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Urban Renewal, Rehabilitation, and Remodelling of Santiago, Chile

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Article abstract

We study the history of the changes in Santiago, Chile, between 1780 and 1880 to verify the stages of urban renewal and the role of state and private investment in the processes. We find that before 1780 the dominant characteristic is conservation, i.e., repair or rebuilding of existing stock of buildings. Between 1780 and 1880 the stages were habilitation, rehabilitation, and remodelling of buildings and spaces for optimum use of urban land. Involved also were more intensive use and the creation of better and more expeditious communication to knit the various quarters of the city together and to provide communication with surrounding entities, such as the port and centres of supply. These stages and developments may follow each other but also may occur in superimposed rhythm. In the earlier years, state investment in new infrastructure is paramount; that investment, in turn, leads both to the development of new quarters and the entrance of private investors who profit from the unearned increment brought about by the state investment.

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Urban Renewal, Rehabilitation, and Remodelling of Santiago, Chile

Armando de Ramón José Manuel Larráin

Résumé/Abstract

Nous avons étudié l'historique des transformations survenues à Santiago (Chili) entre 1780 et 1880, afin de connaître les différentes étapes du renouveau urbain et le rôle joué par les capitaux privés ou d'État en l'occurrence. Nous constatons qu'avant 1780, la caractéristique dominante est la conservation, c'est à dire la réparation ou la reconstruction des immeubles existants. Entre 1780 et 1880, on distingue les étapes du financement, du refinancement et de la réorientation des constructions et des espaces pour une utilisation optimale du territoire urbain. Cette période est aussi marquée par une utilisation plus poussée des moyens de communication, par la mise en service de nouveaux réseaux, plus efficaces et plus rapides, qui relient les divers quartiers de la ville et les zones environnantes comme le port et les centres d'approvisionnement. Ces étapes et ces innovations peuvent se succéder, ou, ce qui n'est pas exclu, se superposer. Au début, les capitaux engagés par l'État dans cette nouvelle infrastructure ont joué un rôle prépondérant; par voie de conséquence, ils ont favorisé la construction de nouveaux quartiers et suscité l'intervention d'investisseurs privés qui allaient bénéficier de la plus-value occasionnée par les investissements de l'État.

We study the history of the changes in Santiago, Chile, between 1780 and 1880 to verify the stages of urban renewal and the role of state and private investment in the processes. We find that before 1780 the dominant characteristic is conservation, i.e., repair or rebuilding of existing stock of buildings. Between 1780 and 1880 the stages were habilitation, rehabilitation, and remodelling of buildings and spaces for optimum use of urban land. Involved also were more intensive use and the creation of better and more expeditious communication to knit the various quarters of the city together and to provide communication with surrounding entities, such as the port and centres of supply. These stages and developments may follow each other but also may occur in superimposed rhythm. In the earlier years, state investment in new infrastructure is paramount; that investment, in turn, leads both to the development of new quarters and the entrance of private investors who profit from the unearned increment brought about by the state investment.

This article has been conceived to show the existing relationship between proper urban variables and those that are typically economic. We further wish to examine urban renewal policies in relation to investments made both by the government and by the private sector. The city chosen is Santiago, Chile, in the hundred years between 1780 and 1880. If similar analyses could be made for other cities in the subcontinent, undoubtedly we could arrive at an ideal type of urban development in the region. The conclusions of this essay are valid only for the case and period chosen.

We postulate that the general policies of urban renewal that were initiated late in the eighteenth century were the starting point for the development of the Chilean capital. These policies had two aspects: the first, very well known, aimed at founding new cities, villages, and hamlets in the areas under settlement. The second, less well studied, focussed specifically on the capitals of the various viceroyalties, presidencies, governorships and captaincies-general. Hence the importance of the study of urban renewal since it strengthened the privilege of some urban centres to the detriment of others. Public investment was shifted preferentially to large cities, contributing in this way to their subsequent disproportionate growth.

Urban renewal as political action and urban development as economic and social consequence, the latter resulting from the former within an urban space and its environment, constitute a process containing an aggregate of elements which operate through parallel interacting phenomena. We do not believe that this is accidental. The urban renewal process has as an inherent characteristic the fact that the state and its entities must necessarily take part therein.

