

THE
LATIN AMERICAN IN RESIDENCE
LECTURES

NUMBER III IN THE SERIES

Milton Santos

UNDERDEVELOPMENT AND POVERTY: A GEOGRAPHER'S VIEW

UNIVERSITY OF TORONTO

1972—1973

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Latin American in Residence Lectures, number I in the series, by Florestan Fernandes, contains the following:

Patterns of External Domination in Latin America

The Meaning of Military Dictatorship in Present Day Latin America

Authoritarian Regimes and the Political Roles of the Intellectual in Latin America.

Number II in the series, by Rolando Mellafe, contains:

The Role of the Latifundio in Latin America

Some Observations on the Role of the City in Latin American History

INTRODUCTION

The Brazilian geographer Milton Santos occupied the interdisciplinary Latin American in Residence Chair in the Faculty of Arts and Science during the academic session 1972-73. The first two lectures published in this booklet, "Brazil: An Underdeveloped and Industrialized Country," and "Development: Theories and Poverty," were given by him as public lectures at this university in January and March, 1973. The third essay, "Sub-Imperialism as Viewed by a Geographer," was presented as a commentary on Ruy Mauro Marini's "Brazilian Sub-Imperialism," (Monthly Review, Vol. 23, No. 9, February 1972, pp. 14-24) at the Conference on External Dependence and Problems of Development in Latin America and the Caribbean held at this university on February 7-9, 1972. The present collection is made complete by the final essay, "City Growth and Space Organization: Incomplete Metropolises in Latin America," which Professor Santos has recently sent from the University of Tanzania where he is currently teaching.

This collection of Professor Santos' essays reveals a geographer who possesses an unusually inclusive sense of spatial organization. With the unambiguous premise that the resources of underdeveloped countries should be allocated and used to avert the poverty of their people, he exposes with precise examples the failures and inadequacies of governments, planners and theorists in a wide range of the social sciences. Using the Brazilian example he shows how by yielding to the fashionable theories of rapid economic growth through the use of expensive imported technology underdeveloped countries aggravate the poverty of the majority of their people, retard development, increase their dependence on the technologically developed countries, restrict spatial productivity and distort demand patterns. One of the consequences Professor Santos sees arising for Brazil from the production of more and more expensive goods for a local population that is experiencing increasing impoverishment is the resort to the dangerous international policy of sub-imperialism in an attempt to secure markets in other Latin American countries that will sustain the nation's rate of growth. A consequence of the futile efforts at successful industrialization he observes throughout Latin America is the urban-rural sectoral clash that results from what he calls incomplete metropolises. Nor does Professor Santos hesitate to be critical of theories which in his view insufficiently explore the relations between developed and underdeveloped countries and the consequences of these relations. He downgrades the importance of capital accumulation as a prob-

lem for underdeveloped countries and finds inadequate such influential concepts as marginality and dualism. And the wide range of statistics he presents throughout underlines the ironies--often the cruel ironies--exposed by his arguments.

Underdevelopment and Poverty: A Geographer's View represents the author's unified and coherent vision of one of the important and, as George Beckford has classified it, persistent predicaments of human history. Professor Santos' essays also possess a dynamism of expression which it is hoped has not been weakened by editing.

This publication continues the series which was initiated by the Brazilian sociologist Florestan Fernandes in 1970 and continued by the Chilean historian Rolando Mellafe in 1971. We wish to thank Professor Santos for carrying on the tradition established by his predecessors of allowing proceeds from the sale of his lectures to be used for future publications in the series. The continuation of the series itself is made possible by the support given to the Latin American in Residence Chair by Dean Robert Greene of the Faculty of Arts and Science.

Keith Ellis
Chairman

Latin American Studies Committee
International Studies Programme

University of Toronto
1975

BRAZIL: AN UNDERDEVELOPED AND INDUSTRIALIZED COUNTRY

Historical Evolution and Industrialization

Most underdeveloped countries have failed in their industrialization effort. Beginning their process of industrialization at too late a date, they have been the victims of a disfavoured conjuncture at a crucial turning point in history, and have never been able to make up for lost time. Generally, the countries which missed this turning point at the beginning of the 20th century, with the exception of a few South American nations and Zaire, have been able to begin their industrialization only during the period dominated by technological data, i.e. a period characterized by economic concentration and the importance of economies of scale. After the turning point, monopolies were no longer merely the result of gradual evolution toward concentration, but already represented the first stage in industrial realization. Also the market was no longer an essential factor because monopolistic enterprises were able to arbitrarily fix prices or else export their products. The different industrial sectors were located in a selective manner, leaving these countries dependent on other countries for the provision of numerous industrial products. Undoubtedly there are variants among the non-industrialized underdeveloped countries, but those who were able to escape this condition after World War II are rare examples which benefited from exceptional conditions such as mineral wealth and remoteness from Europe in the case of South Africa¹ and change in the nature of the State in the case of Egypt.²

Nevertheless, a small number of underdeveloped countries, such as Brazil, Argentina, Mexico and India, have been able to bring together the conditions necessary for their industrialization between the end of the 19th century and the beginning of the 20th century. We will call these the underdeveloped, industrialized countries. The old politico-geographic taxonomy which separated industrial countries from underdeveloped countries discreetly labelled non-industrialized countries is therefore no longer meaningful.

The process began during a period when the creation of industries could be carried out with out-dated technology, and often with machinery used earlier in the more industrially advanced countries.³ Industrialization, carried out by import substitution, satisfied the needs of domestic consumption. It depended at the same time on the importance of the national market and the ability to purchase machines abroad, i.e., on foreign exchange reserves obtained through

foodstuffs and raw material exports to the more advanced countries, principally in Europe.⁴ The size of the market was grosso modo determined by the size of the total population,⁵ while the degree of urbanization, the size of the urban population,⁶ the size of the major cities⁷ and the index of demographic concentration acted as controlling factors.

To the other important factors in industrialization must be added the industrial policy adopted by the State, imposing protectionism when necessary, encouraging immigration which would bring new technology and "know-how", and inviting foreign investments,⁸ which would be used either directly for the introduction of new industries or orientated toward the creation of infrastructure, especially port facilities and railways essential to the development of the process. In this phase of industrialization, capital requirements were reduced, while the employed labour force was very significant. The goals of industrial production required a pricing policy favouring the expansion of the market. This expansion was facilitated by the fact that production increases were not necessarily linked to an increase in productivity.⁹

During this period the division of labour between the rural areas and the cities is accentuated (Cardoso 1967, p. 262) and this specialization helps to explain the growth of urbanization. Density of population acts as the principal locational factor. The absence of a centralized market prevents competition among the different urban markets and each one develops according to its own local conditions.¹⁰ The greatest possibility for the growth of urbanization, however, exists in cities whose unland satisfies a large demand from the industrialized countries, which thus profit from the advantages of integration, even though it be only partial, with the transport network. When there is a change in historical periods modifying international conditions, or when national spatial organization is transformed, the privileged cities have a head start on the others and become veritable national economic metropolises.¹¹

The Underdeveloped, Industrialized Countries

The level of importance and complexity reached in the metropolises determines the level of industrialization in an underdeveloped country. Moreover, this is the only acceptable criterion for the definition of an underdeveloped, industrialized country. Electricity or steel production, petroleum refinery capacity,¹² energy consumption,¹³ gross value added in industry,¹⁴ gross national product per

capita,¹⁵ participation of manufacturing industry in the formation of the gross national product,¹⁶ the importance of dynamic industries, like all purely quantitative criteria, are inadequate and not significant.

One must not only consider the number and types of industries in a country, but also the level of functional integration, so as not to fall into the trap of industrial enclaves having neither local interrelations nor connections.¹⁷ Since in the present conditions of the Third World the functional conditions are at the same time geographic connections, national industrialization is determined by the level of a country's most important polarizing agglomeration, i.e. the highest level industrial complex. When this complex is capable of supplying the same range of industrial products as the developed world, and of furnishing the country with consumer goods as well as capital goods, one may then say that the country is an underdeveloped, industrialized country.

These countries share a certain number of characteristics: their industrialization and modernisation are punctiform, dependent, and extroverted. In spite of industrialization they retain a succession of conditions of underdevelopment, often aggravated by economic growth: pronounced regional disparities, enormous income inequalities, and a growing tendency toward the impoverishment of the underprivileged classes despite an increase in gross national product and per capita national product. Each country, however, represents a unique case due to its own combination of various historical conditions. Surface area, total population, demographic concentration data, political and economic history and contemporary geo-political conditions give each country its peculiarity.

Brazil: An Industrialized Country

Brazil is indeed an industrialized, underdeveloped country, and it looms as a privileged nation in the Third World. In 1970 iron and steel production approached 10 million metric tons, electricity production capacity was over 11 million kw; 37,261 industrial establishments each had more than 5 employees and a total of 2,047,137 workers; domestic consumption needs were met, and nearly 11 billion dollars worth of products were exported. In 1969 Brazil had approximately 2,800,000 automobiles and in 1970 31,000 miles of asphalt highways. In 1965 the import percentage of the total demand of intermediate goods was 8.2%, the same (8.2%) for capital goods, 1.4% for durable consumer goods, and 1.6% for non-durable consumer goods. The average for

all industrial goods imports was 5.1%.¹⁸ Towards the middle of the 1960's, Brazilian industry was able to meet 90% of the equipment requirements of the generative electrical energy sector, 77% of the needs of the iron and steel industry and 66% of cement, petroleum, and petro-chemical requirements (ECLA, 1965).¹⁹ At the end of the 1960's, national production was supplying 95% of domestic demand for industrial products.

This economic growth has been accompanied by a change in the structure of industrial production. In less than 50 years, between 1919 and 1961, Brazil succeeded in almost inverting the percentages corresponding to dynamic and non-dynamic industry. Dynamic industry represented less than 15% of production in 1919 but over 50% in 1961.²⁰ Between 1955 and 1965 durable consumer goods production increased faster than non-durable consumer goods production, and capital goods production increased faster than intermediate goods production.²¹ These tendencies are presently continuing.

Dynamic Industry and External Dependence

The determining role of dynamic industry does not result only from the industrialization process but represents the adaptation of a situation of national growth to the imperatives of the international system. These industries, supported by a high technological level which increases the capital indivisibility, form a new phase in the international division of labour. As the country becomes more industrialized, the economy's dependence vis-à-vis foreign technology and capital increases. Brazil, as Drucker points out (1971, p. 90) is, with Japan and France, on the point of joining the 10 countries where 1/5 to 1/4 of industrial production comes from multinational enterprises. The multiple consequences of such a situation are grave.

Foreign capital, invested in a selective manner, is allocated by preference to economically strategic industries, i.e. those yielding maximum profit per unit of invested capital. Thus British capital in Brazil has traditionally been interested in tobacco and foodstuffs but also textiles, insurance, and petroleum. French investments are oriented toward the chemical industry, textiles and banking. Germany has approximately 45% of its capital in the automobile industry, but it also has interests in the chemical and mechanical industries. Japan, whose entry into the Brazilian market is recent compared to the European countries, earmarks over half of its investments for the iron

and steel and shipbuilding industries. The United States, whose direct investments represent an amount comparable to those of Western Europe, is well represented in all the above mentioned sectors, either through directly owned enterprises or in association with those of Europe and Japan.²² Among the multi-million dollar groups (investments over 1 million dollars) having interests in Brazil, in 1970 4% were American; France and Great Britain each controlled 0.5%; Japan and West Germany each 7%; Sweden 4% and the remaining 17% was shared among other countries (Correa de Mndrade, 1970). Of all foreign capital invested in Brazilian industry, over 40% was in the automobile industry, 30% in mechanical and electrical industries and 10% in the base chemical and electronics industries (Martin, 1966).

The penetration of monopolies²³ is permitted as much by international historical conditions as by domestic conditions determined by economic policy. Since economies of scale have become more important from the global standpoint, investments in fixed capital in the Brazilian textile industry have risen from 6,000 dollars per worker in 1950 to 12,000 dollars in 1960 and to 19,000 dollars in 1965 (Furtado, 1968, p. 36). Governmental economic policy works in the same way. Since 1964, credit limitation, imposed under the pretext of combating inflation, has widely facilitated the entry of foreign capital.

This foreign capital represents 78%, 73% and 53% of durable consumer goods, capital goods and non-durable goods production respectively. Private Brazilian capital represents 38% of bank capital and 92% of capital in service and retail sectors. In industry, 40% of non-durable consumer goods manufacturing is composed of national capital while other branches have lower percentages. The State is the major investor in infrastructure with 73% of the total investment, also having 62% of bank capital investment and 62% of investment in intermediate goods production (Business Latin America, Feb. 18, 1971).²⁴

There is thus a skillful division of responsibilities because foreign capital reserves for itself the most dynamic and profitable branches, which at the same time control the direction of national growth. Private Brazilian capital is confined to the branches or sectors which foreign capital finds undesirable. Three duties revert to the State: 1) to facilitate foreign enterprise production by the construction of infrastructure in order to provide external economies and cheap externalities; 2) to create and sustain specialized banks which guarantee external loans taken out by the capitalistic sector, particularly the foreign

element; 3) to produce intermediate goods which local or foreign capitalists are afraid to produce because of uncertainty about conditions in the underdeveloped countries. Finally, the State becomes the aegis of the multinational industries and monopolies.

This situation clearly shows that capital accumulation is in no way the key problem of underdevelopment, as so many classical economists have led us to believe. The problem lies in the fact that the utilization of the capital created by and in the underdeveloped countries is controlled by extra-national interests and thus serves these interests.

An important part of the production of multinational firms is earmarked for export. Official statistics reported by Octavio Ianni in a recent book (1971, p. 224) show that of the 40 enterprises exporting Brazilian manufactured goods in 1970, 32 were foreign-owned and one was composed of mixed capital i.e. Brazilian and foreign. This exportation also conceals another form of the activity of multinational corporations. When one realizes that half of the exports of American firms in Latin America was among subsidiaries, as Osvaldo Sunkel has pointed out (1970, p. 36), one can easily understand in what manner Latin American integration is being carried out, and whom it will eventually benefit. Taking Latin America as a whole, in 1966 the activity of American subsidiaries represented 35% of total American exports to Latin America and 41% of the region's manufactured product exports (O. Sunkel, 1970, p. 36). Thus each country experiences twofold the consequences of the activities of multinational firms.

