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A MARXIST APPROACH
TO URBAN GROUND RENT

THE CASE OF FRANCE

par

Alain LIPIETZ

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The purpose of this paper is to present to the international public the outcome of a research which started in the early 70's within the context of the French Housing Ministry (1). At that time and for a 20 years period, France had experienced an unprecedented industrial and urban growth and the urban question became a major issue. The tools of main-stream economics were proving themselves ineffective and even deceitful. Hence a tolerance developed for non-orthodox and even marxist theories (2).

Nowadays the economic crisis has moved the urban ground question to the background, as the oil rent problem has become a burning issue. On the other hand, the phenomena related to urban landed property carry the trade-mark of the specific social formation in which they intervene. Thus, the present study cannot be transferred to other industrialized countries without great precaution. Our purpose is simply to show to what degree the marxist theory of agricultural ground rent can be useful for our understanding of the laws of urban ground prices, provided that it not be naively transferred word for word (3).

The first section is devoted to a critique of the main-stream approach ; the second outlines the theory of what we will call "Urban Ground Tribute" ; the third section studies this tribute's sources and the fourth analyzes its variations in space and time.

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* I thank Ricardo Hausmann for his help in the translation, yet I assume the responsibility for the result.

I - METHODOLOGICAL QUESTIONS.

A - EMPIRICISM

At the time, a first approach was in favor of : watching, comparing, measuring. It seemed legitimate. Computers made the task easier. They could "digest" large quantities of data related to the sample's features. And they produced the following law : "The price of land is equal to $1/8$ the product of the cost-price per square meter of surface and of the urban occupation coefficient" (DUTAILLY (1970)).

The scientific sterility of this method, if we take it as the only "positive" one, is evident : it does not teach us anything about an explanation, it only reflects the effects of contingent conditions imposing themselves through permanent mechanisms over which the theory has nothing to say. Moreover, we know nothing about the conditions of validity of such a law, neither do we, *a fortiori* learn anything about the ways of modifying it. This law gives us a picture, "a quiet reflection of the world of *phenomena*" (HEGEL). However our interest is on the *essence*, and we have to explain the phenomenon by means of *concepts* coherent with those which have permitted us to illuminate other aspects of reality. Therefore we have to start from a theoretical framework and test its relevance for the particular field under study.

B - MARGINALISM.

Most theories of urban land prices are influenced by the "dominant theory" : marginalism. They approach urban land as a "good in itself", desirable by the consumer because of its usefulness.

Let us not study the mathematical problems raised by the introduction into the generalequilibrium theory of this good which besides quantity and price possesses another quality : location. We will look mainly into the epistemological basis of this approach.

For these theories, the land value is based on the utility of locating one's housing in such or such a plot (in fact : at this or that distance from the center). Land being a scarce good, it is thus subject to the theory of "optimal allocation of scarce ressources".

The optimum to be accomplished is a distributional one. Since the stock is fixed, the optimum depends only on the "utility function" in the user's mind. For WINGO (1964) and MAYER (1965) the trade-off is limited to a reduction in the generalized transportation cost of the home-job trajectory : a minor aspect but which has the credit of being measurable. ALONSO (1964), in a more cautious way, makes utility dependent on the distance and the plot's area, without specifying the shape of this function which can have extremely varied outcomes, depending on the "elasticities of substitution". MAAREK's model (1964) gives to empirical data the task of specifying the function's parameters.

The theories have the shortcomings of the marginalist school, over-emphasized for the case of "distributional optima". They are theoretically based on psychology regarded as the irreducible root. To develop the numerical model we need, in addition, to suppose a particularly productivist psychology (WINGO) or else either stay in uncertainty (ALONSO), or fall back into empiricism (MAAREK).

The most bothering feature of this approach is that it implicitly or explicitly (MAYER) involves a separation between the price of the building and that of its plot, as if one could freely combine them "à la carte".

However, "urban land" is never demanded *for itself* but for the *insertion* that it allows, when it is at one's *disposal*, in the sphere of economic and social relations. In a social formation, this possibility of disposing of land expresses itself in some legal manner (ownership, leasing...) which can give rise to a transaction but *a transaction which relates* (and this is the essential point) *not only to abstract land, but to a particular access granted within the economic and social sphere, by the legal claim over a given plot.*

Now, in capitalist social formations, to speak of a particular situation implies mainly (but not only) to speak of a particular situation with respect to the general movement of capital.

We are thus brought to leave the heaven of "utility functions" imbedded in the citizens' minds, in order to anchor ourselves on the concrete ground which is subject to competition between capitals in their attempt to valorize themselves. More precisely we will study urban land prices insofar as it relates to the *capitalist production of housing (C.P.H.)*.

The problem, then, presents itself in the following way : To understand how the access to the legal claim on land is priced as a condition for the valorization of capital. Now, this legal claim is in possession of *landowners* who can therefore levy a "*tribute*" on the circulation of capital. For the case of agriculture, the laws which govern this tribute were analyzed by K. MARX (4), basing himself on (but also correcting) D. RICARDO. Provided we do not attempt simply to transfer this analysis (which was left by the author as a very rough draft), we can use it for the study of the urban ground problem.

II - TOWARDS A THEORY OF URBAN GROUND TRIBUTE :

In order to study land prices as a tribute levied by landed property on the process of capitalist production and circulation, it is imperative to address two preliminary questions : what is produced ? which capital is set in motion ? This seems evident. Yet, numerous marxists miss this point and ask a different and wrong question : "where is the rent ?". As far as we are concerned, we will stick to the principle : start from production.

Suddenly, things do not appear as simple anymore. What is in fact produced when housing is built ? A shelter ? Not only.

A - THE BUILT ENVIRONMENT AS A PRODUCT.

While wheat in Marx's and Ricardo's fields was a simple product satisfying a precise social need with minor qualitative modulations and merely susceptible to variations in yield per acre or in its transportation cost, the dialectic between product and need and the multiple articulation of the "instances" must be taken into account in the consideration of the "products" that spring on urban ground.

First of all, land is "urban" only insofar as it is the base of Urban Society which is the dominant lifestyle of the capitalist mode.

This agglomeration is a rigid and constraining structure, it is not a functional organization but it is the manifestation in space of the mode of Production in the context of a historical determined social formation. Just as capitalist "Civil Society" is immediately an antagonistic confrontation of social classes, so too the urban agglomeration is a deployment of the Economic and Social Division of Space (ESDS).

1 - The Economic and Social Division of Space.

