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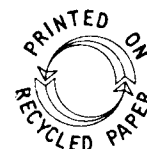
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THE QUATERNARY SECTOR

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Geneva, September 1979

Johan Galtung

This paper is being circulated in a pre-publication form to elicit comments from readers and generate dialogue on this subject at this stage of the research.

I. THE QUATERNARY SECTOR AS A CRISIS RESPONSE

A Scenario of the Impoverishment of Industrial Countries

Modern industrial society is characterized by a particular composition of its so-called active population: only a relatively small fraction of this active population furnishes work indispensable for survival, otherwise called "socially useful" work.

I call here "socially useful" all work that is indispensable for the life of a society in any conditions. Thus food production, production of a part of the energy, production of clothing, housing, services of maintenance and repair, part of the transportation services, education, and health care are the main item of socially useful activities. On the other hand, luxury products, fashion, a major part of administrative services and of commercial activities can be considered, among others, as socially less useful. For example, during the Second World War, the non-mobilized population of most European countries survived quite reasonably without the "less useful" sectors, but suffered much by shortcomings in the "socially useful" sectors.

If we examine the situation from such a point of view as presented above, only food producers (about 7 per cent of the active population, for example, in France), a fraction of factory workers in industries (those who produce manufactured goods necessary for survival, i.e., about 15 per cent of the whole active population), and a small fraction of service workers (about 12 per cent of the active population) — who altogether make up a total of 35 to 40 per cent of the active population and 15 to 18 per cent of the total population — are doing work indispensable for survival of the collectivity.

The rest of the active population, about 60 to 65 per cent, might work very honestly, but the social utility of their effort could be considered doubtful. If a strike of the socially useful working people could cause our society to collapse, a strike of those we have called socially less useful could go on for quite a long time without producing major perturbations.

As for earnings, it is evident that the income of the less useful 60 per cent is produced indirectly by the work of the socially useful 40 per cent, who, in a way, subsidize the former, who are living on the work of the useful. This fact becomes clear if one considers that only the "socially useful" (the 40 per cent) produce things necessary for the whole society's survival: this is the reason they cannot stop work without provoking major trouble. On the other hand, the less useful 60 per cent are spending income resulting from the production of the 40 per cent, thus redistributing it to the whole society; their utility is thus in causing the benefit produced by a minority to "irrigate" the society as a whole more evenly. This system of redistribution could work even if the socially less useful 60 per cent did not perform any work and simply got their income as a *rente* originating from what the socially useful 40 per cent produced. It is evident that the current system is in reality less unjust than this simplified image of 60 per cent *rentiers* living on the backs of 40 per cent workers, as our social organization makes the 60 per cent work, even if their work is socially less useful, and gives them their *rente* as a remuneration for this work, but this partial justice does not remedy the general injustice in the system.

An industrial society could thus support up to 60 per cent unemployed if they would accept subsistence in utmost scarcity (as happened during the Second World War, when anybody working in or for the war could be considered, following our criteria, as socially less useful).

The fact is that the less useful 60 per cent retribute the larger part of the "subsidy" to the socially useful 40 per cent as consumers of their products.

This system is characterized thus by two steps:

- a. the socially useful 40 per cent produce practically the whole of the goods and services necessary for the survival of a society, thus making possible the survival of the socially less useful 60 per cent, who are thus subsidized;
- b. the 60 per cent pay back, as consumers, the largest part of this "subsidy" to the 40 per cent.

I like to call this system "mutual subsidy," as the benefit of the first group subsidizes the second, who live on it and hand back to the first group a reduced but substantial part of the benefit. Thus, instead of the first group keeping all the profit and the second being reduced to begging, a more even distribution of the produced wealth is obtained.

It is evident that a system of mutual subsidy cannot work well in completely closed circuit, particularly if the society's life-style is high above the austerity level: the system has to be fed from outside. A society the majority of whose active population belongs to the socially less useful sectors cannot support for long the deficit caused by the mutual subsidy system. This deficit has to be covered by some income from outside. Modern industrial society assures this income through external trade; thus it *exports its own deficit* for other societies which are less industrialized and where the mutual subsidy system takes less excessive proportions.

In less industrialized countries (what we often call the Third World) the active population was until very recent years practically the opposite of that of industrial countries in its composition: it consisted of 60 per cent socially useful against 40 per cent less useful. This proportion started to change after the Second World War; in order to understand well the nature of this change, we first have to explicate a new term — the "quaternary" sector.

I call "quaternary sector" that fraction of the population called "inactive" (as opposed to "active") that *performs socially useful work, but whose work does not figure in the gross national product (GNP)*. Housewives, for example, belong to the quaternary sector: their work is useful and indispensable without being recompensed by an income. The same is true of do-it-yourself craftsmen, Sunday gardeners, Sunday artists, etc. Indeed, one could say that in industrial societies the traditional quaternary sector could be divided into two major groups: that of weekdays (housewives) and that of Sundays (the others).

In the Third World today the quaternary sector is different, as it does not look for leisure but tries to assure subsistence. It becomes more and more sizeable: with an active population totalling often not more than about 20 per cent of the whole population (wherein only about half — 10 per cent of the total population — is performing socially useful work), there is a quaternary sector which often comprises as much as 70 per cent of the whole population. This phenomenon is a consequence of the growing unemployment in the classic sectors. The quaternary members of the Third World are mostly inhabitants of shantytowns who perform work simply in order to survive: they build themselves their shelters; they keep a minuscule kitchen garden, some chickens, and eventually a goat in order to assure a part of their food; and they survive thus without spending any money, as they earn practically none. For example, in one of the largest

cities of the Third World about 45 per cent of the inhabitants make less income than the strict minimum necessary for survival, but in spite of this they are reasonably fed through their "quaternary farming" (which does not figure in the statistics; in Egypt, for example, it is estimated that quaternary food production makes up about 40 per cent of the total output [*Le Monde*, 28-29.12.77]). These are capital facts for the future.