The list of vicissitudes is not complete: the question of service payments, inseparable from economic growth in the technological period, must be included. Despite what one calls in technical terms, "economic expansion", in 1968 Brazil had the same 300 million dollar (in round figures) balance of service payment deficit as in 1958.²⁵ These service charges are paid to the same multinational firms, already excessively protected, in order for them to locate in the country. It is therefore not surprising that World Bank reports show an annually increasing external debt for the underdeveloped countries. In 1967, Argentina, Brazil, Chile, Malaysia, Mexico, and Zambia paid the rich countries in interest and profits more than they received in new investments and aid. The Brazilian external debt reached 10 billion dollars in 1972.

The presence of multinational firms, a characteristic of the current industrialization process, constitutes a

threat to national identity. Through advertising agencies multinational firms have the power to literally mold national opinion on important issues. Of the 300 advertising agencies in Brazil, 8 foreign firms have a turn-over of 35 million cruzeiros, out of 120 million (T. dos Santos, 1967, p. 93). When one realizes the power advertising agencies can wield on the media, one may indeed be concerned because advertising is one of the most effective ways of orienting the developmental process.

Economic Concentration and Regional Disparities

This situation is parallel to concentration of industrial production. The number of firms producing from 1 to 15 product categories has sharply diminished from 1950 to 1962 while the number producing more diversified products has increased.²⁶ In the underdeveloped countries economic concentration is generally synonymous with geographical concentration. For example in Brazil 60% of industrial production is located in the state of São Paulo (Statistical Annuary of Brazil, 1971). Similarly, the banking and financial system has its decision-making centres in the two largest cities, São Paulo and Rio²⁷ and drain most of the resources of the poor areas, investing them for the profit of the most developed urban centres (Rattner, 1972).

The industrial maturity attained by a dynamic region, fancied by Albert Hirschman (1958) to be a spontaneous solution to the problem of underdevelopment, in no way contributes to the diffusion of wealth nor even facilitates its redistribution. Nor does industrial decentralization mean income redistribution. Regional inequalities are only aggravated. The South and the South-East are clearly in first position in the formation of Internal Revenue and their participation continues to increase. The West Central region where Brasília is situated also shows favourable indices. On the other hand, the North and North East, traditionally the poverty-stricken regions, see the gap with the South widening as the country becomes richer.²⁸ On a long-term basis (1939-1968) one notices that the richest states, São Paulo leading, maintain the highest percentages of internal revenue, while the states in the North and North East, and even the state of Guanabara, the former city of Rio de Janeiro, lose more of their relative share of internal revenue each year.²⁹

Production Structure and the Impoverishment of the Masses

The movement towards concentration of the modern economy signifies at the same time an increase in Gross

National Product and per capita National Product, as well as more acute daily impoverishment affecting more and more people. This situation has even aroused Robert MacNamara, for in a speech widely discussed in Brazil he affirms that "during the last decade, per capita income in Brazil increased 2.5% annually in terms of real income. Nevertheless, the portion going to the poorest 40% of the population dropped from 10% in 1960 to 8% in 1970. At the other end of the social spectrum the share going to the upper 5% increased from 29% to 38%. In terms of Gross National Product the country appears to be doing well, yet 40% of the Brazilian population has only marginally benefited from progress" (O Globo, 15-4-72, p. 19, Rio).

Several other statistics speak for themselves. Between 1960 and 1970 the upper fifth of the population in terms of income saw its share of national income increase from 54% to 65% while the income of the remaining 80% diminished. Moreover, the distribution is not uniform among the most fortunate 20%. Those who can be considered rich, who formed 1% of the population in 1970, possessed 18% of the total income as compared to 12% in 1960. The 4% of the upper middle class increased their share from 16% to 19%, but the intermediate middle class, the remaining 15% of the upper fifth, saw their share level off at 27%. The poor became even poorer. The portion of the bottom half was reduced from 18% to 14%. Thus, the upper 1% had a total income superior to that of the bottom half of the population (Opinião, 27 Nov.-4 Dec. 1972, p. 13; Furtado, 1970, p. 153).

On the local scale the same movement is taking shape. In the city of Recife (population 1,300,000), per capita income has decreased almost 17% between 1961-62 and 1968, (Cavalcanti, 1972, p. 88). The poorest 40% of the population have seen their share of total income drop from 15% to 12% between 1960 and 1967 (Cavalcanti, 1972, p. 100). This phenomenon of impoverishment is not only confined to the most underprivileged areas of Brazil. In the city of São Paulo, the economic metropolis of Brazil, 2% of the population was living in shanty-towns in 1957 and 1960. This percentage doubled (4%) in 1966 (J. Valenzuela 1970, p. 207), illustrating a significant characteristic of recent evolution in the urban economy. The agglomeration of São Paulo experienced a relative increase in the number of large and small scale industrial establishments while the proportion of middle-sized establishments decreased (Rattner 1964, p. 153-155).

Technological rigidity has imposed a combination of

factors favouring at the same time the concentration of modern enterprises and the creation of a large number of small establishments capable of absorbing a part of the labour force represented by the mass of immigrants. The increase in the number of firms employing less than 10 persons has only been possible by the reduction of the number of employees. The solution of the employment problem through labour intensive industry is thus not possible when the city experiences a movement toward capitalist concentration. Unemployment and poverty consequently result from the present production structure.

On the national level, the present production structure allows the economy to register impressive statistical growth without the need to rely on the domestic market. Every day further recourse to the external market is necessary, especially since the National Treasury, here the taxpayer, generously finances and subsidizes manufactured product exports. The result is a reinforcement of the present production structure.

While auto production rose 14% from 1964 to 1970, food and clothing production increased only 2% and textile production barely .1%. On a per capita basis, only the auto industry has a positive index (12%), whereas the textile, food and clothing industries experienced a regression (-2.5%, -0.8% and -0.6% respectively). (Statistics from the Ministry of Planning, IPEA, and the Automobile Manufacturers' Association). This tendency is becoming the rule. Auto production increased 22% between 1970 and 1971 (Correio da Manhã, 21 Dec. 1971) and should rise from 590,000 units in 1972 to 850,000 units in 1974 (Brazilian Embassy Bulletin, Washington, 12-13 Jan., 1972).

The significance of this orientation of Brazilian industry is that industry is working towards an international performance at the price of growing impoverishment of the masses. When one realizes that clothing and textile exports are indeed increasing very quickly, one can only conclude that the consumption possibilities of the population are even more reduced than the statistics indicate. Brazil has committed itself in the opposite direction to the thesis of ECLA, expressed sometime ago by R. Prebisch (Samir Amin, 1971, pp. 251-252). Instead of creating a "complex internal economy" Brazil has orientated itself towards an international specialization whose only result is growth à la Rostow.

Moreover, the State loses its power. Fiscal exemption

and export subsidies are accompanied by a growing burden of indirect taxes. An important part of national resources finance either directly or indirectly the capitalist sector and particularly the monopolistic sector of the economy. Thus there is little power left to the government to play its institutional role of redistribution. For example, the portion of the national budget going to health services fell from 3% in 1967 to 1% in 1970. Since the population is already impoverished by the economic system and because the State is the principal provider of services to the underprivileged populations, the impoverishment becomes even more grave.

Production Structure and "Dependent Imperialism"

The consequences of the present production organization in Brazil are equally profound on the international scale. Since the expansion of dynamic industry is simultaneous with a reduction in the purchasing power of the masses, the economy is forced to look for markets elsewhere, or to reduce its own growth. Investments go to the sectors where exportation is possible, i.e. production of goods for which there are potential foreign buyers. This orientation necessitates a continuous modernization of industrial equipment in order to be competitive internationally. This necessity to modernize aggravates the dependence on the most advanced centres of the world system. The need to import requires an aggressive export policy which is at the base of an international behaviour termed "sub-imperialism" (R.M. Marini, 1972) i.e. a form of conditioned or dependent imperialism because the tools are in reality the multinational forms.

The policy of growth increasingly stimulates the production of capital goods for which no domestic market exists. The State is thus compelled to adopt a great power policy favouring the large corporations without consideration for the evermore impoverished masses, while the international image of the country is tarnished.

Growth and Impoverishment: Is There a Way Out?

Having summed up its problematic as an underdeveloped and industrialized country, Brazil can be viewed as one in which industrialization is punctiform, dependent and extroverted; a country where regional and social inequalities are flagrant; and where, paradoxically, impoverishment is accompanied by the growth of the national product; it is a country forced to adopt a "great power" policy to the detriment of its international image instead of concerning itself

with the improvement of its people's standard of living.

We are still very far from the prediction of Ignacy Sachs (1971, p. 537) for whom "development will be reached by a certain number of Third World countries whatever their relations with the international system". The case of Brazil clearly demonstrates, if such a demonstration is necessary, that growth and development are not synonymous. Indeed, growth and redistribution of wealth are in fact antinomies. As the Gross National Product increases, the rich become richer, the upper-middle classes remain the same, and the poor become poorer. The present situation calls for a set of concerted measures. None, however, appears viable without a modification of the present industrial production structure.

Instead of encouraging the expansion of the dynamic sectors, more attention should be given to manufacturing branches producing for the majority of the population. Several results would be at once obtained. First, with a better utilization of national resources, the principal sources of technological and financial dependence would be eliminated. The abandonment of certain advanced techniques would facilitate the development of truly national ones and would allow expansion in employment and in the domestic market while suppressing the desperate need of recourse to exports. Since the techniques would not require a continuous modernization, industrial activity could be better diffused spatially, with the multiplication of production centres. A higher spatial productivity would result. Multiple consequences would radiate from these true development poles, lateral and positive feed-back effects capable of stimulating economic activity and employment. A more equitable redistribution of wealth would be obtained.

Poverty cannot be fought without considering the spatial repercussions of growth. In a situation of spatial productivity as we have described, more modern activities would be connected to the non-modern sector of the economy. Capital would then be diffused in two directions and not solely toward the modern sector. The adaptation of the indigenous sector would be made at the same time as new jobs are created. The State would become more powerful in so far as the present constraints would disappear. On the one hand it would no longer have to share the available national savings with the monopolies, while, on the other hand, it would be freer in the choice of investments. A social policy designed to rectify inequality would also be possible.

The key to all these problems lies, as we have already seen, in a change in the production structure. The problem is how to change this structure. One might place confidence in History and wait for it to unfold, or one might try to anticipate History and hasten its events. In the first hypothesis one must await the accentuation of the international system's present crisis, the dénouement of this crisis and the arrival of a new historical period bringing a solution. In the transition phase, however, can one have confidence in the automatism of a mechanism which is still dominated by forces opposed to popular interests? The State becomes essentially a cog-wheel if one wishes to make an eventual modification of the international scheme of forces.

The second solution seems to us the right approach, and calls for immediate application. This solution requires a rupture of the present conditions with international collusion and an urgent alteration of relations with the countries of the centre of the world system. These measures require a modification in the nature of the State i.e. the imposition of national will for the crisis with the countries of the centre has ceased to be latent (Abdel-Malek, 1971) and has become manifest. One must also meet the expectation of the masses who are becoming more anxious and restless every day. Herein lies Brazil's problem at the present time.

NOTES

1. In 1924-1925, in South Africa, food production still made up a high percentage of industrial activity. This percentage had dropped by half (16%) by 1954-1955 and increased slightly at the beginning of the next decade. In the same period metal and metal-work production doubled, although these figures must be considered with caution because gold production is included. This moreover, distorts the proportional distribution of each industrial sector, but one can observe that chemical industry production is important in the country:

South Africa: Composition of Manufacturing Production					
	1924-25	1934-35	1944-45	1954-55	1960-61
food, beverages,					
tobacco	32	27	22	16	19
textiles, clothing	9	14	16	14	13
wood and furniture	7	6	7	6	4
paper and printing	11	9	6	7	9
chemical products	12	9	10	10	10
non-metallic mineral production	7	8	5	7	9

	1924-25	1934-35	1944-45	1954-55	1960-61
metal and metal-work	18	24	28	36	32
miscellaneous	4	3	6	4	4

2. For Egyptian industrialization see, among others, Alan B. Mountjoy, 1966.
3. "In the 19th century, there existed only a slight lag between new techniques and traditional savoir-faire. The only condition for imitation was information diffusion, eventually accompanied by the importation of a machine model which could easily be reproduced. Today, there exists a gap between the traditional techniques of underdeveloped countries and the techniques of the advanced countries; the direct assimilation of these techniques through information diffusion is inoperative; equipment can only be built on the spot. Technical and scientific training, which utilization requires, demands long delays" (J. Freyssinet, 1966, p. 168).
4. Today's underdeveloped, industrialized countries are those which, at the beginning of this century, and even at the end of the last century, already had important exports.

	1880	1913 (in millions of dollars)
Argentina	55	515
Brazil	101	317
Egypt	66	156
Mexico	36	150
India	327	786
Spain	124	191
Turkey	39	94
Colombia	14	33
Chile	74	149

(A. Maddison, 1971, p. 312)

5. Around 1870 India already had over 200 million people, Brazil and Mexico had almost 10 million, and Argentina 2 million. At the beginning of the 20th century, India exceeded 235 million, Brazil 18 million, Mexico almost 14 million, and Argentina 4 and a half million. In 1913, India had 250 million, Brazil 24 million, Mexico over 15 million, Egypt over 12 million, and Argentina almost 8 million (A. Maddison, 1971, p. 302, Table C-1).

6. Around 1907, Brazilian industrial production was not equally distributed; there was a certain parallelism with the urban population:

	<u>Establishments</u>	<u>Workers</u>
Federal District (Rio de Janeiro)	671	35,243
São Paulo	326	24,186
Rio Grande do Sul	314	15,426
entire country	3,258	151,841

(Manuel Diegues Junior, 1964, p. 229-230)

"Industries producing traditional consumer goods are found widely distributed throughout the national territory" (Barros de Castro, 1971, Vol. II, p. 114).

7. Population in the most important cities of several Latin American countries at the end of the 19th century, (Apud Morse, 1971).

