

## **CHILE**

## SANTIAGO

Size of the country	757 000km², length: 4300 km
Population	15,2 M
Population density	20 inhab/km²
Population growth rate (1993 – 1999)	1,4 %
Part of urban population	85%
Life expectancy at birth	75
Infant mortality (per 1000 live birth)	10
Ethnic groups, their percentages in the population	European: 32 %, European+Indian: 65%, Indian: 1%
Official languages	Spanish
Religions	Christian: 90%, other: 4.2 %, without: 5.8%
Gross domestic product	71,1 billion USD
Gdp per capita	4740 USD
Inflation	1996: 6.6%, 1997: 6%, 1998: 4.7%, 1999: 2.3%
Gdp growth rate	-1%
Gdp repartition in different sectors	Agriculture and fisheries: 8%, Industry: 34,6%, Services: 57,4%
Unemployment rate	9.7% (1999)
Illiteracy (% of population age 15+)	4
Tourism	1,7 M (1996)
Population of the metropolitan area of Santiago	5.258.000 hab
% of people living in the metro area	40 %
Population growth rate of the metro area	2 %

## BETWEEN THE STATE AND THE MARKET: GEOGRAPHICAL RESONANCE AND SOCIAL SUSTAINABILITY IN SANTIAGO, CHILE

Francisco SABATINI
Catholic University of Chile
Federico ARENAS
Catholic University of Chile

#### Introduction

Santiago, Chile's Capital City, with its five million inhabitants and 34 municipalities has experienced a wide range of economic and urban policies in the last fifty years. These policies have ranged from varying degrees of state interventionism before 1973 to extreme market liberalization thereafter, especially between 1973 and 1990. We contend that the results of the post-1973 market-oriented policies have been strongly conditioned by the geographical resonance, " or physical imprint, of earlier interventionism, and by the " border spaces " that urban development is producing between the city's poor areas and the modern neighborhoods and commercial areas that are expanding today.

These spatial complexities produce paradoxical results, such as the emergence, after a thirty-year delay and under market policies,

of the sub-centers that the transportation planners designed and dreamed of in the 1960s, along with a significant degree of social integration resulting from the downscaling of residential segregation that was stimulated by the liberalization of real-estate markets.

In the specialized literature, the predominant approach to the "territorial impacts" of restructuring and globalization seems to be far too simplistic to address the role of the configuration of space in the social sustainability of cities, and far too general to address the specifics of each city and the challenges faced therein by urban policies. In this paper we shall outline the spatial complexities associated with selected urban policies in Santiago — land, housing, and transportation — and their relevance to social sustainability.

#### **Urban Policies**

The *interventionist* period culminated in the government of the socialist, Salvador Allende (1970-1973), and the market period began with the bloody coup d'Etat that toppled Allende and imposed a military government headed by General Augusto Pinochet (1973-1990). In 1990 Chile returned to democracy. The center-left coalition administrations that have governed since then have acted within the framework of the urban policies designed by the military government, policies to which they have been able to make changes of only secondary importance. In the following paragraphs, we shall briefly describe the housing, land, infrastructure, and urban transportation policies implemented during the market period. Tables 1 and 2 contain basic economic and social data on Chile.

Among other measures, the military government's marked policy of liberalizing land markets, undertaken in the second half of the 1970s, included the reduction or elimination of taxes on real-estate transactions or on holding vacant sites, and the liquidation of state land reserves formed during the interventionist period. It also abolished the regulation on "urban limits " and the delimitation of an area available for urbanization. In the case of Santiago, this resulted in nearly doubling the urbanizable area outside of the city proper. This policy had two main objectives: firstly controlling land prices, which was a failure since prices have been persistently rising ever since, except during periods of economic crisis; and, secondly, the formation of a vigorous private realestate sector, which was a complete success.