It is evident that the growth of the quaternary sector, which is already of significant size in the Third World, has (or might have) a decisive influence on the policies of these countries. Their governments hoped for quite a long time to be able to stop this growth by the rapid development of industrialization, thus enlarging the secondary and tertiary sectors, which would then absorb the quaternary. Today, after a long period of unrewarded hope, it is becoming clear that rapid industrialization and advantageous marketing of the hoped-for products cannot be achieved. Thus, governments in Third World countries accept more and more the idea that the quaternary sector is gaining in importance and that national survival is hardly possible without the development of a subsistence economy. They are becoming more and more conscious of the fact that they cannot remain in power while ignoring the quaternary sector and are looking for ways to accept it at least tacitly. Thus governments have to defend and support quaternary interests, promising at the same time that the quaternary sector is but a provisory expedient. As such a provisorium will necessarily be of long duration, politicians in the Third World (and elsewhere) do everything they can to improve the image and self-esteem of people belonging to this sector.

If Third World countries are under constraint to follow such policies, they necessarily lose interest in industrialization, and simultaneously reduce importation of manufactured goods from industrialized countries. Indeed, such imported goods generally are bought by the 20 per cent of the population having classical jobs, the remaining 80 per cent not receiving much benefit from such importation. Importation of goods, even if envisaged in order to create jobs (such as the importation of machine tools), does not help very much, as it cannot suffice to produce significant improvement in employment within a practically acceptable time, especially with demographic expansion diminishing even the small improvement attainable. Thus trade with industrial countries is not profitable for the large majority in Third World countries.

On the other hand, such trade is exceedingly profitable for industrial countries: it is vital for the equilibrium of their economy (because of the "mutual subsidy" system) and it is

even more important for their production, as indispensable raw materials originating from non-industrial countries are generally obtained in exchange for industrial products exported to these countries. Thus trade with non-industrial countries is indispensable for industrial countries, particularly as accountancy of this trade is made on the monetary basis.

It can be considered highly probable that at least certain countries of the Third World facing this situation might do everything in order to stop their trade with industrial nations, and, in order to be able to do so, they might leave the international monetary system. Indeed, as we saw, this trade is not vital for them (it is, rather, of negative value) as the income they earn in exchange for non-renewable resources is largely insufficient to assure their becoming industrialized themselves.

Governments currently in power in the Third World may try to avoid cutting the supply of raw materials to industrial countries; but, if we consider the social situation of most of these countries, we find that many governments are very fragile and that they may be replaced sooner or later by others, less fragile, that will choose to base their power on active support of the quaternary sector, and these latter might encourage the suspension of any trade with industrial nations. Many precursory signs support this view, and it seems logical for industrial nations to get prepared for this eventuality.

If these eventualities should become realities, industrial countries would have to choose between two major strategies. The first involves the use of force — i.e., military interventions against countries refusing to sell away their natural resources. This strategy, besides being inhuman, would prove very risky, if we consider the growing efficiency of guerrillas against regular armies and with it the growing demographic reserves of the Third World. The other strategy, far more pragmatic and recommendable, would be to reorganize the economic structure of industrial countries by supporting and accelerating the growth of their quaternary sector. This could be done by emphasizing its role (a quite different one from that in the Third World countries), that of a "modernized quaternary sector."

The "Modernized Quaternary Sector"

Modernization of the quaternary sector in industrial countries is already an ongoing process. This fact alone could suffice to raise the interest of governments in the

phenomenon, particularly if one considers that the leverage of governments on economic and social processes diminishes rapidly. Indeed, classical planning, in which a planning authority fixes some objectives and "steers" a society towards these objectives following a predetermined program, is practically no longer feasible: in a period characterized by "zero growth" or even "negative growth" the usual levers (channelling and subsidizing production) are no longer available for authorities. This is especially true for states whose size is beyond critical size (i.e., whose instruction-transmitting and feedback mechanisms have become self-blocking with size): most industrial countries have become actually ungovernable, and authorities, instead of being able to think about planning, can do nothing else but accept ongoing trends and seek ways to avoid conflicts and eliminate obstacles before the ongoing process; classical planning, consisting in the orientation of processes or even in resistance to them, has had to be desperately given up.

It is thus extremely important to examine the emerging modernized quaternary sector.

The modernized quaternary sector in industrial countries emerges as a consequence of growing unemployment. An unemployed person, even if his survival could be subsidized by public funds (as we saw before, if austerity could be accepted as a life-style, industrial societies could subsidize up to 50 per cent unemployed), prefers to improve his quality of life by starting to engage in quaternary occupations. He begins to produce at least part of his food, provided he has access to the necessary land, but does this not for sheer subsistence as does his counterpart in the Third World countries but in order to raise the quality of his life. He starts to practise some craft he is able to do, or volunteers for some community service, always with the idea of supplementary improvement of his situation and not in order to assure his basic survival. If we accept the idea that unemployment will continue to grow in the next decades (as seems plausible if Third World countries cancel their trade with industrial nations), we can presume that a growing quaternary sector might be the solution for absorbing unemployment and for reversing the absurd proportion of socially useful versus less useful activities. If this hypothesis holds true, the modernized quaternary sector might be a major key for the future, both for industrial societies (by re-equilibrating them) and for less industrialized ones (giving them the time necessary for "development").

There are many examples of this phenomenon in industrial countries: "black work" originating from insufficiency of salaries in some countries, barter of services and products in certain others, motivated by tax evasion, etc.

One could argue that the development of the quaternary sector in these examples results from acts of "marginals." That might be true, but with growing unemployment, with a growing feeling of being unfairly payed or unfairly taxed, marginals are rapidly growing into a majority. It is not impossible that in the near future classical employment will become "marginal" and quaternary activities the bulk of the economic system.