The Economic and Social Division of Space is the spatial effect on the agents' practice and on the structure of their lifestyle of the totality of the social formation's structure (with its past). It reflects the effect of all instances (economic, political, ideological) and therefore it will not let itself be reduced into some economistic and mechanistic model. Nevertheless, the reality of its own presence in urban practices powerfully contributes to the maintenance of the social formation while exacerbating its contradictions. Particularly, "the value of the home-job trip" will not be the variable which commands the modulation of land price, but instead, the location within the ESDS, which is an infinitely more complex determination.

The Economic Division of Labor which prevails at the level of productive forces and relations of production reappears in the Economic Division of Space in the distribution of factories, offices and housing. The Social Division of Labor which lies at the level of social relations of production reappears in the Social Division of Space : here lives the employer, there the engineers, there the workers.

The constitution of the SDS is very complex phenomenon. It is first made possible and determined in its spatial form by the state of the urban transportation system. It is then confirmed by the differentiated treatment given by urban administrations (public equipments). This is an immediate consequence of the dominant class's preferences. But it is also a feedback of urban aspects over economic ones : rich neighborhoods welcome only rich buildings, "public consumption of Space" can only be done over a less expensive lands. Moreover, the SDS is socially and consciously wanted : the most typical case is that of racial segregation, the arrival of blacks workers making middle class whites move out. The SDS is also the object of a specific political practice. Urban planning becomes a strategic element in the maintenance of order : this "police urbanism" being clear in the Paris of Hausmann. The SDS is finally reaffirmed legally and administratively by "zoning" decisions.

All these indications do not pretend to constitute the theoretical notion of the ESDS. They simply attempt to throw enough stones at the pond that reflects the peaceful image of a radiocentric city inhabited by homogenous wage-earning citizens who sensibly weigh the substitutability of their precious time and money. Behind the "map of land prices", we have to read the geological map of the economic and social uses of urban land.

Inside and around the city, we thus have a series of users, ranked in a decreasing order of ability to pay for location : the superior tertiary (banks, high level trade), housing (ranked by their user's income), industry and finally agriculture. Again this classification articulates with the reality of geographical disposition "already given" by numerous determinations.

And what about the public use of urban space ? There is where we have to approach the concrete production conditions of the built environment : one thing is to consider a private capitalist who uses land as a way to produce a good (housing) or as a way to valorize his capital (a factory or a store), another thing is when the Political Power, whose function is that of assuring the maintenance of social cohesion, intervenes by creating the general conditions of social reproduction, constructing roads or the necessary public buildings. In any area where it operates, the urban ground tribute that will have to be paid will not be determined in an endogenous manner by its own activity but only by the prevailing use in that particular area.

Therefore we will hold that public use of land does not create a specific form of urban ground tribute other than the one provoked by the private use that it induces. If we temporarily put aside the dominant but less important special case of the superior tertiary use, we are brought back to the problem of land use by Housing Production which is the principal element of the built environment.

2 - The Housing-Product : A special commodity.

We can analyze a commodity in two different ways : as a necessity to be satisfied, as a product to be sold. The line of reasoning which starts from needs is dangerous and may be even mystifying in a social formation ruled by the Capitalist Mode of Production, where the aim of production is the growth of capital. This growth is, of course, subjected to the realizability condition : in order for something to have exchange-value, it must also have a use-value. But it is capital which, from the set of possible needs and desires, chooses those which are profitable to satisfy.

Nevertheless, housing cannot be thought of as just another commodity, for two reasons :

- Housing, even when it is reduced to a simple den, is an essential element in the reproduction of the labor force : it therefore affects its value as a commodity.

- Private Housing is the "structuring pole" of consumption in the frame of capitalist urban society. It is around and through housing that "household consumption" is organized and modulated so that it regulates the growth rate of expanded reproduction, schemes.

It is through an average type of housing more than through the myth of equal access to Elementary School that the belief of Social homogeneity in "Civil Society" imposes itself to antagonistic classes

This aspect of the role of housing has become crucial since, after World War II and in all industrial countries, the "intensive accumulation scheme" has become generalized. It was based on very fast productivity gains and on mass consumption (automobiles, household appliances) (5).

This is why the den, which was characteristic of primitive accumulation has been progressively substituted, since the turn of the century, (in France mostly since the Second World War) by a homogenous model of housing, slightly variable in its technical characteristics (ordering, service qualities), therefore barely variable in its construction cost per unit of area. Thus, it is a good whose production cost is relatively invariable which is offered to a set of social layers whose purchasing power may vary from 1 to 10.

Now we have to bring together these two results :

- The Social and Economic Division of Space is a given that cannot be confined only to economic considerations. Instead, it can be considered as a given for urbanisation practice which nevertheless conduces to its modification. As for the habitat, it is geographically much differentiated by income level ;

- Housing production provides a homogenous product to a demand which is itself highly differentiated in income groups.

Now, what is sold is not the building-good but the housing-good, that is, a building localized very specifically in the E.S.D.S.

It is in the lag between what is produced and what is sold that later we will find one of the several origins of Urban Ground Tribute. But before we must deal with the question : Who (which capital) produces housing, and how ?

B - HOUSING CAPITALIST PRODUCTION :

Who produces built environment and, particularly, housing ?

This question has produced much confusion and is the origin of numerous misunderstandings. We have therefore, to vigorously underline this obvious fact : the built environment is the product of the activity of construction firms, the same as cars are produced by automobile firms and a nation's armements by arms manufacturing firms. We have to add that all construction firms in France are private. Therefore, at least formally, the built environment in France is entirely produced in capitalist conditions.

Nevertheless, there is an important difference with other products of capital : in France generally, money-capital which is intended to turn through the production process into a good, house or road, is not initially in the hands of capitalist contractors (the "maîtres d'oeuvres"). It is not their property. This capital is in the hands of "maîtres d'ouvrages" or "promoters".

It is here that we have to bring up the basic distinction developed by C. Bettelheim [1975] between "property" and "possession".

It is known that the capitalist production process is the unity of two processes : a labor process (setting in motion productive forces : labor resources and materials, human labor force, in view of the actual production of use-values) and a valorization process (an engagement of capital in view of its growth by surplus-value extraction). We speak of possession to designate the relation to the production unit of the agent who dominates the labor process, who "sets into motion the productive force", and of property to designate the agent which dominates the valorization process, that is to say, the one who has the power to affect labor to a particular activity and to dispose of its product.