Our period starts with a monarchical regime, the enlightened and progressive regime of the Spanish Bourbons in

the second half of the eighteenth and early nineteenth century, and concludes with a national and republican regime, though conservative and evolutionist. The differences between both regimes, in urban matters, are subtle, and we think the two basically similar. Perhaps for this reason, urban renewal was uninterrupted in 1810; its pace slackened after 1820 when the so-called Wars of Independence were already over within the country.

We thus study a process that continues without interruption until the present time. There were, to be sure, higher or lower intensities or rhythms but the process seems planned, directed, carried out and implemented by a will inspired by the same principles.

1. Urban Renewal

Since urban renewal is the product of action by the government, the government must invest heavily in infrastructure. In turn, that investment brings a very high unearned increment in the value of the land. There is, then, a transfer of benefit from the government to some individuals who obtain an easy profit, almost a gift. This profit in turn encourages the private sector to initiate a series of acts such as purchases, sales and mortgages, and to engage in the construction of buildings and the creation of private parks and gardens. All this gives an intensified pace to a process of which the most visible aspect is the migration of high-income groups to the favoured urban sector or quarter. This process is always initiated by the government. Success depends on acceptance by the private sector, which undoubtedly reacts in accordance with the circumstances and conditions of each case.

Our general statement may be illustrated in Santiago by the so-called Yungay quarter. It was started in 1840 but had a quite.

slow evolution throughout the rest of the nineteenth century. Similarly the sector to the southwest of the town, toward the Field of Mars, was transformed into the Parque Cousiño. By 1870 it had a growth unprecedented up to then in Chilean urbanism. The first massive transfer of high-income families from the traditional downtown went to this sector. In both instances the public sector ". . . assumes private cost and replaces the operation of the market with the combination of public and private investments." So urban renewal required initial public investment, if successful, to be followed by private investment provided that the sector of the town was sufficiently attractive for such private investment.

Urban renewal embraces a series of subcategories, namely, 1) the habilitation, rehabilitation and remodelling of buildings and spaces with a view to obtain an optimum use of the urban land; 2) more intensive use, both with respect to the physical and functional aspects of the present and future buildings and spaces of the town; and 3) creating expeditious communication. Our concept implies, naturally, separation into different stages with various stages of implementation. Implementation may proceed in spurts of intensification and periods of reduced or no activity. The stages need not necessarily appear always in the same sequence. On the contrary, they may appear as in a diagram wherein the curve provides moments of very low activity that we will call periods of conservation, together with moments of high mobility and activity that may come about through the superimposition of stages. Everything seems to indicate that the stages rather than following one another, are superimposed in time and space, through intensification of the actions by the government and the private sector.

However, in the case of Santiago, there was a certain sequence of intensities and even of phases; that is, the periods or phases appeared in groups that followed each other in time. This also is what seems to happen in more recent times. To test whether or not there may be a constant in the case of Santiago, we present such phases or periods as they appeared in the city between the years 1780 and 1880.

We begin with a stage that does not properly constitute a part of the urban renewal process. We call it the phase of conservation. During this phase, the emphasis is on the protection and preservation of the aggregate of existing buildings and other urban works and spaces. In the special case of Chile, this action was required by law.

This phase would seem to be what normally happens in a city during the periods in which its physical evolution is conditioned only by population growth. In general, the early history of an urban centre corresponds to this stage. The main concern of the authorities and the inhabitants is the struggle for the existence of the city, for survival, for becoming definitely settled. The two first centuries of Santiago's existence fall quite well into this definition. During these centuries the city aimed at preserving and reconstructing, in order to achieve the full use of the aggregate of the existing buildings and other urban works and spaces. New construction and repair covered only buildings destroyed in earthquakes or, what was more frequent, those buildings that fell into ruin because of the low quality of the materials. In this phase, action by the government was notably weak and limited to certain indispensable services and minimum works.

Perhaps the most remarkable aspect of the stage of conservation is the evolution caused by population growth and forced migrations. The evolution showed up in land subdivision within the original plan and increased density in the central quarters. It was also evident in extension of the urban radius, i.e., enlargement of the original layout, creating the suburbs or outskirts beyond the previous city limits.

The proper phases of urban renewal are the three following:

Habilitation: We understand by this the aggregate of actions designed to incorporate new buildings or spaces into the existing urban milieu, as well as to provide communication for the enlarged urban space with other similar spaces appearing as complementary to the development of the city.