Argentina (1895)

Buenos Aires	678,000
Rosario	92,000
Córdoba	48,000
Tucumán	34,000
La Plata	45,000
Santa Fé	25,000
Mendoza (1900)	28,000

Colombia (1905)

Bogotá	100,000
Medellín	54,000
Barranquilla	40,000
Cartagena	10,000
Cali	31,000
Manizales	35,000

Venezuela (1891)

Caracas	72,000
Maracaibo	35,000
Valencia	54,000
Barquisimeto	27,000
Ciudad Bolívar	18,000
San Cristóbal	17,000

Mexico (1900)

Mexico City	344,000
Guadalajara	101,000
Puebla	94,000
Monterrey	62,000
San Luis P.	61,000
Merida	44,000
Guanaajuato	41,000

Cuba (1899)

Havana	247,000
Matanzas	37,000
Cárdenas	22,000
Cienfuegos	30,000
Puerto Príncipe (Camagüey)	30,000
Santiago de Cuba	43,000

Peru (1908)

Lima and Callao	188,000
Ayacucho	14,000
Cuzco (1876)	20,000
Arequipa (1876)	29,000

Chile (1895)

Santiago and Valparaíso	378,000
Concepción	40,000
Antofagasta	13,000
Iquique	33,000
Talca	33,000

Brazil (1900)

Rio de Janeiro	688,000
São Paulo	240,000
Salvador	206,000
Belem	166,000
Recife	113,000
Porto Alegre	74,000
Manaus	61,000

8. Of 24,000 million dollars of developed countries' capital in long-term investments in the underdeveloped countries in 1914, over 10,000 million dollars went to four presently underdeveloped, industrialized countries-- (Argentina - 3,100 million, India - 2,600 million, Mexico - 2,500 million, Brazil - 2,000 million) (Maddison, 1970, p. 222).

9. Production growth is not followed by a rise in productivity: for example at São Paulo:

Number of Metres of Cloth Per Worker

1853	2800 metres
1885	6400
1909	5600
1915	5700
1924	5200
1929	3800

10. "The decision-making centres, which are based on industries linked to the domestic market, benefit, in principle, from considerable autonomy. They are concerned, above all else, with the maintenance of the employment level and the extension of their market" (Furtado, 1966, p. 174).
11. The advantages of a given zone compared to other possible zones are so obvious that they determine a convergence of localization choices by numerous enterprises. This latter case, by the characteristics which the problem of localization of free enterprises presents, is quite unlikely in new regions of establishment, unless these regions are characterized by previous concentrations of population (S. Lombardini, 1966, p. 236).
12. Refinery capacity, hydro-electric and steel production in selected countries:

<u>Refinery Capacity</u> (1000 metric tons)	<u>Hydro-Electric Production</u> (millions of KWH) 1970	<u>Steel Production</u> 1970
Venezuela	63,095	
Dutch West Indies	39,500	
Australia	29,375	
Iran	29,300	
Spain	26,205	
Argentina	25,560	22,000
Mexico	24,800	26,592
Brazil	22,115	43,118
India	21,520	
Trinidad	21,175	
Kuwait	21,000	
United Kingdom	105,965	245,971
France	105,810	23,773
U.S.A.	607,735	1,638,012
Japan		350,590
West Germany		242,610
East Germany		67,653
U.S.S.R.		740,000
South Africa		48,672

13. Energy Production and Consumption

	<u>Production</u> (in megawatts)	<u>Consumption</u> (equivalent to 1 ton of coal)
Latin America	32,835.30	218.98
Argentina	5,836.00	33.32
Brazil	8,555.00	39.74
Mexico	5,964.00	50.30
Chile	1,720.00	10.77
Venezuela	2,455.00	24.63
Africa	5,544.00	39.60
Egypt	2,725.00	9.48
Asia	29,542.60	220.77
India	14,314.00	96.37

Source: World Economic Survey 1969-1970, United Nations, New York, 1971, Table A13, pp. 211-212.

14. Value Added in Industry

India	9,663 million U.S. dollars
Brazil	8,216
Argentina	6,736
Yugoslavia	5,807
Mexico	4,868
Spain	11,466
Chile	2,070

(A. Maddison, 1971, p. 191)

15. Selected Underdeveloped Countries: Per Capita Gross National Product.

<u>Country</u>	<u>GNP in millions of dollars (1967)</u>	<u>per capita GNP</u>
Argentina	15,017	646
Brazil	32,607	381
Chile	5,592	612
Colombia	6,115	319
Ecuador	1,310	238
Guatemala	1,453	308
Haiti	412	90
Mexico	24,560	538
Venezuela	9,224	986
Algeria	3,192	255
Ivory Coast	1,117	279
Senegal	787	217
Sudan	1,568	109
South Africa	13,616	727
Tanzania	874	73
United Arab Republic	5,773	187
Ceylon	1,862	159
India	41,467	81
Iran	7,881	300
Israel	4,031	1,510
New Zealand	5,558	2,039
Thailand	5,074	155

Developed Countries (Selected)

France	115,860	2,338
Greece	6,900	792
Japan	120,008	1,201
Sveden	24,143	3,069
United States	804,000	4,038
U.S.S.R.	278,856	1,184

Source: Dept. of Economic and Social Affairs, World Economic Survey, 1969-70, United Nations, New York, 1971.

16. The underdeveloped, industrialized countries attain high percentages of the Gross National Product coming from manufacturing industry (Argentina - 32.4%, Brazil - 27.0%, Mexico - 27.4% (1962-64), India - 18.4% (1961-1962) (Bairoch, 1967, Table 21, p. 108). Nevertheless, it is obvious that this index cannot by itself characterize a situation, for other countries reach rates almost as high (Philippines - 18.6%, Chile - 17.8%, Colombia - 17.6%), thus producing another reason for utilizing combinations of criteria.

17. This criterion asserts itself especially when there is a tendency for the localization of export industries in centres endowed with certain advantages (infrastructure, cheap labour, official enticements) and in agglomerations created entirely to receive new capital-intensive activities. These industries rarely have connections with other activities in the city and region, and seek markets outside the local area, even outside the country.

18. In 1949, non-durable consumer goods imports had been practically replaced, for they contributed only 4% of total domestic supply. In the same year, the share of imports was 25% for intermediate products and 60% for durable consumer goods and capital goods. In 1959, the country was importing only 6% of its durable consumer goods requirements and 33% of capital goods (Furtado, 1968, pp. 28-29).

19. According to a 1967 study conducted by la Fundação Getulio Vargas, most equipment necessary for the expansion of Brazilian industry could be supplied by national production. Exceptions were found in the metallurgic, transport equipment, clothing and shoes, and food products sectors, which, at that time, required foreign equipment in the following proportions: 60%, 58%, 57% and 52%.

20. Structural Evolution of Brazilian Transformation Industries

(group 1)

	1919	1949	1961
textiles	27 %	18.6%	13.4%

	1919	1949	1961
confection, shoes	8.2%	4.4%	3.4%
food products	32.9	32.0	20.5
beverages	4.7	3.1	2.6
tobacco	3.6	1.4	1.0
wood	4.3	3.4	2.5
leather and skins	2.5	1.5	
furniture	1.4	1.7	6.1
publishing and miscellaneous	0.8	4.3	
	85.4%	70.4%	49.5%

Structural Evolution of Base Industry
(group 2)

	1919	1949	1961
non-metallic mineral transformation	2.7%	4.5%	4.4%
Iron and steel	3.4	7.6	13.4
mechanical	0.1	1.6	2.4
transport equipment	1.3	2.3	8.1
electric equipment	-	1.4	4.2
chemical and pharmaceutical	5.7	8.6	12.9
rubber	0.1	1.6	2.0
paper	1.3	2.0	3.1
sub-total	14.6%	29.6%	50.5%

Source: Martin, 1966

21. Brazilian Transformation Industry
import coefficient of total demand

	Consumer Goods		Intermediate Capital	Total Capital	
	Non-Durable	Durable	Production	Goods	Imports
1955	2.2	9.6	22.5	39.5	12.9
1965	1.6	1.4	8.2	8.8	5.1

Source: ECLA IBNDE

22. Brazil: Capital Distribution by Sector from certain developed countries (%)

	Great Britain	USA	France	Japan	West Germany
food products	31	8			
textiles	20		10		
petroleum distribu- tion	17	7			
insurance	8				
autos		23		*	45
chemicals		14	28		21
machines		10			13
pharmaceuticals		8			
rubber by-products		6			
iron and steel			10	44	6
shipbuilding				14	
banking			8		
glass-making			8		15
miscellaneous	24	24	40	42(*autos included)	

(This table was elaborated from data taken from Martin, 1966)

23. Monopolies in the Metallurgic Industry at São Paulo

Branch of Activity	Number of Enterprises	% of production correspond- ing to 3 largest enter- prises
metal-work	8	76
agricultural tools	9	97
ploughs	17	76
electric motors	9	86
refrigerators	8	91
washing machines	6	82
balances	19	74
elevators	6	99

(quoted in T. dos Santos, 1967, p. 44)

24. Participation in the Brazilian Economy of Foreign State, and Private National Capital by Sector

	State	Foreign	Private National
infrastructure	73.07%	17.25%	9.68%
intermediate goods	52.05	34.60	13.35
capital goods	0.0	72.61	27.39
durable consumer goods	0.0	78.32	21.68
non-durable consumer goods	6.37	53.38	40.25

	State	Foreign	Private National
retail trade	0.0	8.25	91.75
services	0.0	8.25	91.75
banks	61.7		

(Business Latin America, Feb. 18, 1971)

25. Brazilian Service Imports and Exports

	Imports	Exports (in millions of dollars)
1960	493.0	189.0
1965	339.0	151.0
1966	400.0	138.0
1967	439.0	167.0
1968	487.0	190.0

Source: to 1967, International Monetary Fund, Balance of Payments Yearbook, 1968 ECLA Estimates.

26. 1000 Largest Enterprises Producing:

	1950	1962
1 product category	78	49
2-15 product categories	354	233
16-50 product categories	128	236
over 50 product categories	8	15

(Furtado, March, 1968, p. 325)

27. In 1970, almost half the capital issue was done at São Paulo, followed by la Guanabara (Rio de Janeiro) with nearly 30%. Together these two centres represented 78.8% of total capital issue (Rattner, 1972).

28. Participation of Brazilian Regions in National Revenue

	1939	1960	1966
North	2.66%	2.23%	2.11%
North-East	16.73	14.78	14.36
South-East	62.91	62.77	63.09
Sul	15.56	17.77	17.32
West Centre	2.14	2.45	3.12

(Bandeira de Mello e Silva, 1972, pp. 8-9)

29. Brazil: Participation of Several States in National Revenue

	<u>1939</u>	<u>1960</u>	<u>1966</u>	<u>1968</u>
São Paulo	31.10%	34.71%	34.73%	35.2%
Goiás	1.10	1.41	1.82	1.9
Brasília	-	0.03	0.32	0.4
Guanabara	16.17	12.01	11.54	11.5
Bahia	4.45	4.23	4.16	4.1
Pernambuco	4.41	3.47	3.48	3.4
Piauí	0.87	0.41	0.48	0.5
Maranhão	1.25	1.10	1.08	1.1
Alagoas	0.91	0.81	0.73	0.7

(for 1939, 1960, 1966, Bandeira de Mello e Silva, 1972, pp. 7-8; for 1968, Zottman, 1972, p. 448)

BIBLIOGRAPHY

- Abdel-Malek, Anouar, "Pour une sociologie de l'impérialisme", Abdel-Malek, Anouar (ed.), Sociologie de l'impérialisme, Paris: Editions Anthropos, 1971, pp. 15-69.
- Amin, Samir, L'accumulation à l'échelle mondiale, Critique de la Théorie du Sous-développement, Paris: Editions Anthropos, 1971 (2ème édition).
- Anuario Estatístico do Brasil, 1971, Rio de Janeiro: Instituto Brasileiro de Estatística, 1972.
- Bandeira de Mello e Silva, Sylvio Carlos, Alguns Problemas de Planejamento Regional, Bahia: Universidade da Bahia, Instituto de GeoCiencias, 1972 (mimeo. 9 pp.).
- Barros de Castro, Antonio, Sete Ensaio sobre a Economia Brasileira, Vol. II, Rio de Janeiro: Editora Forense, 1971.
- Brazilian Embassy Bulletin, Washington, Jan. 12-13, 1972.
- Business Latin America, Feb. 18, 1971.
- Cardoso, Fernando Henrique, "Des Elites, les entrepreneurs d'Amérique Latine", Revue de Sociologie du Travail: Classes Sociales et Pouvoir Politique en Amérique Latine, Paris: Editions du Seuil, juillet-septembre, 1967.
- Cavalcanti, Clovis de Vasconcelos, "A renda familiar e por habitante na cidade do Recife", Pesquisa e Planejamento Economico, Vol. 2, No. 1, June 1972, pp. 81-104.
- CEPAL, (Comisión Económica para América Latina) El proceso de industrialización en América Latina, New York: United Nations, 1965.
- Correa de Andrade, Manuel, Espaço, Polarização e Desenvolvimento, São Paulo: Editora Brasiliense, 1970 (2ª edição).
- Correio da Manhã, 21 Dec. 1971.
- dos Santos, Teotônio, "El nuevo carácter de la dependencia", Cuadernos del CIESO, No. 6, 1967, also in Latin America: Reform or Revolution, Petras, James (ed.), Greenwich, Conn: Faucet Books, 1968.

Drucker, Peter F., "The New Markets and the New Capitalism", in Daniel Bell and Irving Kristol, Capitalism Today, A Mentor Book, 1971, pp. 44-79.

Freyssinet, Jacques, Le concept de Sous-développement, Paris: Mouton, 1966.

Furtado, Celso, Um projeto para o Brasil, Rio de Janeiro: Editora Saga, 1968, 4th edition.

Développement et Sous-Développement, Paris: Presses Universitaires de France, 1966.

Globo (O), Rio de Janeiro, 15 April 1972.

Hirschman, Albert O., Stratégie du Développement Economique, Economie et Humanisme, Paris: Les Editions Ouvrières, 1964 (from the English edition The Strategy of Economic Development, New Haven: Yale University Press, 1958).

Ianni, Octavio, Estado e Planejamento Economico no Brasil (1930-1970), Rio de Janeiro: Editora Civilização Brasileira, 1971.

International Monetary Fund, Balance of Payments Yearbook, 1960 to 1967.