Let us take again as an example the period of the Second World War, when about 60 per cent of the active population did work exclusively for the military machine (as soidiers or as civilian workers). The portion of the civilian population not working exclusively for the war improved their condition through quaternary occupations and survived in spite of the insufficiency of available resources. Our present economic crisis has many similarities to that war (at least as concerns an imminent cut of available resources), even if the motor is not of the military kind.

It seems thus important to analyse the phenomenon, and even more important to think about means and ways by which *authorities could co-operate with the trend of quaternary development*. What shape could planning take if, instead of trying to direct the phenomenon, it could be content to support it?

Any governmental planning or policy-making has to take into account that, before all, the materialization of any objective depends upon a consensus of the public that is supposed to act in a way recommended by the planners. This consensus cannot be merely a verbal one but has to be actual — i.e., expressed effectively by *how the public acts*. Such public action cannot be either directed or manipulated by governmental decrees, and this in spite of often-heard statements about government manipulation. Common people follow in one way or another their images and habits, and no realistic policy can ignore this fact.

Emerging patterns are emerging habits of the common man, and measures undertaken by authorities have to go *with and not against* such trends. The measures have to facilitate the development of the trends and, if necessary, modify institutions which obstruct these trends. Thus the principal questions concerning the development of the quaternary sector might be:

- What physical planning can facilitate the development of the quaternary sector?
- What are the principal resources necessary for it?
- Where can these resources be found?

- What are the institutional barriers in the way of such development?
- How can these barriers be modified?

Such a policy line could, for example, start with a re-evaluation of food. Actual food prices are high, but people working in the primary sector (food growing) are underpaid in comparison with those working in industry. Food producers live thus on a subsidy accorded to them, which makes it possible to keep wages and food prices low. If food attained prices corresponding to its real importance, and thus its real value, compared to the value and prices of industrial goods (which are far less indispensable than food), both employed and unemployed would start to try to produce at least a part of their food themselves. But, how could they do that in a twentieth-century city? Non-rural agriculture (peripheric or other) could be a main feature of a quaternary civilization if urban and regional planning were to become aware of this new potential resource. Examples of such planning existed in nineteenth-century Europe: the *jardins ouvriers* and the *schrebergärten* among others.

Another measure might have to do with a certain diminution of classic commercial activities and of transportation dependent upon commerce, two of the main sources of waste in our economy. This could be effectuated by the authorization of "wild sales" (in French, *vente sauvage*, free sale on the street without any permit or other formality), which could develop into a sort of "quaternary trade." The quaternary market, where quaternary producers would sell or barter their own products, could emerge with such a measure and could become a source of improving survival in a period of ever-increasing unemployment.

Finally non-union craftsmanship (our equivalent to "black work") could become as well an important quaternary resource: one could call this form of activity the "quaternized tertiary" sector within a neighbourhood. Governmental measures could, for example, protect activities of this type and liberate them from all formal authorizations, permits, etc. which make them illegal in many countries today.

Non-rural agriculture, free sale on streets, and free exercise of skills could, among other occupations, absorb a very large part of unemployment and re-equilibrate the proportion between socially useful and less useful activities.

The Status Image

The development of the quaternary sector has at the same time a by-product which acts against it: the status problem.

Indeed, the life-style in industrial societies emphasizes consumption as the image of status and of social success. One has to earn much money in order to buy many things, to use much transport and many services; all this counts as the measure and the symbol of a man's status and personal value. On the other hand, to live economically at a subsistence level is considered a sign of poverty and of low personal value and status. A peasant living in quasi autarky is scorned by a factory worker (who consumes more). Farming becomes more and more an industry, in spite of the over-exploitation of the soil which often impoverishes the soil irreversibly: the farmer consents to ruin his main tool, his land, in order to earn more for a short period and buy higher status symbols with his increased revenue. Only when he realizes that he cannot improve his status does he turn to a procedure which we could call a "farmer's strike": he stops producing food "for the city" and produces only for himself and his family, trying to get better prices and higher status with it.

It seems essential to consider how status symbols could be revised in order to make the quaternary sector "respectable" — what new status symbols could be accepted by people, how could they be propagated, etc. In many countries efforts toward creating a new aristocracy (party members, a professional caste, an educational caste, etc.) have shown provisional success in supplanting consumption as a status symbol.

Sports or cultural activities, too, could furnish new status symbols, but still there has been practically no exploration of how such symbols could enter public consciousness without becoming commercial. It might be one of the most important tasks of future education to help establish the respectability of the quaternary sector. It is important that the members of the quaternary sector themselves should accept such symbols, once they understand that they are no social failure but the safeguard of society. Their self-respect might force the respect of those who refuse to recognize their importance today.

Recommended Measures

The most reasonable response for authorities to make, therefore, would seem to be to

eliminate legal obstacles in the way of the developing quaternary sector, thus avoiding potential explosions that growing unemployment might lead to.

With some relatively simple and seemingly unimportant measures authorities could progressively substitute quaternary activities for the socially less useful tasks in the classic sectors, and these tasks then could ultimately disappear. Opening the way for quaternary development in industrial countries does not necessarily have to be preceded by growing poverty: a reasonable attitude on the part of public authorities could avoid such an eventuality.

Let us sum up some recommended options:

1. Unemployment in socially less useful sectors (mostly in the tertiary) should be accepted as a fact. Instead of trying to create new jobs, new "occasions for activity" should be created, the difference being in the remuneration: jobs are remunerated in money, which can be devaluated and not be sufficient for survival; quaternary activities are remunerated in products guaranteeing survival, such as non-rural agriculture, craftsmanship, community services, etc.) The cost of creating one classical job equals the cost of creating about ten quaternary occupations.
2. The inevitable rise of food prices could incite unemployed people to turn to non-rural food-growing, individually or in co-operatives. Taxation of unexploited land (which is essentially waiting for speculation) could press proprietors to make their land available for non-rural farmers, for example, and people venturing into this activity could be protected by the authorities. A small co-operative group of unemployed people, for instance, could grow on a relatively small plot sufficient food for their families and even a small surplus for sale or for barter.
3. These measures would, as well, authorize free sale of food in the streets or markets -- i.e., legalize "wild sales." Once such a system was legalized, the unemployed could find opportunities for limited commercial activities. The conflict with classical commerce could be minimized if, for example, people were authorized to sell only their own products. But, even if conflicts would appear, we must recognize that the people assuring their survival by benefiting from such measures would greatly outnumber the prejudiced shopkeepers.