Rehabilitation: This phase is less intense since it includes those actions designed to improve the quality and use of the existing urban buildings and spaces. Those actions aim at recovering and repairing the buildings and spaces in deterioration or obsolescence, not only through reconstruction of what has been destroyed as would be the case in the stage of conservation, but by a new distribution, allowing and encouraging the improvement of quarters or sectors.

This phase, and the one we have called habilitation, appeared for the first time between 1780 and 1820. They came through action of the state, operating with some planning and a harmonious, coherent programme based on the most advanced techniques of the time.

Remodelling: This phase covers the aggregate of actions designed to replace the buildings and transform the spaces of deteriorated or obsolete areas that are susceptible to present and future functional profitability. Such was the work undertaken in Santiago in 1872. The Intendant of Santiago called them principal, urgent and indispensable measures "... that by common agreement and with the ardent aspiration animating all of us for the local well-being we have judged as a duty for us to accept and accomplish not only for embellishing Santiago but to save it."2 He obviously referred to the deterioration that began to appear in the central sectors as inhabitants left for other quarters. But he also referred to the need of stating clearly what the city comprised. This was very important since the state had not specified the exact limits of the city, which, according to the Intendant, was to enjoy the benefits provided by the state and also carry the charges.

Remodelling was a consequence of habilitation and rehabilitation. Without them, remodelling never occurred. But it was not just a matter of improving the existing or incorporating new spaces; it was necessary to take into account all the space previously delimited by the urban planner. Measures were concentrated on a smaller radius, previously set, called the "city proper." Within such space, high cost measures implemented what we call remodelling.

2. Urban Rent

Here we deal with participation by the private sector. Urban rent is an operative concept that may function as the hinged joint of the urban and economic variables. We begin by distinguishing between urban land and agricultural land, the main distinction being the well-known fact that urban land "... does not act as a natural productive means but as necessary space for the development of human life and the performance of all productive and nonproductive activities."3 The urban renewal policy implemented in Santiago during the nineteenth century affected urban land rent to such a degree as to make some assume that the only purpose of state works was to cause substantial rises in rents. These rises were mainly due to two factors: first, state actions; second, the monopoly of some urban spaces in the hands of certain social groups. Consequently, we also distinguish two types of rent, both of them present in this process: the rent that is product of state participation through the ministries and the municipality; the other, monopolistic or exclusive rent.

As will be seen, "... the state action has a direct implication in the generation and appropriation of rent." Urban plans that change future expectations, investments in infrastructure, and general economic policy have an impact on rent. In the case studied below, the state had such decisive impact on the generation of rent from the moment it initiated the process of urban renewal. State participation in the first stage of renewal meant the rising value of certain urban spaces that before were of low value. Subsequently, acquisition of rural estates adjacent to the urban limits opened new quarters with handsome rises in value. Rises in value also took place in central and suburban sectors of the city through the remodelling planned and implemented between 1872 and 1873.

Monopolistic or exclusive rent can be explained through factors such as the existence in certain parts of the city of public utilities (lacking in other sectors), or of ornamental and access works that make life more pleasing and the circulation therein more expeditious or, finally, of subjective factors such as the desire of higher-income groups to live in certain parts of the city where lower social groups are excluded. "The demand of these strata creates an exclusive or monopolistic rent for the owners of these lands through the special virtue of choice by high-income groups." 5

There are many examples illustrating the foregoing, both in one sense and the other. Certain quarters were occupied by high-income families who left their traditional former residences, the owners receiving these rents. In other cases, state action through the ministries or the municipality allowed substantial appreciation in the appraisals of the properties located in the favoured sector. This happened upon the remodelling of the southern quarters of Santiago in 1873. A property that had been sold in 1861 for \$5,485 was sold fifteen years later for \$16,500.