In the capitalist mode of production, where the valorization process dominates and informs labor process, the agent who dominates the valorization process also dominates the production process ; he is therefore the real owner, even if he is not the legal owner (as in the case of a promoter who uses a loan).

In the present conditions of Capitalist Housing Production in France, there is a separation between the property of capital which circulates productively in the C.H.P., which we will call "promotional capital", and this capital's possession in the production process, which is in the hands of construction firms, building entrepreneurs.

There are two reasons for this :

- the purchaser's lack of solvency : it is therefore necessary that a pre-financer advances the money capital to the entrepreneur and then transfer the housing-good to a capitalist (it may be himself) who will act as creditor in opposition to the user.

- and specially the landed property problems.

In France, landed property is, after the Revolution of 1789, scattered through all social groups. One of the conditions of Housing Production escapes therefore from the scope of any firm's production. No capital can produce it, because a "building site" is not a product, but the inscription in space of numerous social relations. On the other hand, as many sociological studies have shown, the landowners, those who legally dispose of land, are generally not ready to get rid of it, no matter what economic advantages they would obtain. To get a free plot is usually beyond the scope of the building entrepreneur.

Thus, housing production is not only to engage capital into a building activity, it is to "set up a promotional program" where capital circulates under the maîtres d'ouvrage's property through the maître d'oeuvre's possession.

It is the role of the promoter to advance the money to "buy" the right to build from the land owner, to advance the circulating capital put at the contractor's disposal, to pay the fixed capital (which is anyway the contractor's property), to manage the stock of housing until its final sale. Such is the rotation cycle of promotional capital. The building firm appears then as a "sub-contractor" of a formal firm : the promoting firm. The necessity to liberate each time a piece of land to reengage the reproduction cycle of construction capital and to find a new partner each time, brings the building firm to limit the use of fixed capital which it is not sure to be able to pay for regularly. The firm will as well try to maximize the part of circulant capital (specially wages) since it will be advanced by the promoter.

These reasons causes the organic composition of capital to be weaker in the construction industry than in other industrial branches. Now, the marxist theory of value shows that, in the case of such a branch, a relatively higher surplus value is produced (in comparison with the engaged capital) than in other branches.

As for "promotionnal capitals", they constitute a rather complex system (TOPALOV [1970]) that will not be studied here, because this system varies too much from one country to another, from one time to another. It compounds private capitals of very different origines and magnitudes, obeying to various logics, and public aids and loans, aiming to cope for the uneven access of households to housing.

But we know enough to enter into the heart of the matter.

C) THE RISE OF THE URBAN LAND TRIBUTE.

Let's imagine a capitalist aiming to collect a profit by engaging his capital in housing production. To simplify we will suppose he is a "builder", that is both promoter and contractor at the same time, and that he intends to appropriate an "average profit" determined by industrial activity as a whole. He knows that in a certain place within the Social Division of Space he will be able to sell at a particular price. An obstacle to the operation : he doesn't dispose of the land. He therefore has to enter into a legal relation with the urban owner. The differences with Marx's farmer are evident when the question is posed in these terms.

* While wheat production process is reproduced from year to year with an ancestral regularity, housing production takes place for a few months and it wont be reengaged on the same building site for many years! So the ground tribute does not take the form of a regular rent, as in this case of agriculture, but it is a rather definitive transaction (except for the concession case) : the sale of the building site. Therefore, land prices are not, unlike the agricultural case, the capitalization of a rent. It is the land tribute itself, it is the form which reveals the social relations between the owner and the promotor (the barter of the right of land disposition against a part of his profit), disguizing it at the same time under the aspect of the purchase of an economic good (6).

* While it is easy to measure (with balances) the quantitative differences of harvests in different pieces of land, the difference between two housing products in two different points of the SDS is qualitative. Hence, the differences in "productivity" between building sites don't have purely "physical economic" origin but depend also on the sale price of housing assigned to different points in the SDS (which is, let us recall, an effect of the totality of the social formation).

The land prices nature appears clearer now. When the promoter "buys" a building site, he doesn't advance his capital in the same manner as when he buys materials, machines, labor force. In fact the "land capital" doesn't exist. What the promoter is buying is a legal right, extra-economical, which he doesn't pay as a part of his productive capital, but as an advance on the surplus profit he expects to make with respect to the average profit that he reserves to himself. This is why land prices don't exist by themselves, but are created by the promoter's activities which give land a determined use : so it may be multiplied on the same spot in a few years.

Let's summarize : The Urban Land Tribute is the part of surplus-profit which, for various reasons, promotional capital capture in Housing Capitalist Production and that the land owner is able to appropriate..

We say that the land owner "is able to" because the promoter's ability consists in leaving the owner ignorant of the potentialities of his piece of land !

It remains to be known why there is, globally, a surplus profit in housing capitalist production, and what modulates this surplus profit and the land tribute from site to site and from year to year.

III - WHERE DOES THE LAND TRIBUTE COME FROM ?

Why is there a surplus profit and how is it modulated ?

Economists generally don't put the question in these terms. In fact we will see that the question is rather formal. If we proceed in this way, it is to distinguish ourselves from prevalent concepts that appear to us as false, and to introduce two different groups of concepts.

A - THE LAND TRIBUTE'S STRUCTURE ACCORDING TO MARX, ENGELS AND THE MARGINALISTS.

1°) Marx's and Engel's position.

Marx distinguished two types of rent :

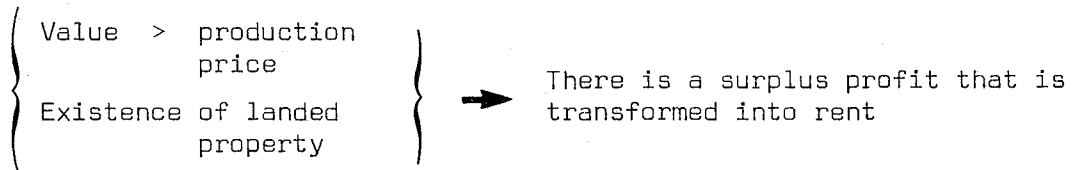
- That which is based on the relation between each plot and the worst cultivated plot : it is the surplus profit made by the farms which utilize the more fertile and the better located plots (Differential Rents of type I). It is also the difference of surplus profits per acre according to the unequal distribution of capital over the plots (Differential Rents of type II). These differential Rents (D.R.) are not due to the existence of landed property, but the latter is able to appropriate them
- Those which are levied even on the worst plot, as a pure tribute of landed property on capital. It is the absolute rent (A.R.). Total Rent (T.R.) paid on any plot is then of the form :

$$T.R. = A.R. + \sum D.R.$$

Then Marx asks the question (Capital, T. VIII, p.142) :

"Does absolute rent enter in the price as a tax perceived not by the State but by the land owner, that is to say, as an element independent of the value" ? Of course, rent is fixed by economic conditions (competition, effective demand). How about its origin ? Who pays the rent ? Where is the value produced, the part of surplus-value which is paid to the landowner ?

