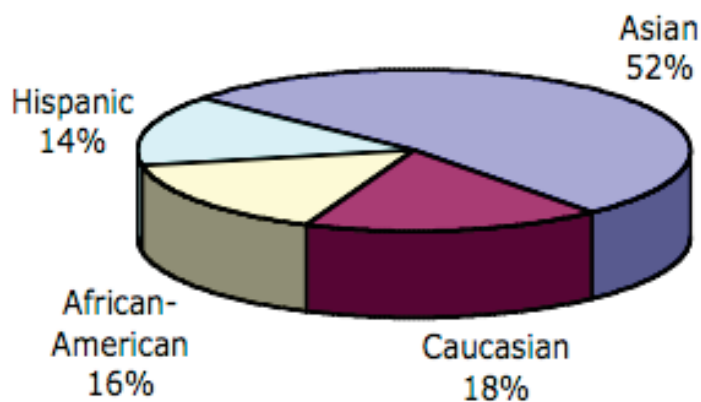


were highly educated, middle-aged homeowners whose first language is English. The concerns of renters and college-age students was vastly underrepresented. In strict terms of ethnicity, about four out of five participants were Caucasian. This is somewhat disturbing considering resident Asians in District 11 represent about 52 percent of the population. The African-American and Latino populations are somewhat comparable to the Caucasian.

A majority of attendees at the community meeting were veterans of the BPP process, evidenced by their collective familiarity with every aspect of the plan down to the last detail. I was amazed that Ken

Rich, Josh Switzer, and Amit Ghosh, staff from the SF Planning Dept who facilitated this meeting and all the preceding ones, knew almost everyone's names, jobs, and children. If the demographics of BPP participants are extrapolated from this one meeting, it is clear that a vast number of people – and indeed communities within the community – did not contribute to the formulation of the plan.

Why is there such a gaping disparity between the demographic makeup of the planning forum and the community it is meant to represent? Perhaps the facilitators did not conduct the type of outreach necessary to reach more marginalized citizens. However it seems unlikely that any project managed by San Francisco would not provide literature in multiple languages. Or maybe a multi-lingual marketing



*Fig. 10. Ethnic Constituents of District II
(SF Demographics Report 2003)*

program was implemented, but less aggressively than in English. If the SF Planning Department is choosing to lead the country with a commitment to community-based planning practices, does its staff have the cultural competency to conduct those processes in a truly equitable fashion?

Of course it's possible that many residents who were canvassed simply chose not to participate in planning discussions, even

if language support tools (such as multi-lingual literature, translators, or even planning sessions in a specific language) were offered. Perhaps cultural differences in process and dialogue inclined certain folks to weigh in while others chose not to speak. This idea fits within dynamics of selective affinity.

With regard to the housing crisis, the BNP is at the forefront of progressive, New Urbanist practice; and its responsibility to ABAG and the SF General Plan's housing mandates have already been explored. What mechanisms, besides city quotas, are in place to ensure that the housing is really affordable and will remain as such? "The Center for Housing Policy still estimates that one out of every seven American families has a critical housing need, some 13.7 million families. This crisis is primarily about affordability" (Barnett, p.67). Are the city's "affordable" housing thresholds truly representative, and will rent control measures prevent the exile of lower-class residents? The gentrifying effects of redevelopment and revitalization are well documented. Will existing renters, including small business owners along Ocean Avenue, get pushed out of the area once the development race and skyrocketing property rights are underway?

The participating residents repeatedly expressed alarm at the term "affordable housing" during the meeting mentioned above. This tendency to voice discontent with development using the bold statement, 'not in my back yard,' or NIMBYism, is prevalent in many communities. Jonathan Barnett observes that "...an egalitarian neighborhood is necessary to implement the concepts of de-concentration of poverty and environmental justice... An egalitarian neighborhood requires a full range of housing types within the walk-able area" (104). If for some reason the parking ratio remains at 1:1, adding to development costs per unit, a diversity of housing options will be more difficult to enforce. Will the neighborhood eventually become as homogenous as the attendees of November's community meeting?

Conclusion

The Better Neighborhoods Program is a unique and inspirational feature in the landscape of American urban planning. While on paper its directives are meant to guide physical development, in

essence it leads neighborhoods into a journey of collective discovery, problem-solving, visioning and ultimately, a type of local social development that is self-directed and self-enforcing. It earnestly incorporates the most progressive and current tenets of planning, from Smart Growth and New Urbanism to community partnerships and regional cooperation. Its community-based format allows for public education, which is perhaps one of the most important outcomes of the process. I found the City Planners to be consummate professionals, well versed in current urban planning theory and experts working in their field, with a hopeful vision and excellent people skills. The high degree of enthusiasm and involvement of residents is energizing and infectious. The Better Neighborhoods Program is not perfect, and its physical and social manifestations will require careful control and monitoring to ensure that the intended effects are indeed realized. As a San Franciscan living during the program's early years, I am very excited to participate in the process, and look forward to experiencing the positive change in our city's neighborhoods in the coming years.



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Adding Geary to the Rapid Transit Network

Max McCumber
Randy Chen
Michelle Wong
Luis Rodriguez

Stretching from downtown out to the Pacific Ocean, Geary Boulevard is one of the most important arteries of San Francisco. This thoroughfare includes the Tenderloin and Western Addition neighborhoods, Japantown commercial center and the Richmond district north of Golden Gate Park. The 38-Geary bus line of the San Francisco Municipal Railway (Muni) agency, the main source of public transportation along Geary, is the most heavily used in the Muni system and regularly suffers from inefficient and uncomfortable service. However, transit on this corridor could drastically improve under a proposed plan from the San Francisco County Transportation Authority (SFCTA) to enhance the #38 route to a bus rapid transit (BRT) line.

The purpose of BRT is to implement several key features to create fast and reliable service. In order for buses to move at a quicker pace, BRT involves the formation of dedicated bus lanes off-limits

to other vehicles in order to remove traffic conflicts, as well as transit signal priority to avoid time spent waiting at red lights. Another BRT feature contributing to quicker travel times is fare vending machines at station platforms, where passengers pay fares prior to boarding rather than at the bus entrance. BRT also benefits riders by utilizing low-floor buses so that no one has to spend time walking up steps to reach the bus surface. Additionally, BRT aims to improve the passenger experience by providing unique boarding stations complete with comfortable shelters and real-time information of upcoming arrival times. BRT can be found in several North American cities, such as Pittsburgh, Los Angeles, Oakland, Seattle, Vancouver and Las Vegas (SFCTA, 2007).

The addition of BRT on Geary would be cooperative with an important regional document. Policy 20.9 of the San Francisco General Plan's Transportation Element aims to improve inter-district and intra-district transit service (San Francisco Planning Department, 2005). By providing faster bus service to active neighborhoods, BRT would comply with the specified goal of making transit more attractive to notable corridors of the city. Furthermore, Policy 21.2 confirms the relevance of BRT to the city's vision: "Where a high level of transit ridership or potential ridership exists along a corridor, existing transit service or technology should be upgraded to attract and accommodate riders" (Planning Department, 2005, Policy 21.2). In this case, with the 38-Geary being the most crowded bus line in the Muni system, BRT enhancements would be in order.

A primary goal of the Metropolitan Transportation Commission in its outline of Bay Area transit by the year 2030 is to increase the number of on-time trips (Metropolitan Transportation Commission, 2005). With key components of a BRT line, such as dedicated bus lanes and pre-boarding fare payment machines, trip times on the 38-Geary would significantly speed up under a BRT plan. Additionally, MTC's 2030 plan declares its intention to make cost-effective use of new technologies to support objectives (MTC, 2005). BRT would be a new technology added to the already diverse fleet of transit modes operated by Muni, which includes diesel and motor coach buses, light rail, historic streetcar and cable car service.

Because of its high density, providing enhanced public trans-

portation along Geary would help ease overall traffic in the city. The corridor is estimated to contain 41 persons per acre and 17 percent of the population of San Francisco as a whole (San Francisco Municipal Railway, 2005). BRT would help alleviate the demand for private automobiles. It would also make public transit travel from downtown to significantly populated outlying neighborhoods more convenient, further reducing the number of cars on the streets of San Francisco.

Those overseeing the BRT project have come up with several concrete objectives. According to the Geary Citizens' Advisory Committee and study group, one of their main goals is to minimize the negative impacts of the project on local residents and businesses (SFCTA, 2007). With that in mind, respect for the people and the needs of their neighborhoods seems to be a high priority. Another one of their goals is to serve as a model for BRT applications in other urban areas. BRT has become a common transit concept used in the United States, and should it succeed on Geary the committee and group hopes that it will inspire further implementation elsewhere.



Despite currently high transit usage on Geary, with over 50,000 people riding the 38 daily (SFCTA, 2007), the conditions of the corridor are particularly unfriendly to passengers. The boulevard's expressways allow for high-speed automobile travel while buses are designated onto narrow service roads with lower capacities. Because the buses often arrive at stops one after another during periods of high demand, such as the afternoon and evening rush hour, sig-

nificant gaps in arrivals occur at other times (SFCTA, 2007). A BRT improvement plan would significantly increase service levels of transit from their current state.