The democratic administrations since 1990 have tried to apply a *policy of urban densification*, even though they lacked the power to modify the legal and economic framework, including the rules put in place for other purposes — Chile's legal loopholes — making it

relatively easy to add land to the city. Economic pressure from developers with strong links to groups of firms and investors has also made itself felt. It was crucial in the significant expansion of Santiago's legal Metropolitan Area and developable land area with the addition of the province of Chacabuco in 1996. Nevertheless, we shall see that Chile's low level of development has limited the actual geographical expansion of the city of Santiago.

The public housing policy adopted by the military government in about 1980 redirected state housing subsidies from supply to demand. The government awards vouchers to middle- and low-income families according to a national point system; the families use these vouchers in the open market to purchase privately constructed housing. This policy's greatest success was that the construction of new units outstripped the increase in the demand for housing. However, this achievement has come at the expense of quality and size (with units as small as 32 sq. m). This public housing policy, popularly labeled "housing subsidies", has carried on the long tradition of state action in the provision of housing, which includes the segregation of the poor into the worst-equipped and worst-served peripheries of Chile's cities.

The principal metropolitan-level elements of Santiago's present-day transportation and telecommunications infrastructure were designed and initiated during the interventionist period, especially between 1960 and 1973. These public works included the 70-kilometer Américo Vespucio ring road, the Metro network, new radial access highways and the international airport. During the market period, after a long and severe contraction of State and public investments, public investment was devoted simply to repairing the faci-

lities damaged by the long period of neglect and to finishing the works designed during the *interventionist* period, especially the Américo Vespucio ring road and the Metro. The 1980s privatization of the large state-owned domestic and international satellite communications companies and the 1994 adoption of the multi-carrier system have stimulated the accelerated growth of the telecommunications sector.

After 1990 the Ministry of Public Works designed a plan of investments in infrastructure for central Chile. It was meant to improve internal and external accessibility, and likewise the competitiveness, of the region, including the Metropolitan Region of Santiago and two of the other numbered Regions into which Chile is divided for administrative purposes. The plan, primarily based on private licenses for public works, includes the construction of a second 130-kilometer ring road around Santiago. The pressure on and real-estate development of Chacabuco are related to the construction of the most profitable section of this future circular highway, which has recently been put up for bidding.

In the field of urban public transportation, the military government adopted a policy of freedom of routes, putting an end to the old practice by which the government laid out the routes. The Empresa de Transporte Colectivo del Estado (ETCE. State Mass Transit Company), which had served the poor areas of Santiago not reached by the private companies, was eliminated. Private companies have expanded greatly, as has the number of buses. This is related to the low rate of automobile ownership in the city and, in part, to policies of laying off public employees and converting them into small entrepreneurs. Many have swelled the ranks of bus and taxi owners Today practically all parts of the city are covered by these private businesses. Because these vehicles have fostered Santiago's congestion and severe air pollution, the democratic governments have adopted a series of restrictive measures, such as banning the use of vehicles beyond a certain age and a program of licenses open to bidding for the use of downtown streets. The latter is intended to limit the number of buses with idle capacity that pass through that area.

### Paradoxes and Geographic Resonance

We maintain that the results of the liberal policies of the *market* period are strongly conditioned by the "geographical resonance," or spatial imprint, of the previous period's *interventionism*. One of the most interesting and most positive phenomena associated with that resonance is the growing number of "border spaces" that urban development is producing between the poor parts of the city and the "modern" neighborhoods and commercial areas that are presently expanding.

By " geographical resonance " we understand

the perpetuation of a certain spatial order or form over time, beyond the life of the system of urban relations that produced it, be it an economic system or one resulting from the action of the state. This spatial order cannot be reduced to the physical elements that make it up, although it depends on them<sup>1</sup>.

By "border spaces" we understand the areas along the edges or frontiers between urban zones or places of different economic and social categories. In each city, the activities and groups of the developed zones maintain relations of dominance over the activities and groups of the backward zones. The border spaces in which these different zones meet are ambiguous spaces, and for the subaltern groups and activities, creative ones. In these areas, social exclusion combines dialectically with new possibilities for integration<sup>2</sup>.