Higher and more profitable price fluctuations occurred in the new values of real property located in the new quarter between Dieciocho de Septiembre Street and Ejército Street to the southwest. As an example, we mention those properties purchased by the Vial Formas brothers between Dieciocho Street and Castro Street. One of them increased in value from \$1,998 in 1852 to \$23,100 in 1862. The portions of land where the Cousiño Palace was built were acquired through two purchases in 1863 and 1864 for a total of \$34,500; twenty years before they had a value of \$560.6

A complementary phenomenon, higher consumption in these quarters, led to better infrastructural services. That in turn gave rise to a new differential rent. A distinguished witness of that time refers quite clearly to these aspects of the city, taking as example the problem of internal communication. "Whatever the outer embellishment of the city, the extension of its public squares, the sumptuousness of its palaces, the grandeur of its parades, if the public road leading to them or to each domicile or office ... or workshop is not provided with adequate pavement for the special uses of every artery of circulation, we will continue to be in the condition of the large provincial villages or hamlets that live among cracks and swamps."

A further phenomenon was that the quarters left by their former residents usually began to show an increasingly visible decay. The peregrination of high-income social groups caused this double phenomenon: increase in the value in certain quarters and losses in other abandoned quarters.

3. The case of Santiago, Chile

Our initial date for Santiago, 1780, corresponds to the impact of a series of actions by the officials of the Spanish colonial administration. Such actions, in spite of the vicissitudes of independence, continued at least until 1820 and may be included in what we define as habilitation and rehabilitation. They basically depended on the state and were exclusively the work of the state, namely, the construction of a series of public

works designed to habilitate the city as well as to incorporate new spaces for future growth of the city.

The first and the most important project gave the city better access to its natural port at Valparaíso. Although the road now appears to us quite primitive, it crossed mountain ranges and made the journey between both cities more comfortable and shorter. It also made possible increase in volume and speed in the transportation of goods, which could be carried in vehicles unable to make the journey previously. The new road created articulation of both cities and helped make the region the most important in the country.

The second most important project developed communication within the urban radius. The construction of bridges over the river integrated the city, especially the downtown, with sectors previously cut off during certain periods of the year. The major benefit came to the central or principal sector as it was able to relegate to the new quarter two new facilities not likely to add to the attraction of the regions where they would be established: the powder factory installed before 1802 and the public cemetery created by 1820. The bridges served to deliver the central sector from facilities regarded as noxious or dangerous to the health and security of its inhabitants. Thus, the sector gaining increased value in its properties was the central one.

A third project, also of the end of the colonial period, was the construction of a breakwater along the river, designed to protect the traditional sector from flood. In this way, the quarter located to the northeast of the main square increased in value. An author who observed the process has commented that this quarter earlier was "sad, depopulated, and plebeian" because of the "proximity to the river and its frequent floods" to the degree that a monastery built there "appeared as an enclave in a remote and silent suburb." He concluded by saying that later "with such impulse fashion and opulence began to grow in such degree that the Monjitas Street, the shortest of all the streets forming the original plan of the capital, is the one that may take more pride today in its origin, its mansions, and its memories."

At the same time as the above developments, rehabilitation was under way, that is, measures designed to improve the quality and use of existing urban buildings and spaces. Here we include actions to recover buildings and spaces that presented some degree of deterioration or obsolescence, not by reconstructing what existed before (the conservation stage) but by encouraging improvements. In this phase, and that of habilitation already discussed, we see for the first time the state operate with some planning and through a harmonious, coherent program designed to provide the city with an infrastructure in accord with the most advanced ideas of that time. Rather than present a long catalogue of state projects and buildings designed basically to improve the quality and use of existing urban buildings and spaces, we will refer only to some of them, which we think had greater impact on future urban development. The public buildings covering the northern side of the main square are in existence today, as is the building of the guild merchant that later served as seat for the National Congress and afterwards for the National Library. Undoubtedly, of all these buildings, the masterpiece was the palace called La Moneda, constructed as the mint. The importance of the building and its grandeur relative to others gave prestige to any quarter in which it would be built. Accordingly, after examination of several alternatives, it was located in the southwest of the city in front of the Alameda, a quarter then as depressed as the northeastern sector, though for different reasons.

All these main projects were complemented with other services and advantages. Around 1802 there were built approximately twenty public fountains, troughs, and basins to provide water for the various urban quarters. Similarly, up to



Campo de Merte

1820, several projects were continued for providing two promenades: an older one, on the river breakwater in the north, and another, newer one called Alameda, to the south. Both of them delimited the most important and naturally the most privileged sector of Santiago.

