This thesis examines the concepts of power and participation and how they are intertwined in the examination of the urban planning systems in Curitiba, Brazil. Power is identified as both the planning system's ability to affect the daily lives of the city's residents and the power of individuals and groups to influence the planning process. Participation relates to how individuals, groups and communities are involved in the planning process. As a case study, Curitiba presents an example of how power gradients within the city influence participation in planning and how the power of planning impacts the daily lives of citizens.

To explore these two themes, ethnographic research was conducted using ten key informants and more than twenty supporting informants. Additionally, participant observation methods and demographic data supplemented the respondents' statements. Three main aspects of the city's planning system -- transportation, land-use and education
are examined. The discussion of these systems focuses on four main themes -- public participation, the role of government, the unequal provision, access and use of social services, and power relationships.

The final three chapters examine the theoretical implications of this work and the application of the results to planning elsewhere. Planning in Curitiba demonstrates the inability of modernization theory to explain the multidirectional influences of planning concepts. Dependency theory and the world-systems perspectives are shown to offer better explanations of the dominance of multinational corporate interests in planning and the role Curitiba’s planning systems play in incorporating residents into the broader world. Furthermore, the planning system in Curitiba shows the inability of elitist and pluralists perspectives of community power structures to capture the complexity of planning decisions. On the individual level, the resistance of shanty town residents to planning is viewed as a form of participation.

Curitiba’s planning systems show the importance of including the whole community in the process. Planners must encourage citizen participation and work to mobilize diverse community groups. Planning must be depoliticizing and supported through innovative leveraging of the city’s resources. In promoting a city’s planning identity, planners must identify the individual interests that motivate involvement in the planning process.
Power and Participation In Urban Planning:
An Ethnographic Case Study of Curitiba, Brazil
by
Eric W. Piel

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Eric W. Piel, Author
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I would like to thank the following people and organizations for their support of my studies, research and work. Without the individual support they offered in their various ways, this thesis would not have been possible. Thanks to my major professor, John Young, and my committee, Charles Langford, Sunil Khanna and Lisa Sarasohn, for their thoughtful comments and subtle direction. Thanks to the wonderful faculty in the Department of Anthropology, especially Nancy Rosenberger, Court Smith and Joan Gross, for inspiring learning in general and for their input on this project throughout my course work in particular. Thanks to the Office of International Education and all the extraordinary people there who are committed to global learning. Without their official support of continuing education by employees and personal moral support of colleagues, I would never have completed this Master's Program. Thanks to Rotary International for funding my language studies and research in Brazil. Muito Obrigado to the Universidade Federal do Paraná, Escritório de Relações Exteriores for the arrangements they made on my behalf and the assistance in adapting to life in Brazil. Muito Obrigado to my colleagues at the Institute for Research and Urban Planning in Curitiba (IPPUC), who offered endless insights into planning and life in Curitiba. Finally, a special mention of gratitude is due to the many people in Curitiba who answered my numerous questions and engaged me in stimulating conversations that led to the conclusions found in this paper.
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DEDICATION

To Robbie, whose love, support, understanding and assistance made this thesis possible.
POWER AND PARTICIPATION IN URBAN PLANNING: AN ETHNOGRAPHIC CASE STUDY OF CURITIBA, BRAZIL

I. INTRODUCTION

As urban areas worldwide face escalating difficulties in addressing problems associated with rapid growth and infrastructural decay, the study of planning systems that are successful in dealing with these issues becomes increasingly important. One of the generally identified successes in urban planning, according to professionals and researchers (del Rio 1992, Di Giulio 1994, Margolis 1992, Meadows 1995, Pearce 1992, Pedriera and Goldstein 1992, Rabinovitch and Leitman 1996, Wright 1996, Zelov 1995) in the field of urban planning and studies, is the city of Curitiba, Brazil (see Maps 1 and 2 on page 3). This city in an industrializing country presents an excellent case study for urban planning because of its unique and innovative approaches to common urban problems. The question for urban planning researchers and practitioners is how they can apply these systems elsewhere and how specific cultural characteristics impact the applicability of Curitiba's systems to other locations.

The following thesis presents the results of my ethnographic research in Curitiba during the spring of 1995. During this period I conducted interviews with several individuals associated with the planning process in Curitiba as well as a number of citizens of the city. I met these key informants through an internship with the Institute for Research and Urban Planning in Curitiba (IPPUC), where I collected additional data and
insight, and through interaction in the urban community and with the city’s residents. This work examines a range of city planning functions, including transportation, education and land-use planning.

In my conversations with informants and interactions in the city, I observed that two main and interrelated themes emerged in the urban planning discourse in Curitiba. I have labeled these two themes as ‘power’ and ‘participation’. Power refers to both the planning system’s ability to affect the daily lives of the city’s residents and the power of individuals and groups to influence the planning process. Participation relates to how individuals, groups and communities are involved in the planning process and the impact of planning implementation on the participants. These two concepts were interwoven throughout the aspects of planning that I examined.

Increasingly, planning theory and practice encourage direct public participation in order to improve the outcomes of the projects. However, as culturally-defined systems of governance and regulation, planning programs reflect the power gradients within the community. These power differentials impact the ability of individuals to participate and influence the level of that participation. Curitiba presents an interesting case in which to examine how power gradients within the city influence the participation of individual citizens in the planning process.
Map 1: World Map Location of Curitiba

Map 2: Location of Curitiba in South America and Brazil
I. THE THEORY

To explore the themes of power and participation in this thesis, it is necessary to examine the theoretical roots of these ideas. Social science researchers from several disciplines, including economics, political science, psychology and philosophy, have analyzed the concept of power but the following theory review section will focus mainly on the works of anthropologists and sociologists. A discussion of planning theory in relation to power and participation will also be included.

Theoretical explanations of power have been proposed from the global-systems level down to the actions of the individual. I will focus on reviewing the global theories that apply to the planning situation in Curitiba. I will also look at the theories of power within communities to present a background for my study of planning in Curitiba.

First, a generally accepted definition of power needs to be established. This is a difficult task given the many social scientists that have explored the subject. The divergent backgrounds of these researchers have led them to focus on different aspects of the phenomenon (Friedland and Palmer 1984). Therefore, for the purposes of this thesis, I will define power simply as *the capacity to acquire a desired outcome.*
II.1. The Global View

On a global scale, theories of power have concentrated on examining relations between nation states and institutions represented by or incorporated within those boundaries. One of the earliest theories of global power relationships was the modernization theory, which was “heavily influenced by the evolutionary theory . . . (and) strongly influenced by Parson’s functionalist theory” (So 1990:261). In this view, there exists a linear path toward development. The development of countries or regions follows an inevitable path from undeveloped to developed with certain countries further along the path than others. In relation to this view then, countries further down the road of development have more material resources with which to continue their development than those that have not progressed as far. Therefore, the developed nations have the ability and responsibility to transfer their values and systems to the developing countries in order for them to evolve in a similar manner.

The modernization paradigm influenced international power relationships through the 1950's as the United States asserted its dominance in the world economy and presented itself as a model of national development. In the 1960's, a new theory began to emerge that recognized how countries, regions and cities that were behind on the modernization path existed in a dependent relationship to the more developed countries. This school of thought became known as dependency theory.
Dependency theorists perceive the relationships between developed countries and underdeveloped countries to be "a set of externally imposed, exploitative, dependent, economic relationships incompatible with development" (So, 1990: 262). Dependency theorists focus their research on the developing countries that comprise a periphery in relation to the core of developed countries. They also center their analysis at the national level, seeking to determine how dependency harms economic and social development.

Within the dependency school, researchers pursued two lines of thought. Alvin So (1990) defines these two positions as the old dependency studies and the new dependency studies. The old school tended toward a high degree of abstraction and a focus on general patterns of dependency, with an emphasis on unequal exchange and colonialism. For these researchers, dependency was mostly an economic phenomenon, and dependency and development were mutually exclusive. Therefore, countries seeking to develop needed to cut their dependent ties to the core countries.

The new school, which emerged in the 1970's after criticisms of the old school's lack of historically specific case studies, includes a focus on distinctive cases of dependency and how they have developed over time. The new school also considers the social aspects of dependency more than the economic by examining class conflict and political movements within the nation-state. In contrast to the old school, these researchers also believe that dependency and development can coexist.
Perhaps the most noted of the new school dependency theorist is Fernando Henrique Cardoso, the current president of Brazil. Cardoso's seminal study of Brazilian economic development in the 1960's and 1970's demonstrated how "to some extent, the interests of the foreign corporations become compatible with the internal prosperity of the dependent countries. In this sense, they help to promote development" (Cardoso 1973: 149) by seeking to expand the domestic market for their products. This is the process that Cardoso termed associated-dependent development. Through the process of associated-dependent development, nations develop within the context of a dependent relationship with the core countries. In Brazil, this process resulted in a "regressive profile of income distribution, emphasizing luxurious consumer durables as opposed to basic necessities, generating increasing foreign indebtedness, contributing to social marginality and the underutilization and exploitation of manpower resources, and thereby leading to an increase in relative misery" (So 1990: 141).

"One of the distinctive features of the work of these authors is the importance that they give to the role that the local dominant classes play in the system of domination" (Ocana 1996: 27). Cardoso's study shows how the elites within the country internalize the interests of the external core countries as represented by multinational corporations. These groups associate themselves with the economic success of the multinationals through their own business interests. To enjoy successful business relationships with these corporations, the elites promote the structuring of their national economy in a way that is beneficial to the multinationals. Peter Evans (1979) defines this as the "triple alliance"
among the state government, local business interests and multinational corporations. However, these pro-multinational policies result in the suppression of local capital and technological accumulation and thus, domestic development. Therefore, the national economies remain dependent on foreign interests in spite of economic growth.

In 1974, after an intense debate between the modernists and the dependency theorists, Immanuel Wallerstein proposed a new theory that has become known as the world-systems approach. In this work Wallerstein outlines the theory that over the last 500 years most of the world's regions have become integrated into a world social and economic system. "A world-system is a social system, one that has boundaries, structures, member groups, rules of legitimation and coherence. Its life is made up of the conflicting forces which hold it together by tension, and tear it apart as each group seeks eternally to remold it to its advantage" (Wallerstein 1974: 347).

While historically there have been subsistence economies that were not integrated into the world-system, Wallerstein believes that today "there is one expanding economy" (Wallerstein and Hopkins 1982: 11). Those few subsistence economies that might still exist are quickly being integrated into the world-system as it expands its boundaries and divides labor and capital within its borders. Therefore, instead of focusing on individual nation states, Wallerstein directs his studies to a world-wide system that includes all groups in a stratified whole. This approach can be criticized from an anthropological perspective for ignoring the uniqueness of individual cultures and focusing solely on
in this modern world-system, Wallerstein divides nations into three categories of economic power -- the core, semiperiphery and periphery. The core countries possess highly developed social and governmental institutions and economies that produce capital-intensive products that require highly trained labor. The peripheral countries' national institutions are not well developed, and their economies primarily produce products extracted from natural resources. Between these two levels and including aspects of each are countries in the semi-periphery. Additionally, within the three groups, there are varying levels of development along the core-periphery continuum.

Wallerstein (1982) believes that in order for the capitalist world-system to survive, it needs to continue the expropriation of the surpluses produced by labor by the owners of the capital. Because capital is primarily concentrated in or owned by the elites in the core, this system produces an unequal exchange within the world-system economy. The core countries benefit from the world-system while the periphery is exploited.

"In core areas, the bourgeoisie has increased the definition (power) of the state in order to limit and moderate the economic demands of the local work force, to shape the world market in search of advantageous terms of competition with other bourgeoisies, and to incorporate new areas into the world economy" (Ocana 1996:30). In the semi-
periphery and periphery, the elites align themselves with the dominant economic groups in the world-system to create a "dependency (that) is not only a process imposed from the center but is also one that is contributed to, and often sustained by, the activities of the local people" (Roberts in Nash 1981:406). Yet resistance to the domination of the world-system remains in classes and ethnic groups that feel threatened by their integration into the dominant economic system and the resulting loss of their traditional values and modes of production. "Therefore, since the real problem (for anthropologists) is to locate traditional communities and marginal groups within the structure of the overall system, the relationship of dominance and accessory should be kept in the forefront" (Nash 1981:405).

II.2. The Community View

While these broader theories have attempted to explain the power relationships between nations and organizations on a global level, other theories try to explain power relationships within communities. These community power theorists can be grouped into two camps -- pluralists and elite theorists.

Pluralists such as Dahl, Polsby, Stone, Clark and Ferguson (Friedland and Palmer 1984) have studied decisions made within a city or organization to determine who is involved in the decision making process and the outcomes of the decision. By using this decisional method, these researchers have found that elites do not necessarily control all
decision making in the public sphere (Friedland and Palmer 1984). They have found that the elites are not always unified and therefore do not present a common front on all issues. Different elite groups participate at different times and levels given their personal involvement in the issue to be determined. Community or organizational power structures are decentralized.

In contrast, elite theorists' main methods of research have been network analysis and the reputational approach. By analyzing the interlinking of individuals and institutions, elite theorists such as Domhoff, Whitt and Ratcliff (Friedland and Palmer 1984) have demonstrated how influential individuals belong to the same organizations which unite their interests and how the public perceives them to have influence over issues. "Results like these have led elite theorists to conclude that community power structures are centralized, with business interests at the top" (Friedland and Palmer 1984:397).

Pluralists have been criticized for focusing solely on the big issues that have been brought into public discussion and decision making. These issues are likely to show the influence of elected officials and special interests groups because of their very public nature. This focus ignores the issues covered and decisions made before a topic becomes a public debate. Therefore, "this approach ignores the smaller day-to-day issues whose resolution creates the institutional biases within which major issues are debated" (Friedland and Palmer 1984: 394).
In using the network methodology and reputational approach, elite theorists have been criticized for reifying peoples' perceptions of the power structure. While the public may perceive elites to control decision making over issues, the actual decision process may not reflect any specific power of the elites. If the elites do not actively participate in the decision making process, their influence will not be felt.