Lombardini, S., "L'entreprise motrice et la distribution spatiale des activités économiques", in F. Bloch-Lainé et F. Perroux, L'entreprise et l'économie du XX siècle, Paris: Presses Universitaires de France, 1966, pp. 223-240.

Maddison, Angus, Economic Progress and Policy in Developing Countries, London: George Allen and Unwin Ltd., 1970.

Marini, Ruy Mauro, "Brazilian Subimperialism", Monthly Review, Vol. 23, No. 9, Feb. 1972, pp. 14-24.

Martin, J. M., Industrialisation et Développement Energétique du Brésil, Paris: Université de Paris, Institut d'Etudes de l'Amérique Latine, 1966.

*Morse, Richard M., The Urban Development of Latin America 1750-1920, Palo Alto: Stanford University, Centre for Latin American Studies, 1971.

Mountjoy, Alan B., Industrialisation and Underdeveloped Countries, Chicago: Aldine Publishing Company, 1966.

Niedergang, Marcel, "Brasil, le plus jeune des géants", Le Monde, Paris, 11 Sept. 1972.

Opinião, Rio de Janeiro, Nov. 27 - Dec. 4, 1972.

Rattner, Henrique, Desequilíbrios Regionais e Planificação do Desenvolvimento, São Paulo: Escola de Administração de Empresas de São Paulo da Fundação Getúlio Vargas, 1972.

Rattner, Heinrich, Regional Inequalities and Planning for Development, Cambridge, Massachusetts: SPURS, MIT, January 1972, (mimeog. 48 pp.).

Stein, Stanley, The Brazilian Cotton Manufacture, Cambridge, Mass: Harvard University Press, 1957.

Sunkel, Osvaldo, "Desarrollo, subdesarrollo, dependencia, marginación y desigualdades espaciales; hacia un enfoque totalizante", Revista Latino-americana de Estudios Urbano Regionales, Vol. 1, No. 1, Octubre, 1970.

Valenzuela Gálvez, Jayme, "Barrios populares en América Latina", in Ramiro Cardona, editor, Migración y desarrollo urbano, Bogotá: Asociación Colombiana de Facultades de Medicina, División de Estudios de Población, 1970, pp. 200-218.

World Economic Survey, 1969-1970, New York: United Nations, 1971.

Zottmann, Luiz, "Depois da Revolução", Visão, 14-28 Aug. 1972, pp. 433-452.

DEVELOPMENT: THEORIES AND POVERTY

Theories of development have been put forth as solutions intended to correct inequalities among individuals, regions and countries. It has been generally assumed that these theories require an international frame of reference, that is, a model external to the countries concerned. Being a corollary of development, the idea of planning has greatly contributed to reinforce this view, the soi-disant ultimate goal being to find measures to wipe out disparities, as far as is possible. Yet, despite the fact that thirty years have elapsed since the concepts of development and planning have become leading ideas, inequalities have not stopped increasing on the individual, regional, and international levels. The endless discussion about what constitutes growth and development has been fruitless. This is so because rather than beginning from reality as such, theorists tend to take an unrealistic formulation as a frame of reference, as an "illusion" to be followed, as Bachelard would say. The fear of continuing to plan poverty indefinitely is sufficient inducement for an attempt to approach the problem in a different way.

The extreme destitution in which hundreds of millions of human beings live has already been the subject of extensive literature. Urban poverty, or rather, the aspects of poverty directly linked to urbanization, have received most of this determined and feverish intellectual activity. However, the real problem lies in the explanation of poverty.

Theories or Slogans?

While the description of the phenomenon is almost always complete and often objective, the explanations--if one does not wish to use the pretentious term "theory"--can be divided into three major groups:

1. those evading the problem of poverty
2. those partially treating the problem of poverty
3. those attempting to give a complete interpretation of poverty.

This situation reminds one of the story about Seneca, the Roman senator, who once had the idea of requiring all slaves to wear the same clothes in order to distinguish them from free men. His proposal never came to a vote because the Senate foresaw that, as soon as the slaves realized they were a majority they would revolt. This apprehension exists today, and is one reason why the issue is made obscure.

There are several stratagems for evading the problem of poverty. First, it is treated as a separate topic of study; society is analysed as if it were classless. This crude way of concealing reality can be replaced by more elaborate methods. For example, poverty can be considered as a transitional situation, merely a step, a necessary stage in upward mobility. Have not "slums of hope" been distinguished from "slums of despair"? (Stokes, 1962). This attitude is similar to that which assumes that people are able to change their conditions by isolated solutions, such as well-directed personal initiative, education, or entrepreneurial ability. This maintains hope, and constitutes at the same time the foundations of a competitive society, thus preventing the idea of change from gaining ground. As McGee (1971, p. 133) accurately points out, the exponents of this attitude consider poverty a temporary condition which must be tolerated as inherent "in the throes of economic growth".

The problem of poverty can also be partially treated. In this approach, the "urban crisis" results from the demographic explosion, itself responsible for the migrations which worsen the "urban crisis". The lack of jobs is then ascribed to so-called "demographic pressure" which is, at the same time, made responsible for the survival of a non-modern or traditional economy, considered as an obstacle to modernization and is seen to be the root of what is still called dualism. Since these phenomena--demographic pressure, unemployment, dualism--exhibit a certain collinearity, the ambiguity increases and it becomes easier to impose erroneous solutions. The main preoccupation comes to be avoiding unrest and not preventing poverty. This is why we find such a large number of studies dealing with the political "dangers" of rapid urbanization.

These two approaches, one of which attempts to elude reality and the other which selects only a few aspects of reality, are both promoted by the mass media and have become slogans. It matters little whether a contradiction exists between considering the rural exodus as harmful and the shanty-towns as hopeful. Different interpretations, often opposed if not paradoxical, of the same phenomenon are also disseminated by the media. The contradiction among the theories is, moreover, useful to the interests who control the media. Given these inconsistencies, it is impossible to find a coherent solution and therefore easier to impose planning, which in effect does nothing.

Moreover, the "good" planner is the one who puts forth so-called "objective" and "viable" solutions within the

system, in such a way as not to upset the system's continuity and to dismiss all-encompassing solutions as non-viable. There is deliberate confusion between, on the one hand, objectivity and the system's survival, and on the other, non-objectivity and proposals for change.

As Varnavsky (1969, p. 80) has pointed out, these approaches are facilitated because control of mass media constitutes a defense, in the name of "freedom of speech", against any truly national planning effort. The approaches are further encouraged by the prestige of scientism, that is, the competitive attitude in science, in the name of modernization and cultural integration; this consumption of a "submission culture" (Schweizer, 1972) is fostered through scholarships and exchanges between scholars. Since it is necessary to compete in the international arena and to participate in the proliferation of publications in accordance with the edict of "publish or perish", little time remains for reflection on other matters, and even less for the development of a political consciousness. Therefore, many who have begun worthwhile work have become disenchanted, while those striving towards a total vision of the problem of poverty find themselves impotent before the great inertia of legends, solidly entrenched, that must be dismantled. This task is especially difficult, as the issue must be examined in the light of the ever-changing circumstances of present conditions.

The Development of Poverty

The modernization model of the economy is accompanied, as Eckaus (1955, pp. 548) has pointed out, by technological imperatives which bring about the limitation of possibilities in the field of production substitution factors. These rigidities prevent the expansion of the employment market. Actually, the most efficient techniques for industrial expansion have been conceived as if labour were a rare commodity (Isbister, 1971, p. 33). While this model is far from perfect in the developed countries, it is aberrant for the underdeveloped countries (Due, 1963, pp. 17-18) and produces industrial growth by increased underemployment and non-employment. The resultant paradoxical situation was described by Singer (1970, pp. 70-71) in apt terms: "the creation of jobs leads to the increase in non-employment".

When a monopolistic or oligopolistic market mechanism asserts itself, it becomes even more difficult to absorb surplus labour than in competitive conditions. According to Sylos-Labini (1969, p. 159), the problem of non-employment in these cases is dynamic and not static, since

monopolistic organization has a reduced ability to provide jobs and shunts prospective workers into sectors of the economy which are incapable, for the most part, of offering wages and permanent positions. Undoubtedly, more than purely technical factors are at play. Larger firms, especially multinational corporations, are not interested in using labour-intensive techniques, because the working masses represent a danger through their revendicative and political power.

Actually, poverty is worsening in underdeveloped countries. This is as true of those which have just recently entered "the path toward material progress" as it is of those who embraced earlier the ideas of progress. "Poverty is even consistent with rapid growth, if the growth is of recent origin" (E. A. Johnson, 1970). The reason for this is that technological modernization produces growing social and economic disparities. The allocation of an important part of national resources is made, in the name of progress, for the benefit of those who are already rich, and at the cost of growing injustice (Peter Marris, 1962, p. 131). A vicious circle is established; as income continues to concentrate, the consumption of the high-income groups increasingly diversifies and the development of the demand profile becomes even more inadequate, producing an under-utilization of production factors. The poor are doubly disadvantaged, for they have access only to the products that entrepreneurs find profitable to produce, whereas, at the same time, current goods production decreases. This also produces an employment ceiling and a restricted selection in the choice of modernization partners.

Income inequalities are therefore maintained by a production structure oriented toward the branches which benefit most from technological modernization and which are consequently the most profitable. Since the capitalistic sector is not in a position to transfer a sufficient quantity of capital to the domestic sector (Watters, 1967, p. 19), there follow cumulative decreases in income for persons engaged in this sector.

In technology-intensive activities, the employment of highly skilled workers requires the payment of high wages. These workers are not easily replaceable, which may give them a formidable bargaining power. In São Paulo, 20.8% of the workers in the iron and steel industry earned monthly wages of over 370 cruzeiros in 1968, a wage level achieved by only 6% of workers in the textile industry (Mahon, 1970, p. 67). In Colombia, the range of average wages for skilled workers

varies from 20 to 1 between the petroleum and clothing industries. In Chile, the average wage in the base metal-lurgical industry is 19 times higher than in the lumber industry for skilled workers (Ramos, 1970, pp. 254-255).

In these conditions, a limited expansion of the middle classes and of their consumption ability appears as an element of struggle and an assertion of the modern, capitalist sectors (Niemeyer Pinheiro, 1971, pp. 36-37). However, interpretation of available data leads to the conclusion that even this expansion has decelerated recently. Upward social mobility is selective and discriminatory, putting a more acute pressure on the wage-levels of the lower classes (Sunkel, 1970, pp. 46-47). Growth of the middle class does not make income distribution more equal, but, on the contrary, makes it less equal (McGee, 1971, p. 26).

Growth is therefore oligarchic, and not egalitarian (Ramos, 1970, p. 231), for only a minority benefits from it. The improvement in the conditions of some is not socially significant, for per capita income of working persons increases only in the upper-income groups. The employees of strategic sectors enjoy a right to a larger part of the product obtained in the capitalist economy in exchange for their prior entrenchment in the society of consumption.

It can thus be easily understood why South American sociologists have applied the term marginal to the disinherited masses, victims of the evolution of capitalist production. They wished to draw attention to the problem of poverty juxtaposed to modernization. Consequently a theory has been elaborated around the theme of marginelidad (A. Quijano, 1970 and 1971; F. H. Cardoso, 1971; J. Nun, 1969, R. Cardona, 1968). In fact, it is an old term used to define a new reality. Park was one of the first to use it (1928, p. 892) to refer to cultural hybrids, to the man living "on the margin of two cultures and two societies". Cuber (1940, p. 28) also spoke of "persons who occupy a peripheral role between any two differentiated but largely exclusive institutions, culture complexes or other cultural segments".

Yet, concerning the impoverishment of wide strata of society by the modern economy, it may well be inappropriate to speak in terms of marginality. While Joan Nelson has stated that the term is correct (1969, p. 5), she rightly wonders whether the urban poor recognize themselves as marginal. This population or overpopulation, as certain people wish to call it, is not surplus in rural areas, and is not impractical from an economic viewpoint (Bettelheim,

1950, p. 74; Niemeyer Pinheiro, 1971, p. 14}. Rather, there has been a distortion of the development process through technological modernization, preventing participation by that section of the population called the "proto-proletariat" by McGee, (1972).

Consumerism versus Egalitarianism

Certain persons are now beginning to advocate "consumerism"; according to them, people will no longer tolerate being denied what, in their eyes, is the very symbol of social promotion. Thus, for the people's favour to be won, they must be given access to basic consumer products. However, there is a refusal to define which are the basic goods and which are not.... Yet isn't this attitude contradictory? Consumption, at present imposed on the population, is the result of a "diktat" on the part of the productive system. Through control of the media this system can impose a predetermined mode of behaviour on the potential consumers--that is, it can distort their demand profile. Consequently one cannot speak of free choice.

Those controlling the economy also control the range of consumption, which is a function of income and credit; consequently, ascending the consumption scale becomes paradoxically one of the goals of the "rising expectation" revolution, a new type of "ethos" imposed upon the ordinary citizen by those who increasingly accumulate, supranationally, the benefits of common labour.

To advocate "consumerism" may be a skillful political manoeuvre or a form of sophisticated opportunism, possibly resulting in the removal of some governmental officials--that is to win over the people and to gain power without, however, fundamentally changing the power structure--that is, putting the people in power. As Paulo Freire (1968, p. 61) has so astutely pointed out, the problem of poverty is not a question of integrating the poor population into an oppressive structure, in order that they might become more like the oppressor, but of transforming this structure so that they become themselves.

We, therefore, face a dilemma. Either we perpetuate this mode of consumption and aid the industrial and commercial giants so often considered "oppressors", or in order to eliminate their domination, we advocate a change in production goals i.e. within the production structure itself. Without this latter measure it is impossible to change the structure of consumption. The problem, however, will reappear because we must define the production structure

and the modes of consumption that will permit a society to be egalitarian, to be a society in which no one is dominated in order that others may perpetuate their role as dominator.