A new and succeeding stage within the process of urban renewal incorporated new spaces in the existing urban milieu. This stage seems to have begun about 1840 when certain rural properties, though at a distance of approximately ten to fifteen blocks from the city, were acquired, ultimately for incorporation in the urban zone.

The first purchase was made by the state, which acquired an estate of seventeen blocks from José Diego Portales Palazuelos for \$9,675.9 It acquired another contiguous property from Teresa Portales Palazuelos of fifteen blocks for \$11,000.10 Both properties became the Quinta Normal de Agricultura, where professional schools, laboratories, botanical gardens, and other offices were established. Between the western limit of the city and this establishment, the quarter of Yungay came into existence.

The second acquisition in the southwestern sector, beyond the Alameda, was designed to create a military drill field, the Field of Mars. The purchases were made from José Vicente Ovalle, Juan Francisco Castro, Francisco Vergara, and Santiago Montt Irarrázaval, in a total amount of \$90,597.11 They sold an extensive parcel located approximately ten blocks south of the Alameda but retained the possibility of opening streets and of making subdivisions that permitted them to sell the rest of their properties in small urban lots. In short, the state purchased the less valuable backs of the properties and left to the sellers the more valuable fronts, with the further increment that the land had been incorporated in the urban layout.

By means of these purchases, the state indicated the direction that the future growth of Santiago should have. The first quarter created (Yungay) grew slowly; the one extending to the southwest, toward the recently created Field of Mars, had a rapid and successful development, especially after the 1860s. In this development the private sector undoubtedly had an influence, since the main families in Santiago began to build first on the edges of the new sector in front of the Alameda, and then in it. Between 1870 and 1972, Luis Cousiño, who built the famous palace bearing his name, 12 created at his own expense a park in the Field of Mars, with exotic botanical species. He employed French landscape architects. This park, as well as his palace, took the name Cousiño and had the virtue of attracting to the new quarter elements of Santiago society searching for new locations.

The private sector also undertook other projects for improvement of the new quarter. Such was the provision of a racing club (Club Hípico) that provided a new promenade for the neighborhood, in the style of European cities at that time. On April 27 and May 13, 1870, the club acquired from Juan Agustín Antúnez and Marcela Vergara de Silva an extensive property where racecourses and complementary buildings and gardens were promptly laid out.¹³

We must further mention construction of the railway between Santiago and Valparaíso. The railroad integrated the two cities even more. In August, 1851, the creation of a corporation to carry out such work was authorized by law, and five years later the railroad had been completed to the city of La Calera, something less than half-way. The most difficult part still to be built comprised the high mountains beyond. Henry Meiggs undertook to complete the project in three years for the sum of \$5,500,000. On September 14, 1863, after two years, the full line was opened. It was one of the most important construction projects up to then in the country.

All the conditions by then had been met to permit beginning the phase of remodelling in Santiago. In thirty years from 1840, the city had advanced at a pace never known before and had created sumptuous quarters. At the same time, peripheral slums had extended in terms also never known before. Similarly, the deterioration of the older quarters had become manifest and two large sectors to the north and west of the city continued to grow slowly. The intervention of a regulating and rationalizing will had become indispensable. That will appeared in 1872 through a plan for the transformation of Santiago. This renovating plan, with twenty different projects, included typically habilitation, together with rehabilitation.

We think that the following proposals had characteristics of habilitation; that is, they tended to incorporate new works or spaces into the urban milieu while at the same time improving communication:

Canalization of the Mapocho river was designed to incorporate the quarters located on the other side of the river, to prolong the lateral streets of the city, to create new promenades on ground gained from the riverbed, and to eliminate the possibility that the riverbed would continue to be a garbage dump. A second project was the opening of blocked streets. The project was considered at that time the "innovation of the century." Although the first blocked streets had been opened for public use after 1800, there were several yet to be connected and others to be broadened, as the Ejército Libertador Avenue connecting the Alameda with the new Parque Cousiño and the Club Hípico. Finally, the remodelling planners proposed to cover some open courses for sewage; other large avenues to be constructed would further communication among the various quarters.

Among the projects that might be classified as rehabilitation were ones for new squares for recreation, a marketplace, poultry markets, new slaughterhouses, repair of the urban prison and reforms in the police. Further, there were proposals for building and repairing schools, building a new city hall, establishing popular amusement places to eliminate popular taverns, repaving the streets, and modification of the sidewalks by bevelling the corners.