II.3. The Individual View: Resistance as a Source of Power

On the individual level, researchers such as Kochanowicz, Guha, Brown, Jimenez, Zweig, Herbst and Colburn (Colburn 1989) have focused on the resistance of an individual to the application of power. The most cited study in this area has been James C. Scott's work on everyday forms of resistance among the peasant communities of Malaysia, which he summarized in Weapons of the Weak (1985). Though Scott's discussion concerned peasants, many of the concepts and forms of resistance are familiar to urban residents as well.

The everyday forms of resistance that the weak employ, according to Scott (1985), include foot dragging, dissimulation, feigned ignorance, false compliance, manipulation, flight, slander, theft, arson, sabotage and isolated incidents of violence. Milton Esman (1989) has identified the commonalities among the weapons that the poor and less powerful have at their disposal:
1. They can be material or ideological.
   
   A. Material forms of ideological resistance attempt to reduce the amount of labor required or increase the amount of the product that the laborers receive.
   
   B. Ideological forms strive to shame the powerful, justify the infractions of the weak or sustain the morale of the exploited.

2. They are generally acts of individuals and are unorganized.

3. They are deliberately non-confrontational and non-revolutionary. They do not seek to challenge the system, but rather to mitigate its impacts.

"The economic indispensability of the poor appears to constitute their real, though unequal, bargaining strength" (Esman 1989: 226). However, if the state's institutions are cohesive and supported by the elites, the effects of resistance by the weak is reduced. When the opposite is true and the institutions of the powerful lack cohesion, the weak have more success and are more likely to employ these forms of resistance. "Given the precarious situation, (the weak) find the public challenge of the dominant ideology and those who stand behind it imprudent. But they do work the system to their maximum advantage or minimum disadvantage, ever testing the limits of the possible" (Colburn, 1989: xxi).
11.4. The Thoughts of Foucault

Spanning both the global and local, Michel Foucault (1991) has presented ideas of power from a broad philosophical perspective and has become perhaps the most influential theorist in the discussion of power. While Foucault did not articulate a full theory of power and in fact doubted if any all-encompassing theory of power existed, he felt the issue of power was the most critical issue that needed to be explained in studies of society. In his own work, Foucault dealt with power primarily in relation to his studies of imprisonment and sexuality. However, his ideas are applicable to broader themes as well.

Foucault's main question in studying power was "how is it exercised, what exactly happens when someone exercises power over another" (Foucault in Kritzman 1988:102). He felt the discussions of the 1960's and 1970's focused solely on how power prevented individual action and believed that power was a more complex phenomenon and needed to be examined from another perspective. Foucault argued that it would not suffice to know all the decision makers and all the actions taken in the decision in order to determine the nature of power. To truly understand power, one needed to know how those making the decision were influenced by society: "the strategies, the networks, the mechanisms, all those techniques by which a decision is accepted and by which that decision could not but be taken in the way it was" (Foucault in Kritzman 1988: 104).
Power needs to be studied "where it installs itself and produces its real effects" (Foucault in Gordon 1980: 97) in the actions and discourses of everyday life. In this view, power is not a top down application of control nor a bottom up overthrow of the existing system, but rather a phenomenon that is created and recreated through the daily interactions of individuals and institutions. While this perspective has been criticized by feminist authors and others (Arac 1988, Boyne 1990, Ramazanoglu 1993), for reinforcing the status quo and accepting "that nothing can ever change the way that the world is.... (It also enables) a new view of social power, simultaneously anti-Utopian and non-fatalistic, (that) is taking shape in both the world of theory and the world of practice" (Boyne 1990:3).

Anthropologist David Horne (1989) has taken Foucault’s idea and investigated its application to studies of cities. He concludes that "a more productive conception of power and culture is called for: one in which the individual and the state are not construed as analytic poles, requiring on the one hand a discourse of alienation, and on the other a discourse on planning, but as terms related and mutually constituted within a whole series of paradigms, practices and strategies" (Horne 1989:195). Studies of urban systems must examine how power influences the actions of individuals, and also how power relationships are influenced by the interactions of individuals in the city on a daily basis.
II.5. The Views of the Planning Field

Since this thesis applies anthropological techniques to the study of an urban planning system, a review of urban planning theory is required. While most research in urban planning focuses solely on the technical aspects of city design (Healey et al 1982), some general theoretical concepts drive studies in the field. Studies in this area, however, do not significantly consider the impact of culture and its consequences for the global application of city planning systems (Potter 1985). Anthropologist Douglas Uzzell (1981) has argued that in certain aspects the two fields have diametrically opposed views. He summed up these differences in four propositions:

1. Members of the two disciplines approach the relationship between human behavior and the built environment from opposite directions. Architects and planners tend to see the built environment as a means of shaping behavior, whereas anthropologists tend to see the built environment as emergent from, or at least embedded in, cultural systems.

2. Whether intentionally or not, the two groups tend to serve different clienteles, with anthropologists dealing mainly with people affected by urban plans and architects and planners dealing mainly with those who want to institute the plans. At worst, this creates an adversary relationship between the disciplines; at best, it limits the complementarity of the research.
3. As a result of the two factors just mentioned, members of each discipline are limited by basic assumptions about what (their) proper roles should be in the process of urban planning and design. Anthropologists tend to focus on sub-cultural systems of ethnic groups, classes, neighborhoods and the like. Urban planners tend to be concerned with macro-processes such as traffic flows and changes in land use.

4. Because of that, (they) tend to use different databases, with anthropologists leaning toward... ethnographic descriptions and urban planners relying on aggregated statistical data.” (Uzzell 1981:354)

The modern profession of urban planning evolved out of the disruptions in cities caused by World War II. Given the major task of reconstructing many cities throughout the world and adjusting to large migrations caused by and following the war, governments employed architects in great numbers to redesign their cities. With the urgency of accommodating new people or rebuilding destroyed infrastructure, most of the processes implemented by the architects-turned-planners were highly centralized. Citizen participation was not encouraged, and the plans reflected the modernist and political ideologies of the planners and other government officials.

“From the war until the early 1970's, the urban and regional planning theory field was dominated by two paradigms. The first was that which views planning as the three
dimensional design of towns, in shorthand, the urban design tradition. This dominated the fields until the 1960's. The second...was procedural planning theory, which views planning as a general societal management process. This position rose to dominance in the 1960's" (Healey et al 1982:5).

In the 1970's, procedural planning theory was criticized and replaced by a variety of theoretical positions. These included the following:

1) Social Planning and Advocacy Planning which advocated that planning be oriented to social welfare goals;

2) Incrementalism which thought that procedural planning was overambitious and idealist and it would not work, and therefore planning should concentrate on decision-making methodologies;

3) Political Economy which was influenced by Marxist thought and believed that planning was the product of economic and social relations;

4) New Humanism which saw planning as consensus based and conducted through interpersonal relations and advocated radical restructuring of society into small community cells;
5) Implementation and Policy which was concerned with policy design and focused on policy in action;

6) Pragmatism which represented the planners who felt that theorizing did not advance the cause of planning and that planners should concentrate on getting things done (Healey et al 1982).

The result of the debates in the 1970's was a proliferation of theories and a theoretical eclecticism on the part of most planners. This has led to "a distinctive characteristic of the urban and regional planning tradition;...the readiness to adopt uncritically and often unwittingly the tenets of intellectual and ideological waves which sweep through the academic and para-academic world. This has led to what may be described as the condition of uncritical practice, in which not only do the practitioners have little basis other than 'hunch' and experience for determining and evaluating their actions, but there is no academic capacity for critical evaluation" (Healey et al 1982:5).

II.6. Power and Participation in Planning Theory

In response to political and social changes in the late 1960's and early 1970's, planners began to seek increasing involvement and participation from the public. While this trend initially began in the core developed countries, the peripheral countries were influenced by these trends as well. The main goals of encouraging public participation were to gain
insights into local conditions and the needs of local people, to increase the commitment of people to the plans in which they are involved and helped prepare, and to develop democratic processes (Potter 1985).

The leadership of public participation in planning can take three forms (Potter 1985). The public can be the leader in the process and make decisions which the planners will follow. They can also be followers taking direction from planners. The third possibility is that planners and the public work jointly and have equal responsibility for leadership. Each theoretical position in planning listed previously advocates one of these three forms of leadership and participation given their desired outcomes.

The nature of public/planner interaction can also be grouped into three types (Soen et al 1984). With citizen acquiescence, the planners may adopt a paternalistic approach to the public. If the planners and public disagree, conflict may be the mode of interaction. Finally, co-production is the result of joint decision making.

A number of variables have been examined in their impact on public participation (Soen et al 1984). These include social patterns such as alienation from the political system, socio-economic status, membership in formal organizations and the size of the government unit responsible for the planning. Furthermore, planning that systematically includes participation increases the influence of the public versus planning where participation is unstructured.
"Until relatively recently the problem posed by power relationships in planning was largely ignored. There appeared to be a widely held view, at least by practicing professional planners, that planning was a technical procedure, politically neutral and appealing to some notional public interest" (Blowers 1982, p 140). However, in his case study of Bedfordshire, England, Blowers (1982) found planning to be intrinsically linked to the political system and influenced by the power relationships within the political system, the bureaucracy and the community. Blowers found that individually planners and planning agencies were weak because they lacked financial resources and authoritative mechanisms to enact their plans. However, when backed by the power of the political structure and community elites, planning outcomes proved to be powerful in reshaping the lives of the people in the community (Blowers 1982).

Blowers also demonstrated how planning decisions are not merely those presented in the completed plans made public, but also include those planning issues that were not addressed or were disregarded. Thus, much like the elite theories of community power, Blowers suggests that "put into the context of planning, the debate about power demands that we analyze formal and informal decision-making and recognize the assumptions and values that lie behind the action (or inaction) of interest groups" (Blowers 1982:144). Therefore, the power of planners and the participation of citizens becomes intrinsically interrelated with the power gradients within the community.
III. THE SETTING OF THE STUDY: CURITIBA, BRAZIL

Curitiba is located in the southern Brazilian state of Parana approximately 200 miles southwest of Sao Paulo. As the capital and largest city of the state, Curitiba serves as the main hub of political, cultural and economic activity for the state and surrounding regions in neighboring states. With an estimated 1994 population of 1.4 million (Prefeitura da Cidade Curitiba (PCC)/Brazilian Institute of the Census (IBGE) 1995), Curitiba is the core of the eighth largest metropolitan area in Brazil containing 2.3 million people (PCC 1995).

In the hierarchy of Brazilian government, 26 states comprised of numerous relatively small municípios (counties) make up the Federal Republic of Brazil. Municípios are the smallest forms of government in Brazil. Municípios generally encompass a number of towns or villages. In the larger cities, urbanized regions often cover the total land area of the municípios. Within the municípios, the individual towns do not have their own governments but are administered by the município government. The metropolitan region of Grande Curitiba includes the eight municípios of Almirante Tamandaré, Araucária, Campo Largo, Colombo, Fazenda Rio Grande, Pinhais, São José dos Pinhais and the município of Curitiba. In turn, the município of Curitiba is divided into 6 regions and 75 neighborhoods for administrative purposes (see Map 3 on page 23). The município of Curitiba contains urbanized, rural and natural areas.
Map 3: Curitiba’s Regions and Neighborhoods
Curitiba constitutes Brazil’s wealthiest large city (more than one million inhabitants) with a per capital gross domestic product (1994 GDP) of $5,150 compared to $3,160 for the nation as whole (PCC/IBGE 1995). The GDP is also distributed more equally, with a gini coefficient of .57 (PCC/IBGE 1995) versus estimates ranging from .60 to .75 for the Brazilian national average. Most other quality-of-life indicators such as literacy, infant mortality, health care, and potable water (see Appendix 1) are superior to those of other major Brazilian cities and the country-wide averages (IBGE 1994). Despite its relative position of economic strength vis-a-vis the rest of Brazil, Curitiba would best be classified as existing, along with the rest of Brazil, in the semi-periphery of the world economic system. However, Curitiba occupies a position near the core of social and economic power in Brazil, which is primarily located in the Sao Paulo-Rio de Janeiro corridor.

Curitiba’s wealth is primarily a result of its natural resources and imported capital. The climate is generally subtropical to temperate and most of the land is conducive to agriculture. Water is abundant and provides cheap electrical power. Coffee, soy, tobacco, wood and beef are large industries and exports. Transportation equipment and machinery components are the largest manufactured products.

The population is composed mostly of immigrants and their decedents from Northern, Central and Eastern European countries. Italians, Germans, Poles and Ukrainians comprise large ethnic groups. This ethnic composition has drawn a large number of European, U.S. and Japanese multinational corporations to the Curitiba region such as
Volvo, Bosch, Fiat/New Holland, Equitel/Siemens, Nippondenso, Pepsico, Phillip Morris and others. Financial and investment inflows from these core developed regions (Japan, United States, Western Europe) have also been significant in the industrial development of the city and state. Thus, the “historical aspects of local colonization together with relatively modern capitalist patterns in agricultural and regional development have produced a unique situation in Parana and in Curitiba in particular. The resulting productive agricultural sector gave birth to a more progressive capitalist regional economic system” (del Rio 1992:274).

III.1. The Success Story

In surveys and articles, many Brazilians and urban planning professionals (Di Giulio 1994, del Rio 1992, Margolis 1992, Meadows 1995, Pearce 1992, Pedriera and Goldstein 1992, Rabinovitch and Leitman 1996 and Wright 1996) consider Curitiba to be Brazil’s most livable large city. It is deemed livable because of its high level of income, economic diversity, abundant green spaces, superior social services, lower pollution and less government corruption relative to other Brazilian cities. Curitiba also promotes itself as a model for the development of urban areas in industrializing countries. This section presents the accomplishments that Curitiba claims as its success story.