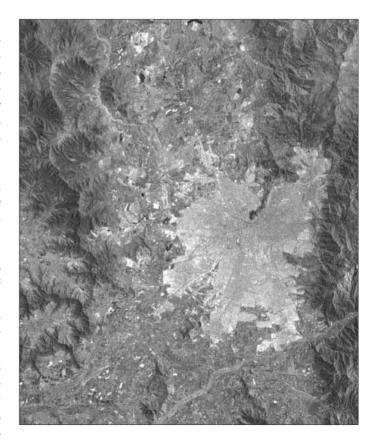
In Santiago, geographical resonances operate both between the *interventionist* period and the *market* period and within the latter period. We shall discuss three geographical resonances of the first type and one of the second; wherever appropriate, we shall describe the border spaces that have emerged.

# Resonances from the First Period to the Second

Compact urban form and urban transport The low rates of car ownership and the minimal investments in urban infrastructure, especially those related to transportation, may be the causes of Santiago's compact form<sup>3</sup> (see Map 1). Cities in more developed nations, by contrast, are characterized by the now common explosion of the urban area into the surrounding region.

Even when the land markets were liberalized and the peripheral growth of Santiago was encouraged after 1973 and especially after 1979, the basic compact form has persisted. The state's withdrawal included drastic cuts in investment in infrastructure. Between 1973 and 1995, the year in which the Américo Vespucio ring road was completed, the only new piece of infrastructure to be built was a new Metro line. After 1995 a third Metro line and a new highway into the city were constructed, while other highways were improved. In Santiago as in many cities, upper- and middle-class families from the early 1980s onward have been acquiring houses on large lots (half-hectare) in the rural periphery. However, poor accessibility has forced many families to give up these houses as primary residences, and to use them only on weekends or during vacations.

In a later section we shall see that the city's compact form has had an effect on social segregation. Here we want to point out its effect on the transportation system. A compact city with low, albeit rising, rates of car ownership conditions the urban impact of the sustained economic growth that has been associated with economic reform. On the one hand, it means a major increase in congestion and other related problems such as air pollution, a problem made more severe by Santiago's mountainous surroundings— in fact, air pollution attained the status of a public problem in the early 1980s, with clear repercussions on human health.



Map 1. Santiago 2000: Satellite Image of the Central Region of Chile

On the other hand, the spatial imprint of the compact city means that market policies consolidate public transit as good business. The liberalization of routes, cuts in vehicle import taxes, and a variety of measures favoring the creation of transit companies, have benefited from this geographic resonance. These and other policies have meant that Santiago's public transit is not only profitable, but also covers the entire city. In contrast, during the interventionist period, large areas of the periphery either had to be covered by the nowdefunct ETCE or were simply not serviced at all. In addition, the quality of the buses has improved to a certain degree and access to the Center has not worsened despite rising levels of congestion. Successful measures such as the regime of licenses for the use of downtown streets or for the use of recently-built " segregated lanes " for buses, have neutralized the negative impact on overall accessibility of increasing rates of car ownership and the rise in the numbers of small public transit firms.

A city with the archipelago-like silhouette that has become the norm in today's world, where modern residential, office, and commercial spaces tend to be located in the distant rural periphery, and which probably, by the same token, has significantly higher rates of car ownership than Santiago's, would rarely enjoy Santiago's ideal conditions for implementing policies of market-based public transit and disincentives to the use of the automobile. In general, the economic conditions that favor the existence of significant private mass transit services tend to disappear in such cities and the State has to subsidize these services for the poorest residents. These cities have also witnessed a vicious circle of highway investments, the increased use of private cars and problems of congestion, pollution, and the expulsion of pedestrians from the streets.

In sum, the preservation of Santiago's compact form, a geographical resonance clearly associated with Chile's low level of economic development, has allowed the economic conditions that would make for what many urban planners today see as the only solution to the transportation problems of large cities: establishing the predominance of public transportation. Paradoxically, Chile's poverty increases the possibility of significantly alleviating Santiago's transportation problems.