BIBLIOGRAPHY

- Bettelheim, Charles, Le problème de l'emploi et du chômage dans les théories économiques, Paris: Ecole Pratique des Hautes Etudes, 1950.
- Cardona, Ramiro, "Migration, Urbanisation et Marginalité", Premier séminaire national sur Urbanisation et Marginalité, Bogotá: Antares, Tiers Monde, 1968.
- Cardoso, Fernando Henrique, "Comentario sobre los conceptos de sobrepoblación relativa y marginalidad", Revista Latino-Americana de Ciencias Sociales, June-December 1971, pp. 57-76.
- Cuber, John P., "Marginal Church Participants", Sociology and Social Research, Vol. XXV, No. 1, 1940, pp. 57-62.
- Due, John F., Taxation and Economic Development in Tropical Africa, Cambridge, Massachusetts: M.I.T. Press, 1963.
- Eckaus, R. S., "Factor Proportions Problems in Underdeveloped Areas", American Economic Review, Vol. XLV, No. 4, Sept. 1955, pp. 539-565.
- Freire, Paulo, Pedagogy of the Oppressed, New York: Herder and Herder, 1968.
- Ibister, John, "Urban Employment and Wages in a Developing Economy: The Case of Mexico", Economic Development and Cultural Change, Vol. 20, No. 1, Oct. 1971, pp. 24-46.
- Johnson, E. A., The Organization of Space in Developing Countries, Cambridge, Massachusetts: Harvard University Press, 1970.
- Mahon, Joseph, Etude de la formation et de la situation actuelle d'une classe sociale nouvelle: la classe ouvrière dans le Grand São Paulo (Brésil) - Projet d'étude, Paris: Institut d'Etudes du Développement Economique et Social, Université de Paris, 1970.
- McGee, T. G., The Urbanisation Process in the Third World, London: Bell and Sons, 1971.
- "Têtes de pont et enclaves. Le problème urbain et le processus d'urbanisation dans l'Asie du Sud-Est depuis 1945", Revue Tiers Monde, Tome 12, No. 45, Jan-Mars 1971, pp. 115-143.

- McGee, T. G., Peasants in the Cities: a Paradox, a Paradox, a most ingenious Paradox, Hong Kong: University of Hong Kong, 1972.
- Marris, Peter, Family and Social Change in an African City, A Study of Rehousing in Lagos, Evanston, Illinois: Northwestern University Press, 1962.
- Nelson, Joan, Migrants, Urban Poverty and Instability in Developing Countries, Cambridge, Massachusetts: Harvard University Press, 1969.
- Niemeyer Pinheiro, Ana Maria de, La Problématique des conditions de travail des travailleurs urbains d'origine rurale dans les métropoles brésiliennes dans la phase actuelle de l'industrialisation, Paris: Université de Paris I, Institut de Géographie, 1971.
- Nun, José, "Sobrepoblación relativa, ejército industrial de reserva y masa marginal", Revista Latinoamericana de Sociología, July 1969, Vol. V, No. 2, pp. 178-235.
- Park, Robert E., "Human Migration and the Marginal Man", American Journal of Sociology, May 1928, Vol. 33, No. 6, pp. 881-893.
- Quijano, Aníbal, Redefinición de la dependencia y marginalización en América Latina, Santiago: Facultad de Ciencias Económicas, Universidad de Chile, 1970.
- "Pôle Marginal de l'économie et main d'oeuvre marginalisée", in Anouar Abdel-Malek (ed.), Sociologie de l'impérialisme, Paris: Editions Anthropos, 1971, pp. 301-336.
- Ramos, Joseph R., Labour and Development in Latin America, New York: Institute of Latin American Studies, Colombia University Press, 1970.
- Schweizer, Peter Jose, Metropolização - Uma nova forma de dependencia, Cambridge, Massachusetts: SPURS-MIT, 1972 (mimeo. 22 pp.).
- Sylos Labini, Paolo, Oligopoly and Technical Progress, Cambridge, Massachusetts: Harvard University Press, 1969.
- Singer, H. W., "Dualism Revisited: A New Approach to the Problems of the Dual Society in Developing Countries", The Journal of Development Studies, Vol. 7, No. 1,

Oct. 1970, pp. 60-75.

- Stokes, Charles J., "A Theory of Slums", Land Economics, Vol. XXXVIII, No. 3, August 1962, pp. 187-197.
- Watters, R. F., "Economic Backwardness in the Venezuelan Andes, A Study of the Traditional Sector of the Dual Economy", Pacific Viewpoint, Vol. 8, No. 1, May 1967, pp. 17-67.

SUB-IMPERIALISM, AS VIEWED BY A GEOGRAPHER

"Sub-Imperialism", the thesis of Dr. Ruy Mauro Marini is both a theory of political science and an explanation of an economic policy, as well as a new effort in historical reinterpretation and prospective. Far from appearing to be a new "slogan", this theme seems on the contrary able to serve as the starting point of a political ideology and a political behaviour, as well as an effective instrument of analysis of present day realities and of prospects for the immediate future.

On the other hand, this theme will be able, once again, to substantiate the unity of the human sciences and their active solidarity in the explanation of important phenomena of our epoch as well as in the effort of finding a solution to these phenomena. This is why a geographer will not feel himself too removed from such a topic as this which is only in appearance remote from the preoccupations of the space specialists.

"Sub-imperialism" according to Ruy M. Marini

If I have correctly understood the intellectual procedure of Ruy Mauro Marini, I think that his effort could be summarized in three parts: the description of historical background, the typology of present situations and finally the formulation of prospects, including both the diagnosis of and the remedy for the situation.

After having read some of Dr. Marini's works (among them "Brazilian Sub-Imperialism", Monthly Review, vol. 23, No. 9, pp. 14-24; and Sous-Développement et Révolution en Amérique Latine, Paris: Editions Maspéro, 1972, especially chapters 2 and 4), it appeared to me that the definition of sub-imperialism may be found in the conjunction of such factors as: 1) the concentration of production and income of which the consequence is "the superexploitation of labour which is the very pillar of the subimperialist scheme"; 2) the ever more frequent need for recourse to the external sector; 3) the crisis situation created by this economic policy and the necessity of appeal to new kinds of State consumption such as the installation of infrastructures and the military industry, which serve as a means of procuring a new market expansion for capital goods.

These data authorize R. M. Marini to define sub-imperialism as a "fusion of military and big capital interests" (...) "the form which dependent capitalism

assumes upon reaching the stage of monopolies and finance capital", a situation in which "the problem of market constitutes the axis of the (subimperialist) scheme". The State, therefore, occupies a fundamental place in the explanation of subimperialism. This State has the role of regulator of "clashes" (the term is used by M. Mamalakis, in "The Theory of Sectoral Clashes", Latin American Research Review, vol. IV, No. 3, Fall 1969, pp. 9-46) between the interests of diverse sectors as well as that of buffer between the growing needs of the international economic system and the demands more or less expressed by the impoverished masses and also of a middle class whose destiny depends upon the conjuncture which is attained by the dominant sectors of the economy.

From the time of President João Goulart's government, explains R. M. Marini, "the attempts at redistribution of income proved to be a poor solution from the point of view of big capital". After the coup of April 1964 the situation reverted back to its "normal" (!) course by "increasing concentration of income and its productive sources". At that time the new regime presented certain solutions. Among the more significant were "increasing the export of manufactured goods" and "increasing the internal demand for capital goods". "The expansion of exports required raising the technological level, which in turn implied greater possibilities for the absorption of capital goods". Accompanying this, and as a consequence, there was an "increase in state expenditures through an active policy of developing the infrastructure of transportation and electrification..." indispensable for the expansion of capital goods production and for the export of manufactured goods.

As is evident, everything was interrelated.... But such a policy did have a price. "Big industry was denationalized" and there occurred a "reinforcing of the tendency of Brazilian capitalism to monopoly, in order to create a production structure capable of competing in the international market". However, international imperialism refused to share some fields of production such as the aeronautical industry and nuclear technology, and prevented their local development. This concentrated movement and the credit policy imposed by the government with the agreement of the International Monetary Fund, led to the bankruptcy of numerous small and medium-sized enterprises, while the real wages of labour, the minimum real wage as well as the average one, decreased. The policy of exportation of manufactured goods, scandalously helped by State subsidies, resulted in an increase of the Gross National Product (GNP) at Japanese rates and a Brazilian style impoverishment of the major part of the population.

Finally, the necessity for an aggressive export policy added to an over-equipping of the armed forces led Brazil, says Marini, to seek a position of hegemony in the sub-continent, which serves the interests of big firms without taking into account either the people's aspirations or the sovereignty of neighbouring nations.

Although I agree with the majority of these fundamentals and conclusions, a basic criticism I would have about Marini's work is his neglecting to treat the problem in terms of the world system, which is essential for an understanding of underdevelopment at diverse levels. The lack of such an approach prevents a more general view of the question, which should be both actual and historical, allowing proper analysis and perspective.

The Brazilian case is only a sub-model of a more general phenomenon.

"Sub-imperialism" and "industrialized underdeveloped countries"

I would now like to examine the historical point of view of underdeveloped countries and ask whether there is not a synonymy between what Ruy Marini terms "sub-imperialism" and what I have labelled "industrialized underdeveloped countries" (Milton Santos, *Les Villes du Tiers Monde*, Paris: Editions M. Th. Genin, Librairies Techniques, 1971). The old political-geographical taxonomy which placed on one side industrial countries and on the other underdeveloped countries (modestly termed non-industrialized countries), no longer contains meaning because there now exist industrialized underdeveloped countries such as Brazil, Argentina, Mexico, India, Egypt and perhaps South Africa.

A dependent and punctual industrialization characterizes these industrialized underdeveloped countries. Dependent because the backbone of the present historical system, that is technology, is a privilege of the countries of the centre: technological dependence provokes in its turn a financial dependence and a dependence of the peripheral countries' economic policy, as well as a dependence on the forms of production organization such as monopolies. Dependence is evident too in the patterns of industrial localization. Because of all this, dependent industrialization is also punctual, big firms tending to concentrate on certain points of the national space where there is already a concentration of infrastructures and overhead capital.

A certain number of other characteristics fundamentally

differentiate the industrialized underdeveloped countries from the developed countries. First: the industrialized underdeveloped countries have ineffective unions and a true lack of labour organization. This is so for several reasons, among them being the degradation of the labour market. Difficulty in the unions manifesting their existence is aggravated when a situation of dictatorship is established in the country, one which arbitrates conflicts of interests in favour of multinational enterprises and monopolies. Second: public opinion, controlled and channelled through powerful means of advertising, which is commanded by big capital from both within the country and abroad, is itself deprived of the means of correctly analyzing the decisions of economic policy formulated by the State. Finally, the dependence itself and the contradictions inherent in the need for successive conjunctural adaptations, oblige monopolies, which are the number one factor of political instability to protect themselves against instability and thus become even more powerful and relatively more potent than within developed countries. They reach this aim through the diplomatic support which they have been openly granted for close to two decades.

These options of economic policy enclose the country in a vicious circle. Each day the need to import in order to be able to export increases as does the need to export to be able to import. This means a double impoverishment because the exportation policy leads on the one hand to the unavoidable need to utilize a technology at the international level and on the other hand to the search for unattainable competitiveness. While the scale of firms increases, the national resources available for other uses decrease: the difficulty for industry to be truly competitive on the international level compels the State to grant advantages to exportation which are increasingly exorbitant. The subsidies for certain products are capable of reaching 50%, as happens in Brazil; and in the end, the poor classes pay the bill, and doubly: first, through the tax system which is principally comprised of indirect taxes, particularly affecting the poorest classes, and secondly, because the collusion between the need to import and to export prevents, within the logic of the monopoly, the achievement of a desirable expansion of a production oriented towards mass consumption. This collusion contributes to the fact that the real wage is continuing to diminish and also reduces the opportunities for an independent national economic policy.

Thus, if there exists an interdependence among the

developed countries, the industrialized underdeveloped countries are dependent. In actual fact, the greater the modernization, the greater the dependence. As subject and object of an increasingly unequal exchange, they are enticed to develop an externally oriented production which hinders national industrialization. This precrisis situation creates among them imperialistic appetites over less developed countries which are susceptible to becoming clients. This peripheral form of imperialism, termed "sub-imperialism" by Marini, appears when the underdeveloped country becomes industrialized, specifically when it can provide an interior market with consumption goods, although the market may be impoverished by monopolies, and when it possesses capital goods industries whose capacity rapidly becomes superior to the absorption ability of the already compressed national market.

This situation of sub-imperialism or dependent imperialism is not exclusive to Brazil, but is a general situation in all underdeveloped industrialized countries. The external possibilities of sub-imperialist action which creates a "second degree dependence" are contingent on the geopolitical situation, the historical evolution and the present conditions of other countries, especially neighbouring ones. It would be useful to compare the situations of Brazil, Argentina, the Republic of South Africa and India with those of Mexico and Egypt. To what degree is this an exclusive consequence of the level of national development or of the options of economic policy and international policy adopted by each country?

Organization of production and spatial organization

The industrialized underdeveloped countries are characterized by an internal mechanism, uniquely their own, which has repercussions in the general organization of production, employment and the organization of space. Systematic and extended studies concerning the relationships between forms of production organization and the models of space organization are considerably deficient within the underdeveloped countries. Yet geographers and other specialists could play an appreciable role for the comprehension of the phenomena of poverty and their spatial manifestation, since there is an interrelationship between all these phenomena.

Such an approach would equally serve to demonstrate the secondary or residual character of certain current theories which, if examined separately, are only a partial approach; they concern questions such as marginality, dualism, migratory phenomenon, macrocephaly, or the

question of primate cities and the false problem of the optimum size of cities, not forgetting the inexhaustible problem of "housing" standardized as a fundamental problem of the underdeveloped countries but which appears rather to be linked to business. These approaches, besides not being complete, only put together, from an analytical point of view, epiphenomena, and from a remedial point of view they only provide stop-gap solutions.

The essential question which must be faced by geographers, land economists or spatiologists working in underdeveloped countries, concerns the relationships between the forms of production organization and those of spatial organization on the national or macro-spatial scale and on the meso and micro-spatial scales. Such an analysis also includes one consequence at the level of an individual's life, because each citizen possesses a different "value" either as producer or consumer, in relation to the position he occupies in the national space. Thus the conclusion should be reached that there is no solution to urban problems through the city and that so-called urban and regional planning is only a hoax if examined apart from the economic and social policy of the entire country.