The city government boastfully calls the city the “Environmental Capital” of Brazil and prides itself on its innovative environmental programs. One such program is the
Câmbio Verde that exchanges recyclable trash collected by the residents of the favelas (shanty towns) for surplus food purchased from local farmers, school books and holiday gifts (see appendix 2). The process increases the recycling rates, improves the sanitation of the favelas and provides much needed food and supplies to low income families and individuals. Another recycling program is called Lixo que não é Lixo (Garbage that is not Garbage). This program uses a costumed group called the Leaf Family to promote recycling throughout the schools and in the community. It is primarily aimed at children. According to government statistics, these programs have increased Curitiba’s recycling rates to levels comparable with Japan and some Western European countries (IPPUC 1994), which are considered the leaders in this area.

In addition to recycling trash, the city has recycled land within the city. Three abandoned rock quarries have been turned into, respectively, an outdoor concert stadium, an opera house and a free environmental university offering courses in environmental protection. A former garbage dump has been converted into a botanical garden that employs street and low-income children to tend the gardens in exchange for food and education supplies.

The city also has legislated that for every tree cut down, two more must be planted. The city provides the trees and encourages community groups and social organizations to plant additional saplings. These efforts have increase green area per capita from less than
2 square meters to 52 square meters, an amount higher than in many wealthy industrialized cities (IPPUC 1994).

The city also rates favorably in relation to the rest of Brazil for the quality and accessibility of education. *Municípios* are responsible for education up to the fourth grade, with the states in charge of higher levels. Curitiba has put much effort into developing enough schools and day care centers to accommodate the total school age population. In order to provide enough day care spaces, the *Vale Creche* (Day Care Credit) program was created. This program provides financial incentives for all employers to provide on-site day care for the children of employees or to purchase day-care vouchers for employees to use in paying for spots at city- or privately-operated centers.

Curitiba has also focused on adult education and retraining. Retired city buses have been converted into mobile classrooms (see appendix 3). These mobile schools provide training for low-income individuals seeking employment as electricians, plumbers, clerical positions and other areas. The buses are scheduled on regular routes that visit low-income areas where access to adult education is limited. These schools on wheels are also used for programs for children such as art and music classes.

Buses have also been used in innovative ways to provide health care. Converted into mobile health clinics, these buses can reach populations that are not served by standard medical clinics. Primary and preventive care is the focus of these health centers. They also
provide health education and dispense information on the city’s broad range of health
clinics and services.

The city also has a transportation system that is the model for some cities in
industrialized countries including New York. Instead of building a subway as many other
large Brazilian cities have done in the last few decades, Curitiba dedicated its resources to
developing a high speed bus network called the *Ligeirinho*. This network functions much
like an above-ground subway. The buses are specially designed with doors and loading
planks that open automatically to tubes that are installed along the side of the roadway
(see appendix 4). These tubes are the unique aspect of the system. They allow for riders
to pay and enter at one end and then wait for the bus inside the tube. People depart the
bus network via the other end of the loading tube. When a bus arrives at the tube, bells
chime, and planks and doors slide open automatically. People enter through two doors at
an even level to the bus. Having prepaid before entering the tube, the passengers load
quickly, and the bus proceeds on its way. Transfers from one bus line to another are also
done in the tubes or multiple tubes connected by walkways. Upon leaving the tubes, the
buses travel mostly in specifically designated high speed bus lanes that are isolated from
the city’s normal automobile traffic. At speeds up to 80% as fast as subways, the system
costs one sixtieth of the cost of an underground system (IPPUC 1994).

Additionally, Curitiba has focused on providing housing to low-income individuals and
those living in the *favelas*. Instead of building large public housing projects at the city’s
expense, as other Brazilian cities have done, Curitiba has created the *Solo Criado* (Created Land) program (see appendix 5). Through *Solo Criado*, developers wishing to construct a building within the city that exceeds zoning codes for height or size can gain a variance in exchange for land or money given to the city to purchase land. The city then develops the donated land, that is usually located on the outskirts of the city, for low income housing. They install potable water, electricity, sewage and dirt roads. Dividing the land into 30 foot squares, the city sells the plots at subsidized rates to qualifying individuals. These families in turn construct their own housing through their own resources and city assistance. Generally this is a slow process engaging up to 15 members of the same family and often includes materials scavenged from other construction sites or garbage piles. Over time the areas develop, and the homes become more permanent. This results in housing that fits the needs of the citizens as well as the pride of home ownership.

As evidenced above, Curitiba has introduced and developed a number of innovative, resourceful and environmentally friendly programs and services that increase the general quality of life of its citizens. Through the positive results of these programs, Curitiba has developed an identity worldwide, nationwide and among the residents of the city as a well planned urban area. This identity has been internalized by many residents who in general conversation express obvious pride in their city’s livability. The prestige of being Brazil’s most-livable city has enabled city planners to proceed with ambitious plans with broad support from the community.
III.2. The Agency Responsible: Institute for Research and Urban Planning in Curitiba (IPPUC)

The Institute for Research and Urban Planning (IPPUC) is responsible for most urban planning in Curitiba. IPPUC is a semi-autonomous governmental agency founded in 1965. At that time, and continuing through the 1980's, Curitiba was one of the fastest growing cities in Brazil. The metropolitan population boomed from 360,000 in 1960 to more than 2,000,000 by 1990 (IPPUC 1992).

In the early 1960's a group of influential architects, urban planners and bureaucrats began to realize and articulate the destructive effects that the rapid population growth was having on the city: sprawling settlement, congested transportation, loss of green spaces and deteriorating infrastructure. They foresaw that the plan for the development of the city that had been created in the 1940's, known as the Agache Plan, was insufficient in addressing the needs of a city growing as rapidly as Curitiba. They brought the problems to the attention of the city government. In order to develop a new concept and make it more applicable to the locale, since the Agache Plan had been created by a French urban designer of the modernist tradition, the city government held a competition to design the new plan for the city. The final plan that emerged from this competition was developed by a group of local architects. It was adopted by the city council in 1965 as the Preliminary Plan. To implement and administer the plan, the city created IPPUC and hired leading local architect Jaime Lerner as the first Director of the Institute.
IPPUC’s original mission was to “execute the necessary measures to improve the living conditions of the population and integrate it, through ideas and suggestions (to the City Government), with the planning of the City” (IPPUC 1985: 3). In the beginning, IPPUC concentrated on defining the Preliminary Plan adopted in 1965. The plan called for the city to be laid out along two main structural axes where high-rise and high-density development would be centered. These axes would form the backbone of the transportation system (see Map 4 on page 32) and be the location for most commercial and service industries. The plan called for all other sections of the city to be designated as various types of residential, industrial or commercial zones. IPPUC began its work by designating the zoning regulations for each region of the city.

The task of implementing the Preliminary Plan occupied IPPUC into the early 1970's. At that time, because of the successes of initial projects and with its former director, Jaime Lerner, now as mayor, IPPUC began to expand its areas of research and planning by focusing on the components of the plan. The researchers and planners of IPPUC began to develop new transportation systems, health care systems, schools and parks among other things. As its mission broadened, the Institute gained stature within Curitiba, the nation and eventually the world planning community as evidenced by the growing number of citations of the Curitiba story (del Rio 1992, Goodstein 1992, Margolis 1992, Meadows 1995, Pearce 1992, Pedriera and Goldstein 1992, Di Giulio 1994, Zelov 1995, Rabinovitch and Leitman 1996 and Wright 1996).
Map 4: Curitiba’s Axes Corridors
IPPUC remained in an expansionary phase through the early 1980's. In 1986, Brazilians directly elected a national government for the first time since the 1965 military coup. Shortly thereafter, the city and state governments were also popularly elected instead of appointed by the federal government. With the successive changes in city, state and national governments, IPPUC's role was modified. Many of the functions previously performed by IPPUC were absorbed or placed under the jurisdiction of the city's various secretariats or new government organizations. For example, the responsibility for planning and administering the city's transportation system was shifted to the Corporation for the Urbanization of Curitiba (URBS). During the late 1980's and into the 1990's the influence of IPPUC within the city government was gradually reduced. The result has been a loss of direction at IPPUC and a reevaluation of the Institute's mission in the 1990's and into the next century.

In the Spring of 1995, though undergoing fundamental reorganization, IPPUC consisted of five main divisions: computing, information, planning, implementation and administration/finance (see appendix 6). The 200 plus employees included accountants, architects, computer programers, engineers, geologists and geographers, social workers, sociologists and statisticians. The main areas of work continued to be related to land-use regulations for the city and the approval of building designs, the collection and distribution of information about the city, the planning of infrastructural development (schools, roads, health centers, day care centers, etc.) and the coordination of projects with other city agencies.
As an agency of the City of Curitiba, IPPUC’s work is restricted to regions within the city limits and little planning or coordination is done on a regional scale. Most of the land within the boundaries of the Municipio of Curitiba has already been developed or is reserved for green spaces or specific future developments. The surrounding municipios are growing rapidly. Developments not desired by Curitiba and excluded because of the policies of IPPUC and the City Government are often located in surrounding towns. This has led to conflicts between Curitiba and surrounding areas.

Many planners, citizens and researchers (Margolis 1992, McKibben 1995, Zelov 1995, and Rabinovitch and Leitman 1996) believe planning is easier in Curitiba today because the city has developed a strong planning identity over the past 30 years. While there was opposition at first, after a number of successes many citizens began to support and even demand planning. Thus, the concept of Curitiba as a well-planned city is important to the continuing success of planning in Curitiba. Because of its successes and ability to build an identity as a well-planned city, many officials and planners have come to IPPUC to compare Curitiba with their city -- for example, official visits have been made from Halifax, Berlin, Albuquerque, New York, Moscow, Buenos Aires and Lyon. Yet cracks are beginning to appear in Curitiba’s planning identity as new plans face increasing opposition and political changes are altering IPPUC’s role.
III.3. The Planning Constituencies in Curitiba

Given the decline of IPPUC's influence over the planning process, the importance of the city's various planning constituencies has increased. However, even at its height, IPPUC was never able to disregard the interests of other institutions, businesses and individuals in the city. In fact much of its success can be attributed to its ability to devise plans that benefitted a broad range of citizens.

I have identified twelve key constituents with which IPPUC must work. These are the city's council and politicians, other city agencies, federal, state, and other cities' governments, neighborhood and community organizations, land developers, commercial businesses, industrial businesses, small businesses, high-income citizens, middle-income citizens, low-income citizens and the citizens that dwell in the favelas. The following sections briefly describe the general characteristics of each group. A summary of this information is contained in the chart on page 40.

The city's elected council officials and politicians comprise one constituency. This group participates at a high level in the planning process and has much influence over the decisions made by virtue of their positions or connections. Depending on the individual, his/her district and personal interests, the individuals in this group have benefitted moderately to highly from past projects. The members of this group are primarily interested in plans that affect their electoral district, key constituents and in
general the whole city, because these plans will likely affect to some degree their political future. A number of politicians in Curitiba have gained much politically from the successes of the city in the area of planning. This constituency is comprised of individuals, political parties, and labor unions leaders. The members are generally wealthy, either as an individual or as an organization, well organized, and highly educated. They are extremely competitive among themselves, while remaining somewhat cohesive as a group to protect their interests.

Other city agencies such as the Secretariat of Health, Corporation for the Urbanization of Curitiba, and the Secretariat of the Environment form another main IPPUC constituency. These organizations are closely involved in the overall planning of the city and control certain aspects of planning. Therefore, they have high levels of participation and power over planning and have benefitted from past planning. They are primarily interested in their areas of responsibility (i.e., health, transportation, environment). This group’s members are well educated, of middle incomes individually but have access to institutional resources and compete with other departments for influence and prestige.

A third group encompasses all other governmental agencies and elected officials at the federal, state and neighboring municipio level. For the most part, these institutions have little direct participation in the planning process in Curitiba, have moderate influence over the decisions and do not benefit much directly from the plans. They are primarily interested in projects that relate to their areas of service at the federal or state level, such
as education, and any impacts that spread beyond the borders of Curitiba. The attributes of this group are basically a combination of the preceding two, but at a higher governmental and political level.

Neighborhood and community organizations constitute the next group. Organizational members of this constituency include officially recognized Associações dos Moradores (Associations of the Residents), religious organizations, and non-profit social agencies. They have traditionally not had high levels of participation in the planning process and have not benefitted much directly as organizations. Through their organizing, they can moderately influence the planning process. Generally, the groups are interested in their focus areas such as a specific neighborhood or a local service. Members of these organizations are generally individuals with varying financial resources and levels of education. Resources at the disposal of these groups are usually limited, but a few may have financial strength. The organizations usually are disorganized, regionally focused and exist outside the official networks of the planning system.

A fifth group comprises the various land developers within the city. These companies range in size from small to large and often represent the interest of a primary individual owner. In some ways they come to embody that individual. They participate highly in the planning process and have much influence over decisions. Depending upon their successes in influencing plans, they have either benefitted highly or moderately. Developers are primarily interested in any zoning, taxing, transportation, or siting of
services that impact the land or buildings they own and their plans for those sites. As organizations, they may have many financial resources or are more moderately funded. Generally, they are well connected to the business and political community and are well educated or employ people of high education. Within the group they are competitive in securing land and contracts, but are united in focusing on what is best for the development community. Some smaller firms may take more independent paths and focus on smaller niches such as environmentally sensitive or low-income housing developments.