But this opportunity could be squandered. The Chilean authorities do not seem to be sufficiently aware of the historic opportunity that lies in their hands. They have been lukewarm in supporting public transportation and have done nothing significant to discourage the use of automobiles. The authorities have even confronted a large conglomeration of groups within society in their eagerness to build a modern highway inside the city that will favor the most affluent neighborhoods. Perhaps because this highway will be built by private licensees, the authorities have come under pressure from strong economic interests.

# Change in the Scale of Accessibility and Multiplication of Border Spaces

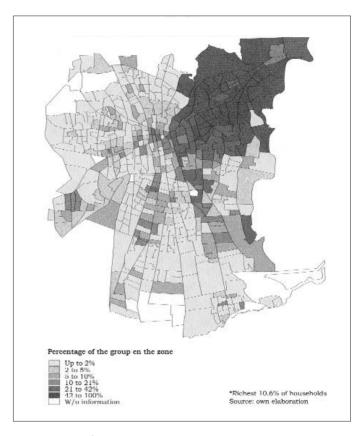
The construction of the Américo Vespucio ring road, a highway, as we noted, of some 70 kilometers, changed the scale of accessibility within the city from kilometers to tens of kilometers. When urban planners designed this road around 1960, they had three objectives in mind: to improve accessibility within the city, foster sub-centers on the urban periphery and contain the geographic growth of the city. It was anticipated that the sub-centers would appear where the city's circular and radial highways met. The designing of a Metro system and the construction of its first line should also be considered as contributing to this change in Santiago's scale of accessibility.

After 1973, when economic reforms were implemented and land markets liberalized, the greater part of the beltway was finished, but the city was still strongly mono-centric. The sub-centers arose after these market policies had been applied and had stimulated the emergence of a strong private real-estate sec-

tor. The flow of domestic and foreign investors into this sector, the concentration of capital, and the appearance of large commercial, office, and residential projects marked the beginning of a radical transformation of Santiago's urban structure, a process in full swing today. As with the majority of the large Latin American cities, Santiago's elites in the twentieth century tended to cluster in one part of the city that stretched from the center to the periphery in a well-defined geographical direction (eastward in the case of Santiago, as shown in Map 2).

On the basis of these new large-scale projects, real-estate promoters have managed to attract demand for buildings in areas outside the city's eastern and central areas. They bought cheap land, often near poor residential areas, and after erecting buildings on them, they sold properties at high prices to affluent groups and to flourishing businesses created by economic growth.

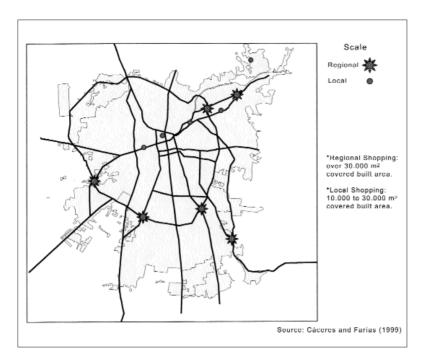
Since the late 1970s the redefinition of the scale of urban accessibility that was implicit in the urban infrastructure projects of the 1960s has allowed emergent real-estate capital to break the virtual confinement of "the modern " to the east side, and has made for the construction of shopping centers, malls, office space, and residential developments. The importance of the new scale of accessibility in the emergence of " shopping areas " is shown in Map 3. A side effect has been the reduction of the physical distance between rich and poor. The border spaces in which different social groups meet are increasing. In this way, the construction of new malls and shopping centers on cheap land has allowed access to significant market areas, while simultaneously ending the geographical marginality of many poor neighborhoods. Something similar has happened with large-sized gated communities: they are reducing the physical distance between social groups. At the same time, the fences, guards and surveillance systems, and the size of these residential developments,



Map 2. Santiago 1997: Spatial Distribution of Elite Families

help maintain, and even exacerbate, the necessary minimum segregation of emerging middle- and upper-class groups from the nearby poor areas. Major streets in these neighborhoods are serving functions similar to that of the fences, combining physical proximity with a minimum level of segregation.