4. The legalization of practising crafts could have consequences largely analogous to those of the previous measure.

5. The question of taxing income from quaternary activities would lead to suggestions for structural changes in the fiscal system. Quaternary activities cannot be controlled by the usual tax-controlling apparatus: there is no way to enforce the keeping of appropriate accountants for tax purposes in the quaternary sector. Thus, a tax "in kind" (in goods or in services) could advantageously replace the customary tax in money.

Taxation in kind would mean either the contribution of a part of the goods produced or a contribution of "disponibility" (making oneself available for some sort of public service), both for the benefit of the community. It is evident that a tax in kind could be controlled efficiently by the neighbourhood of the taxpayer.

6. An open policy of developing the quaternary sector implies an appropriate programme in physical planning.

7. Besides the measures mentioned, other long-term interventions will be necessary, mostly in the educational field: instruction in simple survival techniques, crafts, etc. Such instruction could be part of primary teaching, but adult education should be included as well. One of the priority tasks of this educational programme should be that of helping establish the respectability of the quaternary life-style.

Quaternary Development: Good or Bad?

We have tried to define a trend towards quaternary development in industrial countries, starting from a scenario. It should be clear that, if this scenario does not materialize, quaternary development might not appear, or it might take a different form than the one described here. But it seems to me rather difficult to refute this scenario in its whole, and it would be a lamentable error not to be prepared for eventual quaternization, at least by trying to understand the phenomenon.

On the other hand, rapid development of the quaternary sector does not imply either permanent quaternization or a generalization of the quaternary life-style. A provisional quaternary development (like that during the Second World War) gives a different light to

the processus, without supposing a definitive rupture with the current economic system.

It can be assumed with some certainty that any extension, even limited, of the quaternary sector will produce enormous social problems: division of a society into two sections as different as the quaternary sector and the classic ones could provoke heavy conflicts between two life-styles and two ideologies. This problem cannot be treated casually, and questions arise: First, could the division of our society into employed and unemployed be desirable? And, second, is quaternary development "reactionary" and against progress?

I don't think I can really answer these questions. I believe that *the development of the quaternary sector re-oriens progress* — a progress based more on biology than on mechanics (is this a contradiction?), less impatient, and better evaluating its own means and goals. We can certainly imagine a "quaternary progress" — a development paying more attention to a new concept of the sciences of food, of habitat, and of social realities — which would be increasingly beneficial for humanity.

But, to start with, is the trend already irreversible?

II. SOME ADDITIONAL REMARKS ON THE QUATERNARY SECTOR

Migration

Visiting in a Third World country, very rich in natural resources but the majority of whose people are terribly poor, with one of the lowest population densities in the world, and having a ferociously capitalist public mentality (even the poorest people in the slums believe in the possibility of earning a small capital which will bring profit for them — generally in the form of real estate, on which they rely more than on the continuously devaluating money), I perceived particularly strong evidence of the relation between into-city migration and the quaternary sector. In this country the largest part of the national area is extremely under-exploited, and rural poverty increasing by the under-exploitation drives people massively towards the city (the largest city tripled its population in the last 30 years). Those migrants who find jobs do so either in industry or in the tertiary sector. The tertiary sector of this country is roughly the same in proportion to the total active population as in industrialized countries.

The case of a country that is quasi empty, rich in resources, and thinking in the capitalist way is particularly interesting: the United States of the nineteenth century was such a country. The policy of the United States of that period was decisive to its future: it stipulated *free immigration* for anybody dissatisfied with his way of life on the old continent. These were the immigrants who built up the present American economy — first as farmers, then moving into industry and the tertiary sector.

It would be possible to imagine an international policy-making use of the phenomenon of the quaternary sector by stipulating free immigration to such countries. A country like Brazil could open its doors for peasants coming from the poorest countries. Large areas such as the *Patanao*, which is actually sparsely inhabited marshland, could not be converted into productive farmland except by quaternary (subsistence) farming, performed by people who would be content, at least for one generation, to grow not

more food than necessary for the living of their family, without producing for the market. Those who are starving in Bangladesh, for example, would agree willingly to settle those marshlands and to convert them, let us say, into rice paddies, investing an amount of labour that farmers from more prosperous social layers would refuse to do.

An immigration policy open for the poorest is often an implementable way of achieving a more equal distribution of the resources necessary for survival. Making possible a non-aggressive overflow from economically disbalanced regions could lead thus to making practically uninhabited areas habitable (in the sense a civilization associates with it).

Establishing an international foundation to support free migration could be one of the most important operations of international organizations, in an epoch where national etc. identity is more and more defined in terms of "how to keep them out."

Education

Education can be interpreted as the operation which seeks to improve the capacity of the members of a species for procuring the means of their survival.

Present education, in most countries, seeks only to procure jobs for those who follow a particular curriculum. Once, when the primary and secondary sectors were the important ones, education formed farmers and technicians. Today, even with the hypertrophy of the tertiary sector, education exclusively produces people for this sector.

In spite of the tertiary sector's becoming plethoric, the number of people prepared for jobs in this area continues to increase at a rate faster than the number of available jobs. The cost of creating jobs in other sectors is prohibitive, and — as we saw when discussing the introductory scenario — it is practically impossible to increase the tertiary sector without either at the same time increasing the number of socially useful jobs to balance the resulting deficit or destroying the current economy completely. Even sharing a job among several persons does not resolve the problem, as a system of production can support only a limited number of jobs: in an economic system based on the market, jobs can become more numerous only if production increases (which, as we saw, seems not too probable).