Three different types of businesses comprise three other main constituencies — commercial businesses, industrial businesses and small businesses. The size and type of the business influences its level of participation and power in the planning process. Generally, the larger the business, the more the influence and participation as an organization. Smaller and commercial businesses participate less and have benefitted less from past planning. The main concerns of these three groups are the conditions of their businesses, their customers, their need to access labor and transportation, and their taxes. Industrial businesses are larger, produce goods, require high amounts of labor, have larger financial resources, are dependent on access to markets and are most educated at the upper administrative levels. Commercial businesses are medium to large and sell products or services. They may require some labor, but are most dependent upon customers. Small businesses may either be producers or sellers, but are united by size. They are entrepreneurial and hire little labor. The educational levels and financial resources of the last two vary.
Individual citizens are grouped into four constituencies — high income, middle-income, low-income and favela dwellers. They may act as individuals, as families or together with friends or neighbors. Their levels of participation and influence generally follow from their level of wealth, with the wealthier having the most power. Benefits, however, are more equally spread across the incomes. The groups also mostly share the same interests in planning, though with different importance given by each group. Primary concerns are their place of residence, their source of income or opportunity for employment, their taxes, their modes of transportation, and the quality of their services. Education, income, number of wage earners, neighborhoods, use of public services and other attributes vary across the income levels as well.

The table starting on the following page shows the level of participation of each group in the planning process, both officially and informally, and their influence or power over planning decisions. It also lists how they have benefitted from past planning and gives brief descriptions of the primary planning areas and topics in which they are interested. Finally, the last column of the table lists some of the general attributes of each organization or constituency.

These twelve constituencies of planning encompass virtually all of the participants in the planning process in Curitiba. They are referred to throughout this thesis and form the main reference points for the discussion of the social landscape of planning and participation in the city.
Table I: Curitiba’s Planning Constituencies

<table>
<thead>
<tr>
<th>Constituencies</th>
<th>Level of Participation</th>
<th>Influence Over Decision</th>
<th>Benefits from Past Planning</th>
<th>Planning Interests (listed in general order of importance)</th>
<th>Attributes of Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Council/ Politicians</td>
<td>High</td>
<td>High</td>
<td>Medium to High</td>
<td>Electoral district, key constituents, whole city, political future</td>
<td>Individuals, political parties, labor unions, individual or organizational wealth, organized, competition between groups/ ideologies, educated</td>
</tr>
<tr>
<td>City Agencies</td>
<td>High</td>
<td>High</td>
<td>Medium to High</td>
<td>Responsibility area (i.e. health, electricity, transportation, water, environment)</td>
<td>Departments of government, educated, middle income individuals, institutional resources, competitive between departments</td>
</tr>
<tr>
<td>Federal/State Governments</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Projects related to Federal or State services, impacts beyond Municipio</td>
<td>Same as previous two (councils/politicians/ agencies) at a higher level</td>
</tr>
<tr>
<td>Neighborhood/ Community Organizations</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Neighborhood livability, access to transportation, quality of local services</td>
<td>Individuals, churches, non-profit agencies, regionally focuses, disorganized, varying financial resources, outside system</td>
</tr>
<tr>
<td>Developers</td>
<td>High</td>
<td>High</td>
<td>Medium to High</td>
<td>Zoning, taxes, transportation, siting of services, changes in land values, restrictions on property rights</td>
<td>Individuals, small to large companies, land owners, builders, moderate to high financial resources, well connected to business/political community, varying education, competitive, cohesive as profession</td>
</tr>
<tr>
<td>Commercial Businesses</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td>Business, customers, transportation, taxes</td>
<td>Medium to large companies, sellers of products or services, requiring some skilled labor, dependent upon access to customers</td>
</tr>
<tr>
<td>Industrial Businesses</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Business, workers, transportation, taxes, competition with other cities</td>
<td>Larger corporations, producing goods, requiring high amounts of labor, wealthy, educated, dependent on access to markets</td>
</tr>
<tr>
<td>Constituencies</td>
<td>Level of Participation</td>
<td>Influence Over Decision</td>
<td>Benefits from Past Planning</td>
<td>Planning Interests (listed in general order of importance)</td>
<td>Attributes of Organization</td>
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<tr>
<td>Small Businesses</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Business, customers, taxes, transportation, viability of location</td>
<td>Small companies or family operations, little hiring of labor, mostly service oriented, entrepreneurial, varying levels of education, limited financial resources</td>
</tr>
<tr>
<td>High-Income Citizens</td>
<td>High</td>
<td>High</td>
<td>Medium to High</td>
<td>Place of residence, source of income, taxes, mode of transportation</td>
<td>Individuals/families, quality private educat., professionals and entrepreneurs, live in nicer downtown neighborhoods, little use of public services, able to escape taxes</td>
</tr>
<tr>
<td>Middle-Income Citizens</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Place of residence, source of income, taxes, quality of services, mode of transportation</td>
<td>Individuals/families, mostly private educat., professionals/mid-level managers, use the better public services, neighborhoods vary in quality and location, two incomes</td>
</tr>
<tr>
<td>Low-Income Citizens</td>
<td>Low</td>
<td>Low</td>
<td>Medium to High</td>
<td>Source of income, transportation, quality of services, place of residence, taxes</td>
<td>Individuals/families, poor public education, industrial/service workers, distant poor quality neighborhoods, multiple incomes, dependent on public services</td>
</tr>
<tr>
<td>Favela Dwellers</td>
<td>Low</td>
<td>Low</td>
<td>Low to Medium</td>
<td>Opportunities for employment, likelihood of permanent housing/eviction, quality of services, mode of transportation</td>
<td>Individuals/families, squaters, makeshift housing, low-skilled workers (often temp.), dependent on services, little public education, lack access to services, located far from city center on marginal lands, multiple incomes, begin working early</td>
</tr>
</tbody>
</table>
IV. THE METHODS, PROCEDURES AND INTERVIEWEES

From April through June 1995, I joined the staff of IPPUC as an intern with assignments in three departments -- Land Use, Databank, and Socio-Economic. During this time, I conducted semi-structured interviews with a number of individuals and had numerous informal conversations with others through my daily interaction with the employees of IPPUC as well as the citizens of Curitiba. Additionally, prior to my departure for Curitiba, I interviewed a former resident of the city and have included his remarks.

In preparation for the semi-structured interview sessions that I scheduled with each key informant, I prepared a list of questions that included standard ones asked of all interviewees and specific ones for each individual. During the interviews, I set a casual conversational tone and encouraged the interviewees to direct the interaction. To ensure consistency of data, I wove the prepared questions into every conversation. With most of the interviewees, I was able to follow up the initial semi-structured conversation with additional questions or clarifications through subsequent interaction at IPPUC or in a social setting.

Five of the structured interviewees were current or former employees of IPPUC. The other five were architects, engineers, government officials and scholars that were familiar with IPPUC and planning in Curitiba and therefore served as key informants. Five of the
interviewees were female and five were male. All but one of the individuals interviewed had lived in or around the city for more than a decade and most for the major portion of their lives. The individual interviewed in the U.S. had lived in Curitiba for three years. Thus, they were able to assess the planning system in Curitiba given their extensive histories in the city. However, this also reduced their ability to compare Curitiba to other cities through first-hand experience. The group ranged in ages from the early 20's to the late 50's. There was no predesigned method for selecting the interviewees and therefore they represent a sample of people I contacted through my work with IPPUC, my language courses, my interactions with my sponsoring Rotarians and my social contacts.

I interviewed the following current or former IPPUC employees (see chart on page 48 for a summary):

Ana Christina is an architect who has been employed in the Land Use Sector of IPPUC for the past four years. She is a native of Curitiba, but has lived in many other Brazilian cities and has spent a majority of her life outside of Curitiba. Prior to joining IPPUC, she worked in a private architectural firm. Her training was at the university level in the area of architecture. She is in her early 30's and is married. Her family is of Northern European origin and are fairly recent immigrants to Brazil. With an upper-middle class background and income level, Ana Christina has been able to travel abroad extensively. Our discussion was conducted at her office in IPPUC and lasted for more than three hours.
Carmilo is a mathematician by training and serves as the supervisor of the Research Sector at IPPUC. Carmilo is approximately 40 years of age and has 15 years of experience with IPPUC. His family is of mixed Indigenous and European decent. He received training as a mathematician at a public university, which was a struggle for his family given their middle-class income. He is married and has three children of his own, which strains the mid-level salary he makes at IPPUC. He initially came to Curitiba from a rural area in the state of Rio Grande do Sul, Brazil in order to obtain higher paying employment. He is an active participant in community and political activities. My meeting with him was conducted during my first week at IPPUC and lasted for more than two hours.

Eliane is the supervisor of the Databank Section and a 14-year employee of IPPUC. She received university training as a sociologist. Eliane is close to 50 years of age and single. She is a native of Curitiba and her family is of Southern European origin. She cares for her elderly mother and occasionally the children of her divorced sister. These responsibilities sometimes stretch her middle-income salary. Our interview was also held during my first week at IPPUC and lasted about an hour. However, we had numerous occasions to discuss issues throughout my stay because of my intern position in her department.

Sueli is a social worker by profession and serves as the supervisor of the Socio-Economic Sector. She is a native of Santa Caterina, Brazil, but has been in
Curitiba for more than 20 years and has been with IPPUC for 18. She is in her 40's, married and has two children. Her husband is also a government employee, and together they earn enough to keep their family in a comfortably middle-class lifestyle. She attended a public university and earned the equivalent of a Bachelor's of Arts Degree in Social Work. Her ethnic background is of European origin. We met on several occasions while I was at IPPUC for a total time of more than three hours.

Luiz is a professional architect and urban planner who formerly worked with IPPUC as well as taught at the Federal University of Parana. He has a Masters in Architecture from the University of Edinburgh in Scotland and studied for a period in the U.S. He is in his late 40's, is married and has three children. His wife is also a professional designer and together they maintain an upper-middle-class lifestyle. They have been able to afford a number of trips overseas as well as extended periods of study. Luiz is originally from the state of Sao Paulo and is of Portuguese decent. We met at his home for an hour and a half.

The structured interviewees who were not IPPUC employees are the following:

Adriane is a student of civil engineering at the public Federal University of Parana. She is nearing completion of her studies and spent a summer studying at Antioch College in Ohio. She has lived her whole life in Curitiba and is 20 years old. She
lives with her parents and sister in an upper-middle-class neighborhood. The family is of southern European origin. Adriane engages in numerous charitable activities, including visits to prisons and institutions for the low-income elderly. We met for a discussion of more than three hours.

Maoro was born more than 50 years ago in the northern part of the state of Parana. He moved to Curitiba in the mid-1970's to study law at the university. He is currently a district attorney for the Município of Curitiba, which, along with his wife's private English School, provides a high income level for the family. They live in a wealthy part of the city and have two grown children. His family is of European origin and profited from the settling and farming of the fertile areas of northern Parana. We met at his home and had a discussion for more than two hours.

Rossano is an architect with a private firm in Curitiba. He is a native of Parana state and moved to Curitiba as a university student. He is 30 years old, is married and has one young child. Along with his wife's relatively low salary as an English teacher, Rossano's family has recently been able to purchase a small apartment home at the expense of the family's nicer car. They struggle to maintain the middle to upper-middle-class lifestyles of their parents. Rossano's family is of European origin. Our discussion took place over a one hour lunch in a restaurant.
Claudia is a student of architecture at the Federal University of Parana. She is a native of Curitiba and has lived there for all of her 22 years. She lives with her parents and brother in a distant middle-class suburb. Her grandparents immigrated to Brazil from Italy in the early part of this century and settled in the large Italian community of Curitiba. The family is able to afford the relatively low fees of the public university and is helped by her brother’s income as a medical resident. We met on a number of occasions during my stay in Curitiba.

Marcelino is a 30 year old Ph.D. student at a U.S. university. He is a native of Sao Paulo, but has lived in a number of Brazilian and U.S. cities. He has extensive travel experience and has lived outside of Brazil for a number of years. While earning his Master’s Degree, Marcelino spent a number of years in Curitiba at the Federal University of Parana. During that time, he became quite active in student government and politics. His family originally immigrated from Japan to establish coffee and cotton farms in the interior of Sao Paulo state. His parents became professionals and immigrated from the rural area to the city of Sao Paulo, where they live among the large Japanese community. They maintain an upper-middle-class level of living and, along with scholarships, support Marcelino’s studies. We met in the U.S. on two occasions of at least one hour each.
Table 2: Summary of Interviewees