Phases of the technological period and the connection between the organization of space and sub-imperialism

In order to better understand the contemporary relationships between production organization and spatial organization, it is absolutely necessary to consider the fact that the present temporal system corresponds to the technological period and is divided into two phases or two historical segments from the behavioural point of view of the poles of the system. This division is evident when one considers the history of underdevelopment as being merged with the history of international division of labour. So, during the first phase of the technological period, there occurred what South-American economists have justly labelled "the importation of the international division of labour". That is, there occurred a transfer, under certain conditions and imposing certain guarantees, of the industrial production machine from the developed countries to the underdeveloped countries, through on-the-spot utilization of the "exterior proletariat", so-called by Toynbee, but retaining an "exterior tertiary" within the dominant countries (exterior, in respect to the dominated country). Consequently, the higher levels of the tertiary are deficient within industrializing countries. A recent survey carried out by the Harvard Business School discovered that 600,000 jobs in the

USA were dependent on the overseas operation of United States based multinational corporations.

During the first part of the technological period industries created according to a process of import substitution constituted, within certain privileged points of the country which are presently the few complete metropolises of underdeveloped countries, a production machine capable of local multiplication effects (I reserve the expression "complete metropolis" for the most important agglomeration, from an industrial point of view, in the industrialized underdeveloped countries. See Milton Santos, *Les Villes du Tiers Monde*, op. cit., chap. IX).

The situation is different in the second phase. The "growth mania" (the expression is from Ezra J. Mishan, *The Costs of Economic Growth*, New York: Praeger, 1967, pp. 3-8) having attained its paroxysm, juxtaposes a compressed interior market and a growing need for exportation. The deterioration of the exchange terms becomes worse and the contradiction between the simultaneous need to import and to export weakens the international value of the currencies of underdeveloped countries. The importation of the international division of labour of the first phase continues while other elements come to be in focus with the development of the exportation of manufactured goods. Most of the time, subsidies from the State permit these exportations, resulting in poor countries aiding the rich countries. Paradoxically, a shirt made in Brazil can be purchased less expensively in Boston than in São Paulo.

On the other hand, preparation for the exportation of raw materials generates veritable "enclaves". The existence of two kinds of enclaves may be verified. First, there are acknowledged enclaves characterized by industrial towns such as Ciudad Guyana in Venezuela which are simply parts of the economic planning of rich countries, although mercenary economic planners do represent them as elements of the economic and spatial planning of poor countries. Also there exist hidden enclaves, when exportation industries are established in big cities in order to profit from infrastructures and from cheap manpower.

The first phase of the technological period implies, from the point of view of space organization, an accumulation in certain agglomerations which already monopolize, for example, the means of transportation or the trade of agricultural products. This is why one may refer to a cumulative accumulation, which favours the installation of more or less open monopolistic structures, with a

disaccumulation of capital and again cumulative accumulation of poverty, both in the cities and in the countryside. Industrialized underdeveloped countries generally experienced a "precocious" industrialization, specifically before the first world war (the case of Egypt is an exception and an essential example of the effectiveness of a political will). It is monopoly and not at all demographic explosion or lack of capital or market which effects tertiarization of the majority of cities, macrocephaly of the economic poles (generally the capital of the country) and interior and even exterior migrations, underemployment and unemployment. In this first phase, the space got an horizontal specialization with a type of pyramidal urban structure from the point of view of industrial production. This specificity gives an uncontested direction role to the economic metropolis of the country, despite its dependence vis à vis foreign countries. Big, average and small cities are all dependent upon the largest city and certain effects of reciprocal multiplication may appear, at the same time it is possible, in spite of monopolistic structures, to preserve a part of the decision in matters of space and production organization, the latter being primarily destined for the interior market.

During the second phase of the technological period, exportation becomes an essential preoccupation as much for the State as for national and especially international firms. Thus the economic growth of the cities may be accomplished totally separately from the remainder of the region or country. Decisions related to production activity depend more and more upon a conjuncture interior to big firms but exterior to the country, the space being the object of a multiplicity of influences originating from the poles of decision on various scales.

In the first phase, monopoly, established where privileged equipment was already located, that is within big cities, was compelled to take into account the pre-existent firms. Thus it permitted a network of interdependences which facilitated growth and constituted a foundation for the spatial diffusion of the acquired results.

During the second phase, the multinational or extra-regional firms, according to the nature of their operations, do not require in actual fact external economies, or else they create them themselves. The externalities are of special importance but in this respect it is the State which is the provider, directly or through apparently generous loans from the international banking organizations. These equipment expenditures are externalized, which indicates that the

population of the dominated country is once again forced to finance the large firms of the dominating countries.

This allocation of resources has repercussions on the spatial organization level. The space is organized according to a dialectical game of concentration and dispersion factors. The monopolistic structures constitute a concentration factor, the diffusion of information and consumption enjoys a dispersion role, while the State has a mixed role. When the State functions in support of monopolies through the concentration of infrastructures, it acts as an element of economic and demographic concentration. When it disseminates into the territorial equipment of a social nature, such as hospitals and schools, or even offers encouragement to peasants, it is a dispersion factor. Each time that there is a tendency to equip a country according to a certain ideology of growth as a development factor, the resources become less and less available for the dispersion factors.

This explains why, in a situation of sub-imperialism there is a perfect synonymy between, on the one hand, monopolies and multinational firms, and on the other, macrocephaly and its consequences: unemployment, underemployment, marginality, tertiarization and so-called "dualism".

There exists a striking solidarity between urban, demographic and spatial growth and externally oriented, monopolistic urban economic growth. But the official economic planners of imperialism continue to preach statistical growth à la Rostov at the same time pretending to combat macrocephaly, urban expansion, and more recently, pollution. They propose formulae such as concentrated decentralization, whose initial effect is to reduce even further national resources which would otherwise serve to improve the living conditions of the population, or to aid the establishment of a production policy which would better serve the general interest. Consequently, the theory of concentrated decentralization in a situation of dependent imperialism or even dependent capitalism can only help to aggravate a concentrated concentration and make impoverishment more widespread. This is the ideal situation for easier implantation of monopolies and for reinforcement of the situation of sub-imperialism.

NOTE

1. The importation of new technologies often indicates the need to import new raw material. For example, in the State of Bahia, the poorest peasants from the dry Northeast, far removed from the seaboard, could obtain cash through the sale of cotton. Modern

fabrication which utilizes synthetic fibres is going to affect the agricultural market and impoverish the peasants and the neighbouring cities, and this impoverishment is not exclusive to small cities. The new employment equation, a result of the augmentation of the scale of firms, forces all the cities of a country, whether or not they are industrial agglomerations, to become tertiary cities. This is the case in São Paulo where the number of favelas, as well as the unemployment index, have recently increased to an all time high level.

CITY GROWTH AND SPACE ORGANIZATION: INCOMPLETE METROPOLISES
IN LATIN AMERICA

i - Introduction

What are the causes of city growth? This is a subject being discussed and studied by urbanologists. To understand urban growth, either in a global or local sense, it is necessary to be able to grasp the nature of the world-wide phenomena connected with the urbanization process and to interpret local, regional and national relations.

For a long time people tried to prove the relation between urbanization and industrialization--industrialization being considered here both in narrow and broad senses. Without doubt, people have been influenced by what has happened in the developed countries. A certain parallelism can be shown in the industrialization and urbanization processes in those countries, and one can see a corresponding time lag between different countries.

In underdeveloped countries, it is difficult to establish such mechanical relations. We have to consider at least 3 elements: modernization, industrialization and urbanization. Modernization, which is a reflective phenomenon from transformations in the more advanced countries, can induce urbanization without starting industrialization immediately. However, to leave the analysis here would be very unsatisfactory. Any simple comparison between industrialization and urbanization in order to try to define this last phenomenon may obviate further historical analysis possibilities.

If the word industrialization can be reserved for the manufacturing process which started in England in the 18th century with the industrial revolution, modernizations, in the plural, which are able to modify or change the conditions of the spatial organization in distant continents are an older phenomenon, contemporaneous with the conquest of Latin America. It is difficult to do without this variable when looking for an interpretation.

In Latin America, because of the differences in the impact of modernizations and, later, of industrialization, on cities, there have resulted differences in the capacity of cities there to organize space, attract people and accumulate wealth. This means that growth capacity differs within a country and between different countries. Those differences do not concern only the types of cities in a qualitative or quantitative sense; in the same urban

category, birth and evolution conditions can vary considerably. Cities belonging to the same type appear to have different capacities for commanding their historical space.

This is the central theme of this paper. However, only one category of city, with chosen examples, will be presented and discussed. I want to deal here with the incomplete metropolises.

ii - The Incomplete Metropolis

I believe that in the field of urban analysis in underdeveloped countries, one of the principal sources of ambiguity comes from a taxonomy problem.

The more current classifications are of two types:

1) those using only demographic data, and classifying cities according to their mass of population (small cities, medium cities, big cities, very big cities...)

2) those referring to a so called functional classification, in which the city appears to have nothing to do with urban organization of space (industrial cities, trade cities, administrative cities, religious cities, recreational cities, university cities, etc...)

I should propose a different classification using the combination of variables such as activities, employment, urban demography, forms of migrations, kinds of relations with the corresponding region, which would finally give us the functional level (and not the functions) of the city and its capacity to organize its space. So we would find:

1) local cities, 2) regional cities, 3) incomplete metropolises and 4) complete metropolises.¹

For now, we are interested in the distinction between the complete metropolis and the incomplete metropolis. The use of the word "metropolis" is too general, and overall research about it at a national level has been done as if all metropolises were of similar nature.

Complete metropolises are the economic poles of industrialized underdeveloped countries (Brazil, Argentina, Egypt, Mexico, India, and according to the definition of underdevelopment, China and the Union of South Africa). This obliges us to discuss the expression "industrialized underdeveloped countries": it concerns countries which started their industrialization process early in comparison

with other underdeveloped countries, which are already capable of providing themselves with all or most of the manufactured products they need, and which also have capital goods industries capable of equipping other industries and providing national infrastructures. Nevertheless, complete metropolises depend on international systems for technology and connective.

Incomplete metropolises are a result of:

1) Delayed industrialization, in a national or international setting;

2) The forms this industrialization takes.

These incomplete metropolises are the result of a quantitative and qualitative transformation of already existing big cities under the impact of modernizations. The latter are directly or indirectly responsible for transformations of demography, consumption and production in the city and in the region.

In spite of their capacity for macro-organization of space, incomplete metropolises do not have all the means for domination and are obliged to complete themselves elsewhere. They can find their complement in the country itself when the country has already a complete metropolis (Salvador in relation with São Paulo, Rosario with Buenos Aires, Guadalajara with Mexico City, Alexandria with Cairo, etc.) or abroad (Abidjan in relation with Paris, Accra with London, Caracas with New York, Seoul with Tokyo, etc.). So in the first case, the incomplete metropolises are regional, and in the second case they are national.

This recent world-wide phenomenon in underdeveloped countries has particular characteristics in Latin America. In Black Africa, the total participation of cities in a world-wide economic and urban system is recent. In Asia, those relations are older, but if the action of the world economic system almost immediately transformed the ports, it induced important qualitative transformations of space much later. In Latin America, where colonization has been everywhere synonymous with modernization and urbanization, the first impact of the world system led to organization or reorganization of space according to the needs and requirements of the European centre system. Moreover, every change in the historical system had immediate repercussions in the urban system of Latin America. Thus we find a number of reorganizational influences, of which the impact point is

not always the same in time. Such a variety of situations therefore demands a complex analysis. The incomplete metropolis appears clearly, yet with a shade of difference, in countries like Colombia, Mexico, Brazil and Venezuela.

iii - GUADALAJARA, an urban growth based on demographic growth and food production agriculture

The evolution of Guadalajara, whose population is over 1 million (1.3 millions), can be schematically divided into four periods:

1) the period before the revolution of regional consumption--from the end of the 18th century till the end of the 19th century;

2) the period between the beginning of this century and 1930;

3) the period between 1930 and 1960;

4) the period after 1960.

In a general way, the growth of Guadalajara can be explained during the first 3 periods by the close relations maintained between the city and its region; the city being a commercial and service centre, as well as a small and middle manufacturing centre (Moreno Toscano, 1971), the region living basically on a food-producing agriculture. The fourth is an industrializing period for Guadalajara, and part of the corresponding production has distant markets.

Between the end of the 18th century and the end of the 19th century, the city had a hibernation period. The population grew very slowly.² Guadalajara at that time was unable to carry out any efficient action for its region--the city was nothing but a relay point. Surplus capital resulting from the production of its countryside was exported in order to finance imports, or was kept frozen in the town, most of the time without any productive utilization. So there was no change, neither for the city, nor for the countryside.

Guadalajara used to exist quite isolated from the rest of the country--railways only reached it in about 1920, so it was able to organize its own road network before the transportation revolution. After the first modern transportation means had reached the city, non-modern transportation continued to serve its region. For this reason Guadalajara could obtain exclusive possession of trade with quite a

vast region.³

The growth in urban population at the beginning of this century had important consequences.⁴ It explains in some measure the transformations of the urban economy. The city's isolation promoted the establishment of new industries and the creation of public, administrative and social services, such as a University and Regional Post Office. At the same time, the number of professionals was getting relatively high. All these services attracted temporarily or permanently rural people and the new urbanites helped to guarantee a certain volume of consumption and promote new investments, especially in the construction industries.

As Guadalajara remained isolated from the rest of the country, the accumulation of capital from the countryside was mostly invested in city activities. The abundance of manpower favoured the establishment of new manufacturing enterprises. The capital benefits of trade were also invested in small and medium sized manufacturing production; and so the city had the opportunity, thanks to an exclusively internal propulsion, to amass again an important amount of capital and to thaw the savings which had been previously accumulated without being productively employed.

Between 1930 and 1960 the urban population multiplied by four. This population growth increased the demand for food in the region, thus promoting technical evolution in the countryside.⁵

This obviously helped to improve the standard of living in the countryside and quickened rural exodus. The urban population growth had positive overall effects because coincidentally a public works policy in the city created an important number of jobs for the unskilled new migrants. Therefore rural people arriving in town had a greater possibility of finding a job.⁶ They played a catalytic role in the countryside because they became consumers which again increased the incomes of rural people and made the creation of new activities in the city possible.⁷

When the present period started, the city and the countryside were already living in close exchange which made them grow reciprocally. This period is characterized by industrial expansion realized with local, national and foreign capital, which took advantage of modern transportation--1955 - 1,688 km of roads, 1000 being asphalted; 1965 - 3,096 km of roads, 2000 being asphalted--and of other infrastructure worked out previously or recently demanded by

the population. It also takes advantage of cheap manpower. Among these industries, many are modern "capital intensive" industries, external market oriented.