This situation leads evidently to the emergence of the quaternary sector: quaternary production does increase, as it is largely independent of the market.

In sum: *current education makes the tertiary sector grow without increasing production at the same time. On the other hand, appropriate education for training people in quaternary production is completely lacking.*

To characterize appropriate education for quaternary production, we have first to emphasize that *the quaternary sector is complementary to the other sectors*: it is different from the other sectors not in *what it produces* (food, manufactured objects, or services) but in *how it does so* (it uses tools simple enough to be repaired or made without necessitating big organization). It differs as well from the other sectors in the way *the production is accounted for*, and thus makes new concepts of profitability and of exchange emerge. There are many products which cannot be produced but the quaternary way, be they plants, objects, or services. If housewives' activities stay quaternary in all economic systems, this is because these activities cannot be made profitable in the same way as activities in the other sectors.

But let us come back to education. We already know an example of education for quaternary production: the training girls got in the past in order to become good housewives. This training was indeed very useful, and it is instructive as an example.

Quaternary education has to be *training for daily life*: survival techniques, including the use of both primitive and sophisticated technologies, are its main subject matter. Such an education has to encourage innovation and improvization: one has to be able to produce things necessary for one's own survival, or to make substitutions for such things, and to know how to repair them if necessary. Many examples for such education exist already: training for sailors, for the military, for hunters and other sporting people.

The very large public for kitchen recipes might demonstrate how much interest "quaternary information" can command.

Status

A society is governed more by custom than by laws. There is no doubt that in case of

conflict between laws and custom it is custom which will be victorious (except in the obvious cases when the custom in question is already on its way out). The conflict between laws and custom becomes particularly interesting when it arises between two different kinds of custom: this is generally the case when laws can play the arbiter over customs.

A conflict of this kind emerges with the quaternary sector gaining importance: the quaternary attitude as a response to shortages is accepted by custom on the one hand; but, on the other hand, social contempt for the quaternary way of life is also customary. An example of such a scorn is the low respect paid to housewives' work, both by "male chauvinists" and by the women's liberation movements.

The arbitration of the law (of the state) in the conflict between quaternary survival and current ideas on social status might be decisive. Thus the duty of the state should be *to make the quaternary sector respectable*.

- a. The first step towards this goal would be to *recognize the legal existence* of quaternary praxis: at present such praxis is outlawed in most countries, and its legalization could re-establish its status.
- b. The second step has to go beyond simple legalization: government should *protect quaternary praxis* against aggression coming from those in other sectors who might be jealous for their privileges in certain fields, privileges which often become monopolistic (trade unions, etc.).
- c. The third step would consist in *publicly attributing a "real importance"* to the quaternary sector (by the way, what would happen if housewives were to form a trade union or go on strike?). The law should recognize publicly the *indispensability of quaternary praxis in a context of growing unemployment*. Indeed, there is no other actual way to resolve the problem of survival of an ever growing number of unemployed.

The granting of legal existence, the protection of privileges, and recognition of the indispensability of a social group are the most important factors to make it attractive to people. These three factors are at least as important as are profits; the hypertrophy of the tertiary sector was more the result of its status than of the profits it brought. Governments should grasp that they could facilitate the restoration of social equilibrium by helping the quaternary sector to a better status.

Where Are the Levers?

It is easy to write an analysis of the emergence of the quaternary sector, and it is easy to describe the advantages this emergence would produce. It is far more difficult to determine and propose ways and means which could lead to such a development and to identify the levers which could trigger and regulate it. Even if some of these levers have been mentioned (education, migration, legalization, etc.), all of them represent rather complex policies which cannot be implemented by a simple declaration decided on by a government.

Indeed — and this one of the fundamental characteristics of our present societies — no government, no executive has real access to the “levers” which might govern social mechanisms. (This thesis I have described and demonstrated in my book *Realisable Utopias*.) Social mechanisms become oversized and overly complex, and they do not obey in any simple way simple commands coming from any of their organs, governments being among these. In the best cases, the social mechanism cannot be considered any more to be governed by a “brain” but rather is an entity following a random process resulting from unforeseeable acts decided on by a multitude of individual brains, which act like “black boxes” to the observer and whose interconnective pattern is largely unknown.

Let us take an example. What would be society’s reaction to legal recognition etc. of quaternary praxis (such as growing one’s own food, organizing one’s own energy husbandry, etc.)? Any legislative body favouring such actions could only with difficulty transmit its opinion to the public, either by legal procedure or by propaganda. A government does not hold power enough to *create* quaternary praxis.

On the other hand, if there exists a scarcity in certain commodities or in certain services, quaternary praxis establishes itself spontaneously even if government is against it (for example showing up as a black market). Quaternary praxis can thus be *created through scarcity*, as its essential quality is to be a *weapon against need*, similar to certain biological agents which manifest themselves only when the organism is subject to certain aggressions. Quaternary praxis is the *tool of society to survive in critical situations* (I have called it elsewhere “guerrilla survival”).

It is interesting to make a remark here about scarcity: when commodities are abundant,

there is a "scarcity of status symbols" (a commodity or a service becomes a status symbol only when it is scarce). For example, when cars are widely available, they lose their quality as status symbols; on the other hand, when they are difficult to procure, they gain a high status value. When a physical scarcity prevails, any commodity (or service) can become a status symbol: there is no scarcity of status symbols any more. Similarly, once there is physical scarcity, the status obstacle blocking the development of quaternary praxis disappears.

Thus, theoretically, a government could have one obvious policy in order to promote quaternary development: it could promote scarcity. But, of course, no government could openly follow such a policy. However, if a government cannot fight emerging scarcity (coming from the "exterior"), the quaternary praxis starts immediately, spontaneously, in the field affected by the scarcity.