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Approximate Age</th>
<th># of Years in Curitiba</th>
<th>Birthplace</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ana Christina</td>
<td>early 30's</td>
<td>14</td>
<td>Curitiba</td>
<td>White</td>
</tr>
<tr>
<td>Carmilo</td>
<td>early 40's</td>
<td>15</td>
<td>Rio Grande do Sul</td>
<td>Mixed</td>
</tr>
<tr>
<td>Eliane</td>
<td>around 50</td>
<td>50</td>
<td>Curitiba</td>
<td>White</td>
</tr>
<tr>
<td>Sueli</td>
<td>late 40's</td>
<td>20</td>
<td>Santa Catarina</td>
<td>White</td>
</tr>
<tr>
<td>Luiz</td>
<td>late 40's</td>
<td>12</td>
<td>Sao Paulo</td>
<td>White</td>
</tr>
<tr>
<td>Adriane</td>
<td>20</td>
<td>20</td>
<td>Curitiba</td>
<td>White</td>
</tr>
<tr>
<td>Maoro</td>
<td>50's</td>
<td>25</td>
<td>Northern Parana</td>
<td>White</td>
</tr>
<tr>
<td>Rossano</td>
<td>30</td>
<td>12</td>
<td>Northern Parana</td>
<td>White</td>
</tr>
<tr>
<td>Claudia</td>
<td>22</td>
<td>22</td>
<td>Curitiba</td>
<td>White</td>
</tr>
<tr>
<td>Marcelino</td>
<td>30</td>
<td>4</td>
<td>Sao Paulo</td>
<td>Asian</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Education</th>
<th>Occupation</th>
<th>Employer</th>
<th># of Years w/ Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ana Christina</td>
<td>B.A.</td>
<td>Architect</td>
<td>IPPUC</td>
<td>4</td>
</tr>
<tr>
<td>Carmilo</td>
<td>B.A.</td>
<td>Mathematician</td>
<td>IPPUC</td>
<td>15</td>
</tr>
<tr>
<td>Eliane</td>
<td>B.A.</td>
<td>Sociologist</td>
<td>IPPUC</td>
<td>14</td>
</tr>
<tr>
<td>Sueli</td>
<td>B.A.</td>
<td>Social Worker</td>
<td>IPPUC</td>
<td>18</td>
</tr>
<tr>
<td>Luiz</td>
<td>M.A.</td>
<td>Architect</td>
<td>Private Practice</td>
<td>3</td>
</tr>
<tr>
<td>Adriane</td>
<td>in Univ.</td>
<td>Student</td>
<td>(none)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Maoro</td>
<td>J.D. equiv.</td>
<td>Attorney</td>
<td>Mun. of Curitiba</td>
<td>21</td>
</tr>
<tr>
<td>Rossano</td>
<td>B.A.</td>
<td>Architect</td>
<td>Architect. Firm</td>
<td>2</td>
</tr>
<tr>
<td>Claudia</td>
<td>in Univ.</td>
<td>Student</td>
<td>(none)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Marcelino</td>
<td>Ph.D. stud.</td>
<td>Student</td>
<td>(none)</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Family Status</th>
<th>Family Class (including parents)</th>
<th>Approximate Income Level (quintile)</th>
<th>Family Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ana Christina</td>
<td>married</td>
<td>Upper-Middle</td>
<td>3rd</td>
<td>Northern European</td>
</tr>
<tr>
<td>Carmilo</td>
<td>married + kids</td>
<td>Middle</td>
<td>3rd</td>
<td>Indigenous/European</td>
</tr>
<tr>
<td>Eliane</td>
<td>single</td>
<td>Middle</td>
<td>3rd</td>
<td>Southern European</td>
</tr>
<tr>
<td>Sueli</td>
<td>married + kids</td>
<td>Middle</td>
<td>3rd</td>
<td>European</td>
</tr>
<tr>
<td>Luiz</td>
<td>married + kids</td>
<td>Upper-Middle</td>
<td>2nd</td>
<td>Portuguese</td>
</tr>
<tr>
<td>Adriane</td>
<td>single</td>
<td>Upper-Middle</td>
<td>not applicable</td>
<td>Southern European</td>
</tr>
<tr>
<td>Maoro</td>
<td>married + kids</td>
<td>High</td>
<td>1st</td>
<td>European</td>
</tr>
<tr>
<td>Rossano</td>
<td>married + kid</td>
<td>Middle</td>
<td>3rd</td>
<td>European</td>
</tr>
<tr>
<td>Claudia</td>
<td>single</td>
<td>Middle</td>
<td>not applicable</td>
<td>Italian</td>
</tr>
<tr>
<td>Marcelino</td>
<td>single</td>
<td>Upper-Middle</td>
<td>not applicable</td>
<td>Japanese</td>
</tr>
</tbody>
</table>
In addition to the structured interviews with the previously mentioned individuals, I conducted and kept fields notes on unstructured interviews or informal conversations with 19 additional individuals. While some of these informants were also employed by IPPUC or involved with the plans of IPPUC in some way, a large majority were not associated with IPPUC and were not directly involved in the planning process other than through their daily lives in Curitiba. I met these informants through my personal interactions with people in the city. The interviews or conversations were generally conducted on the spot of the encounter as time permitted. They were unstructured in the sense that no specific questions or topics were outlined prior to our meeting and no attempt was made to maintain a consistency of topics discussed, as was done in the scheduled semi-structured interview sessions.

A quarter of the informal conversations were based on single encounters, the remainder were long-term discussions held over a period of time with people with whom I had frequent contact. These longer multi-stage discussions occurred mostly with people employed by the family with which I was living, associated with my language program at the university, working at restaurants and stores that I frequented, employees of IPPUC or other city agencies, or members of the Rotary organizations with which I interacted. These individuals became informants through the circumstances of coming into contact with me and through their interest in my research area. In general, this group was more difficult to pin down in a structured interview manner but was sought out to provide a broader picture of planning in Curitiba from the perspective of non-planners.
The unstructured interviewees also consisted of people from a wider socio-economic background than the structured interviewees. Three of the interviewees held jobs that indicated an income substantially below the national average. These individuals were employed as household domestics or residential construction workers. All were recent immigrants to the city and resided in low income areas on the periphery of the municipio's boundaries or in neighboring municipios. As recent immigrants, they maintain strong ties to their rural roots and often return to their hometowns on the weekends.

A number of the informants from the unstructured interviews were of lower-middle to middle-class incomes. These individuals held positions such as store clerks, clerical assistants and schools teachers. While of moderate incomes individually, some belonged to families that cumulatively had higher incomes via working parents, siblings or spouses. Most of these informants were native Curitibano's or immigrants from other medium to large sized Brazilian urban areas.

The remaining unstructured interviewees were of upper-middle to high incomes. Generally, these people were officials of the university, owners of private businesses or other professionals. With incomes substantially higher than the average, these informants lived in the higher income areas of the city. They were likely to either be long-time Curitiba residents of noted local families or people who had transferred to Curitiba from other large cities for specific career positions.
In addition to interviews, another main source of information was participant observation. As a participant in the planning process via my internship position with IPPUC, I was able to gather first hand experiences of the planning system in Curitiba. Through my field notes, these observations comprise situational accounts that support the statements of the individual informants.

A final source of data for this thesis comes from the Brazilian census of 1991-92. As an IPPUC employee, I had access to the raw socio-economic data for Curitiba and for Brazilian averages. While many irregularities in this information were brought to my attention by my colleagues at IPPUC, it provides useful comparisons of the situation in Curitiba in relation to Brazilian averages. The information from this source is provided throughout this thesis as supplements to the ethnographic data.
V. THE RESULTING THEMES

Four main themes emerged from my interviews with the planners and non-planner key informants. I have grouped them and titled them as public participation, the role of government in planning, the unequal provision, access and use of social services and power relationships. A discussion of each of these themes follows.

V.1. Public Participation

Since one of the main foci of my research was to determine how the general public participated in the planning process, I asked questions of the professionals about how they included popular participation in their projects, asked the nonprofessionals about their participation in the planning process and observed how the public participated in the planning in which I was involved.

Initially, I observed that direct public participation was minimal. This was consistent with other studies of the planning process and profession in Latin American cultures in general and in Brazil in particular. Violich has claimed that "in Latin America urban plans are generally produced through a top-down, non-participatory process" (Violich 1987: 119). Epstein has argued that in the planning and construction of Brasilia "the centralized character of the planning and execution processes themselves, (made) no provision for consultation by any but upper-level technical and political personnel" (Epstein 1980: 304).
However, during my stay in Curitiba, I began to realize that participation did exist but was more informal than direct open participation via meetings or forums. Much of it took place through informal contacts between planners and individual citizens.

In Curitiba, the lack of direct public participation in planning was reflected by the individuals I interviewed. The nonprofessionals were especially aware of this. Rossano, the architect, observed that “IPPUC works in a closed circle. There is not much input by people in their plans or work.” Luiz, the former IPPUC employee and now private architect, described “the planning system (as) closed. There is no outside participation. They keep information and plans to themselves. They need to democratize the process. They have many experts, but don't know local areas. The history of IPPUC reflects authoritarian processes.” With his own interests in the topic of participation and his graduate studies outside of Brazil, Luiz concluded that “here the process is more centralized. England and the U.S. have more power at all levels. In Brazil, every level has its own politicians (that) hold on to their (local center of) power. This reflects Brazilian political and social history. It is still an evolving identity for Brazil.” He also believed that “planning needs to be a compact between the government and the citizens” and that in Curitiba this was not often considered or implemented. “It would be good to have a competition for ideas and let everyone in the city participate. Now only IPPUC and the Secretarias have ideas.”
The IPPUC employees were less critical of the lack of public participation in the planning process. Ana Christina (IPPUC architect) noted that "since the dictatorship, people have to learn public participation. It is not normal. They don't know they have power. Some residential associations exist. There are some vocal individuals. However, the regional (metropolitan area) associations are weak. They are divided by various interests. This affects plans for Curitiba since traffic, rivers, sewage are shared." Sueli (Supervisor of IPPUC’s Socio-Economic Section) stated that they “work with the Associacões dos Moradores (Residents Associations) on occasion. The Associacões usually seek out IPPUC or regional representatives. Most have representatives in government. Most of the relationships are informal. Some politicians encourage the population to participate, others do not.”

The professionals were also more likely to identify the benefits to planning from the absence of public input. “We don't have the problem that exists in U.S. of people suing to keep projects out of their backyard. There is less input that waters down the plan and more technical input. This is both positive and negative” (Ana Christina).

However, they were not unaware of the need to include public opinion nor completely opposed to the concept. In a few instances, public participation was sought. For example, Sueli stated that in her Socio-Economic department they “need to assess the health needs of each region. It should include democratic input. Which diseases are
prevalent? It should include sanitation and other aspects, for example environment and food.”

Violich argues in her research that “the traditional apathetic top-down pattern has begun to change, and since the mid-sixties there has been a marked trend toward establishing community organizations and assuming responsibility for handling local problems” (Violich 1987:20) by citizens in many Latin American countries. This is reflected in Curitiba as well, but is still in the early stages of development and lacks any coherence or real power in the city planning structure.

Both professionals and non-professionals were critical of the lack of initiative shown by the people themselves to assert their role in planning. As former IPPUC planner Luiz stated, “people of the city have faith that IPPUC will continue to do the right things based on past experiences and successes.” “Many (people) are political and critique the government and situation, but only the elites go to these places (organizations, restaurants, clubs, etc. where activism is encouraged)” according to engineering student Adriana. “When I moved here in the mid 70's, Curitiba was a wonderful town. It was just the capital and a haven for students. Students ran the town. The country was under dictatorship, but the students had independence in Curitiba” said District Attorney Maoro as he disparaged the current situation among the youth of Curitiba where there is little political activity. Perhaps this lack of initiative was summed up best by Marcelino’s attitude that “there is not much participation because the meetings are too long and
boring.” This statement has extra strength coming from a former Student Directorship member at the Universidade Federal do Parana in Curitiba who once led strikes against government cutbacks in university funding.

The lower income individuals with whom I had informal interviews were even less involved in the planning process. While they were aware of Curitiba’s reputation for being well planned, they were skeptical as for whom it was well planned. Their individual needs and the needs of a majority of the working classes were not generally addressed in the larger plans for the city. Because of the long hours they work, the time it takes to get to work and the additional time it takes for working-class families to maintain households without the domestic help that even the Brazilian middle classes enjoys, time left for participating in community activities and decision making is limited or nonexistent. With the daily struggle of living overwhelming the lower class, groups representing their interests such as the Associações dos Moradores do not receive much public support and thus their influence is reduced. The net effect is the loss of the voices of the lower-income citizens in city planning processes.

V.2. The Role of Government in Planning

With the low level of participation by the general public in the planning process, the roles of the government and the individuals that comprise the government (bureaucrats, politicians, elected officials) become more important to the analysis of urban planning in
Latin America. The central importance of governmental institutions in the role of community development has a long history in Latin America (Violich 1987), where most countries have established highly centralized systems of governance. However, in Brazil it has been necessary for the government to create more administrative units and devolve more power and responsibility to local government due to the country's continental size. The result has been stronger state and city governments vis-a-vis the central government in comparison with other Latin American countries (Violich 1987). Yet within the local governments, the "longstanding foundation of centralized economic and political power" (Violich, 1987: 1) has resulted in governments with strong presiding members (i.e., governors and mayors). The power of that one individual within the system and the low level of political activism within the community has created a situation where political favoritism and corruption are common.

Marcelino, the Ph.D. student, emphasized the concept of political centralization and also noted that "Brazil has a history of conflicting centralization and decentralization. Political parties have become important in decision making on all levels. Unions are (also) quite important in the political process. More powerful than in the U.S. However, they are often associated with political parties and are co-opted in the decision making process." Furthermore, according to Marcelino, "the church is very influential. Especially in rural areas where it has a liberal bias. In the cities, the church tends to be more conservative."
This theme of centralization is carried out in Curitiba as well. Rossano, the independent architect, disparaged the city’s current urban design activity of building arches to mark each of the city’s neighborhoods as monumental and for the aggrandizement of the mayor and individual city council members. “The city is not attacking major issues. The arches are fine, but there are more important things for the city’s efforts, like favelas and traffic” (Rossano).

Luis also attacked the current publicity-oriented nature of planning in Curitiba. “The World Bank loves Curitiba’s programs because they have been successful and produce much propaganda. They succeeded because politicians wanted prestige and recognition” (Luis, former IPPUC architect).

The themes of corruption and political opportunism were reflected in critical ways by both planners and non-planners. “Neighboring municipalities are dividing into smaller entities not solely because of growth, but because of a desire for political power and the distribution of money from the (central) government. Businessmen and the wealthy control government” (Carmilo, Research Section Supervisor, IPPUC). “I volunteer at the prison and talk to the criminals. They are glad to have the contact to the outside world. They are mostly in for robbery. The big criminals - corrupt politicians and businessmen - don't go to jail” (Adriana, engineering student).
Violich concludes that "many Latin Americans still view the public domain not as a community right and responsibility but as the semi-personalized domain of politicians and bureaucrats" (Violich 1987:10) and that "the peripheral areas . . . lack both the political influence that could break links between land developers and local government and the income that could actively attract public utilities and services. Thus they become marginalized" (Violich, 1987: 31).