The conditions are also problematic for pedestrians along the corridor. At the Fillmore intersection, the wide traffic thruway permitting high automobile service creates stressful crossing experiences. At night, street lighting shines on the traffic with limited coverage to light the sidewalk, forcing pedestrians to cross in the dark. In the Outer Richmond area between 15th and 28th Avenues, walking is easier due to the variety of neighborhood commercial facilities that cater to pedestrians. However, other spaces are more difficult to cross, such as the three lanes of traffic and a parking lane at intersections east of Park Presidio (SFCTA, 2007).

If Geary is reconfigured to enhance bus service, there are five possible alignments being considered. At the very least, the corridor would receive a Basic Transit Priority treatment, with low-floor buses and real-time info, but no further BRT upgrades. A Basic Transit Priority Plus would include all features of the aforementioned Basic Priority plan along with a transit-only lane added to the outside traffic paths at peak hours. Under a side BRT alignment, the outside lanes on each side of the boulevard would be converted to transit lanes running between parking and traffic lanes. A single-median center BRT would involve one island platform surrounding BRT lanes at the center of the street. There is also the possibility of a double-median center BRT with two side platforms for passengers (SFCTA, 2007).

Funding for the project is to be allocated from a variety of sources. In 2003, San Francisco voters passed a sales tax ordinance known as Proposition K, to fund city BRT projects, one for Van Ness Avenue and the other on Geary. Prop. K would provide \$30 million to the Geary corridor, making up 20 percent of the project funds. The Federal Transit Administration (FTA) offers \$75 million to transit projects costing under \$250 million through its “Small Starts” program. Should Geary qualify, 38 percent of the funding would come from the FTA. Other state and federal programs, such as a \$130 million grant from the Federal Highway Administration, are projected to cover 42 percent of the expenses (SFCTA, 2007).

The cost of BRT on Geary would vary depending on which of the proposed configurations is implemented. The cheapest option would be \$8 million for Basic Transit Priority as per Alternatives 1 and 2, with monies coming from a five-year prioritization-funding plan that Muni has already designated. Side BRT as stipulated in Alternative 3 is estimated to cost \$157 million. Alternatives 4 and 5 with center alignments would cost \$172 million. Center lane BRT is more expensive than the side option, due to median alterations that would need to be configured. With intersections at Fillmore and Masonic added to the mix, the price would be raised to \$172-187 million. If the dedicated transit route moves underground through a tunnel at Fillmore or Masonic, the complete expenses would total \$197-212 million (SFCTA, 2007).

Before it became a busy corridor for bus travel, Geary was once part of the extensive San Francisco rail system. The B-Geary streetcar ran for 44 years beginning in 1912, heading east towards the Ferry Building and west to the Great Highway at the ocean. By 1949, buses were introduced to the route as a substitute to the streetcars for service during nighttime, Sunday, and holiday hours. On December 29, 1956, the B cars were completely abandoned and replaced by the 38-Geary motor coach buses, which continue their service today (Western Neighborhoods Project, 2002).

For many years, the idea of restoring rail service to Geary has been discussed. The original Bay Area Rapid Transit (BART) network intended to serve Geary, but the alignment was later changed. The corridor was identified by Proposition B, a sales tax expenditure passed in 1989, as a route on which transit use should be enhanced. In 1995, Muni performed a planning study to assess possible transit alternatives on Geary. Four alternatives were recommended to improve service: subway or surface light rail, subway or surface electric trolley bus, full surface light rail, and transportation system management. Some of the issues with Geary transit that were examined in the study were the location of a western terminal for rail service, technical problems at the Fillmore intersection, and the impacts of possible subway construction. The study concluded that Geary is appropriate for a light rail configuration. Muni's governing board at the time, the

Public Transportation Commission, chose not to select a preferential alignment or begin with the next recommended step of a Major Investment Study, citing the need for a further developed financial plan (Municipal Railway, 2005).

In a document entitled “A Vision for Rapid Transit in San Francisco,” which was published in 2002, the agency stated its intent to add Geary to the Light Rail network, with BRT serving as a precursor to improve service. However, Muni has designated the billion-dollar Central Subway project as its priority investment. Since Geary light rail would involve a downtown connection, it would need to come after the completion of the first phase of the Central Subway service to Chinatown, according to Muni. Additionally, a new light rail maintenance facility would need to be built to store new vehicles used for the line (Municipal Railway, 2002). Under this plan, the reintroduction of rail on Geary is not expected in the near future.

Should a center BRT be constructed on Geary, it would be designed to comply with the physical dimensions needed to operate a light rail vehicle (LRV). The SFCTA has prepared a report outlining a “rail ready” treatment to Geary, involving methods to make the possible conversion more feasible. For example, they suggested that installation of rails and electrical infrastructure would take place during BRT construction with the new station platforms long enough to support LRVs. Light rail platforms are typically 180 feet in length, as opposed to the standard of 120 feet for BRT platforms. This idea of upgrading from BRT to light rail has been proposed in numerous other cities, but as yet Seattle is the only city to have done so. The Seattle Downtown Transit Tunnel, an underground BRT throughway, is currently in the process of being converted to light rail within the next year (SFCTA, 2007).

Short-term improvements to the corridor have already been implemented by Muni through a Transit Improvement Project (TIP) that was carried out from 2003-2005. The TIP made small alterations to Geary service east of Van Ness, which is identified as a strongly congested area. One lane of traffic was removed from Geary and O’Farrell Street at the corners of Polk and Mason. In order to make way for bus turn pockets, several parking spaces were removed from this section

(Municipal Railway, 2005).

Richmond District Supervisor Jake McGoldrick, who also serves as chair of the SFCTA Board of Commissioners, initiated Proposition K in strong support of BRT. In an interview at the 30 October Authority Board meeting, McGoldrick said, “Both Geary and Van Ness are key transit corridors to improve the entire transit system. If you improve infrastructure, you will get there faster.” McGoldrick claimed that surveys of Geary Corridor community members have indicated that 74 percent were supportive of the project. He also added that in a recent visit to London, he saw how much city businesses benefited from convenient proximity to transit both in the downtown area and surrounding districts, and that he felt BRT could contribute much of the same benefits to San Francisco.

Another notable proponent is Andy Thornley, Program Director of the San Francisco Bicycle Coalition. “Improving transit service on the major corridors such as Geary Boulevard will significantly increase transit ridership,” says Thornley. “If San Francisco is to become a top-notch, transit-first city, building effective rapid transit on Geary is essential” (Go Geary Coalition, 2007).



Walk San Francisco, a pedestrian advocacy organization with goals to enforce a pedestrian friendly atmosphere in the city (Walk San Francisco, 2007), also supports BRT, according to Executive Di-

rector Emily Drennen. “I believe that the 50,000 plus San Franciscans who ride the Geary bus lines everyday deserve fast and reliable transit options such as Geary BRT,” says Drennen (Go Geary Coalition, 2007).

Nevertheless, support for BRT is far from unanimous. A neighborhood organization known as the Committee to Save Geary Boulevard stands in extreme opposition to BRT. As a result of reduced automobile service levels on Geary due to space removed to make way for BRT lanes and amenities, the committee fears that the project will transfer car traffic onto nearby streets in the Richmond District, such as Anza, Balboa and Clement. They are also concerned about the loss of parking spaces and traffic congestion during the construction phase of BRT, both of which the group believes would damage business on Geary. Noting that there have already been recent business closures supposedly due to the project proposal, the committee believes that Muni does not care about the local economy (Committee to Save Geary Boulevard, 2005).

Led by president David Heller, the Geary Boulevard Merchants Association is also very distraught at the idea of BRT. The coalition of businesses on Geary believes that construction and loss of parking would immediately put them out of service. Heller is frustrated with Supervisor McGoldrick, believing that he is “misleading the public” in his support of the project. The Merchants Association is alarmed at the negative effects on business they believe construction has forced on Third Street during its light rail implementation and fears the same would happen on Geary (Ishimaru, 2006).

The Planning Association for the Richmond (PAR) is another neighborhood group against severe transit alterations on Geary. PAR feels that the recently published BRT study report does not address important questions adequately enough, such as the service level impacts of automobiles. Like the Committee to Save Geary Boulevard, PAR is concerned about traffic spilling out onto neighboring streets due to bus lane designations. The association urges all parties involved with the BRT project to only implement two phases, the first alternative of Basic Transit Priority followed by further studies of issues such as traffic and parking. Under a two-phase plan, PAR believes that high expenses

and disruptions would be avoided. They would also like to see an investigation into how BRT would function east of Van Ness towards downtown. While the association is intrigued by the idea of BRT, they feel that proceeding without thoroughly examining the impacts would be too risky (Planning Association for the Richmond, 2007).

The SFCTA has completed a study of BRT and the impact it would have on Geary, teaming with other local organizations consisting of the Metropolitan Transportation Agency, Planning Department, Golden Gate Transit and the Department of Public Works. All agencies have consulted with the appointed Geary Citizens' Advisory Committee of the SFCTA to publish an outline of what the project would look like (SFCTA, 2007).

Impacts of BRT on car traffic were an important part of the study, measured by the team using the concept of automobile level of service (LOS) on a grading scale from A to F, and focusing on intersections receiving the lowest service levels. Under Basic Transit Priority, the Geary intersections of Franklin, Divisadero, and Masonic were all projected to achieve LOS D, with 35-55 seconds of delay. Masonic would receive an LOS E with 55-80 seconds delay through the side BRT alternative, and an F with more than 80 seconds delay under the Center BRT alternatives. Between the Arguello and Park Presidio intersections, no corner would perform below LOS C. Side and center alignments would actually raise the corner of Franklin and Geary from a D to C. Even without BRT alterations, some corners would have traffic conditions at E anyway, with the projected increase in volumes (SFCTA, 2007).