The lever governments can use to assist the development of quaternary praxis could thus be the *choice of the field hit by the scarcity*. Knowing that the quaternary sector is called into existence by scarcity and that it is the only means to fight it, the rational action of a government would be to tolerate scarcity in those fields where quaternary praxis has been prepared for (by education, by legalization, by propaganda, etc.): in these fields society could react fast enough.

It would be thus a *sine qua non* of any governmental planning first to make clear what quaternary technologies and what quaternary organizations could be operative, related to such planning.

Remarks on Quaternary Technology

In order to determine which technologies could become "quaternized," we should perhaps first re-examine what technology is.

The definition which seems to me the most appropriate is: *a set of ways and means which seek to increase the number of individuals (of a species) who can find their subsistence in a given area*. Thus, for example, humankind increased this number over what it had been during prehistory, first by introducing agriculture, then industry, and so on.

It is evident that this definition locates any technology as a set of survival techniques, and that the means used by a technology can be two-fold: "protheses" (objects borrowed from the environment to serve as tools) and "skills" (ways of making use of the individual organism, adapting it to the environment in order to need fewer protheses or less consumption of materials). It is surely not necessary, in our civilization, to give examples of tools. But skills are less explored: they could include, for example, adaptation to a certain diet (which has an effect on agrotechnics), adaptation to a given climate (which influences techniques of building shelters), etc. Thus, a vegetarian ethnic group uses different skills than does a carnivorous group, and consequently develops different tools. If, for example, on a given territory a vegetarian ethnic group could enable 100 persons to survive, and the carnivorous group only 15, this would signify that the technology of the vegetarian group was superior to that of the carnivores.

We could add another category of means — that of "organization." It is evident that appropriate organization can play a role in defining a technology. Thus, technologies belong to three distinct sets: those using protheses, those developing skills, and those exploiting organization.

Grading technologies becomes more complicated once we give attention to "power": in our example, it could happen that the carnivores (who have a survival technology of a lower grade but might compensate for it with high-grade military skill) would chase away or enslave the vegetarian ethnic group in order to ensure survival for their own kind.

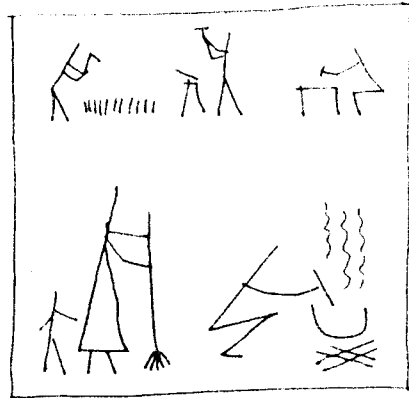
Thus, it would be better to describe a technology by at least two terms: the *number of persons it can enable to survive on a given area*, and the *means of self-defence it can develop in the face of aggressors*.

Quaternary technology has thus to be characterized by the very high coefficient of "survival density" (number of persons fed on a reference area) and very efficient self-defence. Techniques satisfying these conditions are *not necessarily primitive*, nor based on so-called "convivial" techniques: we are not looking for romantic attitudes. Urban agriculture (as explained in my book *Survival Architecture*) is not primitive, nor is quaternary organization of a society. Self-defence by guerrillas proves the point: one of the most important phenomena of the second half of the twentieth century is the fact that guerrillas systematically beat regular and over-equipped armies.

We can now conclude by trying to define one of the most important functions to be performed by governments: the preparation of files for *"high survival density" techniques* and for *security by self-defence* and keeping the public informed about these files, *introducing the subject into public education*, thus supporting the emergence of the quaternary sector when needed.

The existence of the quaternary sector might be the safety valve for the survival of our civilizations, and who knows, even for our species.

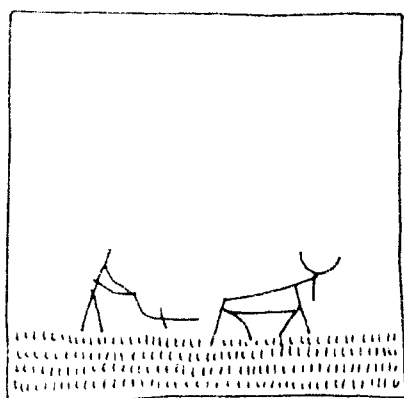
THE QUATERNARY SECTOR



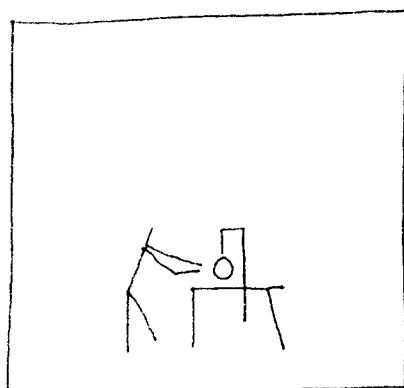
THE ECONOMY OF A COUNTRY

IS BASED
ON WHAT PEOPLE PRODUCE :