Another problem associated with the centralization of power in one presiding individual is the turmoil that results when that person no longer holds power. "When a particular administration goes out of power, experienced planning personnel will be dismissed. If this is not possible, they will be bypassed and political favorites will be added to the bureaucracy" (Violich, 1987: 109). The longer-term employees of IPPUC had personally experienced changes in administration on a number of occasions. Eliane (Databank Supervisor) complained about how they "begin a project and then change government, and the project is abandoned because of different interests of those in power." The non-IPPUC interviewees also recognized problems with this system as reflected by Rossano's comment that "constant political changes mean that politicians modify IPPUC's plans. IPPUC starts one way and then changes or drops the plan because of politics."

"Still, bureaucrats remain and some aspects of the plan get implemented" according to Eliane. And the "changes are not as radical as they may seem." Political changes in
administrations can also be beneficial to urban planning. For example, currently Curitiba is "in a good situation. The state (governor), the city (mayor) and the council are controlled by same party. They are working together more. In the past, they sometimes had conflicts" (Ana Christina, IPPUC architect). Violich asserts, however, that because of the desire "to stay in office, few political leaders in Latin America could afford to ignore the urban problems: housing, traffic, pollution and crime" (Violich 1987:10).

V.3. Unequal Provision, Access and Use of Social Services

A third theme related to planning that emerged from my research, and one that is often the main problem associated with urban areas in industrializing countries is the unequal provision, access and use of social services (i.e., education, health care, transportation, etc.). Perhaps the prime contradiction in urban planning in Brazil is that those who control the distribution and planning of the services are often those who use them the least. This often results in systems that don't meet the needs of either group because they are inconvenient for low-income groups and unattractive to high-income groups. This phenomenon is found in Curitiba as well. "Curitiba had comfortable express buses that cost more to ride. They were aimed at higher classes, but were not used because cars still have higher status. Various buses (in the city) have differing status" (Carmilo, IPPUC Research Section Supervisor).
Education and child care are other areas where availability is a problem. The small percentage of families that can afford to pay for education, send their children to private schools. The majority rely on the public schools that are under funded, poorly equipped and overcrowded. The distribution of education is severely skewed.

Public schools are divided between the city and state (for administrative and funding purposes)-- grades 1-4 to the city and 5-8 to the state. The region has enough places now, but it is a question of quality. We don't need to build more. We need to improve quality. I am working with a group of state, city and foundation representatives to develop a network of schools to meets these needs (Sueli, Socio-Economic Department Supervisor).

Curitiba diverges little from the national model of education. This is likely the result of the highly centralized nature of education planning within Brazil. Therefore, through its planning processes, Curitiba can make an impact only in grades one through four (ages six to ten).

The problem of education in Brazil is that for every one thousand students that begin first grade, three exit the university. This system increases the power of those who already have education. Those with power currently have education and don't want to change the system. If I were in charge, I would put my money in making it one thousand who leave the university (Carmilo, IPPUC Research Department Supervisor).

The provision of health care is also problematic and faces the same situation as education in that private care is far superior but only accessible to the wealthy. Curitiba has sought to reduce the differences in health levels by focusing on early treatment and prevention.
Health was the responsibility of the federal government until the 1970's. In 1983 the city created a policy on health service delivery. This policy led to the creation of the Centers of Health. They were aimed at preventive care and local care to the city's regions. They also serve as hospitals for serious injuries. We studied the demographics of the city to locate the centers, and now we have centers within the reach of every neighborhood (Sueli).

Curitiba's planning process is actively addressing the problems of distributing social services. It has come up with a number of innovative methods such as mobile schools and health centers. The city has also designated a higher percentage of its resources to these activities than other Brazilian cities (IPPUC, 1992). Still, the systematic problem of who plans the services and who uses them remains. Therefore, understanding the influence of power relationship on planning is critical.

V.4. Power Relationships

While discussing the role of government, the unequal access to services and the participation of the population with my interviewees, it became apparent that there was a more encompassing theme emerging. The broader theme was who had power in the community. "As Michel Foucault has persuasively argued, power may be best understood not negatively, by focusing on repressive institutions and powerful individuals, but positively, by tracing the pervasive mechanisms by which it inserts itself into the actions, attitudes and discourses and everyday life." (Foucault in Horn 1989:195). The insertion of power into everyday life in Curitiba is reflected in the comments of those I interviewed.
I only do the research that I am asked by the ‘powers.’ I would like to do and ask more, but no one in power is interested in this information. Information that exists is like the pineapple. It is hard to peel because of the pines. The real core values are hard to get to. Every organization has different numbers and different methods of collecting data. For example traffic deaths, the police, hospitals, cemeteries all have different numbers. Then different levels of government also have different numbers for overlapping areas. Information is power (Carmilo, IPPUC Research Department Supervisor).

Opposition exists. For example, a road to connect (the neighborhood of) Cristo Rei with the Jardim Botanico (Botanic Garden) was opposed by a councilman who lived in the area because of (likely) increases in traffic near his home. He killed the project so they widened another road. Then he wanted the original project. It has never been done. (In our projects) we must deal with politicians, companies, individuals with great influence (Ana Christina, IPPUC architect).

My informants also expressed thoughts on those who don’t have power in Curitiba’s planning system. For example, Sueli disparaged her Socio-Economic Department’s situation and influence within IPPUC because they “work mostly with marginalized people.” In contrast, due to its prestige internationally through the support of a World Bank grant, “the Secretaria de Saude (Secretary of Health) has the most progressive, educated people” and thus more influence than Sueli’s department in the city’s planning of health facilities.

As an outsider to IPPUC, architectural student Claudia also saw the power struggles within the city’s planning process. She felt that though “the city is the work of many people and not just the mayor,” it is he “who gets all the credit” and thus builds on his power. The system also reinforced the city’s power structure by “mostly worry(ing)
about the central city and industry.” According to Claudia, to redistribute power “they need to look at other areas.”

Ph.D.-candidate Marcelino concurred and added that the “media influences everything. They can get people out on the streets. However, they are controlled by the government. The government uses them to manipulate the people.”

As one of the most economically polarized societies in the world, Brazil’s planning policies are affected by the distribution of wealth. It is the wealthy who hold most elected positions, who obtain higher levels of education, who receive the better services from the government and whose needs determine national and local policies. Adriana, the engineering student at the university, summarized this by saying “The government is really influenced by the U.S. and the World Bank to open up the economy. The neo-liberal politics of the national government favor those with money. No money goes to social programs. It goes to the pockets of the elites. They are not protecting the people.”

Adriana’s comments also reflect the external holders of power that influence the planning process in Curitiba and indicate the city’s linkages to the world system. These influences suggest the need for additional study and, as Gmelch and Zenner argue, “the need to place the subjects of anthropological inquiry in their . . . global context and trace out the linkages between the small groups and the larger political-economic system” (Gmelch and Zenner 1980:314).
VI. SPECIFIC PLANNING ASPECTS

These preceding themes were derived from structured interviews with my key informants and reveal their perceptions of the situation in Curitiba. In order to take the level of analysis a step further, this section will discuss how those themes are reflected in three main aspects of Curitiba's planning program - transportation, land use planning and education.

VI.1. Transportation Planning

Though Curitiba has above average income and car ownership in comparison with most other major Brazilian cities, it also has the highest rates of public transportation usage (Rabinovitch and Leitman, 1996). These statistics indicate that the system is effective. However, the actual impacts of the system must be analyzed from other perspectives as well; namely, how does the system serve the various needs of the different socio-economic groups within the city?

The bus system of the Municipio of Curitiba is planned to serve as a conduit of people into and out of the central commercial core of the city (see Map 4 on page 32). It is complemented by traditional buses and routes that collect people from various neighborhoods and transport them to the suburban hubs. Other buses run in rings around the central core and link up to the high speed lines radiating outwardly from the center.
The core is aligned at the intersection and along the city’s structural axes. The city’s main commercial business and nonindustrial employment opportunities are contained within this core. High income condominiums and houses are also located near the axes. Since the high-speed, subway-like Ligeirinho system is designed to serve the central business core, it is also primarily serving the needs of area businesses that require employees and customers. Additionally, it provides access to the core for the people that can be employed there or who can afford to shop there. These are both likely to be more educated and of higher income. In fact, studies (Carmilo, 1995) of the Ligeirinho indicate that it attracts a higher income ridership. This group sees more prestige in the Ligeirinho, while disdaining the lowly traditional bus network.

During my research period in Curitiba, I lived with a family that employed a number of domestic helpers. Over the course of my stay, they maintained two maids and four construction workers. In my conversations with these individuals, I discovered that most of them did not have permanent residences in the City of Curitiba. The maids lived with their extended families in neighboring municipios where housing was cheaper or perhaps where they could “invade” unoccupied land and set up squatter settlements without the fear of being evicted, as in Curitiba. The construction workers, who were simultaneously employed at a number of construction sites and worked as each project demanded, were from a rural community in the interior of the State of Parana four hours by bus from Curitiba. They returned to their home community on the weekends, but in order to find employment they were forced to commute to Curitiba. During the work week in Curitiba,
they lived in a plywood hut they built at a construction site where they were employed. They were encouraged to live on the site by the owners in order to fend off potential squatters.

Since these workers spent much time commuting from outside the City of Curitiba, they were reliant upon the inter-municipio bus system. While the *Municipio* of Curitiba bus system is efficiently planned to provide access to the core of the city and back out to the *bairros* (neighborhoods), the inter-municipio bus systems are regulated by each *municipio* and are privately owned, generally by individuals close to the political leadership of the *municipio*. The routes on which these buses run are planned so as to maximize profits for the owners and to serve the needs of businesses along their routes with whom the bus owners are often linked. Therefore, they do not offer the most convenient schedules for the domestic and construction workers commuting to Curitiba. The result is long travel times with numerous connections and less time at home for the working classes to fulfill their own domestic requirements.

Due to the necessity to find work outside of their home communities, the time demands of their low income occupations and inadequacies in the public transportation system, the maids and construction workers with whom I interacted, infrequently used the city’s services. The construction workers had left the school system at a young age (between grades 4-6) because of deficiencies in the schools, their families’ lack of resources and the demands for them to produce income. The length of their weekend
commutes further reduced their time to devote to additional training or education. One of the maids suffered from a chronic heart condition. While this often kept her working and thus earning income, the transportation difficulties in getting to a doctor also prevented her from seeking regular treatment. When she did see a doctor, she did it through the local community health center, which was overwhelmed with patients and had little time to dedicate to her condition. Because of the difficulty in attaining medical care, she had become resigned to her condition and pessimistic about her longevity. The situations of these domestics and construction workers shows the importance of public transportation to individuals living in the city and how the transportation network influences many aspects of daily life, including the ability to access the city’s other services.

While some opportunities exist for employment in Curitiba’s central-city core for low skilled workers who clean, carry or hawk, the traditional bus network and not the Ligeirinho serves the commercial and employment needs of the low-income neighborhoods. It provides most convenient access to local neighborhood businesses and employment. However, arrangements have been made to connect both systems to the Curitiba Industrial City (CIC). CIC is the special suburban district that has been designated for industrial development. The high concentration of manufacturing in this area means a high demand for low-skilled labor that cannot be met locally. Therefore, the citywide bus infrastructure has a second focus of transporting workers to the CIC. While this increases employment opportunities for certain low-income neighborhoods, it also
isolates them from activities in the central core, where political and economic decisions are made.

The professional planners of the Curitiba's bus systems generally do not come from the income classes that are most dependent upon public transportation. In fact, from my observations, few planners at IPPUC use the bus system regularly. Those that do, are most likely to use the Ligeirinho. The IPPUC employees that frequently use the buses are the lower-level support and maintenance staff. This demonstrates the conflict within planning of having those who do not use the service designing it. The result is more likely to be a system that meets the needs of the educated and the elites with whom planners more frequently interact because of their own socio-economic standing. Therefore, planners in Curitiba and elsewhere have the additional need to plan transportation systems that not only connect geographical regions, but also bridge class differences.

The most recently proposed change to the Curitiba transportation system was the addition of a bonde (light rail) line. The proposed line would have run along the two main structural axes in the highest-density areas of town and replaced the biarticulated buses. In spite of Curitiba's politicians and government officials trumpeting of the cost effectiveness and speed of its bus system relative to the subways of other Brazilian cities, there remain powerful groups in the city that seeks the prestige, and likely the personal income, generated by a light-rail system. The main backers of the proposal were large business interests, including real estate developers and construction companies. The main
opponents were the residents of the neighborhoods along the axes where the trains would run. Interestingly, these areas also contain the most expensive apartments and condominiums in the city and thus higher income individuals and families. Therefore, the clash over the bonde was a disagreement among two powerful groups within the city: the real estate developers and the upper-middle class professionals. In the end, the bonde idea was shelved. However, within IPPUC's long-range plans for the future of the city, light rail lines run along the main axes. The powerful interests have managed, for now, to keep the issue alive.

The bonde incident points to the failures of IPPUC's planning systems when public participation is not initially included. IPPUC invested many resources and much study in the idea. Much of the impetus for the project came from international sources that were promoting the light rail option and claiming its success in other cities. Many of the planners supported the claims and urged the building of a bonde. Some planners with whom I interacted felt that the bonde project was an attempt by IPPUC to regain some stature within the city by creating a large building project. Driven by business interests, the project would have redirected funds from the current low-technology approaches meeting the needs of many income levels to a high-technology prestige system for the elites. In spite of this redirection of funds, it was the actions of other well connected individuals that killed the project. The low-income citizens living in neighborhoods unserved by the bonde had no effective input.
VI.2. Land Use Planning

As part of my assignment in IPPUC’s Uso de Solo (Land Use) Section, I assisted in the evaluation and preparation of a land use proposal for the Canet Property in the Capão Raso bairro of the city.

Map 5: Capão Raso and Canet Property
After reviewing existing documentation, maps and plans for the city, an IPPUC team visited the site. The team was driven to the site in a government car with a chauffeur. The group made three stops around the perimeter of the property and took a short hike into the center of the two mile square piece of land.