The study also investigated the effects of BRT on the passenger experience. Alternative 5, Center BRT with one median, is thought to deliver the best passenger performance by separating buses from surrounding traffic and providing comfortable station shelters. While the Basic Transit Priority, alternatives one and two, would make improvements to ridership experience, the new service is likely to be perceived as little more than simply another Muni bus route. In contrast, both Alternatives 4 and 5 in the center of the road are thought to give the 38-Geary a unique identity as rapid buses independent of other lines. With a side BRT enhancement, a smoother

ride would be generated, but there would still be traffic interferences because vehicles would need to make right turns through the bus lanes (SFCTA, 2007).

Because a growing concern among residents and merchants on Geary towards BRT is the potential loss of parking spaces generated from construction, this issue was a major focus of the study team. Proposed solutions include changing parallel metered parking to diagonal parking and maintaining angled spaces on various corners. Alternative 5 is said to possibly eliminate the most parking through the removal of 185 spaces (SFCTA, 2007).

Through conceptual diagrams of the BRT design, the study team was able to assess how pedestrian conditions on Geary would be impacted through the various design proposals of the project. To make Geary more pedestrian friendly, all BRT plans would install features such as more visible crosswalks, curb extensions and stronger lighting towards station areas. However, each of the three alternatives involving full BRT implementation would subtract 12 feet of pedestrian crossing. Since most transit riders reach bus stops on Geary by foot, the study team determined that improvements are needed for a more comfortable walking experience. (SFCTA, 2007).



With an approval of the study report by the SFCTA board in May 2007, plans to implement BRT are moving forward. The board has also approved funding for environmental analysis and preliminary engineering tasks, which are scheduled to begin between 2007 and 2008. If all goes as planned, construction and mitigation of the project would begin in 2010-2011 and finish by 2012 (SFCTA, 2007).

However, the SFCTA has not yet settled on one of the five configurations. "The BRT designs are all feasible, would provide substantial transit and pedestrian improvements and have similar traffic and pedestrian impacts, but further evaluation is needed before we know which is likely to be selected," said planner Zabe Bent of the SFCTA, who serves as the project manager (E. Bent, personal communication, 2007). It would not be until an unspecified date near 2009, following the completion of environmental review, when the alignment will be named. "We need complete a more detailed analysis of the impacts before a decision is made," Bent said (E. Bent, personal communication, 2007).

Studying agency documents, visiting the site, speaking with local officials, and investigating neighborhood response to the proposed BRT project has given me a unique opportunity to develop an informed opinion on the issue. On the one hand, the expense of an environmental impact report (EIR) might be prohibitive. I also understand the residents' concern about the possible increased congestion along the active corridor as well as their concerns about decreased availability of parking, which is always a problem in San Francisco.

However, these negatives do not seem to serve as sufficient reasons to oppose the project. Important city destinations including Japantown, the University of San Francisco campus, and the Richmond business district are all found on Geary. Reaching those destinations ought to be made easier for both residents and tourists. Enhanced public transportation would result in more of San Francisco and the rest of the Bay Area already served by BART being able to take advantage of the array of Geary shops and services more conveniently without having to worry about automobile traffic or parking space. The diverse cultural range of businesses, specifically a large presence

of Russian and Chinese restaurants and retail shops, add to the character of the boulevard, and better bus service would make them more accessible. Bringing more people to the area cannot help but improve commerce. I believe that opponents such as the Merchants Association would be pleasantly surprised if BRT were implemented.

One of the main objections to projects like this one is the cost factor. In this case, monies have already been allocated and that is a strong reason for moving forward with the project. Though Alternative Five is the most expensive of the proposals, I feel that it would be worth the investment because it would be a stepping stone toward a light rail system expansion. If the Center BRT design were selected, it would be similar to a rail line and easy to upgrade. The light rail street cars that Muni operates are an efficient and comfortable way to travel around the city and it would be great if one day it would be possible to ride them almost everywhere in San Francisco.

Because BRT has been shown to be a cost-effective solution to transit improvements on Geary, it should be a higher priority on the light rail expansion list. In fact, it should take precedence over the Central Subway project, whose billion-dollar cost to cover a relatively short distance is far too great. Geary is a much longer corridor and its large variety of businesses are further isolated from the rail network than Chinatown and the South of Market area, which are already easily accessible.

A full BRT treatment would prioritize bus travel on Geary, with separate bus lanes and special shelters making it distinct from regular bus service. This would provide a needed upgrade for current bus users. However, to attract a wider variety of people to public transit along Geary, and thus reduce San Franciscans' dependence on cars, changing over to a light rail system should be the ultimate goal. Underground and surface trains, which travel independently of car traffic, are faster and more reliable and more people are attracted to riding them.

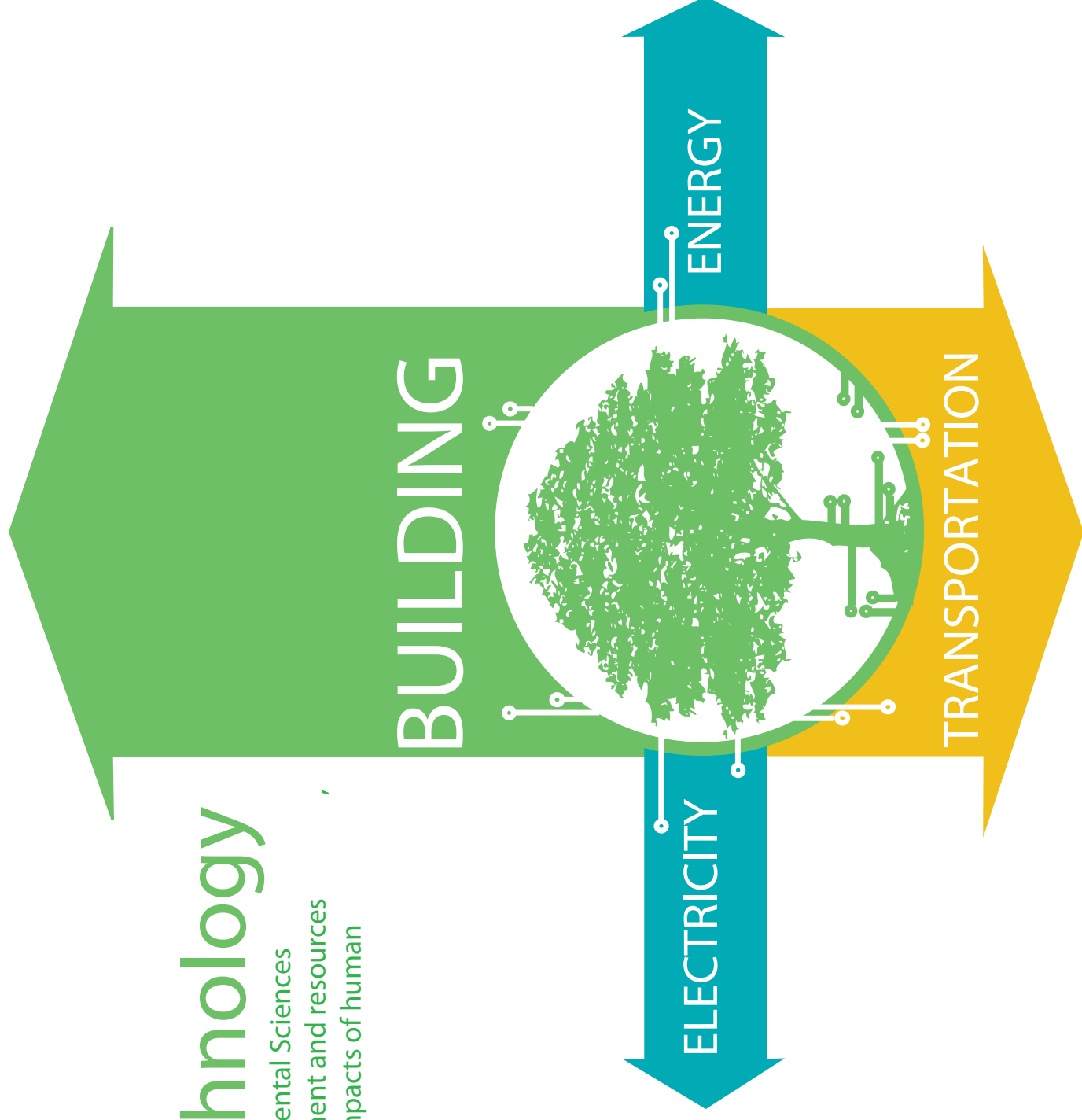
If San Francisco is going to be a "Transit First" city, the Geary BRT project should be a part of its future.