Marx begins by pointing out that rent can be compatible with the theory of value, i.e. that wheat can in fact be sold at its value paying profit and rent at the same time. It is possible if the surplus-value created by waged workers in agriculture exceeds the quantity sufficient to grant the average profit to capitalist farmers. We know that when it is so in other branches, the profit rate is leveled by an affluence of new capitals which compete between themselves. Then relative prices are no more regulated by exchange value, but a system which is a "transformation" of the system of values, the one of "production prices" (7). Here, landed property prevents the functioning of this mechanism, and the surplus over the average profit is used to pay the rent. We thus have,



This reasoning is a logical order, which defines the limits of ground rent in the frame of the labour theory of value. It is neither the real nor the genealogical order of the appearance of ground rent.

Marx immediatly makes an overturn of the terms p.146) :

"Due to the blockage caused by the Landed Property, the market price should rise sufficiently so as to allow the plot to pay a surplus over the production price, that is to say, a rent. But, according to the hypothesis, as the value of goods produced by agricultural capital is superior to their production price, this rent, except for a case of which we'll talk later, is composed of the total or partial surplus of the value over production price".

In short, this is just fine ! In the agricultural area, where it is necessary to pay a rent, value is above the price of production. As a matter of fact, the presence of the Landed Property has clearly played, in agriculture, the part of a restraint on capital accumulation, therefore imposing "technologically" a surplus of labor-value over the price of production.

But it is not necessarily so, (we can think of rent in oil countries). Marx knows it well, and contemplates another source of land rent : the surplus profit obtained from the sale of a good, whose price is fixed as a "monopoly price", determined neither by the price of production nor by the value, but by the demand and ability to pay of the buyer. What this means is that the monopoly on land reflects itself in the transitory scarcity of a commodity (wheat, housing) which, by raising the "cost of living", forces industrialists to subsidize the nobility through the workers salary. It is the battle between Whigs and Tories concerning the monopoly on wheat.

How about housing ? Marx dedicates only one sentence to the subject by refering to the "absolute predominance of monopoly rent".

As for ENGELS [1969], he is emphatic : the rent which housing owners

appropriate (in addition to amortization and construction profits) is "a cheat" ; and "as soon as a certain average amount of cheating becomes a rule in any place, it inevitably has to find in the long run a salary increase as a compensation".

He thus refers to Marx's monopoly rent and not to the difference production price-value.

2°) A critique to Marx and Engels position.

Here we would like first to challenge the « $AR + \Sigma D.R.$ » structure. For it is not enough to explain the sources of absolute rent ! The same problem concerns differential rent.

It is known that Marx's theory holds that the market price oscillates around the price of production (cost price + average profit) obtained in average social conditions of production. Now, this theory of differential tribute assumes that the base of the market price is the price of production imposed by the worst production conditions for wheat. So, the sum of profits and differential rents in total production of wheat exceeds the product "total engaged capital X average profit rate". In any case, and even without absolute rent, it is necessary to foresee a total surplus profit (in relation to the price of production), obtained in the sale of wheat, to pay for the differential land rents !

We are in the first place induced to ask a question : "What is the source of the surplus profit which pays urban rent" (and more generally the tribute), that is : "where does the excess value brought into play by the realization of land-related production comes from" ? And then : "what makes surplus profit per acre different in one place or another" ?

Thus, the structure of price is not :

$$T.R. = AR + \Sigma D.R.$$

$$\text{but : } T.R. = AR \pm \Sigma D.R.$$

the "absolute rent" being not the rent (or the tribute) on the worst spot, but the medium one, so that the regulating price is determined by adding cost + average profit + average tribute, the "differential tribute" being only differentiation of tribute.

Of course, the problem of the origine of the average tribute remains, just alike the problem of the "absolute rent" in Marx. Here is the second critic we would address to Marx. If the tribute is to be paid with surplus-value "not equalized" through competition of capitals (because of the existence of landed property), this surplus-value could have been produced either within the branch (if value \geq cost + mean profit) or outside (if value < cost + mean profit). Thus the dictinction between "absolute rent" in Marx's sense and "monopoly rent" is rather irrelevant (8) as we can see when computing the regulating price by the algorithm of transformation with unicity of the rate of profit and of the tribute per acre (LIPIETZ [1979b]). Anyway, we shall have :

"sum of profit + sum of rents : sum of surplus-value", but the surplus-value has no smell nor taste, and one can't say : "This tribute in building production comes from the very production of buildings" ! Yet, there is the problem of producing this part of surplus-value and devoting it to land property : that is what we call the sources of tribute.

The taske now is to create two groups of concepts :

- the sources of tribute, that is, the set of social relations which exist between the capital invested in building, agriculture or any other activity related to ground's disposition, and land property, these social relations being expressed by different forms (ground price, rent) of land tribute ;

- the modulation of the tribute by the articulation, with these relations, of other relations or practices of promoters, users, of the State, etc., articulations which cause various types of tribute's differentiations which, will be designated by the term of differential tribute.

3°) Marginalist's position.

It is interesting to note that the marginalist school explicitly acknowledge a structure of ground price similar to that of Marx :

- We know the city's radius R (determined by its density and its population).

- We derive from its inhabitant's "satisfaction functions" a differential equation which expresses in all points the marginal variation that they are willing to pay in order to come closer to the city center. It is a kind of situation differential tribute at a distance r from the city center.

- We have then to solve a Dirichlet differential problem, ie, it is necessary to know the ground price at the city's periphery, P_R .

Therefore we have a structure similar to that of Marx :

$$P_r = P_R + \int_R^r \frac{dp}{dx} dx$$

We can compare this metric structure to that of a volcanic island (Mayer [1965]) : above a certain level given exogenously at the periphery, the islands altitude increases regularly towards the center according to laws concerning the equilibrium of slopes.

As far as the "absolute tribute" P_R is concerned, its estimation varies according to differents authors :

* $P_R = 0$, an evidently unrealistic position of Maarek [1964] which builds its city in a sands desert.