However, Guadalajara is an example of an incomplete metropolitan city turned toward the other metropolises of the country: Mexico City and Monterrey.

iv - MEDELLIN: early industrialization
based on a commercial culture

In the case of Guadalajara, we saw how a food-producing culture (non-industrial), associated with an increase in the urban and regional population, could explain, until recently, the economic growth of a city.

In the case of Medellín (1,100,000 inhabitants in 1969), with which we are going to deal now, economic expansion has run parallel to demographic expansion. But can we say that there is a cause and effect relationship between demographic growth and economic growth?

Unlike Guadalajara, the region of Medellín based its economic activity on mining activities and one commercial product for export, coffee (Herrero, 1970). The trade services and even a part of the crops were concentrated in the city. Medellín took advantage of its relative proximity to the coast. A railway connected the town with an inland port from where the goods were shipped to the maritime port.

The result of such a trade system, with so many middlemen, was the concentration of surplus in the hands of the merchants of the cities, but mainly those of Medellín, where the big merchants and banks were. In the countryside salaries were low, peasant consumption was small and the demographic explosion happened only in the forties. Under these conditions there was little change, as a situation of relative balance was maintained. The city still had limited dimensions: 12,600 inhabitants in 1825 and 65,500 inhabitants in 1912. The relative isolation of the city--in relation to the other regions of the country, and even in relation to its own region--was a factor of industrial growth between the beginning of the century and the year 1930. Besides, the increase of coffee revenues intervened as did the growth of an urban "bourgeoisie" which took advantage of culture, the coffee trade, and the possibility of establishing industries based on outdated technology. The first world war was also a positive factor, for the conflict intensified the regional and national isolation.

From the thirties, other factors must be considered to explain the continuous industrial growth in Medellín. First, there were international factors such as the world economic crisis which reduced the coffee market: also there were local factors such as the decrease of mining activity in the region, and the over-utilization of coffee soils surrounding the city. The available capital--in the same way as in São Paulo--was applied to industry, for it could not be invested elsewhere. For the same reasons foreign capital came to Medellín. Along with the capital came a certain number of European people who made possible, as in South Brazil, the creation of new activities.

Another important factor was the concentration of regional population in the Aburra Valley, where Medellín is settled.⁹ Industry took advantage of this rural influx, which offered cheap manpower. Wages in the coffee plantations and in other agricultural areas were low. The urban population, not being very large, did not bring pressure on food demand and prices, so the industrial growth took advantage both of stable food prices and the arrival of rural migrants. In effect, the intensification of the rural influx contributed to a continuous degradation of the urban work market.

These conditions determined a double orientation in the industrial growth of the city. The road network was neither sufficient nor important enough (Hagen, 1962, p. 361), thus the railroad kept the greatest part of the traffic and Medellín took advantage of the relative proximity of the port to create certain kinds of urban industries. On the other hand big industries, opening to an extra regional market, could be set up thanks to the large supply of cheap manpower, as in the case, for example, of the textile enterprise called *Fabricato*.

The following developments were also consequential:

World War II encouraged industrialization and the post-war period benefited the most important firms.

Big local industries were not dependent on local markets for most of their input and output.¹⁰

Because of the lack of external economies the enterprises had to create them for themselves, this vertical integration giving rise to oligopolies which became oriented to distant markets and more and more independent from the region.

There is a very strong contrast between the fast growth of industries turned toward extra-local markets and the much

slower growth of urban industries more connected with local markets.

The growth of the big industries went on with the increasing participation of foreign capital; the industrial financing was more and more exogenous.¹¹ Consequently a good part of the regional formation of capital was exported.

It has often been stated that in underdeveloped countries, big industrial cities have a positive effect on their countryside. Can we say that Medellín is the opposite example, that is to say, it is a big industrial city doing nothing or almost nothing to ameliorate the economic conditions of its region?

In the Medellín region, agriculture is declining, using only 3.2% of the land. The regional food production is insufficient. The city has to import food for its direct consumption and as raw materials for its food industries. Consequently this competition aggravates the conditions of local production, which have already been weakened. Even the poor population consumes imported products, the poor food commercial circuit being supplied by big import firms and industries.

One of the reasons for this situation can be easily found in the wage policies of the big industrial firms. A worker's salary is composed of two parts: one of them is called "benefits", in Spanish "prestaciones sociales". This gives several advantages, such as housing, school, medical care, cooperative, recreational structures, etc. These advantages are allowed to the worker only during the time he is in service of the firm, in order to tie the worker to this enterprise. Benefits represented 25% of the salaries in 1960, 35% in 1962, 34% in 1964 and 38% in 1966. The share varies with the type of industry, going from 17% in the furniture industry to 54% in the tobacco industry. This kind of policy concerns mostly the modern capital intensive industries.¹² The corresponding economic repercussions are important because the work market is regulated not by the global salary of the big industrial workers, but by the difference between this salary and the "prestaciones sociales". Such a policy of low wages has negative repercussions upon the growth possibilities of the "urban" industries, because the salarial mass does not increase at the same rate as the production, and also upon the countryside because the impact of the city impulse is not strong enough. Finally, because the countryside does not receive sufficient impulse, the urban market does not get any feedback.

v - SALVADOR: a modern externally-oriented industrialization

Salvador or Bahia, capital of the State of Bahia and former capital of Brazil, has nearly 1,200,000 inhabitants. Taking advantage of its large population, of its State capital administration, of its resident landlord class and of its port, it was able to start a process of industrialization as early as the end of the last century, as other Brazilian cities of equal importance did.

Two facts, however, weakened the industrial possibilities of the city:

1) The national integration process, carried out through the achievement of a road and railroad network and through the elimination of taxes which used to inhibit trade among the States.

2) The advantage taken by São Paulo of the infrastructures set up for the production and trade of coffee, of a helpful social structure, of the possibilities opened up by the immigrated population and its consumption habits.

São Paulo will soon surpass Rio de Janeiro in importance and will become the economic capital of the country. The historical regional metropolises such as Salvador start to be dependent upon São Paulo industrial supplies and so decrease their relationship with foreign countries. The relative national integration lessens the chances of the industrialization of Salvador, but the quick population growth creates good conditions for a new industrial impulse, linked to the consumption revolution in the Third World. (Oil exploitation and its infrastructure, the new jobs so created, are essential to understand the new industrial possibilities of the city).

At the beginning of the 60's a new factor intervened, namely the creation of SUDENE (Superintendencia do Desenvolvimento do Nordeste). The plan was to attract all kinds of capital, national or foreign, to be invested in the North East. An important income-tax reduction was granted under the condition that the corresponding amount would be invested in a new activity. State banks could complete the investment.

The State of Bahia got ready to take advantage of this situation and an industrial district was settled beside the city of Salvador. However, attracted by these new conditions, big national and international firms came and settled independently of the local market and often created activities oriented towards exports.

Salvador has become in this way an incomplete metropolis twice over: it is unable to produce all that its region needs and is growing to depend upon fabrications from the core of the country, as well as being unable to consume some of the output of its industry. Its urban economy is becoming dependent upon extra-local interests.

vi - The Case of Venezuela:
fast but late industrialization

Among the modern countries in Latin America, Venezuela has been the last one to modernize on a national scale. This modernization, started in the years 1940-1950, was very fast, coming with quickened urbanization¹³ and with space organization by means of modern transportation and communications. The country, which had depended till 1950 on external supplies, even for food, was also able to start, late in the fifties, a fast process of import-substitution both in the agricultural and industrial fields.

The result of all this was a large decrease in rural population and an outside-oriented industrialization, established in a few cities of the Central Region (Caracas, Maracay, Valencia, Puerto Cabello, La Guaira and some other satellite centres) and also in Ciudad Guayana,¹⁴ the modern steel mill complex created some years ago. In other parts of the country there is tertiary urbanization. The large public and private capital and the transportation facilities existing in Venezuela induced certain regions to specialize in modern agricultural as well as industrial activities. Local conditions determined the type and also the level of such activities.

Such regional specialization may increase the inter-regional flows, but weakens the regional cities so that they are unable to command their modern economies directly. In the Andes region geography and a long isolation allowed the cities to maintain close relations with the surrounding regions (Caminos, Chuecos, González Cruz, Valbuena). Otherwise, most of the cities in the country have overall central activities which are linked with manufacturing activities limited to sectors in which the Central Region is not interested, or which take advantage of distance, or the necessity for immediate accessibility by the local populations. The importance of these industries corresponds to the volume of the regional population and their purchasing power.

How far is this type of space organization a conse-

quence of the particular location of big industries in the only central region of the country?

From our point of view, we have to seek the causes in the way in which Venezuela achieved its modernization, thanks to oil. The recent but rapid modernization upset the consumption structure within a few years, very quickly increasing the demand for manufactured goods. Because modernization happened very late, the manufacturing of those goods demanded important economies of scale and indivisibilities. This made the establishment of some monopolistic or oligopolistic industries easy; many among them produce under their installed capacity but dispose of the price-control.

Ciudad Guayana is a special case. This city has not made a great impact on the country and an important part of its production is exported. In such a country, where transportation is easy and cheap because of the excellent conditions of interurban roads and the low price of gasoline, the tendency develops for some enterprises to grow beyond their logical level, preventing others from appearing.

Because these enterprises dictate or impose administrative prices, most of them are not interested in developing the market; this has negative repercussions on the total national economy, because the corresponding decrease in consumption induces reduction of employment and global production.

Furthermore, many of these industries are not integrated with each other nor with the local economies. They have to seek technology, know-how, raw materials and often capital and manpower abroad. That is why the propulsive region of Venezuela (Caracas, Maracay, Valencia, etc.) (Chaves, 1963) forms a national incomplete metropolis, with repercussions on national space characteristic of the historical conditions of the country's modernization. Ciudad Guayana is only a point of growth but not a pole of development. The non-articulate modern economy limits its possibilities of self-sustained growth.

vii - Towards a Conclusion

What conclusions can we offer? To make broad statements it would be necessary to deal with many more examples. However, we can already raise some issues about the incomplete metropolis in the underdeveloped world, from the Latin American case.

- Are the complete metropolises (the only ones which are capable of having some positive action upon the national space and economy) a privilege of countries whose industrialization started before the first world war?

- Historically, is the relative isolation of an important city a factor in industrialization whenever the city has the possibility of accumulating a surplus?

- Is urban growth, based upon an agriculture producing for internal consumption, a factor of regional growth and a means of avoiding the formation of monopolies among industries working for regional consumption at the time the city starts its industrialization?

- Does the time-lag in regional or national industrialization always lead to the formation of monopolistic or oligopolistic industries?

- Must a strong but monopolistic industry in a city turn out to be a stoppage factor in regional growth?

- Do the existence of monopolistic and oligopolistic industrial organizations cause particular forms of spatial organization associated with incomplete metropolises acting with "systole" effect as well as the complete metropolises acting with a "diastole" effect?

Obviously all those questions cannot be answered without the understanding of historical factors--historical in a world-wide as well as a local sense. The time-lag between the different variables (modernization, demographic revolution, equipment, industrialization) fixes in each case different combinations inducing the different types of incomplete metropolises. For example, if the policy of public works in Guadalajara had happened 10 years later, the consequences would not have been the same.

The study of these few cases certainly does not dispose of the question, but we have tried to set off a certain number of variables which would allow us to reach a provisory conclusion and framework. Points of similarity as well as points of differences appear for all the metropolises in Latin America and in the Third World in general.

1) As a common point we have important urban tertiarization. Without doubt, these incomplete metropolises dispose of a certain level of equipment and are able to

attract capital for investment in modern activities; but on the other hand, they receive an enormous volume of an illiterate and unskilled population which facilitates the increase of activities of the so-called "primitive tertiary" (Beaujeu-Garnier, 1965) or "refuge tertiary" (D. Lambert, 1965), and of manufacturing activities that we could call "primitive secondary" (Santos 1971), giving rise to the phenomenon of the two circuits of urban economies in the Third World (Santos, 1971, 1975, McGee, 1970).

2) As points of differences, we have:

- Differences in the levels and forms of industrialization; that is to say, in the categories of production and in the forms of organization of production.

- Geographical differences in the places in which the incomplete metropolis seeks its complement. It can be either in the country itself or abroad. Economical, social and spatial consequences will follow.

- Differences in the role played by the State in the location of infrastructure and in the protection given to certain kinds of economic activities.

- Lastly, we can distinguish between the types of relations between the incomplete metropolis and its region.

The examples we have presented already permit us to judge these differences. We are now going to try and present some explanations.

The phenomenon of incomplete metropolises finds its explanation in the elements of international history, national history and regional history, the two latter groups of factors depending upon the first one and the third upon the second one. There is, then, a kind of hierarchy of causes.

International causes are indicated by the way the country or the region got into modernizations and industrialization. The time at which it took place is crucial: Results can differ completely, for instance, between a country which started its process of import-substitution before the second World War, or after.

In the first case, industrialization by import-substitution could be worked out through a technology less

coercing than it is nowadays, sometimes out of date and with limited means. Complex infrastructures were not necessary. As transportation infrastructure is inarticulate, it is impossible to speak about a national market. There are only industries linked to their regional market and whose isolation prevents any possibility of competition.

The need to expand the market determines a fall in prices inducing an increase in consumption, and therefore, an increase in production and employment, resulting in an increase and multiplication of production activities (Furtado, 1968, pp. 31-32). We can speak then of an ascendent growth, but the levels of manufacturing and the manufactured quantities increase according to the regional facilities.

First, the advantages of which the city or its region disposes are not a cause of polarization so long as the integration of the territory by means of transportation has not been carried out. But its present superiority already creates conditions for the corresponding city to become the economic metropolis of the country. Variations occur depending on whether the colonial history of the country permitted the existence of several regions and the corresponding regional capitals all looking to the "mother country", as in Brazil, or of only one region and one city, as in Argentina. But the result is all the same: the fostering of the creation of a complete metropolis and several incomplete metropolises.