The reduction in the geographical scale of segregation is producing conflicting results: On the one hand, it makes social inequalities (which have increased during the *market* period, as in other countries) more apparent; and, on the other hand, it gives the poor residents of those areas access to better commercial services (mainly supermarkets, malls, and shopping centers), better public spaces, and nearby



Map 3. Santiago: Shopping Centers Inaugurated since 1980

job opportunities, with a resulting reduction in travel time. Our aggregate statistical measurements at the city-wide level and our quantitative and qualitative case studies confirm these positive effects<sup>5</sup>.

Subjective living conditions also improve in these situations. The level of residential satisfaction is higher among poor people who live near these "modern" developments than among those who live in those areas of concentrated poverty that have not had the same good fortune. Galleguillos has studied an extreme case of rejection and exclusion of poor families provisionally settled near new gated communities by the municipality of Peñalolén. Even these families valued the greater proximity of the rich and the services that sprang up in their vicinity<sup>6</sup>.

Residential segregation is a much more complicated phenomenon than the mere form of social exclusion that it is often understood to be. It includes a dialectical relationship between social exclusion and inclusion<sup>7</sup>. It is represented better by the concept of *border* elaborated within the framework of so-called post-colonial theory than by the image of the walls that, in fact, surround the new segregated neighborhoods, the gated communities<sup>8</sup>. Even when marked by an electric fence, the border represents the possibility of integration, however weak or remote.

In sum, in large part because of the change in the scale of accessibility brought about by interventionist urban planning, private action in real estate during the market period has had some positive effects on the structure of the city, such as decentralization into sub-centers and reduction in the scale of residential segregation.

Paradoxically, the planned city (comprehensively thought out in advance) materialized only when the market became stronger. What may be one of the world's most *laissez-faire* urban policies is achieving two objectives dear to urban planning: the reduction of the spatial segregation of social groups and the creation of dynamic sub-centers that would bring, among other advantages, the decentralization of commuting and daily travel patterns. But the basic spatial conditions for this transformation, the new scale of accessibility within the city and the compact nature of the urban form, were created or consolidated in the interventionist period, and have continued into the present as a geographical resonance.

It is not clear whether there is sufficient awareness in the Chilean environment about this combined spatial effect, and how crucial it is to retain this effect if a socially sustainable city is to be created.

# The Agglomeration of Poverty and the Appearance of the Ghetto Effect

In the interventionist period, the Chilean State came to be the country's principal builder of housing units. President Carlos Ibañez (1952-58) launched "National Housing Plans" that came

to be expanded by successive administrations. The state eventually built about 60 percent of all the housing stock between 1964 and 1973. Even during the *market* period the Chilean State did not abandon spending on public housing, which regained its historic levels in the mid-1980s.

The massive production of public housing has favored the geographical concentration of the poor families which benefited from these programs. The search for cheap land for public housing has been a historic constant, even under the current policy of housing subsidies. Without any doubt, the Chilean State has been the principal agent of the large-scale residential segregation that affects the poor. On the one hand it implemented massive public-housing programs, which included everything from single-family houses to high-rise residential buildings, as well as sites with varying levels of utilities. On the other hand it carried out the removal of " encampments " and of other types of illegal settlement (generally resulting from land seizures) from areas with high property values at various times during the halfcentury under study. Illegal land seizures came to affect high-value land during periods with minimal or no risk of police repression, as under the administration of the socialist, Salvador Allende (1970-73). In fact, land seizure was the third factor that favored the concentration of poverty as poor families with the support of political parties or groups of the center and left —preferred cheap land, hoping to reduce the risk of police repression. During the interventionist period the organization of these extensive neighborhoods of poor families (called poblaciones in Chile) had contributed to the integration of these families into the city. The población was the base of clientelistic organizations or grass-roots pressure groups. The poblaciones had a presence and a weight in the Chilean political system. Some of their principal demands were urban: They referred to sanitary and transportation services, pavements, and basic public buildings