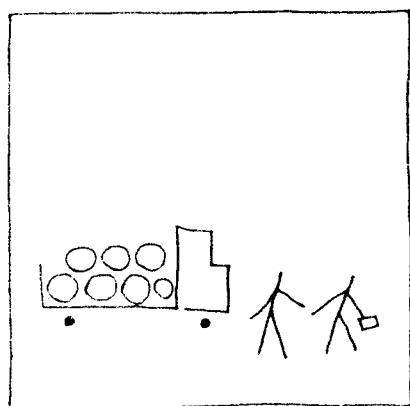
FOOD,

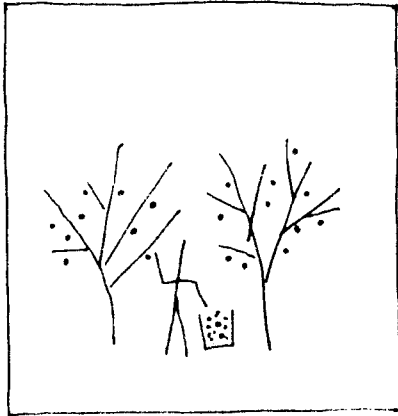


MANUFACTURED GOODS,



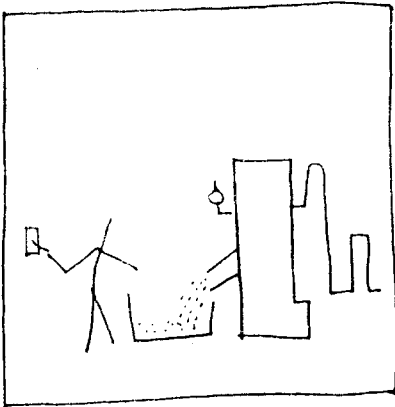
AND EVERYTHING THAT CAN BE OBTAINED
IN EXCHANGE OF THESE PRODUCTS.



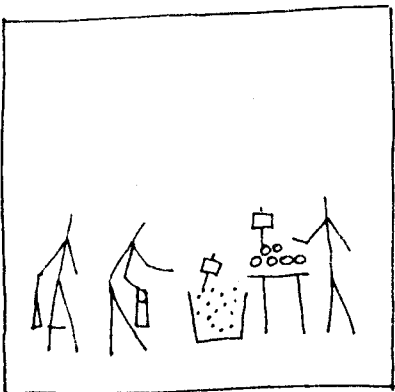


THUS
PEOPLE CAN WORK IN SEVERAL SECTORS:

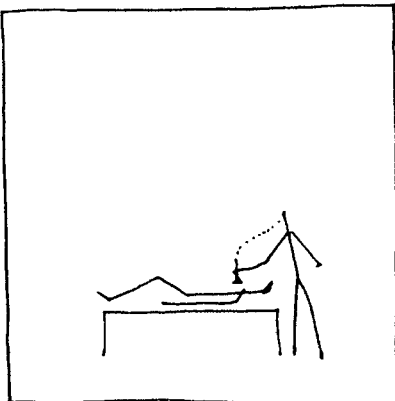
IF THEY PRODUCE FOOD,
THEY ARE FARMERS
AND BELONG TO THE "PRIMARY SECTOR",



THEY CAN PRODUCE MANUFACTURED GOODS
WORKING IN INDUSTRY,
THUS IN THE "SECONDARY SECTOR",

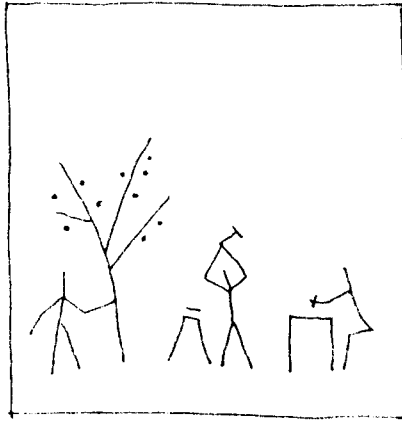


OR THEY ARE BUSY
IN EXCHANGING OTHER PEOPLE'S PRODUCTS
AGAINST OTHER PRODUCTS OR SERVICES



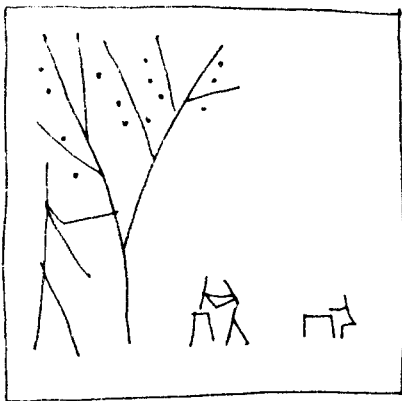
(THEY ARE MERCHANTS, DOCTORS,
PLUMBERS, DRIVERS
OR OF OTHER SIMILAR TRADES):

THEY FORM THE "TERTIARY SECTOR".



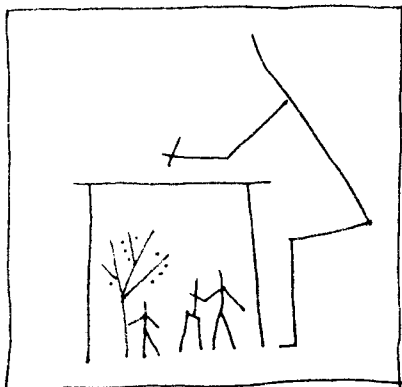
IN ANY ECONOMY
IT IS VERY IMPORTANT

TO CARE
OF THE PROPORTION AMONG SECTORS.

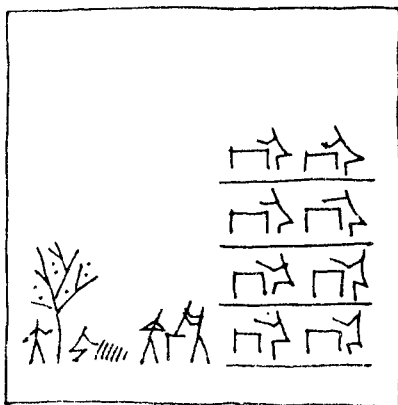


FOR A LONG TIME
THE PRIMARY SECTOR WAS THE LARGEST,

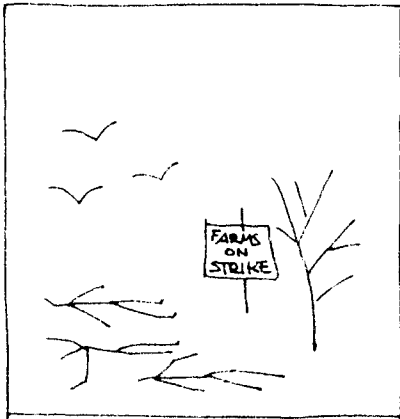
AND THE OTHER SECTORS
WERE RATHER NEGLECTED.