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Green Technology

The application of the environmental Sciences to conserve the natural environment and resources and by curbing the negative impacts of human involvement

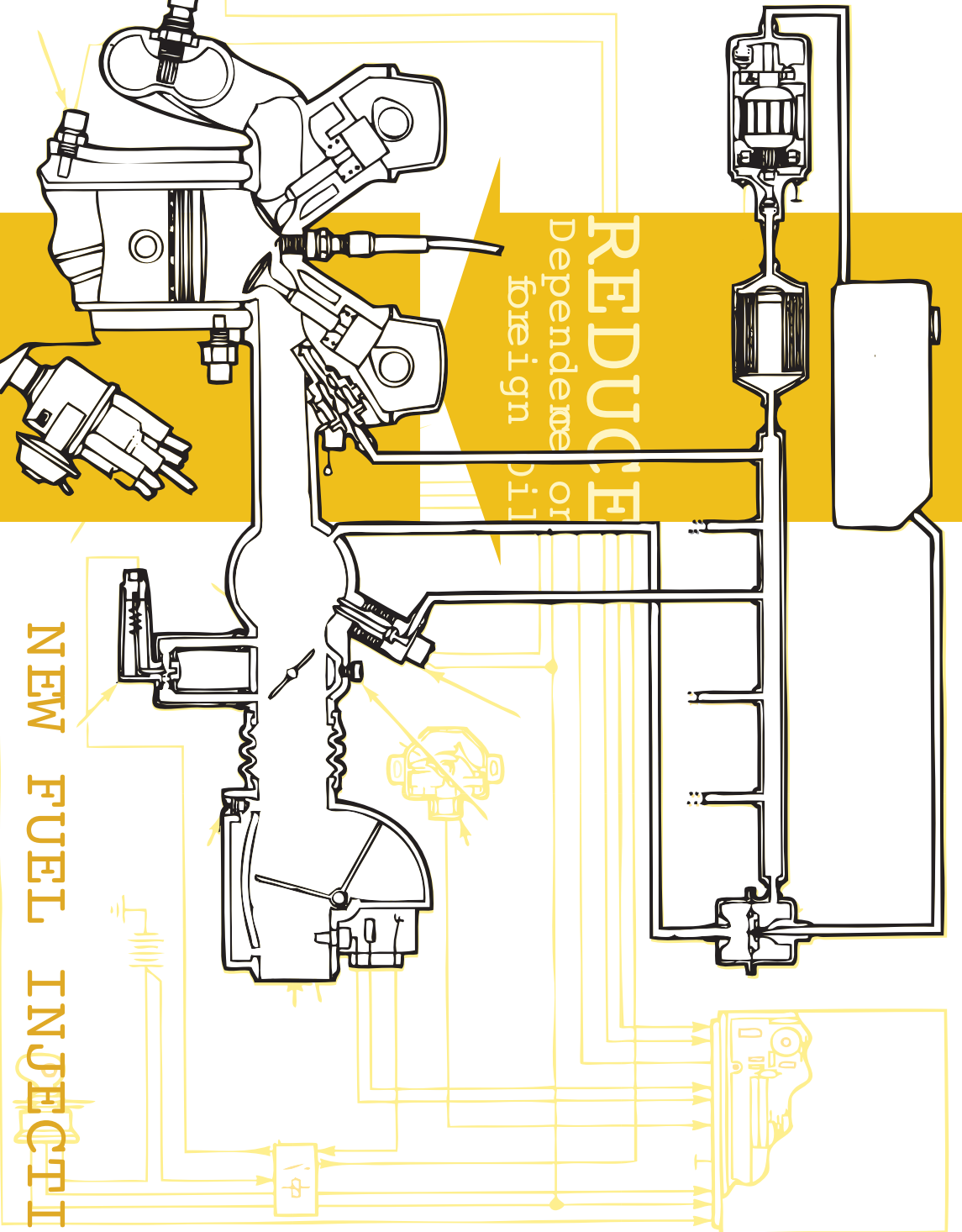


Sustainable Technology

Jose Ramirez

“Sustainable Technologies,” by Jose Ramirez, is a graphic representation of four major forms of technology that are critical to sustainable development and the greening of cities nationwide. The project, created for a colloquium in the Design and Industry Department at San Francisco State University, is a colorful, multifaceted addition to the progressive policies and research traditionally represented in the Urban Action Journal.

-Jamie Rogers, Editor



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on
foreign
oil

REDUCE
Greenhouse
gas
Emissions

NEW FUEL INJECTION SYSTEM

GreenTransportation

A new fuel injection system that will let
liquid fuel cars get 100 miles per gallon



OLED

Green Electricity
Flat display technology, made from a series of organic thin films between conductors.

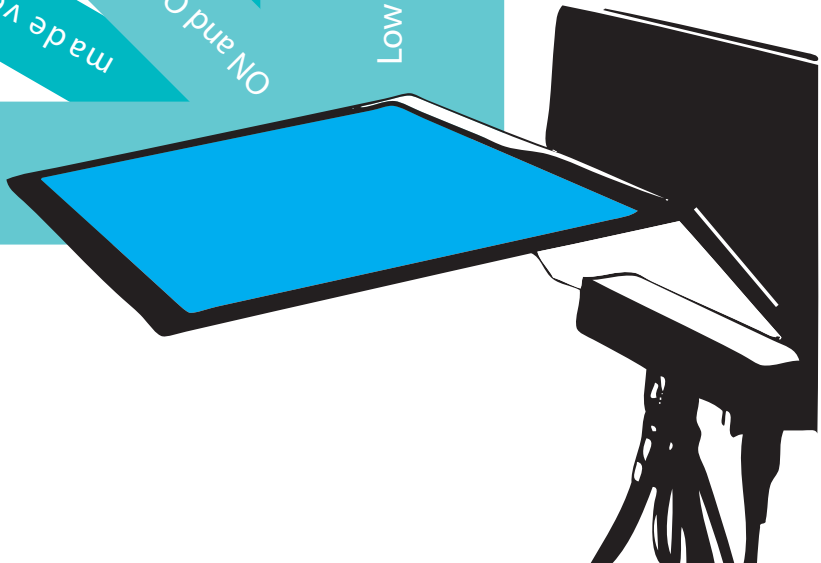
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made very thin

ON and OFF much faster than a LCD

Low cost manufacturing techniques similar to a newspaper production





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Green Energy
Konarka has developed technology to create rolls of solar cells that can convert light into electricity





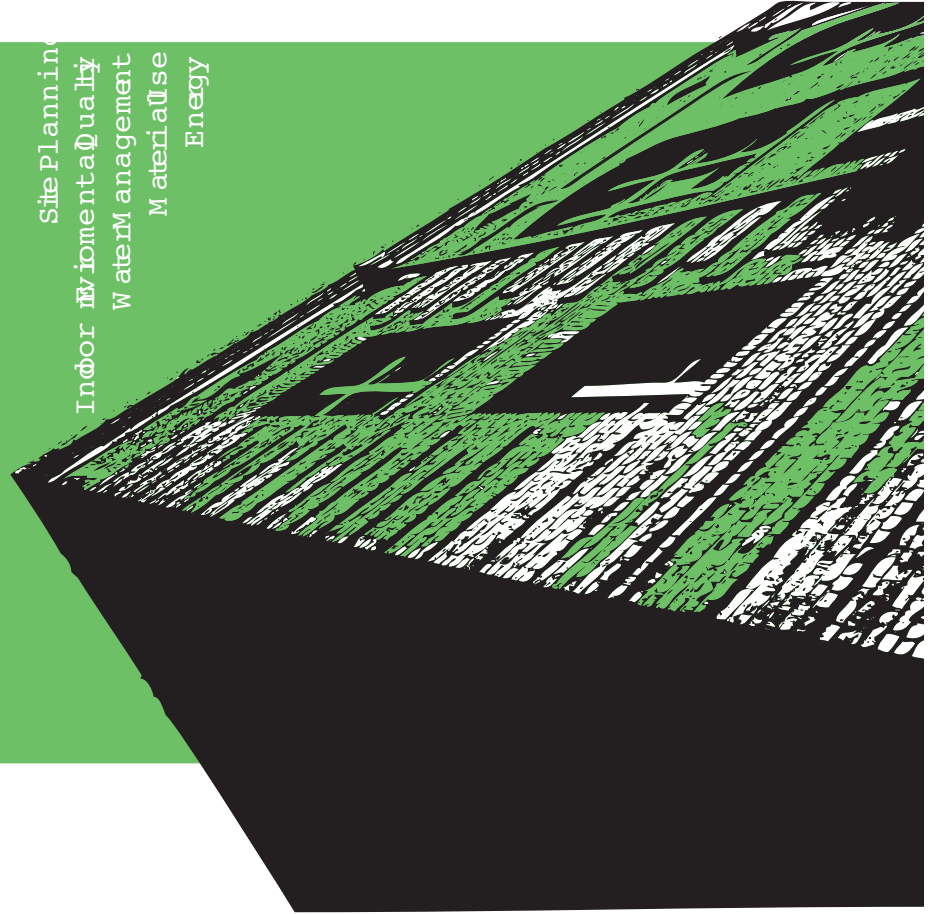
Site Planning
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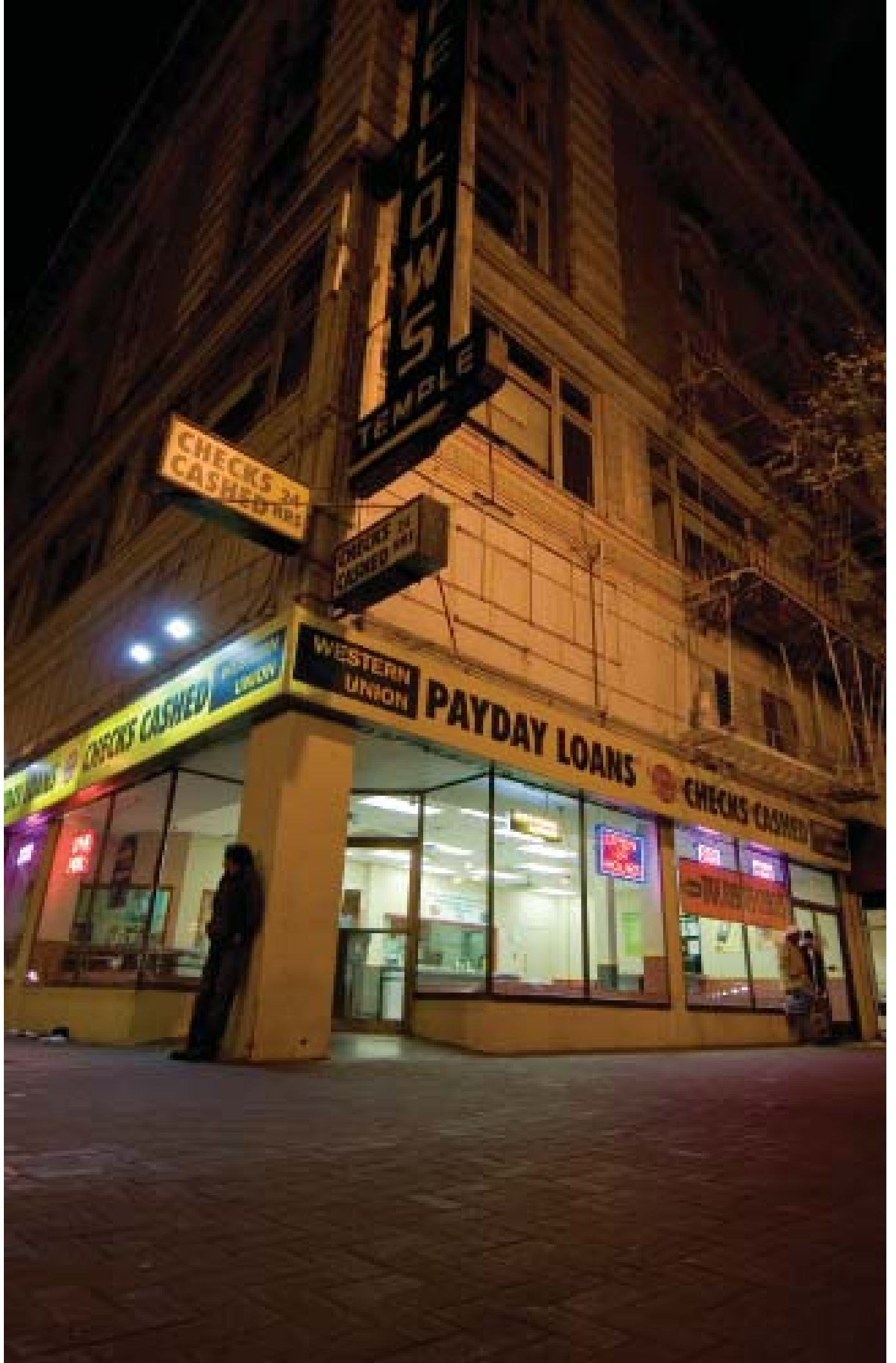
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Policy Options to Reduce Predatory Lending