(e.g. premises for neighborhood associations, police stations). But the poblaciones also supported political blocs in the ideological struggle that reached a high pitch in Chile, especially after Allende's election as president. Santiago's poor (who now make up approximately 25 percent of the city's population) have been spatially segregated for a long time. Around 1870, Benjamín Vicuña Mackenna, the government-appointed mayor of Santiago. who was to build major public works and improvements in the city, declared that he would designate an encircling road (camino de cintura) to separate the "city proper "from the "outskirts" where the poorest inhabitants lived, noting that public spending would be concentrated exclusively inside the encircling road. By contrast, there has been significant social mixing among the rest of the population. For example, the east side of the city, where nearly the entire elite (the richest ten percent of the population) lived until the late 1970s, also had a large middle-income population. Nevertheless, with the passage of time. the efforts of their residents, and the support of the state, the poblaciones have progressed physically, both in public and private spaces, and they have mimicked the physical structure of the city, integrating into it. Today many residential areas are difficult to recognize as having originated in land seizures by organizations of poor people.

In spite of the slowness of the process, the población represented a basis for hope and a base in the struggle for the social integration of its residents. Today, with relaxed labor laws and the political marginalization of the urban poor resulting from the market period, the población represents far more of a scourge than a hope. Isolated by unemployment, the concentration of income, and the decline of political clientelism and grass-roots organization for lobbying, the inhabitants of the poblaciones are turning inward in a miserable struggle for survival. The vigorous economic recovery that has come about since 1983 has failed to bring

back the political and labor situations of the past. The earlier hopes for urban progress and integration have tended to disappear, and the problems of social disintegration, such as drug use, crime and adolescent pregnancy, have grown, especially among youth.

In sum, the persistence of a historical trait of the city that emerged during the interventionist period, the spatial agglomeration of the poorest groups, has helped aggravate and accelerate the effects of the city's social disintegration during the market period. Due to ongoing deep changes in the political system and culture, such as the weakening of clientelism or of reivindicacionismo (demand-making and struggling), the concentration of poverty, which in earlier times reinforced the political power of the poor, has become a crucial factor in the social disintegration that affects the poor today. Spatial segregation of the poor can by no means be treated any longer as a simple or secondary side effect of public housing policies as has been the case so far.

# A Geographical Resonance within the Second Period

During the *market* period, the " modern, " higher-income city has abandoned its historic confinement to the east side of Santiago. As we have seen, this spatial change clearly furthers the march toward a sustainable city. Nevertheless, there are negative *spatial orders* associated with it. One of these is the *spatial propagation of land speculation* which we recognize, because of its self-perpetuating tendencies, as a new geographical resonance.

The dispersal of real-estate developments for middle- and upper-income groups and of the shopping centers, malls, and new sub-centers has "taught" landowners that these projects can happen practically anywhere in the city. The whole city, and not just the central and eastern areas, has come to be the object of land speculation and deals. The expectations of future increases in land prices are being pro-

jected onto the whole urban space, leading owners to hold land off the market until prices rise. The speculative rationale of the landowner, which can make thousands of landowners act as one without prior concertation, is crucial in producing and reproducing the conditions of scarcity that definitely push prices upward. The landowners have the power to accomplish this self-fulfilling prophecy.

In fact, the spatial propagation of these expectations and of speculative landholding have meant that, in the *market* period, land prices have risen all over Santiago, including many areas with traditionally lethargic land markets, and in spite of liberalizing policies that sought precisely to control or reduce land prices.

This generalized, persistent rise in land prices has brought about the progressive disappearance of areas with land cheap enough for the poor and for public housing programs. Especially in the last two years, the poorest families obtaining housing vouchers from the state have not found housing units in Santiago on which to spend them. They have found housing only in communities and small cities forty kilometers or more away from the edge of the city.