Improvement in the quantity and quality of water supply deserves special emphasis, since up to then it reached only 21.27 per cent of Santiago houses. This service, which began in 1867, had originally been planned for 3,009 houses with about 44,000 inhabitants, and required a daily supply of 880,000 litres. 14 The new proposal looked to both increase in supply and improve methods of bringing water to quarters still lacking such benefit, through new fountains and troughs.

What we have classified as remodelling, that is, tending to replace buildings and transform the spaces of deteriorated areas, included the following projects: the Santa Lucía park was constructed on a hill that was at that time a heap of rocks in the centre of the city. The plan envisaged "an aggregate of esplanades and small squares, or rather an aerial square divided by rocks instead of sidewalks, surrounded by asphalt paths." This project required substantial changes in the streets surrounding the hill, so that the perspective of the central quarter was altered radically. But the biggest impact came from the fact that Santiago, which hitherto had limited its growth eastward because of the ugliness of the hill, ceased from that moment to regard that sector as a boundary and started an advance that would become uncontainable some years later.

The second remodelling work in the 1872 proposal was the so-called Camino de Cintura. It was to define the city, "establishing the limits proper to the City ... creating the city proper subject to the charges and benefits of the municipality, and the suburbs, for which there must exist a separate regime less

expensive and less active." At the same time, it established a sanitary belt by means of planted groves of trees against the pestilent airs from the suburbs. Similarly, it helped save the central quarters from excess traffic by creating circular avenues around the city. Finally, it drew together all quarters by shortening distances.

The third remodelling project was the transformation of the southern quarters of the city. We have dealt elsewhere, in detail, with this proposal and the results achieved. 15 Here we need only say that the project was successful in forming a new well-supplied quarter where formerly there was an unhealthy shanty town, dangerous for other relatively nearby quarters inhabited by social groups of higher category. 16

4. Public Expenditure and Urbanization

Our interest in this part of the study is to relate the phases of the process of urban renewal, already described, to state action in the form of spending on public works by each ministry. We have examined the data concerning spending on public works that appear in the Memorias Ministeriales de Chile, Presupuestos de los Gastos Públicos de Chile y sus Cuentas de Inversión, and in the books of Entradas y Gastos Fiscales. These sources allow us to reconstruct the curve of the overall revenue received by the state and the investments made by the state in the city of Santiago. However, these sources do not

show investments made by the state through the municipality. The most intensive form of this appeared in the years 1872 and 1873 because of the remodelling ordered by the then Intendant, Benjamín Vicuña Mackenna.

Table I shows in detail the overall revenue received by the state between the years 1834-1878 and spending on public works in the city of Santiago during the same period. The third column of this table shows such spending as percentages of the overall revenue. On that basis we have elaborated the diagram presented below. The diagram permits us to visualize the higher or lower intensities of urban renewal according to the emphasis given by the state. In this way, we verify that along with the phase of conservation, those of habilitation and rehabilitation were superimposed.

The investment by the state required an investment not higher than 4 per cent or 5 per cent of the available revenue. Sometimes it reached higher percentages but more frequently it decreased to 2 per cent or 1 per cent. It was, therefore, a fluctuating investment coinciding with situations of expansion or contraction in economic activity. One may trace periods of economic expansion, such as those due to the great discoveries of silver deposits in Chañarcillo, the main production of which occurred between 1840 and 1860, and of Caracoles, from 1870, and when to mining there was added, in the 1850s, "the opening of new markets for Chilean farm products in ... California and