While observing the topography of the land and the existing infrastructure and urbanized areas, the architects did not have any interaction with local residents. At one point they nervously noted the observations of a local resident. The two architects suspected that the owner of the land had “paid this man to guard the property from an invasion of squatters,” and that it was highly likely that he had a gun.

After taking notes on the lay of the land, the location of the legally protected woodlands and the flows of the streams, the IPPUC team returned to the Institute where they began to draw up plans for the area. The owner of the area, a wealthy Curitibano (Resident of Curitiba) and former Governor of the State of Parana named Canet, had already submitted a plan for the region drawn by his private architects. These plans called for the creation of an isolated residential neighborhood of higher income homes and apartments with a main commercial street.

The plan submitted by Canet explained the need for more higher income residences in this area because of its proximity to the Curitiba Industrial City. Canet’s architects felt that the owners and top managers of the manufacturing industries locating in the CIC
would want homes closer to the region even though most of the surrounding bairros were lower-middle to low income. Thus, in their design, they created buffers between the Canet property and the surrounding regions through the use of roads, parks and streams.

After the IPPUC planners had visited the site and studied the Canet proposal, they met with representatives of the Curitiba Industrial City administrative organization. The CIC people supported the Canet proposal but sought modifications to allow for a site for a shipping depot. The shipping depot originally designated for the CIC had been invaded by squatters whom they could not legally remove. Therefore, they saw the Canet property as an attractive site to address this need of their industrial customers. As the last remaining large parcel of land located close to the center of Curitiba, it was viewed as extremely necessary.

After the meeting with CIC, the two IPPUC architects began to design their plan for the area. As the design began to take shape, it became clear that it was closely following the proposal submitted by Canet’s designers. A few modifications were made to bring the plan in line with city codes, but the main concept remained intact. A higher income neighborhood would be placed in the center of a low income area.

Also during my internship, I participated in a site visit to a new low-income housing project called Jardim de Largo (see Map 6 on page 74). Another team from IPPUC - an architect, a social worker, a health specialist and a district education specialist - loaded
Map 6: Jardim de Largo and Pinheirinho
into an official white IPPUC Volkswagen minibus driven by a hired driver and headed from the centrally located campus offices to the outlining region of Pinheirinho where the new development was located. Upon arriving at the site, the driver crisscrossed the streets in order for the passengers to observe the total area and get a better feel for the region with which they were working. As the driver maneuvered the van down dirt and gravel streets lined by open drainage ditches, the planners pointed to the various services that had already been installed, including an elementary school and health center.

Much of the new development had already been occupied by low income families who managed to make the $50 per month subsidized mortgage payments by combining generations (i.e. grandparents, parents, aunts/uncles, children, grandchildren) and incomes. Through such means, they were able to move from rented spaces or squatters shacks to become home owners. They were the owners and builders of 10 foot by 10 foot homes that had room to sleep the 8-14 families members with cooking, laundry and bathroom facilities provided outside. Still, these homes with city-provided clean running water, electricity and basic sewage drainage were considerably better than homes in the favelas.

As the driver passed a pleasant green section of woods and streams, the architect pointed to the site of the new “Program to Integrate the Infants and Adolescents” (PIA) structure. This is the site the team had come to inspect, which, upon observation from the van, matched the configurations of the maps, and thus satisfied the team’s mission. The
team started back to the office, but stopped first at the health clinic to talk to a colleague. Only the stop at the health clinic, which was quite brief, produced any interaction with the residents of the development.

On the drive back to the IPPUC office, the planners noted how the community had developed quickly since its inception and that some private enterprises and community services had taken hold. Relatively wealthier individuals had set up shops on their well-located plots in spare rooms added to their homes. These small shops provided the requisite basics of subsistence such as rice, beans and canned foods along with the equally necessary Coca-Cola and Marlboro cigarettes. The city had also organized a litter patrol to employ individuals unable to find other employment.

The Canet and Jardim de Largo projects and site visits show how the system of zoning land within the city of Curitiba for different uses affects and reflects the power gradients within the city. Beginning in 1965, all areas of Curitiba were zoned for specific uses -- residential, commercial, industrial, natural areas or parks. In turn, these broad categories were further defined (i.e., high-density residential or low-density residential). Legislation also regulated the usages in each category. This process gave structure to established uses of lands and made existing differentiation more rigid. This was the first time city-wide zoning had been implemented in Brazil (IPPUC, 1985). While the process of initially determining how each area would be zoned most likely reflected the city’s wealth and
power structure, the focus for this section of the paper is how exceptions to zoning regulations today impact power distribution and participation.

As mentioned previously, Curitiba's *Solo Criado* policy allows developers to build with certain exemptions from existing zoning codes in exchange for land or in certain cases money. *Solo Criado* reflects how urban planning in Curitiba values incentive-based policies. The Canet Project's exemptions from current zoning for that region reflect this process. In Jardim de Largo, low-income families acquire the donated land from the city, but must use their own resources to build their homes and thus a strong sense of ownership is created. The city benefits through improved living conditions for its inhabitants at lower costs and fewer administrative difficulties than similar large scale government housing projects.

Again, the system must be examined to determine all the beneficiaries and whose needs are served. The most noticeable aspect of *Solo Criado* is that the costs are borne by a large number of people. The developers, city and low income home owners pay directly, but neighbors of the developers pay as well. Their costs are the loss of the more pleasant urban environments envisioned in the city's zoning plans. The purchasers of the homes or offices may also pay higher costs. The city's taxpayers may lose or benefit depending on their individual profiles and the net costs to the city's programs. For example, if the new development requires a larger investment in city services than was initially planned, then
taxpayers lose. If the new development pays for itself and low income housing programs’ costs are kept to a minimum, the average citizen gains.

*Solo Criado* most benefits the city government. Through this program the city leverages its resources by getting the developers to pay for low-income housing at a slight expense to the city’s general livability. Developers and low-income families gain as well, but neither control the program. Therefore, this program reflects of the power of the city’s planning technicians and bureaucrats.

While the city’s planners may have used their institutional power to create the *Solo Criado* program, the developers clearly have more influence in the general zoning process and design review. The Canet Project reflects how developers’ designs are often directly incorporated into the official plans of IPPUC. It seems then, that while planners have the power to influence the nature of the building and draw some benefit for other groups within the city, the developers have greater power to direct the overall zoning evolution of the city.

The low-income residents, however, are not powerless in the zoning process. Again the Canet Project provides an example. The Curitiba Industrial City managers who met with the IPPUC planners to urge the inclusion of a transportation depot in the designs were responding to the pressure place upon them by low-income residents who had invaded and squatted on the original site of the depot. While the companies located in the
CIC need low-skill and low-cost labor, the plans for the CIC did not include affordable housing for such income groups. Therefore, they illegally occupied available land as a demonstration of their opposition to the plans and their power in the process. This incident reflects Scott’s (1985) everyday forms of resistance.

VI.3. Educational Planning

Though often an overlooked aspect of urban planning, where one usually envisions streets, parks, and buses, education is a major aspect of Curitiba’s urban infrastructure and an important component of IPPUC’s planning mission. In Brazil, school is compulsory up to the age of fourteen or grade eight. Curitiba has to plan to have sufficient access to schools for all of its residents between the ages of six to ten. Over the past 30 years, Curitiba has built enough public schools to serve its school age population in classes with 70 students per room and two shifts of students per day, which means that each room and teacher educates 140 students a day in the public schools (Sueli, 1995).

In Curitiba there are also numerous private primary schools and language schools that are run as for profit enterprises. The students and their families pay tuition and are required to buy uniforms, books and supplies from the school. Schools are marketed on billboards, radio and television. A variety of cost levels have arisen in the private school market. The most expensive schools offer door-to-door van service for the students,
provide well equipped classrooms with the most modern computer equipment and supplement classroom teaching with recreational activities such as fitness centers and outdoor programs.

During my research in Curitiba, I had the opportunity to talk with a number of educators and education planners. One English teacher became an informal key informant. Though she did not attend the university and did not have a degree as an English teacher, she had completed two short-term intensive English teaching courses: one in the United Kingdom and one in the United States. With the support of her upper-middle-class family, she had passed the English test to become a teacher at a franchised private school for professionals.

In order to survive financially on the low pay for non-native speaking English teachers, my informant had to seek another job. One of the few jobs available to her as an English teacher without a university degree was a position with a public school on the outskirts of Curitiba. At the state-run school, she taught kids from ages 8-12 in four morning session with up to 70 students in each class. The classroom was poorly equipped, and books were in short supply so she provided her own teaching materials out of her meager state salary.

One of this teacher's main frustrations was the preparation of the students. For most of her teaching day, she had to handle difficult children. These children were frequently
absent because of family problems or because of the need to work for the family either at home or earning income. When they were free to attend school, they did not generally have the discipline or background equal to the other students necessary to keep up in the class. A majority of the students in the classes fell into the lowest income groups. So, instead of teaching English to the few bright and able students, the teacher spent most of her time attending to the personal problems of rest of the students.

By the time I was preparing to leave Curitiba, the teacher was about to resign her teaching position at the public school. She was exhausted from the workload and overwhelmed by the problems with which she had to deal. She was actively seeking employment at one of the growing private primary schools or English language schools. Teachers at the private schools generally receive higher pay, but also often do not have extensive training in their fields. My informant felt that she could likely find a position in one of the lower-end private schools, but believed her chances were better at the private language schools that taught professionals. She was tired of working with children and thought the private-school children, especially those at the school next door to her home, "were spoiled" and "not much more dedicated to their studies" than the public school children.

In most societies, education provides one of the primary means for increasing opportunities for individuals and equalizing income disparities. Studies (McDonough, 1981; Pastore, 1982) of Brazil confirm the importance of education to upwardly mobile
individuals. Therefore, education is a highly-sought commodity and one of vital importance to the income distribution within the city. Though university education at the Federal Universities, the most prestigious in the country, is relatively inexpensive, admission is highly competitive and difficult to achieve. Only the brightest students from the best high schools are accepted. Thus, the primary education system impacts a child’s opportunities for the rest of her or his life. Since the best primary schools are private and quite expensive, by their first day of school a child may have already been precluded from higher education. Consequently, this system reinforces the inequalities within Brazilian society.

However, Curitiba has made unusual efforts to improve its citizens’ access to a broader range of education. Much of the city’s effort has gone into providing quality day care access for all income levels. As previously mentioned, they have done this by requiring companies to provide day care for their employees’ children under the age of six. While the primary objective of this system is to give children an excellent start in life and increase their opportunities and livelihood later on, a secondary objective is to provide companies with a more reliable labor force by reducing absenteeism related to child care. In fact, the second objective is more likely to be achieved since the children will likely never finish their education.

The adult training courses offered via the mobile bus classrooms also are an important part of the education system. While seeking to address the inequalities of the existing
national educational infrastructure, these programs also provide Curitiba's industrial sector with higher-skilled workers. Again, this program reflects how Curitiba's planning systems meets the needs of the powerful, while providing services to the poor.
VII. THE IMPLICATIONS FOR THEORY

My research in Curitiba was informed by the theoretical perspectives discussed in the opening chapters of this work. Through the conduct of my research and the production of this thesis, my interpretation and application of each of those theories evolved. Some were reduced in significance as they became less applicable to the specific situation. Others were combined and linked to provide clearer insight. A few held their original significance. My research has a variety of implications for each view.

In the broad, world-level theories of power, the study of planning in Curitiba demonstrates the links between local conditions and external influences. From the perspective of the modernization theory, Curitiba’s planning system has been and continues to be modernized by the institutions of more developed countries. This can be seen in the influence of multinational companies in the Curitiba Industrial City and the CIC’s importance to city-wide planning. However, Curitiba’s planning efforts demonstrate the weakness of the modernization theory by virtue of the influence Curitiba exerts on planning in developed countries. Developed cities such as New York and Berlin have adapted planning ideas like the *ligeirinho* that were initially developed in Curitiba. Therefore, it would seem that the unidirectional approach of the modernization theory does not sufficiently explain the situation in Curitiba.
Regarding the dependency theory, Curitiba’s planning institutions have developed with the interests of foreign capital and companies as strong guiding forces. Where Cordosso described the theory of associated-dependent development in general, Curitiba provides a specific example through its concentration of multinationals that produce for the domestic, Mercosul (Southern Common Market of Brazil, Argentina, Uruguay and Paraguay) or world markets. The planners in Curitiba have incorporated the interests of these influential companies into their plans, such as the transportation hub on the Canet property. In turn, these companies have supported the development of planning in Curitiba where it corresponds to their interests in developing the domestic market or improving the infrastructure for their penetration of local markets.

Dependency theory has also described how the dominant classes internalize the interests of the multinationals. This has occurred in Curitiba and in its planning processes. The creation of the CIC to attract multinational companies is a clear example of this. Many of the most influential local business leaders are the local managers of the multinationals. The views they express on planning issues are often those of their employers. The bonde (light rail) project is another example. With the bonde, planners and proponents sought to incorporate the interests of the developed world transportation industry at the expense of the broader local interest in low-technology buses. The net effect of the proposed bonde project would have been a greater inequality in income, power and participation.
From a world-systems perspective, Curitiba exists within the semi-periphery possessing aspects of the core and periphery. Its planning institutions and professionals have been structured and educated in the manner of the core, but have retained a greater focus on the issues of the periphery. The marginal people of Curitiba have demonstrated a resistance to the dominance of the world-system, while the elites have been accessories to the dominant interests of the world system. This conflict has played out in the planning process as well. The incorporation of the newly created Jardim de Largo low-income housing project into Curitiba and the broader world system reflects this process.

It would seem then from the global view, the situation in Curitiba is best explained from either a “new school” dependency or world-systems perspective. Both of these approaches incorporate multidirectional interaction along a developed-dependent continuum. My study in Curitiba demonstrates the nature of these interactions within the institutions and systems of urban planning.