Gene Waddell

“This selection by Gene Waddell deals with an issue that has become a fixture of our urban landscape, “Predatory Lending”. We see this expressed in many forms, the most visible being the “cash advance/Pay day loans” shops in our urban neighborhoods. Other varieties of this practice are sub-prime mortgages and credit card teaser rates with usury level penalty interest rates. Waddell presents us with a succinct analysis of these predatory lending practices complete with achievable policy solutions to address the problem.”

-Demian Quesnel, Editor

Introduction

Over the past five years, predatory lending practices have become a major topic of conversation worldwide. While we all see and hear media stories about predatory lending on a daily basis, according to the United States Senate Committee on Banking, Housing and Urban Affairs, no commonly accepted definition for predatory lending exists among federal agencies that regulate the banking/lending industry. Rather, it seems that the regulators, much like average citizens, do not have access to “systematic or organized data on predatory lending”; and that “collected data is anecdotal at best” (Rep. Carolyn

Maloney, Congressional Record, 2007). Others agree and equate predatory lending practices with the famous quote by Chief Justice Potter Stewart, where he said he could not define pornography but “he knows it when he sees it” (Engel, 2002). This observation is a key point to consider when one tries to understand the problem of predatory lending.

While a universally accepted definition of predatory lending does not exist, its practices are well known. In her 2002 Texas Law Review article about predatory lending, Kathleen Engel uses abusive practices to categorize predatory lending, namely:

1. Loans structured to result in seriously disproportionate net harm to borrowers,
2. Harmful rent seeking,
3. Loans involving fraud or deceptive practices,
4. Other forms of lack of transparency in loans that are not actionable as fraud, and
5. Loans that require borrowers to waive meaningful legal redress.

Predatory lending practices in the form of sub-prime mortgages, payday loans, student loans, and credit card offers have wreaked havoc on the American economy over the past several years. These practices have burdened millions of people in the United States with a debt load that is nearly impossible to overcome. A large proportion of the victims of predatory loan practices are the poor who were seduced by the “too good to be true” promises made by credit card and mortgage lenders. Many of the homeowners who used a sub-prime mortgage to buy property during the recent real estate bubble are on the verge of losing their home and any equity they might have gained. Many of the working poor remain trapped in an endless cycle of debt due to payday loans with exorbitant interest rates. A large number of recent college graduates now face the reality that the terms of their college loan will stifle their economic well-being for years to come. People who succumbed to the zero percent interest easy credit card advertisements are

now drowning in a sea of high credit card balances, punitive fees, and usurious interest rates.

Predatory lending is a monumental problem that has taken on global proportions. Banks all over the world are now bending under the weight of failed collateralized mortgage securities (CMO) that were packaged as secure financial instruments. These CMOs were made possible by the aforementioned “too good to be true” offers that lenders made to American consumers who used equity in their homes to fuel a two decade-long buying binge of consumer goods. Many of these loans had predatory undertones, as the initial teaser interest rate repayment schedule stepped up sharply over the term of the loan. For example, a home mortgage may have had a one percent teaser rate for the first few years and then progressively higher resets to increased interest rates and much higher payments. Similar scenarios evolved for credit card debt, where often naïve borrowers are lured into a zero percent loan for the first six months, and are then subject to 20 percent interest rates when the loan resets. If that same borrower is late on a payment, exorbitant late fees and penalty interest rates of 30 percent (or more) for the remainder of the loan follow. The resulting consumer cost is staggering, and according to the Government Accounting Office (GAO), the cost to the consumer is unquantifiable (GAO, 2007). While its cost is unknown, it is widely accepted that predatory lending has played a large role in the current credit crunch that is affecting the world’s financial markets.

The resulting banking industry market failure has now come full-circle with the very institutions who established these abusive practices now suffering its effects. Major Wall Street investment firms are now drowning in a sea of debt because borrowers can no longer make their payments, and are walking away from their debt. The CMOs that were swept up by investors as a sure thing just a year ago are now failing, causing huge losses to the entire financial community. It is not an understatement to say that predatory lending practices are a monumental and complex problem. Recent deliberations in the United States House of Representatives dealing with just one element of predatory lending practices, subprime mortgages, were described as “...tackling the problem of subprime mortgage reform is like slay-

ing the many-headed Hydra of Greek mythology...” (Congressional Record).

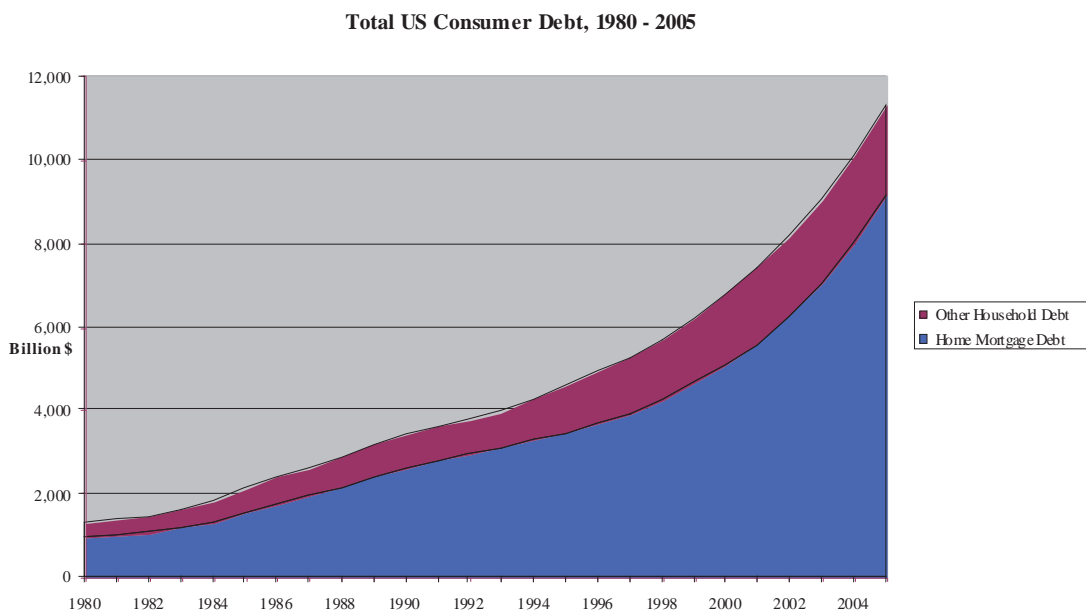
Background

Predatory lending practices and the rise in consumer debt load has been well-documented over the past thirty years with sharp increases in per capita debt load and personal bankruptcies (Figures 1 and 2). It is not coincidental that trend lines in both charts are similar as debt load due to increased access to often dubious credit instruments such as credit cards, payday loans, and subprime mortgages, increased after 1980s banking industry deregulation was enacted.