* $P_R = a$ (price of agricultural ground)

This is Alonso's position ; it is also that of Adam Smith which Marx takes up without much examination in Capital : agriculture being the predominant use of land, the housing absolute rent is the total tribute paid at the periphery of the city.

$$* P.R. = \begin{cases} a + b + c + d & \text{within the city} \\ a + c & \text{at the outside} \end{cases}$$

It is Mayer's proposition. b is the viabilization cost, c an "anticipation rent", d is a "scarcity rent" on constructible plots. The "volcanic island" will no more rise smoothly above sea level, but it will rise at once, with a discontinuity, the "Mayer Threshold" $c + d$, and it will produce waves, which we do not know how they damp out to reach a (the agricultural price).

It is useless to criticize theoretically this position since we don't agree even with Marx's position with regard to the structure of land prices that it implies, given our former criticism of the "psychologistic" conception of urban price modulation.

Once tested out, this conception clashes with noted contradictory examples :

- The econometric adjustment made for Nantes has given unstable coefficients with "distance", (what proves that "the value of time" is not the same for everybody and that it is necessary to take into consideration at least the social stratification), with "orientation" (which shows that the social typology of central districts of the city tends to spread towards the outskirts) and with time (what shows that ground prices depends on the general economic conjuncture).

- Above all, P. Vieille's study [1970] on Teheran shows that land prices are higher on uncultivated stony fields located north of residential districts, than on more fertile lands located South, where the poor districts are.

We are thus brought to think that land prices are determined from the center toward the outskirts, the possible urban use entering in competition with the real agricultural use, and being able to bring about a greater land tribute by itself.

Therefore we have to think not of the "volcanic model" but rather of the "alpin model"; with the rise of a granitic core pushing waves all around.

B. THE STRUCTURATION OF LAND TRIBUTE BY PROMOTIONAL SYSTEM.

In order to specify this idea, we have to deal with relations and practices which intervene in a concrete domain, ie, through and in the frame of an already given system, functioning as a whole which specifies the elements from its relations. This domain is that of the functioning of the System of Promotional Capitals, more particularly in its confrontation with urban property but under the constraints that imposes on it the state of the widened circulation system of social capital, and that of solvent demand.

The "heart" of the theory of urban land tribute is that each use of the land brings about its specific tribute in each specific situation. The problem then is : How is the land tribute fixed for a use ? and how are the uses of land distributed ?

In the first place, let us remember that the hierarchy of the Economic and Social Division of Space is dominated by the superior tertiary, which we can admit brings about a tribute corresponding to particular relations, and which is superior to that brought out by housing.

On the other hand, agricultural use creates its own tribute which is generally inferior to that of housing.

The surface requested for housing is determined by the mass of capitals invested in building, these capitals being divided into submarkets by the level of public aid, and thus requiring different rates of profit. This mass and these rates are determined by the conjunctural situation of the circulation of social capital : general rate of profit in industrial sector, rate of interest, volume of free capital, monetary policy, and so on.

The real-estate submarkets are defined by the confrontation of the previous promotional system and the structure of solvent demand (the revenues of various social classes). They compete for the occupation of the pre-existing E.S.D.S. The hierarchy of these submarkets fixes the order of priority for the occupation of spots, from High Tertiary to Social Housing.

The sell-price that can be sustained by the user on one market entails the theoretical surplus-profits for the promotor, and the difference between this surplus-profit and the average profit entails the tribute that the promotor will accept to pay to the land-owner in exchange of the access to the spot. Thus, it is eventually the use of the land that settles its price.

Thus, we can say that it is not because land prices increase that housing prices do : on the contrary, it is the rising purchasing power of the ruling classes which proceeds to certain neighbourhoods which makes land prices increase.

Finally, the Administration confronted to the presense of promoters, owners and users, carries out the investment and fixes the land occupancy rules. The Urban Land Tribute per unit of capital determined by the previous mechanisms is then transformed into a Tribute per unit of area. This is how land prices per square meter are finally fixed.

It is evident that at this point the system "loops" : this outcome can in turn modify the state of the construction developing system etc. With regard to the "edge" problem between two uses of land (in the E.S.D.S.), it has to be approached under a dynamic angle, for exemple by means of logistical curves.

This is the way land prices pattern is determined. Now, we know that this Urban Tribute is a part of social surplus-value. Where does this surplus-value comes ?

C. THE SOURCES OF LAND TRIBUTE.

Reading the latter, one can recall Marx's judgement over "monopoly" urban rent : "Urban owners make others pay for the right to inhabit the land". It is actually the first "source" of urban rent which Engels worked out : thus we will call it "Tribute à la Engels". But there is another one, related to that evoked by Marx in the Agricultural case : "Tribute à la Marx".

1°) Tribute à la Engels.

It is clear that the land tribute's structuration gives a great importance to the purchasing power of middle and superior classes; it is also necessary to recognize that what is implicated in this case is not so much "the right to inhabit the land" but the right to not cohabit with anybody !

What is then the social relation that is tied up ?

It is the relation between the capitalist class globally taken (with its vassal classes) and urban property.

This tribute is actually a redistribution of social surplus-value, which "transits" first under the form of strongly skewed revenues, and then, through the selection of a place in the Social Division of Space (which is itself very segregated whereas the construction price does not fluctuate much), is partially transferred to the parasitic layer of urban owners.

In Marx and Engel's time, it was mainly this social relation which was concerning housing for all social classes : the middle-bourgeois class of urban landowners could, due to the rural exodus and to the mediocrity of dens, easily extort a "Tribute à la Engels" from the working class. This would raise the cost

of labor power, levying a share of the surplus value extracted in the industrial world as a whole. This secondary contradiction within ruling classes (between "productive" capitalism and "parasitic" urban property) turns out little by little in capital's favor (1923 and 1948 laws), but still keeps a noteworthy importance in France, given in archaic social structures.

The Tribut à la Engels, particularly, is and will be the principal source, the "womb" of differential tribut linked to the Social Division of Space. For, contrary to the case of wheat farming where differential rent is directly quantifiable (and this is not so in the case of great vintages !), the difference between housing is qualitative and it only becomes quantifiable through the structure of differentiated solvencies of different social classes.

2. The tribute à la Marx.

During the sixties, in France, housing "producers" tended to become increasingly powerful users of periurban land, thus moving the housing crisis from a quantitative scheme to a qualitative one. Their goal was then to transform housing into a good free from monopoly rent, ie, into a product subject to autonomous feasibility conditions (in comparison to the general circulation of social capital). We could say : without "abnormal" transfert of surplus value from one sector to another.