There are three paradoxes associated with the consolidation of our last geographical resonance, the spatial propagation of land speculation:

- The liberalization of land markets, and specifically of land supply, has contributed to a generalized increase in land prices in the city, contradicting the predictions of the neo-classical economists.
- 2) The concentration of real-estate capital and its greater weight in urban development are, as a by-product, bringing many poor families closer to social groups with higher incomes and closer to "modern" services and local infrastructure. This contrasts with the historic and continuing contribution of public housing policies to the geographical concentration of poverty. In this case, the facts challenge the predictions of structuralist-inspired critics of economic globalization.

3) The reduction of the geographical scale of residential segregation has brought benefits to poor residents who already have housing in affected areas, by bringing them closer to a better urban infrastructure as well as to higher-income groups At the same time it has brought the increasingly marked exclusion, from the city, of the poor families currently looking for housing under state programs. The forces of exclusion and possibilities for integration come together in the spatial scenario created by geographical resonances and urban policies.

### **Policy Implications**

Certain spatial orders that strongly condition the concrete effect of urban policies — we have called them geographical resonances tend to form in a space as variegated and complex as a city. This conditioning sometimes radically modifies the spatial effects that could be expected from a given policy and its essential logic (which may be ideological). Viewed from this perspective, geographical resonances make the application of a given policy in a given city at a given time unique, sometimes offering major possibilities for social integration that can nevertheless be squandered if their importance is not sufficiently understood. In great measure, these possibilities are rooted in the multiplication of border spaces, where new identities are beginning to be negotiated and new forms of social integration are taking place. In sum, geographical resonances mean a higher spatial complexity of cities which, together with the greater social, cultural, and functional complexity of cities under globalization, open up unexpected possibilities for modifying the system of social dominance and exclusion of the new urban economy and politics.

It is important not to lose sight of the fact that, to a great extent, these advantages may be due, as in Santiago, to the realities of poverty and to the condition of a developing country that has low rates of car ownership, small investments in urban regional infrastructure,

and cities that remain compact. Will it be possible to hold on to these advantages at higher levels of development? The plans made by the Chilean authorities are not very encouraging, particularly since they do not display an understanding of the relationship between urban form and social integration.

Apart from not taking advantage of the positive potential effects for social integration associated with geographical resonances, the authorities could do even worse by carrying out a given policy that could cancel this possibility or, furthermore, neutralize new policies aimed at making use of this possibility. For example, a policy designated to stimulate sprawl could weaken another policy intended to reinforce the spontaneous tendency towards smaller-scale segregation. This may be happening already with the expansion of the Santiago Metropolitan Area to the province of Chacabuco. In the context of Chile's free market and the growth of car ownership, the construction of the second ring road in this area could encourage sprawl, weakening the compact form and its advantages. In fact, numerous real-estate projects in this province already have building permits and are at various stages of construction. The eight main projects alone cover 72 percent of the province of Chacabuco's urbanizable land<sup>10</sup> and not one of them includes low-income housing.

Moreover, we have pointed out that geographical resonances can also be negative, as in the case of the concentration of poverty and the projection of expectations of rising property values, with the resultant speculation, on to the whole urban area. Is it possible to design urban development policies that defuse negative geographical resonances and support positive ones?