While Figure 1 shows home mortgage debt as the greatest component of U.S. consumer debt over time, it does not show how much of mortgage debt was used to pay down consumer debt. In other words, many naïve homeowners caught up in the predatory loan trap of teaser rates, used equity in their home to finance consumer purchases and credit card debt. In effect, many homeowners have used their homes as ATMs.

Many U.S. homeowners were more concerned with the initial teaser rate monthly payment and did not consider stepped-up interest

Figure 1: Increase in Consumer Debt, 1980 to 2005



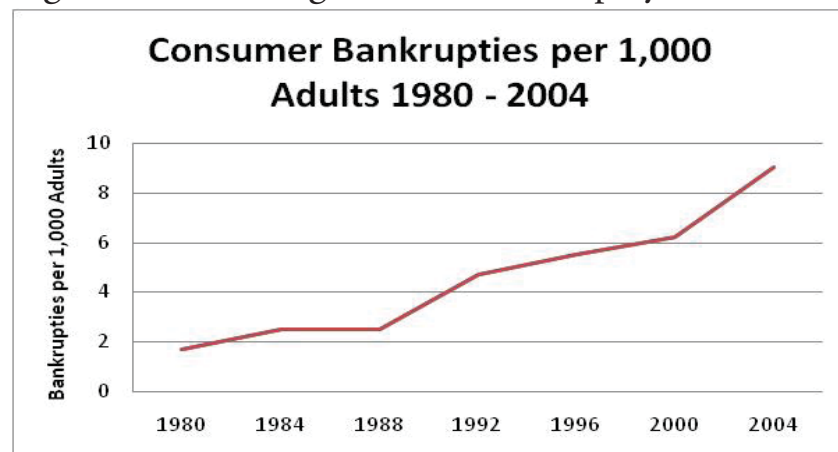
Source: U.S. Census Statistical Abstract, 2007

rates a few years out. Once the initial low interest rate period passed, many homeowners could not make the new increased payment and resorted to loan flipping. Loan flipping occurs when the homeowner would refinance the existing loan with yet another teaser rate loan. This process generally involved refinancing loan costs (points and fees) to the new lender, thus increasing the principal balance of the loan. This approach was widely used during the 2000 – 2006 housing bubble when home prices were rapidly escalating. To illustrate, a recent report by the United States Conference of Mayors has identified approximately \$160 billion of lost revenue to local governments in metropolitan areas due to the climate of loose credit practices available during the most recent housing bubble (US Conference of Mayors, 2007).

Figure 2 below shows U.S. consumer bankruptcies from 1980 to 2004, and, as previously stated, reveals a similar trend line as the consumer debt load chart in Figure 1 above (Kish, 2006). Coincidentally, the 1980 start date on both charts point to before and after comparisons of banking deregulation that occurred at that time.

With consumer debt load and personal bankruptcies as a backdrop, most solutions point to banking regulation reform (Center for Responsible Lending).

Figure 2: Increasing Rates of Bankruptcy



Source: Economic Policy Institute, 2005

The approach taken for nearly the entire history of the United States consists of a continuing cycle of regulations formulated to handle market failures while promoting economic growth (Ely). For

example, many of the current regulations in place for the subprime mortgage industry are based on increasing the home ownership rate (GAO, 2007). It should be noted that to a certain degree this strategy has been successful as the rate of home ownership in the United States is at an all time high. In short, as our country has evolved and become more sophisticated in fiscal matters, the banking industry has tried to follow suit.

At this point in time, however, the regulators consist of four federal super agencies: the Office of the Comptroller of the Currency (OCC), the Office of Thrift Supervision (OTS), the Federal Deposit Insurance Corporation (FDIC), and the Federal Reserve Board (FRB). Each of these “alphabet soup” federal agencies have control of (often overlapping) portions of the banking/lending industry. For example, the OCC controls “nationally chartered banks” but the FDIC administers deposit insurance for these banks. In addition to federal regulators each state regulates state chartered banks, subject to additional regulations. Each agency, whether federal or state, has authority over one or more segments of bank operations, and often overlaps in jurisdiction (SEC). This report raises the issue that the plethora of regulations represents a confusing maze that ultimately contributes to the boom-bust cycle of financial industries.

Policy Options

Status Quo: *Enact all new legislation aimed toward curbing predatory lending practices.*

Congress has acknowledged the current predatory loan crisis and is addressing it through new legislation to bolster disclosure and lending standards. While these efforts have merit, new and pending regulation only adds to the existing regulatory maze. As discussed above, four federal agencies and most states regulate the banking industry, and have enacted a number of anti-predatory lending laws. However, as shown in Figures 3 and 4 below, states with predatory lending laws have not fared well as far as home foreclosures are concerned.

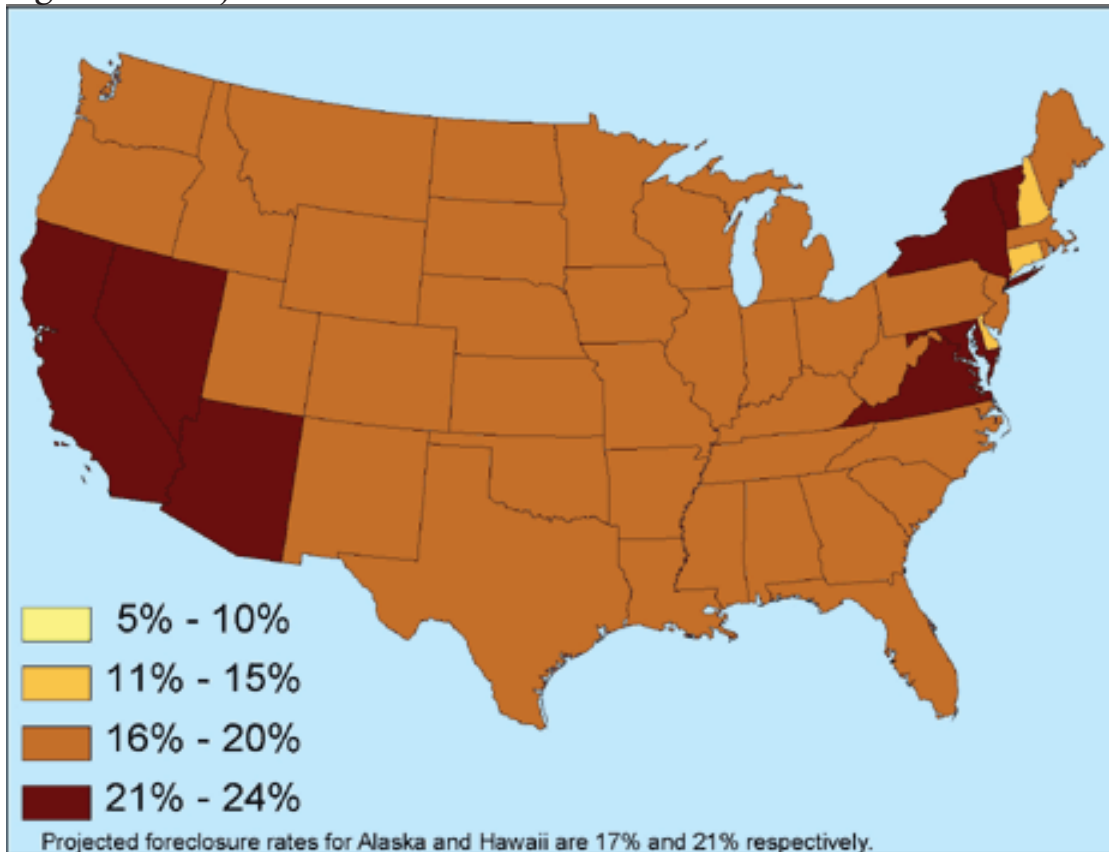
North Carolina was one of the first states to enact anti-predatory lending regulations and is often pointed to as the model for all states (Center for Responsible Lending). However, as shown on the

Figure 3: States with Predatory Lending Laaws



Source: Texas Office of Consumer Credit Commissioner (2004)

Figure 4: Projected Foreclosure Rates for States



Source: Center for Responsible Lending (2006)

foreclosure map above, North Carolina's foreclosure rate is not unlike other states, with and without anti-predatory lending regulations.

The current situation is bleak at best, with record high levels of consumer debt load, bankruptcies, and home foreclosures (Center for Responsible Living). The author believes that the complexity of banking regulations should be factored into a long-term solution to the boom to bust cycle that the United States financial system has experienced throughout its history. Sweeping and meaningful banking regulation may provide relief for all stakeholders, including consumers, investors, and government institutions.