TABLE No. 1

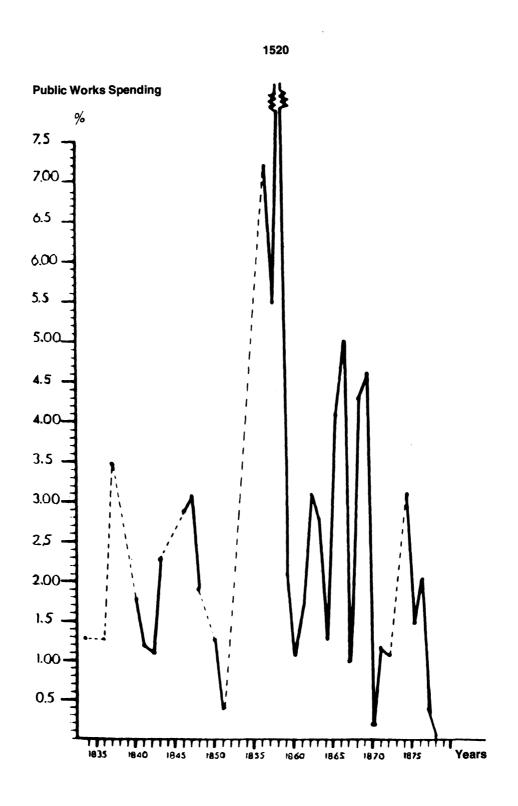
PUBLIC WORKS SPENDING ON SANTIAGO AS

PERCENTAGE OF STATE REVENUE

1834 — 1878

Year	1. Overall Revenue	2. Public Works Spending (in Santiago)	2/1 (%)	Year	1. Overall Revenue	2. Public Works Spending	2/1 (%)
1835	2,525,961	_	_	1860	14,954,874	168,224	1.1
1836	2,392,435	30,443	1.3	1861	13,368,446	227,947	1.7
1837	2,791,066	97,187	3.5	1862	14,956,750	456,620	3.1
1838	2,541,377			1863	16,111,517	453,055	2.8
1839	2,541,291	_	_	1864	16,940,866	219,430	1.3
1840	3,172,942	58,481	1.8	1865	22,561,141	916,222	4.1
1841	3,176,814	37,000	1.2	1866	16,083,173	796,912	5.0
1842	3,805,961	41,358	1.1	1867	26,810,926	259,414	1.0
1843	4,949,835	112,336	2.3	1868	22,365,022	954,815	4.3
1844		85,536	_	1869	20,896,983	960,694	4.6
1845		205,415		1870	26,707,160	58,489	0.2
1846	5,621,716	165,022	2.9	1871	24,801,724	297,907	1.2
1847	6,118,738	189,285	3.1	1872	23,840,334	267,205	1.1
1848	6,107,495	115,381	1.9	1873	_	509,186	_
1849	_	87,239		1874	33,075,250	1,037,481	3.1
1850	7,204,936	91,517	1.3	1875	33,590,059	501,552	1.5
1851	7,588,285	28,582	0.4	1876	26,002,730	530,898	2.0
1856	13,974,183	1,002,717	7.2	1877	26,251,886	99,838	0.4
1857	13,626,704	754,871	5.5	1878	23,532,608	20,763	0.08
1858	13,348,045	2,027,204	15.2				

PUBLIC WORKS SPENDING AS PERCENTAGE OF THE STATE REVENUE, SANTIAGO, CHILE 1834-1878



Australia."¹⁷ In this period of expanded economic activity, the phase of habilitation reached its maximum development, and spending on public works represented 15.2 per cent of state revenue. Construction of railways, roads, and bridges was complemented by projects designed to improve the quality and use of urban buildings and spaces. At this time, for instance, came the building of the structures for the National Congress and the University of Chile.

However, contractions in economic activity brought decreased state investment. This happened during the economic crisis at the end of the 1850s in consequence of the depletion of silver deposits and because the "... loss of important foreign markets in California and Australia affected unfavorably the balance of trade, and [further caused] defective practices in the financing of imports." Here conservative actions prevailed and investment was not higher than 1 per cent or 2 per cent.

The table and diagram also demonstrate the habilitation and rehabilitation are not constant, nor are they designed for the mere conservation of existing urban buildings and spaces. However, the major state investments were sufficiently effective to produce intense response on the part of private groups.

State investment through the municipality does not appear in Table 1. However, we have available the budget prepared by the Intendant in 1872 to implement remodelling. It proposed that \$3,084,797 be invested in five years, or \$617,000 a year. 19 The budget appeared excessive since the Intendant himself stated that the revenue for the same years would amount to \$817,119 annually. Therefore, he proposed "to apply for authorization to obtain within the country or abroad (where there are already several advanced enterprises for this purpose) a progressive loan for periodic investment as practiced today through the issuance of municipal bonds."20 Clearly, the Intendant envisaged remodelling as an extraordinary process to be financed by extraordinary measures, including the participation of private persons, who were asked for contributions. The remodelling of the southern quarters was financed 50 per cent by the owners in the area. The widening of Ejército Libertador Avenue was made possible by donations of land from the property owners on the avenue. Similarly, the Santa Lucía Hill park, its forestation and the construction of avenues and walks, was carried out through much private donation.