Now, we have shown (2d part) that construction is precisely one branch where the ratio "surplus-value/engaged productive capital" exceeds the average ratio.

And this is not more of a coincidence than in the agricultural case. Due to its already mentioned "preindustrial" nature, not only the organic composition of capital in house building is, as we have seen, rather low, but also the exploitation rate in this sector is, in France and for connected reasons, higher than elsewhere.

We detect here, a new contradiction, this time between the urban owners interests and that of the "big builders" : the need to set aside a part of the surplus value to the tribut foncier prevents intensive accumulation of capital, industrialization in the building sector.

The concerned big firms draw a logical conclusion from this : "The search for building sites and their first arrangements exceeds widely builder's duties, from both the financial and regulational point of view. It is thus just as abnormal to ask this builder to furnish his plot, than to ask an automobile producer to furnish the road. The solution seems to be a formula similar to the present "ready-to-build" one, where the arranged plot will be furnished by the Administration and will be set at the disposal of a producer, which will be in charge of the design-realization tasks, in the frame of a Key-in-hand type project" (9).

3. Interest and limits of the distinction between the two different sources of tribute.

We have up to here voluntarily sticked to the somewhat "naive" way in which Marx and Engels presented the problem of the land Tribute's "sources". As if the created value was a liquid substance, springing up from social labor into different branches of production, and distributed afterwards in the various revenues. We could then follow the trail of each "molecule of value" as with a radioactive tracer, from its creation till its absorbtion... Thus, the land tribute "à la marx" would distinguish itself by the fact that it would be value created in the construction industry which would fall into the ground owner's pocket, while in the case of the tribute "à la Engels" this value could have been produced in any branch !

Actually, the link between the distributed income and created value is more global and more fuzzy. The same way we say in French "money doesn't have smell", the same way, circulating value doesn't remember its origins. Since it is all the social labor which is subject to the abstraction of price mechanisms, the part due to the land owner doesn't come more particularly from the capitalist production carried out in his plot, than from any other. The fact that the value created in his plot is superior (as on the case of housing, agriculture) or not (oil case) to the production price doesn't change anything. In a sence, every tribute is then a Tribute "à la Engels", a part of total amount of social surplus value granted to land property.

The laws which determine this tribute's level are not the same as the ones which determine the surplus value level. Whereas the latter are concealed to the eyes of the economical agents, and will only appear through theoretical analysis of the capitalist society's "anatomy", the first ones are the subject of negotiations, contracts, public regulations, and even of international treaties (10). Nevertheless, at a general level, the famous "marxian equations" remain perfectly verified no matter what has been said about it (see note 7).

If we chose unities such as :

sum of added values = sum of net products prices,

then : sum of surplus value = sum of profits and rents.

If this is so, what is the advantage in distinguishing "tribute à la Marx" from "tribute à la Engels" ? Actually, behind the critiquable hydraulic analogy, those authors were trying to detect where does the social existence of ground ownership makes an impact in the capitalist accumulation cycle. In the case of "Tribute à la Engels" the articulation takes place only at the circulation's level. When speaking of "Tribute à la Marx", one tries to point out (as we have sketched in the section II-B) that the existence of ground ownerships exerts its effect down to the production process level.

We get from this some really different types of antagonism or alliance between the distinct fractions of the industrial and financial bourgeoisie, and the various types of land owners (11). We are able to distinguish (Lipietz [1974]) the different types of land reforms that have been proposed in France during the last fifty years, assailing in different ways both sources of the land tribute, corresponding to distinct social contradictions, seeking for different class alliances.

IV. MODULATIONS AND VARIATIONS OF THE LAND TRIBUTE

From our position, if we have shown how a specific use of ground brings about a land tribute, and if we have shown what its sources are, what relations link capital and urban ownership, then we are still to account for the modulation in the space of this tribute, and its variations with time (we will only consider here the land tribute brought about by housing capitalist production).

If this section, according to custom, we keep the term "differential tribute" to designate the inequality of tributes provoked by the diversity of forms and conditions of the valorization of capital. Let's simply remember that, for us, this tribute doesn't miraculously "adds" itself to a hypothetical "absolute tribute" determined somewhere else by another use. Again for simplification purpose, we will talk of "tribute" to name the surplus profit even when it is not actually paid to the urban owner, as for instance when the promoter "fools" the owner with regard to the potentialities of his plot.

We can first study the tribute's modulation in space. It arises from the articulation of basic social relations which determine the land tribute's sources with the local differentiation of the practises of the concerned economical agents. Now, these practises are very different if we talk about wheat production or about housing ! Hence the vanity of attempts to transfer term by term the already not very specific marxian concepts of "differential rent of fertility", "situation",...

We are driven, to a basic distinction between two types of differential tributes : those which are independent from the promoter's autonomous (private) practices (we can call then "exogenous") and those which depend on the promoter's practices ("endogenous").

A. EXOGENOUS DIFFERENTIAL TRIBUTES.

An exogenous differential tribute can exist when the surplus profit on invested capital is not only limited but also is determined by conditions due to the site's properties.

In the case of housing, a first type of differentiation is introduced by the conditions given to the labour process, i.e. by problems encountered by the building process, conditions which sometimes can be "physical" but generally are social : presence of old diggings, of more or less strengthened grounds, of ancient buildings to be erased (we can add to this "the cost of reaccommodation" of former users, cost in money and in wasted time on immobilized capital).

We will name this type of differentiation : differential tribute of constructibility. It modulates surplus profit at the level of cost price.

A second type of differentiation (and it is the most important) is obviously... the Economical and Social Division of Space. From the moment it is inscribed, stabilized over the map, even recently, even as a "project" every single limited operation (i.e. which doesn't modify this ESDE) is under the obligation of paying to the land property at least the tribute brought about by the locally prevailing use : and it can do it because it is precisely the solvency of the social category of final users which is the source of this type of tribute. Otherwise the tribute linked to the situation in the ESDE is, with regard to its nature, to the underlying social relations, a tribute à la Engels.

We can notice here the removal of the ambiguity introduced by the use of expressions such as "tribute brought about by such an use of ground". It is not the promotor's fancy that, by his choice, determines the price of ground. It is the Social Division of Space, globally determined, at the scale of the whole social formation, from the city's past, which, in the frame of the middle-term functioning of the "Promotional System", practically imposes itself to the promotor. It dictates to him such valorization process that will produce the possibility of such land tribute.