On the community level of power theory, my research in Curitiba has implications for both the pluralist and elite perspectives. As in the view of pluralist, Curitiba’s elites are sometimes divided on planning issues. Again, the bonde issue shows how the elites do not control all planning decisions and participate at different levels and at different times given their personal interests. However, as criticized elsewhere, the pluralist perspective ignores how issues are developed before they come into the public domain. My study shows how
many planning decisions are made by planners on a day-to-day basis outside of the public domain, and are influenced by the biases of the participating institutions.

The elite theorist perspectives also apply to Curitiba. Curitiba’s business elites are linked by social and professional institutions often beginning at an early age via the educational system. Furthermore, merely the reputations and not the actions of elites are able to influence planning. An example of this is how the planners working on the Canet proposal were influenced by the reputed power of the owner, a former state governor. However, as criticized by others, the reification of people’s perceptions of the elites poses a problem to the application of this theory in Curitiba as well. Was Governor Canet influencing the planning decision via the power of his reputation or was his reputation created by the perceptions of the planners and internalized as a deciding factor? This issue remains difficult to determine and therefore either the elitist or pluralist perspective can be applied as a description of the city’s planning system. Clearly, a broader theory incorporating both perspectives is required.

On the level of the individual, resistance to power does occur in Curitiba’s planning. The favela invasion of the CIC’s transportation facility is just one example. The reason these illegal inhabitants were not removed from this area by the powerful interests of the CIC demonstrates the “economic indispensability” (Esman 1989, p 226) of the workers living in the area. Therefore, the concept of resistance as a weapon of the weak that originally was developed in a rural setting can provide much insight into the resistance to
planning in an urban setting. Furthermore, resistance also should be considered a form of participation by the poor. When viewed as such, this theory should greatly influence the practice of planning.

In relation to planning theories, this paper attempts to bridge the gap between anthropologists and planners by incorporating the theoretical bases of both and focusing on the clienteles of each. Therefore it looks at macro issues such as land-use planning within the context of individual communities and neighborhoods. While this work has been theoretically informed, most of the planners in Curitiba have eclectic theoretical perspectives and operate without consciously examining their theoretical biases. As such, they are influenced much by the popular trends in planning that mainly emanate from the developed world. Recently, these trends have included greater public participation. However, most planners in Curitiba resist this trend as they hold to traditional values and authoritarian practices. Many planners still view themselves as paternalistically leading the public and do not include a systematic incorporation of public participation, as evidence by the site visits to the Canet property and Jardim de Largo.

While it is important to retain a strong theoretically-informed foundation for the research in order to accurately direct one’s aims and biases, the praxis of anthropology also requires an applied significance. The following section discusses the applied conclusions that were derived from a combination of the field research and the theoretical underpinnings of this thesis.
VIII. THE APPLICATION OF THE RESEARCH

Curitiba presents an important case from which to assess the effectiveness and implications of planning systems in urban areas and the influence of power relationships on participation in the planning process. Though Curitiba is located within a specific geographic and cultural context, the results of this research can be applied to other urban areas in both the developing world and industrialized world because of the similarity of the urban problems. Difficulties and decisions related to transportation, education, health care, income inequalities and a long list of other commonalities confront all cities and most rural areas. The ways one city addresses these issues, while perhaps not directly replicable in another, provide insights and inspirations that can generate adaptations or concepts that fit each individual city.

Planning cannot be an effective exercise without the inclusion of the whole community. Grand plans can and have been developed with little input except from the technical experts or powerful interests. The comments of my interviewees in Brazil indicate that the social tradition respects the authority of the trained professional and negates the value of the uneducated. However, plans in Curitiba, such as the bonde and the CIC, and elsewhere in Brazil (Epstein 1980 and Holston 1989) have failed where they have not fully included consideration of the needs of the user and have not received the support of those with power and financial resources. Truly effective urban planning and
design require a commitment of social and economic resolve to address the problems and participation by all segments of the community.

Given that public participation is a necessity for success, how can this be achieved in a country that does not generally value nonprofessional input such as Brazil? A number of North American authors (Violich 1987, Holston 1989, Gilbert 1994) have claimed to have deciphered increases in participation in the decade since the end of most military dictatorships in Latin America. They have asserted the primacy of community mobilization as the method for achieving this goal. Unfortunately, most of these activities have been and will continue to be stymied by the tenuous economic situations of the vast majority of the residents of the Latin America's huge metropolitan areas. Daily survival and the toll it takes on the individuals and families living in the poorest regions of the city almost preclude sufficient energy, time and money for participation in the planning process. In my experience in Curitiba with IPPUC, an easier and more rapidly effective approach to increasing the level of public input in the planning process would be to work with the technical planners and bureaucrats and convince them of the value to their plans and prestige through the inclusion of public opinion. This group is much smaller to mobilize and has more resources to increase participation.

However, while focusing on informing the planners, the mobilization and inclusion of public participation should not be disregarded. One way to increase participation is to focus on the informal and daily interactions between planners and citizens. This aspect of
participation is often overlooked, but actually provides much of the feedback that planners and citizens receive. Planners should spend more time in the community interacting with people at all income, status and power levels. Furthermore, the informal mechanisms of participation must be given equal status with the formal methods such as meetings and community groups. If this approach is taken, a broader spectrum of the community will be included in a less logistically complicated way. It is in this area that anthropologists have the most to offer the field of urban planning. Ethnographic and participant-observation methods would be well employed by urban planners in learning about the communities they serve.

Relatedly, the planning process should be depoliticized as much as possible. Political appointments within the planning departments should be limited. This allows for the greatest amount of continuity and increases the likelihood of the plan's success. However, continuity should not be such an overriding concern so that it impedes innovation. New personnel and multidisciplinary approaches need to be injected into the planning organization so as to encourage creativity and participation.

If a goal of planners is to increase public participation, the reasons why people participate and approaches that increase participation must be examined. Generally, individuals participate in planning in order to achieve a personal outcome. These might be changes in their neighborhoods that affect their homes, changes in city services that impact their sources of income or participation in processes that will enable them to make
connections with other individuals for a later benefit. Approaches for using these incentives or benefits to increase participation include, as mentioned before, greater community mobilization through associations of neighborhoods and even small city units, local meetings, door-to-door canvassing of neighborhoods, issue specific work groups involving a broad spectrum of citizens, and regional networking of individuals to collect and disseminate the information. However, methods could also include financial incentives or support for participation. This last idea may be most applicable for increasing the participation of lower-income groups.

One technique for creating resources for financially strapped cities, planners and low income residents is to leverage a city’s scarce resources by exchanging community assets for physical property. Curitiba does this via Solo Criado. Through such programs, the costs are borne by a larger group, and the benefits are gained by a broader range of residents.

Curitiba has done an outstanding job of publicizing the successes of its solutions. Public relations is important and leads to the creation of a planning identity within a city and its citizens. The self conceptualization as a well-planned, livable city enables future programs to be implemented more easily and successfully, and with greater encouragement and support from all levels. Other cities need to pay attention to developing a planning identity through incremental steps of implementing planning programs, promoting their successes and showing how individuals and groups losing
power through the new plans also receive benefits as individuals or as citizens/organizations of the city. However, the generation of public support through propaganda should not overwhelm the plans themselves. Krishnankutty found that at times, "Curitiba paid too much attention to marketing...(and that planners) dismissed as propaganda the current slogan: The Ecological City" (Krishnankutty in McKibben 1995:107).
IX. CONCLUSIONS

As a technical exercise, a governmental function and a socially constructed process, urban planning exists within global, national and local power relationships. Power gradients external and internal to the city's system affect the direction and results of planning. Global movements in the discipline inform planning in Curitiba and are reflected in the city's plans. In turn, Curitiba has had disproportionate influence, given its size and geo-political location, in the worldwide discussion of planning by presenting well-publicized innovative ideas and alternative solutions that are readily adaptable to other locations.

Curitiba's planning system functions as the local point of inserting global power relationships into the daily lives of citizens. Modernizing activities, dependent relationships and core-periphery conditions that exist on a global scale are reflected within the city's various neighborhoods, ethnic groups and classes. Therefore, the planning process can promote and reinforce these conditions or oppose and change them. It is this micro-level process of insertion that Foucault identified as the focus of studies of power. Analysis of urban planning in Curitiba reveals how powerfully the planning of land use, transportation and education, among other things, influences the daily activities of individuals.
Power relationships also influence the type and level of participation by individuals and groups in the planning process. Those in favorable positions exercise control over the planning process through their knowledge of the system and their linkages to other power holders. As seen in Curitiba, planning systems are structurally geared to exclude the participation of the powerless by inhibiting their knowledge of the process, access to the system and spare time to become involved. This often means that their sole form of participation comes from informal interaction with planners, government officials and others with more influence in the system. When these informal mechanisms are ineffective or ignored by planners, the powerless will resists the plans through inaction, noncompliance, slander or misconduct.

In the final view, the results of my work indicate that Curitiba has a number of effective planning programs that are applicable to other areas given the appropriate locational and cultural adjustments. The challenge for other cities is to generate the resolve to implement Curitiba-style answers and to not exclude the participation of less-powerful groups by ignoring alternative ways of gaining their input. The challenge for Curitiba is to maintain its level of commitment and innovation. As Rotenberg and McDonough state “urban spaces are contested, created processes, not the simple products of plans” (Rotenberg and McDonough 1993:137). As such, the study of power gradients within cities and insertion of power into the daily lives of citizens via the planning process is critical.
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Appendix 1: Curitiba Quality of Life Statistics

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Curitiba</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Capita GDP</td>
<td>US$ 5,149</td>
</tr>
<tr>
<td>Gini Coefficient - income concentration</td>
<td>0.5677</td>
</tr>
<tr>
<td>Working Population with income above 2 minimum wages</td>
<td>68.4%</td>
</tr>
<tr>
<td>Formally registered employees</td>
<td>82.0%</td>
</tr>
<tr>
<td>Employees contributing to official social security system</td>
<td>72.2%</td>
</tr>
<tr>
<td>Households connected to public water system</td>
<td>99.0%</td>
</tr>
<tr>
<td>Households connected to electric grid</td>
<td>99.0%</td>
</tr>
<tr>
<td>Households connected to sewer system</td>
<td>61.0%</td>
</tr>
<tr>
<td>Households with garbage collection service</td>
<td>97.5%</td>
</tr>
<tr>
<td>Owner-occupied households</td>
<td>74.3%</td>
</tr>
<tr>
<td>Households with stove</td>
<td>99.6%</td>
</tr>
<tr>
<td>Households with refrigerator</td>
<td>85.9%</td>
</tr>
<tr>
<td>Households with radio</td>
<td>94.4%</td>
</tr>
<tr>
<td>Radio broadcasting stations</td>
<td>35</td>
</tr>
<tr>
<td>Households with television</td>
<td>88.3%</td>
</tr>
<tr>
<td>Television broadcasting stations</td>
<td>6</td>
</tr>
<tr>
<td>Cable and subscription television stations</td>
<td>4</td>
</tr>
<tr>
<td>Telephone terminals (per 1000 inhabitants)</td>
<td>212</td>
</tr>
<tr>
<td>Automobiles (per 1000 inhabitants)</td>
<td>267</td>
</tr>
<tr>
<td>Commercial energy consumption in t.o.e. * per capita</td>
<td>2,307</td>
</tr>
<tr>
<td>Weekly newspaper circulation (per 1000 inhabitants)</td>
<td>850</td>
</tr>
<tr>
<td>Infant Mortality (per 1000 live births)</td>
<td>20.3</td>
</tr>
<tr>
<td>Hospital Beds (per 1000 inhabitants)</td>
<td>6.9</td>
</tr>
<tr>
<td>Basic vaccination coverage</td>
<td>88.0%</td>
</tr>
<tr>
<td>Medical procedures conducted and regulated by the Health Department (per inhabitant/year)</td>
<td>17</td>
</tr>
<tr>
<td>Literacy Rate</td>
<td>94.5%</td>
</tr>
<tr>
<td>Functional Literacy Rate</td>
<td>82.8%</td>
</tr>
<tr>
<td>Schooling Rate - Primary Education</td>
<td>81.7%</td>
</tr>
<tr>
<td>Public Libraries</td>
<td>30</td>
</tr>
<tr>
<td>Theaters</td>
<td>19</td>
</tr>
<tr>
<td>Cultural Spaces and Museums</td>
<td>73</td>
</tr>
<tr>
<td>Green area (per inhabitant)</td>
<td>54 m²</td>
</tr>
</tbody>
</table>

Source: IBGE, World Bank, SICT, IPPUC, SMS

* t.o.e.: tons of oil equivalent
Appendix 2: Photos of Câmbio Verde
Appendix 3: Photos of Mobile Classrooms
Appendix 4: Photos of Lingeirinho Bus System

CURITIBA

NAS TRILHAS DA IGUALDADE
Appendix 5: Photos of Solo Criado
Appendix 6: IPPUC Structure Diagram

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<table>
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<th>CARGO</th>
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<tr>
<td>PRESIDENTE</td>
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<tr>
<td>SUPERVISOR</td>
<td>S.2</td>
</tr>
<tr>
<td>ASESOR ESPECIAL</td>
<td>S.2</td>
</tr>
<tr>
<td>ASESOR TECNICO</td>
<td>C.3</td>
</tr>
<tr>
<td>CHEFE DE GABINETE</td>
<td>C.4</td>
</tr>
<tr>
<td>SECRETARIA EXECUTIVA</td>
<td>C.4</td>
</tr>
<tr>
<td>COORDENADOR</td>
<td>PG.6</td>
</tr>
<tr>
<td>GERENTE</td>
<td>PG.6</td>
</tr>
<tr>
<td>CHEFE DE SETOR</td>
<td>PG.4</td>
</tr>
<tr>
<td>ENCARREGADO DE SERVIÇO</td>
<td>PG.2</td>
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