The Colombian situation could be compared with that of Brazil, but with one essential difference: the city which was the first to get enough power to command the national life and become the economic metropolis of the whole country, was unable to organize the national space. The conditions of traffic in a mountainous country, as well as the conditions of regional agricultural activities prevented the creation of a market. Besides, because of the conditions of the industrial activity of Medellín, this city was not able to become an impulse-centre for its own region. Having missed its industrialization, Colombia is in the odd situation of having several incomplete metropolises and not one complete metropolis.

If the process of industrialization started after the second World War, the resulting situation is quite different for it had to take into account the technological progress serving the big industrial units. At first, it happens frequently that the impact of progress from developed countries manifests itself in the settlement of economic

and social infrastructures: development of transportation and communications, as well as accelerated diffusion of information and innovations. All this is a factor of people mobility. But because of the new economies of scale, the firms settle in the same area, creating a double concentration of modern activities and of people. As industrialization is late, industrial integration is more difficult, and the country becomes more and more dependent upon external inputs. This new organization of production brings about the existence of monopolies and oligopolies, and the high prices linked to them (Adelman, 1966, p. 49), which contributes to the narrowing of the market (Griffin, 1971, p. 6; Hattner, 1971, pp. 8-9). The possibility of creating new industrial activities mostly depends upon their behaviour. We could speak in this case of a descendent growth.

Without doubt, the new conditions of industrialization are common both to underdeveloped countries already industrialized and to those whose process of industrialization is incipient. But the essential economical and geographical difference in the effects is given by the conditions of entry of the monopolistic forms of production. In the countries which recently started their industrialization process, the prices-game, the conditions of the market and the organization of transportation and communications make the concentrations easier and reduce the diffusion possibilities either of the monopolies or middle-sized firms in the rest of the country. Even agricultural activities tend to concentrate around the core. With regard to countries whose process of industrialization started earlier, the existing structure obliges the monopolistic activity to adapt itself.¹⁶ This affords, for a great number of productions, the coexistence of firms with different levels of technology and of organization. Moreover, the production of capital-goods in the core of the country can facilitate the creation of new industries in cities from the former period and already having a certain importance.

At an economic and geographical level we can add that complete metropolises give a "diastole" effect, while incomplete metropolises provoke a "systole" effect: complete metropolises spread their forces throughout a large part of the country, while incomplete metropolises tend to aggravate a situation of concentration. But its potential depends partly upon the national and regional conditions. The present situations of Guadalajara and Medellín show how important the regional conditions are in the characterization

of cities, in spite of the dependence upon international conditions (Spelt 1970, p. 270).

So we can repeat that urbanization in underdeveloped countries, considering the large cities in general, results from a link between historical conditions of world activity (Santos, 1971b) and conditions of local life. The action of the national State is the essential expression of this link. If this action did not exist, the situation of colonization would obviate the whole topic of industrialization in these countries. But its existence is a condition of an economic policy which modifies the original relations between production factors, spatial distribution of infrastructures and the structure of industrial and agricultural activities.

NOTES

1. This issue has been studied at length in my book Les Villes du Tiers Monde, M. Th. Genin, Paris, 1971. See also in this volume the chapter on "Brazil, an Industrialized and Underdeveloped Country".
2. There were 50,000 inhabitants in 1793, 84,000 in 1895. During the same period, the population of Mexico City grew at a rate 3 times faster.
3. This made it possible for Guadalajara to amass capital, partly used in the creation of manufacturing activities, when the region started to follow modern consumption patterns.
4. The growth of the urban population at the beginning of this century has important consequences. Since the end of the last century, the population started to increase more rapidly:

1895:	84,000
1900:	101,000
1910:	119,000
1921:	143,000
1930:	180,000

That means a population growth rate 4 times higher than that of the last century.

5. Between 1950 and 1960 the cultivated surface increased 4.3% while the irrigated surface increased 10%. Between 1954 and 1958 the fertilizer consumption rose 143%, going from 14,000 to 34,000 tons. The number

of mechanical machines (tractors, etc.) went from 9.766 to 12.451 between 1952 and 1958.

Concerning corn culture, if we take the index 100 for the year 1952, in 1957 indices were:

- 157 for the cultivated surface
- 188 for the volume of crops (harvest)
- 316 for the value of the production.

6. Between 1950 and 1962 the urban population increased 219% while the working urban population increased 222%.
7. An important source of jobs has been public works started principally from the year 1950, which made the dispersion of poor and middle classes possible as well as service centres inside the city. This dispersion of small and medium services and trades stimulates a multiplication of employment and so rural people arriving in town have more possibilities of finding a job.
8. In 1963, the city exported 60 million "pesos" to other cities and regions and imported 281 million. In 1966, the figures were 100 and 400 million. At this moment the proportion is changing in favour of Guadalajara because of the industrialization of the city.
9. This Valley included 15.2% of the population of Antioquia State in 1910, 17% in 1928 and 19.6% in 1938.
10. Toward 1967, 19% of the value of the raw materials and intermediate goods used by the Medellin industries were imported, and those imported inputs were 9.3% of the gross value of the industrial production.
11.

1960	11% exogenous capital
1961	21.3%
1962	18.2%
1963	32.6%
1964	34%
12.

Beverages	48%	Non electric machines	33%
Tobacco	54%	Chemical products	30%
Rubber	50%	Printing ind.	28%
Metals	52%	Clothes	26%
Textile	42%	Transportation equipment	22%
Food	30%	Furniture	17%

13. By 1890 Caracas had only 72,429 inhabitants and Maracaibo 34,770. By 1920, no Venezuelan city had reached a 100,000 inhabitants. The 6 largest cities in the country only represented 6% of the country's total population.
14. With regard to Ciudad Guayana, please see the interesting critical study of F. Travieso, "Ciudad-Guayana: ¿Polo de desarrollo?", Cuadernos de la Sociedad Venezolana de Planificación, Nos. 92-93, Sept-Oct. 1971.

BIBLIOGRAPHY

- Armstrong, W. R. and McGee, T. G., "Revolutionary Change and the Third World City", Civilisations XVIII, No. 3, 1968, pp. 353-378.
- Bela Balassa, The Theory of Economic Integration, Homewood, Illinois: Richard D. Irwin, Inc., 1961.
- Baran, P. A. and Sweeney, F. M., Le Capitalisme monopoliste, Paris: Editions Maspéro, 1968, (French translation of Monopoly Capital, New York: Monthly Review Press, 1966).
- Bataillon, C., Las zonas suburbanas de la Ciudad de México, Mexico City: Universidad Nacional Autónoma de México, 1968.
- Bauer, F. T., West African Trade: A study of Competition, Oligopoly and Monopoly in a Changing Economy, Cambridge: Cambridge University Press, 1954.
- Beaujeu-Garnier, J., Trois milliards d'hommes, Paris: Hachette, 1965.
- Berry, B. J., Theories of Urban Location, Association of American Geographers, Resource Paper No. 1, 1968.
- Boeke, J. H., Economics and Economic Policy of Dual Societies, as Exemplified by Indonesia, Haarlem: H. D. Tjeenk Willink and Zoon N. V., 1953.
- Boudeville, J., Les Espaces économiques, Paris: Presses Universitaires de France, 1961 (1^o édition), 1964 (2^o édition).
- Caplovitz, D., The Poor Pay More, Consumer Practices of Low Income Families, New York - London: The Free Press of Glencoe, Collier-MacMillan Ltd., 1963.
- Dasgupta, S., "Underemployment and Dualism, a Note", Economic Development and Cultural Change, Vol. XII, No. 2, January 1964, pp. 174-185.
- Denis, P. Y., "La Structure Urbaine en République Argentine: le Cas de Buenos Ayres", Cahiers de Géographie de Québec, onzième année, No. 22, April 1967, pp. 43-53.
- Eckaus, R. S., "Factor Proportions Problems in Underdeveloped Areas", American Economic Review, Vol. XLV, No. 4 Sept. 1955, pp. 539-565.
- Federici, J. L., Tarifas, entradas y gastos de la empresa de ferrocarriles del Estado de Chile, Santiago: Instituto de Economía, Universidad de Chile, 1965.
- Frakenhoff, C., "Economic Activities", in Improvement of Slums and Uncontrolled Settlements, New York: United Nations, 1971, pp. 127-149.
- Frankmann, M. J., Rapid Urbanization in Latin America: A Key to Development, Montreal: McGill University, Nov. 1970 (mimeog. 13 pp.).
- Friedmann, J., Regional Development Policy, A Case Study of Venezuela, Boston: MIT Press, 1966.
- Furtado, C., Um Projeto para o Brasil, Rio de Janeiro: Editora Saga, 1968.
- Grove, D. and Hussar, L., The Towns of Ghana, the Role of Service Centres in Regional Planning, Accra: Ghana Universities Press, 1964.
- Hagen, E. E., On the Theory of Social Change, Homewood, Illinois: The Dorsey Press, 1962.
- Havens, A. E. and Flinn, W. L., Internal Colonialism and Structural Change in Colombia, New York: Praeger Publishers, 1970.
- Herkommer, S., "Planeación regional de transportes", Revista de la Escuela de Contabilidad, Economía y Administración, Guadalajara, Mexico, Vol. XVIII, No. 70, Abril 1966.
- Johnson, E. A., The Organization of Space in Developing Countries, Harvard University Press, 1970.
- Jouvin, J. J., "Le Rôle des transports dans l'intégration économique de l'Amérique Latine", Cahiers des Amériques Latines, 1968, No. 1, pp. 30-56.
- Kar, N. R., "The Economic Character of the Metropolitan Sphere of Influence of Calcutta", The Geographical Review of India, No. 2, 1963, pp. 108-138.
- Kayser, B., "Les Divisions de l'espace géographique dans les pays sous-développés", Annales de Géographie, Vol. LXXV, No. 412, Nov-Dec., 1966, pp. 686-697.

- Lambert, D., "L'Urbanisation accélérée de l'Amérique Latine et la formation d'un secteur tertiaire refuge", Civilisations XV, Nos. 2, 3 and 4, 1965, pp. 158-174, 309-325, 477-492.
- Lean, W., Economics of Land Use Planning: Urban and Regional, London: The Estate Gazette Limited, 1969.
- Marrama, Vittorio, Política económica de los países sub-desarrollados, Versión española de Justo Fernández Buján, Madrid: Aguilar, 1961.
- Mason, E. S., "Monopolistic Competition and the Growth Process in Less Developed Countries: Chamberlin and the Schumpeterian Dimension", in Robert E. Kuenne, Monopolistic Competition Theory: Studies in Impact, New York: John Wiley, Sons Inc., 1967, Chap. IV, pp. 77-104.
- McGee, T. G., Dualism in the Asian City: The Implications for City and Regional Planning, Hong Kong: University of Hong Kong, Centre of Asian Studies, Reprint Series No. 2, 1970.
- The Urbanization Process in the Third World, London: Bell and Sons, 1971.
- McKee, D. L. and Leahy, W., "Urbanization, Dualism and Disparities in Regional Economic Development", Land Economics, vol. XLVI, No. 1, Feb. 1970(a), pp. 82-85.
- McKee, D. L. and Leahy, W., "Intra-Urban Dualism in Developing Economies", Land Economics, vol. XLVI, No. 4, Nov. 1970(b), pp. 486-489.
- Messner, J., "L'Entrepreneur propriétaire", in F. Bloch-Lainé et F. Perroux L'Entreprise et l'Economie du XX^e siècle, Paris: Presses Universitaires de France, 1966, pp. 241-256.
- Morse, R., A Framework for Latin American Urban History, New Haven: Yale University, 1971(a), mimeog. 58 pp.
- "Latin American Cities in the 19th Century: Approaches and Tentative Generalizations", in R. Morse, The Urban Development of Latin America 1750-1920, Centre for Latin American Studies, Stanford University, 1971(b), pp. 1-21.

- Myint, H., "Economic Theory and the Underdeveloped Countries", Journal of Political Economy, Vol. LXXIII, No. 5, Oct. 1965, pp. 477-491.
- Niemeyer Pinheiro, A. M. de, La Problématique des conditions de travail des travailleurs urbains d'origine rurale dans les métropoles brésiliennes dans la phase actuelle de l'industrialisation, Paris: Université de Paris I, Institut de Géographie, 1971 (dact. 49 pp.)
- Rajagopalan, The Greater Bombay: A Study in Urban Ecology, Bombay: Popular Book Depot, 1962.
- Ridell, J. B., The Spatial Dynamics of Modernization in Sierra Leone, Evanston: Northwestern University Press, 1970.
- Rivkin, M. D., Regional Development in Turkey, Cambridge, Massachusetts: MIT Press, 1964.
- Salles, M. L. B., Système de production et organisation de l'espace en région périphérique: le cas de l'état de São Paulo, Mémoire de Doctorat, Institut d'Etude du Développement Economique et Social, Université de Paris, 1971 (mimeog. 149 pp.)
- Santos, M., "Une Nouvelle dimension dans l'étude des réseaux urbains dans les pays sous-développés", Annales de Géographie, Vol. LXXIX, No. 434, Juillet-Août, 1970(a), pp. 425-445.
- Les Deux circuits de l'économie urbaine des pays sous-développés, Document de Travail, Institut d'Etudes du Développement Economique et Social, Université de Paris, 1970(b).
- "L'Economie pauvre des villes des pays sous-développés", Les Cahiers d'Outre-Mer, Tome XXIV, No. 9, 1971(a), pp. 105-122.
- Les Villes du Tiers Monde, Paris: Editions M. Th. Genin, Librairies Techniques, 1971(b).
- "Dimensions temporelles et systèmes spatiaux dans les pays du Tiers Monde", in M. Santos (ed.) Modernisations et espace dérivés, Paris: Revue Tiers Monde, Presses Universitaires de France, 1972.
- The Shared Space, London: Methuen, 1975.

- Santos, M., L'Espace partagé, Paris: M. Th. Genie, 1975.
- Sorre, M., L'Homme sur la terre, Paris: Hachette, 1961.
- Spelt, Jacob, "Towns and Umlands", in A Geography of Urban Places, ed. R. G. Putnam et al., Toronto: Methuen, 1970, pp. 270-276.
- Uchendu, V. C., "Some Principles of Haggling in Peasant Markets", Economic Development and Cultural Change, Vol. 16, No. 1, Oct. 1967, pp. 37-50.