Complex banking regulations have made it possible for both lenders and borrowers to take advantage of the system. Asymmetric information on either side of a transaction ultimately injures both parties. For example, as shown in the prisoner's dilemma chart below (Figure 5), predatory lending practices by the lender may afford some short-term gain but ultimately result in a loss, e.g., foreclosure. A borrower who provides false information or participates in practices such as loan flipping may also receive some gain, but stands to lose credit capacity or assets associated with credit. The prisoner's dilemma table illustrates this point.

Figure 5: "Prisoner's Dilemma"

	Lender Honest	Lender Deceitful
Borrower Honest	+/+	-/+
Borrower Deceitful	+/-	-/-
"Honest" means perfect information -- both players equally informed		
"Deceitful" means imperfect or asymmetric information -- one player has an unfair advantage		

Alternative Policy: Create universal disclosure and consumer education standards

This approach would supplement the status quo by simplifying existing Truth in Lending disclosures and requiring mandatory consumer education (credit counseling) before a lending transaction occurs. Currently, depending on the type of lending transaction, there

are at least twenty-four disclosure forms required by the federal government and an unknown number required by the states (Center for Responsible Lending). On the other hand, consumer education (credit counseling) is only required when a person declares bankruptcy.

Most can attest that loan documents are burdensome at best, and in any given loan application package, more than one disclosure form may be required. At best it is confusing, at worst, rather than being an important and informative document, as a disclosure form often represents a nuisance: it is something to be glanced at and signed.

In their March 2006 journal article about educating the low-income population, Zhan, Anderson, and Scott point out that "... Americans in general are not very well educated on financial matters, and financial illiteracy may be particularly acute among the poor" (p.55). As discussed above, the poor are often targets of predatory lending practices and it seems reasonable that a certain level of consumer education should be required before the lending transaction is made.

The alternatives offered by this policy would certainly provide better information to consumers, and offer better protection to both the borrower and the lender.

Alternative Policy: Apply recent Department of Defense (DOD) recommendations to all U.S. lending operations.

Military personnel and their families have been cited as a major target of predatory lenders. In response to an inordinate number of high interest loans with high rates that have lead to an ever-increasing debt load for soldiers and their families, the DOD enacted regulations to curb predatory lending. In addition to limiting interest rates and fees on loans, the DOD regulation provides financial literacy training and legal protection for service members (GAO, October 2007). Although the regulation is limited to three discrete types of loans: payday loans, vehicle title loans, and refund anticipation loans (all of which are strongly associated with predatory lending), it does provide a basic and solid foundation for loans of any type.

Congress may be interested in exploring the terms of the regulation and consider implementation for all lending operations in the United States. Listed below is a revised version of the DOD recommendation that can be applied to all U.S. lending operations.

Require unambiguous and uniform price disclosure for extension of credit,

Require a federal ceiling on the cost of credit to all U.S. borrowers,

Prohibit extending credit without regard to ability to repay,

Prohibit provisions in loan contracts that require U.S. borrowers to waive their rights to take legal action,

Prohibit contract clauses that require U.S. borrowers to waive any special legal protections,

Prohibit states from discriminating against U.S. borrowers and prohibit lenders from making loans to borrowers that violate state consumer lending protections.

Evaluation of Alternative Solutions

The matrix that follows, Figure 6, shows our evaluation of the status quo and alternative policy options to reduce predatory lending practices. As discussed above, the status quo is very costly, difficult to administer, politically unpopular, ineffective, and inequitable. Universal disclosure and mandatory consumer education would improve the status quo, and applying DOD recommendations may result in fairer, straightforward lending practices.

Recommendation

While the six DOD statements above may be viewed as simplistic, it is hard to argue with their message. This evaluation shows that applying the DOD regulations to all U.S. lending operations has the potential for long-term reform of the banking industry.

As shown on the charts in this report, consumer debt load and bankruptcies have steadily increased since 1980, when sweeping banking deregulation was enacted. While the free-market approach is often embraced, the combination of meaningful regulation with endless loopholes has plagued the American consumer and the banking in-

Evaluation Criteria	Status Quo	Option 1: Enact all current legislation aimed toward curbing predatory lending practices	Option 2: Create universal disclosure and consumer education standards	Option 3: Apply recent DOD/ GAO findings to all US lending operations
Cost	Unknown (GAO, 2004)	Unknown – may reduce consumer cost	Low – Moderate Better informed consumers are an important part of the solution	Low – Consumer costs capped; government costs reduced
Ease of Administration	Low Currently unmanageable	Low Multiple laws; structure complex	High Universal standards are easier to administer	High DOD actions can be used as a pilot
Political Feasibility	Low Unpopular – credit crisis is a major political issue	Moderate Demonstrates that Congress is trying to solve problem	High “Plain English” simplicity has voter appeal	High Will appeal to voters
Effectiveness	Low Current policy is ineffective -- harming economy	Moderate May result in some improvement	Moderate Although an improvement, will not address all issues	High Comprehensive approach to a complicated problem
Equity	Low Disproportionate burdens	Moderate May result in some improvement	Moderate – High Will help to level playing field	High Balances lender/ borrower risks

dustry for a number of years and is now threatening the world economy.

The author believes that unambiguous and uniform price disclosure is a basic requirement in any credit transaction. Also, because states are able to set interest rates, many credit card companies and payday lending operations have located their headquarters in states that effectively have no usury laws. This practice was a direct result of deregulation thirty years ago and has been a prime contributor to the enormous debt load burden on consumers. It is not uncommon to have 30 percent interest rates on credit card accounts; it is also not uncommon for payday loan terms to have effective interest rates of more than 100 percent (Center for Responsible Lending). Therefore, we believe that a uniform, federal ceiling on the cost of credit should be applied to all American consumers.

Another factor in banking deregulation resulted in the waiving of consumer legal rights in certain situations and allowing an arbitrator to decide what happens when a borrower has a late payment or does not conform to the terms of the (often complicated) loan agreement. In fact, in many cases, the lender has full discretion in choosing the arbitrator. It only seems only fair that both the borrower and the lender should be afforded full legal protection.

In summary, Congress should seriously consider the DOD recommendation as the basis for sweeping banking regulation reform. An approach to implementation would be to closely follow progress of DOD recommendations in the military and, if successful, institute a pilot program in a particularly troublesome lending operation such as payday loans. Because this part of the lending industry is relatively small, progress with simplified regulations could be easily monitored and applied to other lending operations.

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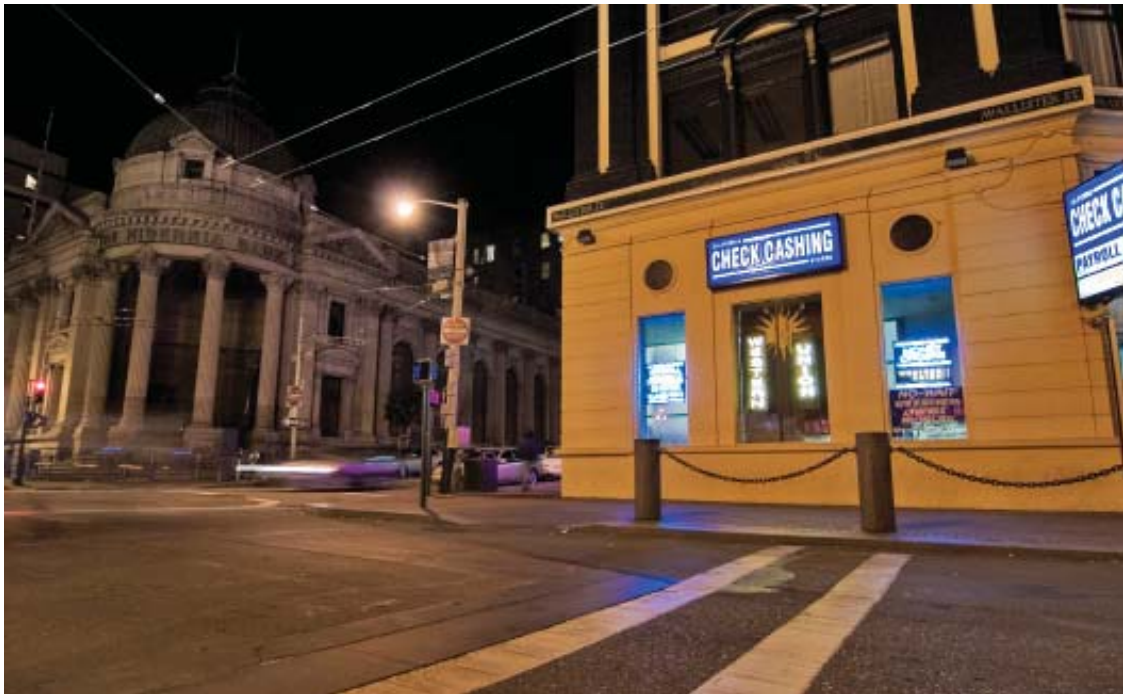
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COMMUNITY ROOM

To Move a Village: The Midway Village Housing Project A Study in Environmental (In)Justice

Winona Azure
Esmeralda Cabrera
William Rutledge

Built in 1970, Midway Village is a housing complex on 30 acres with about 150 units containing 1200 residents in Daly City, California, neighboring the southeastern border of San Francisco. As a result of industrial uses by Pacific Gas and Electric (PG&E), the land of Midway Village harbors tar-like substances in its soils that have affected three generations of residents with illnesses such as leukemia, infertility, and cancer.