One possibility is the incorporation of civil society as a major player in the formation of urban policies. The aggressive capitalism arising out of the liberalization of land markets and other *market* policies is provoking ever more numerous reactions from, and conflicts with, citizens' groups and civil society organi-

zations. In fact, the first project in the Ministry of Public Works program of Urban Concessions in Santiago, the Costanera Norte highway, has aroused a large and sustained movement of citizens in opposition to it. These forms of resistance could provide political support for the authorities to work for a sustainable city using the advantages associated with the geographical resonances we have identified. Through these resonances, Chile's low level of development and the *interventionist* tradition of its public policy offer themselves as valuable resources for the construction of a sustainable city when, paradoxically, the economy is expanding and urban markets have been liberalized

#### Notes:

- 1. Rupert Sheldrake postulates a substitute for the genetic theory of heredity in the form of a concept of "morphological resonance" that is applicable to a large variety of biological and social phenomena. Coincidentally, in the specific field of biology, Richard Strohman maintains that the genetic paradigm is in the process of being replaced by "epi-genetics," a discipline that includes the study of the mechanisms that impart spatial and temporal control to groups of genes, such that genetic determinism is being replaced by a more systemic vision. Sheldrake, Rupert, La Presencia del Pasado: Resonancia Mórfica y Habitos de la Naturaleza (Barcelona, Editorial Kairós, 1990); Vicuña, Rafael, " Gunter Stent y el fin de la biología molecular " [Gunter Stent and the End of Molecular Biology] El Mercurio, Santiago, Chile), 27 August 2000.
- 2. Bhabha coined the concept of "third space" to denote these possibilities. The border between the United States and Mexico is a good example of the combination of exclusion and new forms of integration peculiar to "border spaces." Bhabha, Homi, *The Location of Culture* (London: Routledge, 1994).
- 3. Only 15.8 percent of daily workday trips were made in private automobiles in 1991, and today the number may be no more than 25 percent.
- 4. Polese speaks of a vicious circle between increases in car ownership, the decline of the privately-owned collective transport system, public investment in roads and highways, and the consolidation of a two-tier transport system (one for the "included", based on the car, and the other for the "excluded," based on an inferior and subsidized public transit system). Polese, Mario, "Learning from each other," in Polese, M. and Stren, R., The Social Sustainability of Cities. Diversity and the Management of Change (Toronto, University of Toronto Press, 2000), pp. 316-329.
- 5. Sabatini, Francisco et al., "Reforma de los mercados de suelo en Santiago, Chile: efectos sobre los precios de la tierra y la segregación residencial "[Land-market Reform in Santiago, Chile: Effects on Land Prices and Residential

- Segregation] Revista EURE, Vol. 26, No. 77, 2000, pp. 49-80. Sabatini argues that the reduction in the scale of residential segregation is a phenomenon that is gaining ground throughout Latin American cities. Sabatini, Francisco, Tendencias de la segregación residencial urbana en Latinoamérica: Reflexiones a partir del caso de Santiago de Chile [Residential Segregation Tendencies in Latin America: Reflections Based on the Case of Santiago, Chile] Documentos del Instituto de Estudios Urbanos, Serie Azul No. 29 (Santiago: Pontificia Universidad de Chile, 1999)
- 6. Galleguillos, Ximena, "La Satisfacción Residencial y la Segregación Urbana en un Contexto de Pobreza. Caso de Estudio: Esperanza Andina, "Peñalolén [Residential Satisfaction and Urban Segregation in the Context of Poverty. Case Study: Esperanza Andina, Peñalolén] Thesis, Master in Urban Development (Santiago, Chile: Pontificia Universidad Católica de Chile, 2000).
- 7. Sabatini, Francisco, Transformación urbana y dialéctica entre integración y exclusión social; Reflexiones sobre las ciudades latinoamericanas y notas sobre Santiago de Chile [Urban Transformation and the Dialectic Between Social Integration and Exclusion; Reflections on Latin American Cities and Notes on Santiago, Chile] Documentos del Instituto de Estudios Urbanos, Serie Azul No. 19 (Santiago: Pontificia Universidad Católica de Chile, 1998).
- 8. Jacobs studies the geographical dimension of the phenomenon of *border* elaborated in the framework of postcolonial theory. Jacobs, Jane M., *Edge of Empire. Postcolonialism and the City* (London: Routledge, 1996).
- The first two paradoxes the first one extensively are discussed in Sabatini, Francisco et al.,
   " Reforma de los mercados de suelo en Santiago,
   Chile. "
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