The mechanism of differential tribute of social situation is precisely the economical operator (but there exist others) which stabilizes the E.S.D.S., by assuring the suitability of the social status of the produced housing to the social status of the neighbourhood.

It remains that the objective bases of the E.S.D.E. (quality of streets, of general architecture, illumination, transport services, neighbourhood services) can be produced by human labor, by a massive investment of private or public capital. Thus we approach the "endogenous differential tribute" problem.

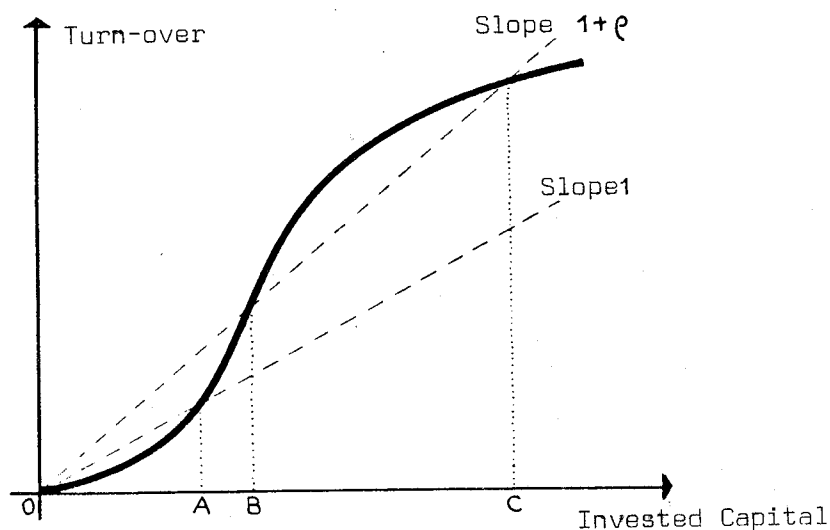
C. ENDOGENOUS DIFFERENTIAL TRIBUTES.

We won't extend ourselves over the "extensive endogenous differential tribute", the one by which, over two equal plots "equally located", a promoter will accept to pay a tribute twice as high if he can produce and sell twice as many housing !

We shall insist nevertheless on this point : the regulation of the "Ground Occupancy Coefficient" intervenes as a limite to the promoter's autonomy, but the tribute is actually brought about by the action of the capitalist-promotor itself. Yet, once the legal G.O.C. is known, the land owner will naturally demand the maximum tribute consistent with the G.O.C. and the situation in the E.S.D.S. (12).

We will persist longer over the "intensive differential tribute", i.e., the one where the surplus profit rate depends on the level of invested capital. As a matter of fact, it is more or less always the case, but the concept's relevance is particularly clear in the case of a massive change in the use of ground : from agricultural use to housing (urbanization), or making of a "in" neighbourhood out of a "lumpen" one (renovation).

Let's take the urbanization case. The agricultural capital integrated to the ground is no more considered of any value. It is necessary to invest first in the primary roads and various networks (water, electricity, etc...), then in the secondary networks, then in the first buildings... The cash-flow is first null, then fastly increasing, then decreasing with the number of floors : and such is the rate of return on invested capital. The following graph allows us to compare the turn-over to the cost price and to the average profit (of rate ρ) :



OA : heavy investments are built but there are few inhabitants to pay them. Only public funds can take up this level of urbanization.

AB : sold houses can cover the costs, but the density is too weak to bring the average profit.

BC : private capital makes a surplus profit.

We can see that the rate of profit of marginal outlay is strongly function of the level of global investment. Hence the level of tribute depends on the mass of invested capital.

This is the reason why a highly sophisticated set of forms of public regulation and financing has been set up in France (for instance about the responsibilities for the financing of the primary network), in order to give to the private building capitals the opportunities to invest directly at the level of the rentable domain BC. Other regulation has been edicted in order to prohibit the land owners from appropriating the intensive endogenous land tribute corresponding to huge investment of public or private capitals on their spot (13).

D - VARIATION OF LAND TRIBUTE.

The variation shows two aspects : a general aspect (average price movements of urban grounds) and a local one. After World War II these movements were generally directed upwards. This allows a commercial game, not purely speculative, which consists in buying for reselling after the rising, pocketing a "land surplus-value".

1° - General variation of land tribute.

The land tribute can grow because the total profit increases in the productions related to the ground, or because the average profit rate decreases.

This second term expresses the saturation in capitals of the system of expanded circulation of capital, due to a tendencial decline of the profit rates, to overproduction crises, or to other reasons (return of colonial capitals...).

The first term is hardly due to an increase of the "tribute à la Marx" (industrialization). On the other hand, urban development immediately makes appear a differential tribute of social situation over all plots previously urbanized, financed by the middle classes more and more forced to pay the price of centrality (tribute à la Engels).

Finally, let's recall (but it is trivial) that capital incorporation (particularly public one) in ground increases its price as well as densification does.

2°) Local variation of land tribute.

By definition, it is a question of differential tribute. It can be due to :

- a variation of extensive endogenous tribute, limited by the legal G.O.C. variation, for example the removal of a construction ban ;

- a variation in the social use, which can be the consequence of an action of the promoter himself, of some public action of development (creation of a primary network), or of a move in "l'air du temps" (eg. : the lofts in N.Y.). According to the case, we can talk of intensive endogenous tribute variations (variation of marginal surplus profit carried out over the housing once the infrastructure is modified) or we can talk of an exogenous variation in the E.S.D.S.

3 - The so-called land surplus-value.

We have assumed until now that surplus profit falls into the urban land owner's pocket. Obviously it is not the general case.

- A speculator (etymology : someone who waits and observes) can buy a plot according to the land tribute corresponding to the initial use (e.g. agricultural) and resell it to a promoter according to the subsequent local tribute.

- A promoter can carry out the same operation and make in the construction a surplus profit which doesn't completely transform itself into land tribute.

These two operations are not equivalent. Both are allowed out of the land owner's ignorance concerning its plot's possibilities. Nevertheless the pure speculator only "waits" that society produces in his plot's vicinity the increase of the land tribute, while the promoter is, at least partly, this society's direct agent, changing by his investment the use of ground.

We call "land surplus-value" the difference between the plot's purchasing price, and the land tribute corresponding to the final use.

This surplus-value is not related to the marxist meaning of the term, it doesn't correspond to any "added value". But the term (in french) is prevalent enough for us to adopt it.