BACKGROUND

PG&E, who had previously owned the land since the early 1900's, used to refine oil and gas to be used for public home energy needs. The plant closed in 1913, and then sat untouched until 1944

when the Pentagon leased the land to build emergency housing for World War II midshipmen. The contractors who built the houses bulldozed the hydrocarbon-contaminated land to fill surrounding wetlands in their efforts to build the community of homes. Documents prove they fully knew the land was contaminated. After the war, most of the land was given back to PG&E, but the housing part was deeded to San Mateo County for refurbishing the housing development into public housing and schools. In 1976, San Mateo County used federal funds to develop Midway Village, but no tests for contaminants were ever performed on the soil. Four years later in 1980, PG&E detected contaminants in the soil in their section of land, thereby relocating some of their soils, but did not inform Midway Village residents of the found contaminants. In another four years, the PG&E site was declared as a Superfund site, declaring it to be one of the most contaminated industrial sites in the nation. Even at this time, no public officials met with Midway residents concerning their soils. Finally in 1989, tests showed the presence of polycyclic aromatic hydrocarbons, or PAHs, in the Midway community's soils, but residents were not informed of these dangers until one year later. While 10 or fewer parts per million of PAHs are normal in most urban industrial areas, Midway Village in 1990 had 170 parts per million on their soil surface, and beneath the soil that number quadrupled. Seven other dangerous chemicals were also detected, all of which are on the EPA's "probable list of carcinogens" roster.

For generations, Midway residents had planted vegetable gardens in their yards and children played in the soil. By 1990, residents complained to the State Department of Toxic Substances Control (DTSC), a department of the EPA, of cancers, tumors, body rashes and sores, bloody noses, vomiting, memory loss, blood

in their urine, and respiratory problems—sometimes waking in the night gasping for air. “But it goes back even further than that,” says LaDonna Williams, a former resident. “We believed for a long time that there was evidence that they knew way before they told us in 1990.” (Pence, 2000) Midway Village joined together and formed into Midway Residents for Environmental Justice and pursued a court case in 1993, filing a class-action lawsuit in federal court, claiming negligence on the part of the federal government and military. But the case was dismissed as officials proclaimed Midway as free from “imminent health concerns.” (The Sierra Club, 2007) This did not deter the residents. They volunteered and paid for genetic testing and found chromosome aberrations and DNA irregularities, clinically proven damage that has been known to lead to cancer. Now Midway residents are filing another lawsuit and demanding justice for the decades of medical bills they’ve accumulated.

Three attempts at clean-up by the DTSC from 1993 to 2003 have resulted in soil removal and replacement from two to five feet and cement construction of patio porches or blocks that cover large portions of soil. Some very sick residents were relocated only because their doctors warned county officials that “remaining in Midway Village would pose a danger to their patients’ already frail health.” (Pence, 2000) But many residents cannot afford to relocate as they are on fixed, low incomes in the expensive San Francisco Bay Area. Also many residents did not want to move as they felt it was not an acceptable solution to the health damage that had already been done; they wanted more compensation than that. Others knew relocation meant being put on a many-years waiting list for Section 8 housing.

In 2000, PG&E was going to lease part of their land to yet another power company, the Calpine Corporation. Adding more

pollution to the already heavily polluted site was strongly opposed by Midway Village residents; and with the help of outside environmental justice group GreenAction, the proposed plan was withdrawn.

An October 2006 review of Midway Village by the Office of Environmental Health Hazard Assessment stated that while DTSC significantly reduced hazardous levels of PAHs, “this conclusion cannot be verified because the data available for these compounds are insufficient.” (Salocks, 2006) They say that the hazardous chemicals are not at surface levels, yet acknowledge that “non-volatile PAHs at concentrations well above the target cleanup goal still remain in subsurface soil as well as soil beneath the residences and pavement.” (Salocks, 2006) Remarkably, on the same page of the summary in the report, they say that the area should not pose any health risks, and then relieve that statement by strongly suggesting further soil investigations be initiated. The question remains, is the site safe or not?

EPIDEMIOLOGY

Residents of Midway Village are plagued with illnesses and symptoms such as rashes, tumors, cysts, lung disease, nose bleeds, and the latest: genetic defects as the children that have grown up in the area give birth and start families of their own, assuming that the young women have the ability to get pregnant at all (Angel, 2007). The daughter of Lula Bishop, a resident since the complex opened, did have a baby boy, but was later plagued with tumors on her uterus necessitating hysterectomy.

The Agency for Toxic Substances and Disease suggest that PAHs have their most significant effects during prenatal development. Unfortunately, the CEPA and EPA Superfund cleanup mainly treated the adjacent PG&E site, and merely contained the Midway Village

location, bad news for Ms Bishop's daughter, and the many like her in the area with hopes of having a family.

PAHs are a byproduct from the PG&E facility's operation and are unavoidably related to energy production, as we are familiar with today. The substances are found in fine-powdered carbon coal and tar that come from burning coal. PAHs are essentially infused hydrocarbons chemically related to, but not formally including, toxic chemicals such as benzene and naphthalene, known to cause severe and adverse affects on humans.

LEGAL ACTION

In the effort of receiving just compensation for the harms borne from exposure to toxic contaminants in the soil, residents of Midway Village have filed three separate lawsuits over a decade-long period. None of these cases have been successful due to lack of sufficient causal correlations between illness and the specific contaminants found at Midway Village. Many of the difficulties that they have faced have stemmed are common problems associated with environmental justice lawsuits.

First, there is the issue of blame. In a Midway Village Residents Association Meeting in 1991, residents asked a DTSC official who was to blame for the alleged damages they had incurred. Among the parties that had probable liability were: the San Mateo Housing Authority, the County of San Mateo, the U.S. Navy, PG&E and the U.S. Department of Housing and Urban Development. Residents later claimed that each party would point fingers at the other or point to the state and federal agencies involved. Further Consent Orders absolved the City of Daly City in exchange for their own remedial actions (DTSC, 2001).

The second issue is of proving causal relations between the toxins at the site and the illnesses incurred by the inflicted parties. In common law cases, plaintiffs bear the burden of proof, with much difficulty and expense, to retrieve unquestionable data to present in court. At the Residents' Association Meeting, residents expressed risk of being further contaminated by PAHs. The DTSC official answered that the concrete patios had covered the contaminated areas sufficiently enough that there was "no present risk of exposure." Knowing that residents had already been exposed, he goes on to say that damage to health may not appear until 15 to 20 years after exposure (DTSC).

Third is the issue of access to quality legal assistance. People that bring environmental justice cases are mostly the poor and people of color and often find it difficult to find adequate representation. In Midway Village's situation, advocates for the group claim lawyers mishandled the case because proof shows definite causal relationships documented by the Agency for Toxic Substances and Disease Registry as those symptoms experienced by the residents from the toxins at the site.

55 residents brought the first case in July 1991 against San Mateo County, the County Housing Authority and PG&E (Pence, 2000). During a five-year period, doctors at San Francisco Hospital, the University of California Medical Center, and the University of California at San Francisco examined 25 residents for related illnesses (Lerner, 2007). Additionally, occupational health experts, epidemiologists, and learning specialists found "that no one had been injured by exposure to the relatively low levels" of PAHs, although it is unclear what medical standards were used to determine their findings (Lerner, 2007). Why medical examiners chose the "relatively low levels" of PAHs as the determining threshold is also perplexing in light

of the evidence DTSC had found of PAHs in numbers almost ten times higher than what was considered “normal” for urban areas. The case never went to trial and dismissed by the judge who determined that the residents lacked sufficient evidence to correlate their illnesses to the toxins at Midway.

The second lawsuit was filed in 1993 at the U.S. District Court against the federal government but was dismissed on the grounds of federal immunity. In 2000, the residents appealed the suit turned over in 1997 but the Court of Appeal upheld the ruling. Even though there was never a conviction, PG&E settled out of court with some residents who accepted anywhere from \$500 to \$4500 for the “psychological stress” residents had suffered. Other residents contend that PG&E also threatened them with suits for defamation, but PG&E spokespeople dismiss this as a “rumor” and “urban legend”(Lerner, 2007).

CONCLUSION

One has to wonder why the neighboring PG&E site, of which Midway Village was once a part, was designated a Superfund site in 1984, while no action was taken in Midway Village until 1993. Further, when contamination was detected in the adjacent site, it was fully another 9 years before tests were conducted in Midway Village, 1989, to reveal similar contamination. This goes to show there is not only a gross lack of communication between the EPA, the federal agency conducting research at PG&E, and the local government that is providing affordable housing to impoverished communities, but, as documented by numerous sources (Hubbard, 2000), there is a continued disparity in clean-up timeframe for minority and low income segments of our population. There are other sites, with similar

contaminants, located on Federal land, that were not only Superfund sites, but listed on the Superfund's National Priority List that have been wholly treated, and not merely contained: US Army Materials Technology Laboratory in Middlesex County, Massachusetts, 6 miles northwest of Boston.

Considering all the evidence of adverse health collected by the residents of Midway Village, the actions of the EPA and CEPA at related sites (AMTL and PG&E, respectively), the question that begs to be answered is why these residents are so overwhelmingly neglected? There has been adequate display for the need to treat the site, if not entirely relocate the total population. As of today, the only hope for these residents is the chance to stay with a family member outside of the community, and the reliance on medical disability.



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Photography Annex

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