NOTES

 On urban renewal there is much published. We have consulted Harry W. Richardson, Economía del Urbanismo (Alianza Editorial, Madrid, 1975), ch. 5; and Patricio Gross, "Renovación urbana y áreas metropolitanas," in CIER. CIDU-IPU, Desarrollo metropolitano (Seminar, Concepción, March

- 1977, Mimeograph copy), p. 48. The concepts of urban renewal, conservation, rehabilitation, and others are inspired by these works. However, to the extent that the concepts formulated by these scholars do not conform to reality, we have made such modifications as necessary.
- Benjamín Vicuña Mackenna, La transformación de Santiago (Santiago, Imprenta de la Librería Mercurio, 1873), p. 7.
- Rosalba Todaro C., La renta de la tierra (CIDU-IPU, Working doc. no. 94, Santiago, April 1977, mimeograph copy), p. 22.
- 4. Ibid., p. 27.
- 5. Ibid., p. 26.
- Register of Deeds of Santiago, vols. 2 to 10, for the years 1860 to 1870; Armando de Ramón, "Santiago de Chile, 1850-1900. Límites urbanos y segregación espacial según estratos (Santiago, Chile, 1850-1900)," Revista Paraguaya de Sociología no. 42/43 (Asunción, 1978), p. 267.
- 7. Vicuña Mackenna, op. cit., pp. 99-100.
- Vicuña Mackenna, Relaciones Históricas (Santiago, Rafael Jover, ed., 1878), pp. 278-279.
- National Records of Chile, Notaries of Santiago, Gabriel Muñnz, purchase of February 3, 1841, in vol. 142.
- 10. Ibid., Pedro Yavar, purchase of March 1, 1850, in vol. 216.
- Ibid. Gabriel Muñnz, purchases of June 14, 1842; January 21, 1843; January 25, 1843; and February 20, 1843, in vols. 150 and 156.
- 12. The Cousino family moved from the corner of the Alameda and Lord Cochrane Street, where Matías Cousiño lived, to the Dieciocho de Septiembre Street, where his son, Luis, built this palace. Luis Cousiño acquired a lot at the end of the street by two purchases: one made from Juan del Sol for \$28,000 by public deed executed before Notary Julio César Escala on September 23, 1863, registered in the Registry of Property on f. 131, no. 333 of 1863; the other, from José Bernales for \$6,500 by public deed executed before the same notary on January 11, 1864, registered in the same registry on f. 9, no. 25, of 1864.
- Registrar of Deeds of Santiago, Property Registry, ff. 99 and 100, nos. 262 and 264. of 1870.
- Report presented by the Minister of the Interior to the National Congress, Santiago, 1865, p. 96. The report by the Intendant of Santiago is attached thereto.
- Armando de Ramón, "Suburbios y arrabales en u área metropolitana: el caso de Santiago de Chile 1872-1932," in Hardoy, et al., Ensayos históricossociales sobre la urbanización an América Latina (SIAP-CLACSO, March 1978), pp. 113-130.
- 16. Vicuña Mackenna, La transformación de Santiago, pp. 24.
- Robert M. Will, "La política económica de Chile, 1810-64," El trimestre económico, XXVII (1960), p. 248.
- 18. J. G. Courcelle-Seneuil, cited by R. M. Will, p. 253.
- 19. Vicuña Mackenna, La transformación de Santiago, pp. 130-31.
- 20. Ibid., p. 133.

SOURCES:

MANUSCRIPT:

- National Records of Chile, Santiago Notaries. Gabriel Muñoz, vols. 142, 150, and 156; and Pedro Yávar, vol. 216.
- 2. National Records, Registrar of Deeds of Santiago, Property Registry, vols.

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- 1. Ministerial Reports of Chile and other public documents, vols. 1-2.
- Public Spending Budgets of Chile and respective Investment Accounts in 1845-48, 1849-51, 1856-58, 1859-61, 1862-64, 1865-67, 1868-70, 1871-74, 1875-79.