Surplus value can be the object, on the part of the "intermediate owner" (speculator or promoter), of an active appropriation (if it brings about, by his investments, the local variation of the land tribute) or of a passive one (if he only takes advantage of the local or general variation of the land tribute),

CONCLUSION

What do we get from such a theory ? What do we get from this heavy conceptual apparatus ?

First a representation of reality matchlessly finer, a capacity of integration and explanation of facts and figures without common measure with Mayer' or Alonso's models (let alone the epistemological status of these models).

But is the theory "operative" ? It will be necessary first to know what is the meaning of it.

Is it a question of giving a model which allows to calculate, from some features of a plot, its average price ? We can first notice that Alonso-Mayer type models can not do it. Anyway, it is clear that a theory can not act directly as an operative model, no more in economics than in solid mechanics. But the theory give us the components of the model which remains to be constructed :

- In a general way, ground price depends on the average profit rate and on the solvency of social classes, on the pugnacity of land owners...

- locally it depends on the "residential level", on the constructability costs, on the G.O.C....

Mainly, the theory shows us in which direction such or such exogenous actions or data will make the ground prices move, how that will mixe up with current social practices and patterns. The theory can then be interpreted in two different ways.

From Sirius's viewpoint, which is that of the academic research inspiring this paper, it allows to interpret in a surprisingly fine way the evolution of french bourgeoisie's politics (14).

From the normative viewpoint it will allow, we hope, to avoid the loose debates over the respective credits of such or such fiscal, regulational or financial measure which, by only intervening on a unique type of tribute, can not resolve by itself the urban problem.

Alain LIPIETZ

FOOT NOTES

- 1) The main developments of the issues presented in this paper are to be found in LIPIETZ [1974].
- 2) This "tolerance" was far from being complete. The first publication of the present theory had to be published under a false name (JUILLET [1971]).
- 3) A application to the case of oil rent could be found in Lipietz [1974], and mainly in HAUSMANN [1981].
- 4) These analyses are to be found in Capital, Book III, and Theorie of Surplus-Value (about Ricardo). Both of these books remained as drafts when Marx died, and many contradictions remain between these texts.
- 5) In the 70's several french scholars (e.g AGLIETTA [1979], CORIAT [1979], LIPIETZ [1979A]) emphasized the specificity of this regime of accumulation, and called it "fordism" (according to an old insight of GRAMSCI). The role of housing in post-war french fordism is very peculiar : though the new standard of housing was necessary for fordism to develop, house building in itself failed to be involved in the trend of productivity borne along by fordist processes of production. On the constricted logics of motor car and building industries, see LAFONT, LEBORGNE, LIPIETZ [1980].
- 6) This oddness of a part of the surplus-product which appears as an element of the production costs had confused even P. SRAFFA [1960]. Hence the inconsistencies of his chapter on rent, noted by several scholars. For an analyse of these inconsistencies, see LIPIETZ [1980B].
- 7) There has been a lot of arguing about the results of this transformation, because the "standard" solution of the problem (SETON-OKISHIO-MORISHIMA) exhibited some paradoxal results. A closer examination of this standard solution, plus the discovery of a new solution by DUMENIL, FOLEY and LIPIETZ made clear the following (see LIPIETZ [1982]). Everything depends on the definition which is adopted for the value of labour-power. If it is the "value of the commodities purchased through wages", then the value of the commodities purchased through profits equals the total surplus-value.

If, instead, we take the value of labour-power to be the portion of the value added which is assigned to wages, then the sum of profits equals the sum of surplus-value. (These sums relate only to the net product). This last theorem has been extended to the case of fixed capital and rent in Lipietz [1979B].

8) Anyway, the word "monopoly" invades Marx's texts about rent (see Capital, vol VIID:

- * The land property, as a social relation, is from the beginning a "monopoly on defined parts of the earth" (p.8), just as capitalist class could be defined by a monopoly on the means of production. So any land rent is a monopoly rent.

- * Even in the case where "absolute rent + capitalist profit \leq surplus-value", the price of the product is not defined only by the condition of capitalist production, but also by a bargain between the user, willing and able to pay for a plot, and the land owner, able to levy a tribute or to forbid the use of the plot, no competition of capitals being able to raise this barrier. So this price is also a monopoly price, as Marx admits (p.146) : "But, whenever the absolute rent would be equal to the totality or only to a part of the excess (of value on price of production), the price of the agricultural product would be a monopoly price, because it would be above the production price".

Moreover, "though land property is able to bring the price above the production price, it is not itself, but the market conditions, that will define up to what point the market price will approach the value and by-pass the production price".

So the existence of land property is the cause of the rent, but not the determinant of its magnitude. The quantity "value minus price of production" is of no relevance at all. There is no difference in Marx between "absolute rent" and "monopoly rent", either as a concept or as a practical mechanism. The only difference could be perceived in national accounting ! Yet there is an idea in this distinction, that we shall catch as "tribute à la Marx".

9) That was the answer of M. Pagezy, top manager at the group St Gobain-Pont-à-Mousson, to an inquiry on the industrialization of building activity.

10) On the distinction between this two kinds of laws, see HAUSMANN and LIPIETZ [1983]

11) For instance, as far as tribute is "à la Engels", there is a community of interests between land owners and capitalists investing on their plots, against the rest of the society. This was quite noticeable in the early 70's between oil companies and OPEC. As far as it is "à la Marx", the contradiction splits between land property and intensive accumulation in land-using sectors.

HAUSMANN [1981] suggests a distinction within the land owner-user relation : the relation of access and the relation of payment. The first one is more relevant to the effect of land ownership on the forms of accumulation, thus on the tribute à la Marx.

- 12) As KASCYNSKI [1982] recently pointed out, one peculiar form of this tribute is the parcelling out of vast pieces of field suitable for the "rurbanisation" (individual house building in the countryside for urban workers), at present the most important form of house building in France. Using the present theory of land tribute, Kascynski was able to construct a model and a methodology of land prices observation in the region Nord-Pas-de-Calais.
- 13) One may notice that in essence the difference between "exogenous tribute" and "endogenous tribute" (at least, as far as the intensive one is concerned) refers to the fact that, in the first case, the investment is done in an already given social framework, without modifying it, and in the second case changes it. This distinction is connected to another : "concurrential regulation vs. monopoly regulation" of the production of social space (LIPIETZ [1980A]).
- 14) In LIPIETZ [1974], last chapter.

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