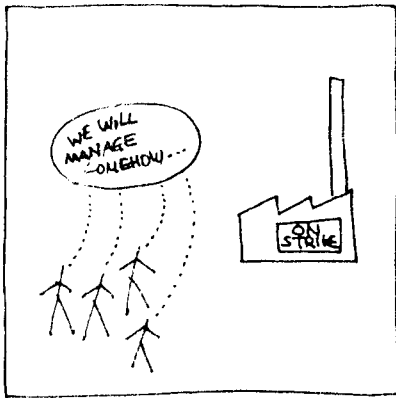
IN INDUSTRIALIZED COUNTRIES
THE TERTIARY SECTOR BECAME THE LARGEST
(MACHINES AND AUTOMATION
REDUCED THE OTHER SECTORS):



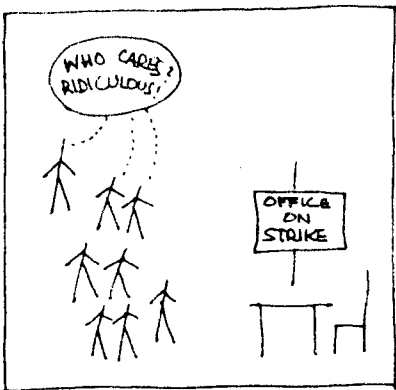
15% OF PEOPLE FEED YOU,
15% DRESS YOU AND FURNISH YOUR HOUSE,
BUT
70% RULE YOU, TRANSPORT YOU,
SELL AND REPAIR YOUR EQUIPMENT.



THE PRIMARY SECTOR
PRODUCES GOODS INDISPENSABLE FOR LIFE
(ONE CANNOT SURVIVE WITHOUT FOOD).

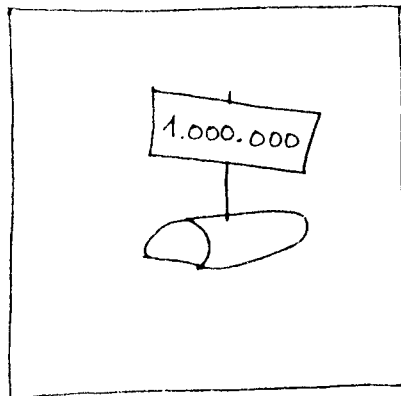


PRODUCTS OF THE SECONDARY SECTOR
ARE LESS INDISPENSABLE,

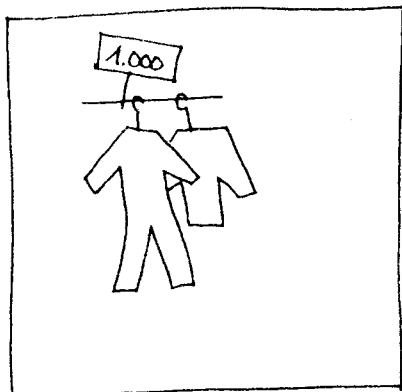


AND THOSE OF THE TERTIARY
(IN SPITE OF BEING IMPORTANT)
ARE REALLY NOT NECESSARY
FOR SURVIVAL.

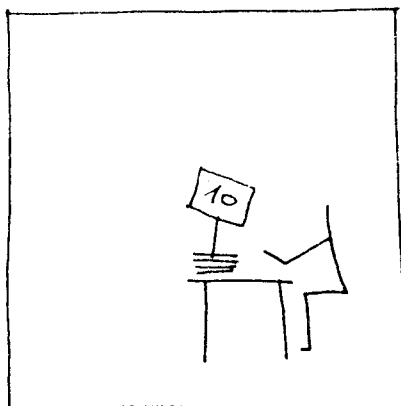
IF PRICES WOULD LOGICALLY FOLLOW
THE VITAL INDISPENSABILITY
OF PRODUCTS



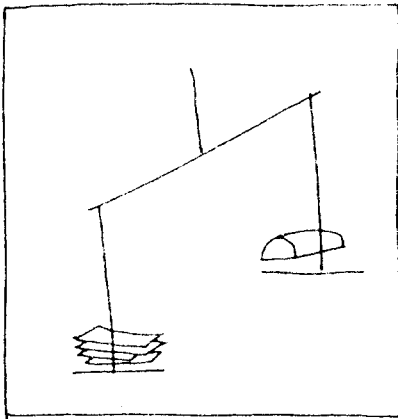
FOOD
WOULD BE THE MOST EXPENSIVE ARTICLE,



THEN CLOTHING,
HOMES
AND SO ON.

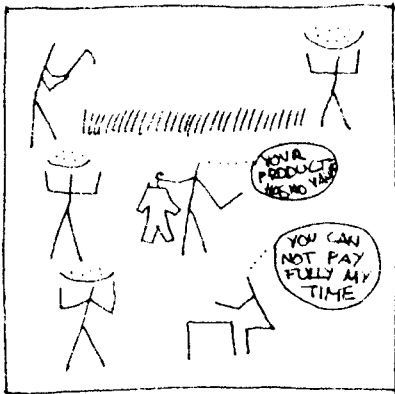


SERVICES WOULD BE
AMONG THE LAST IN THE ROW.

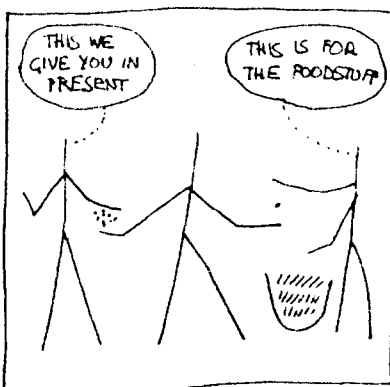


BUT
WITHIN AN ECONOMY
WHERE THE MAJORITY OF PEOPLE
WORK IN THE TERTIARY SECTOR,

FOODPRICES
(WHICH SHOULD PAY THE FARMER FOR HIS WORK)
ARE VERY LOW:

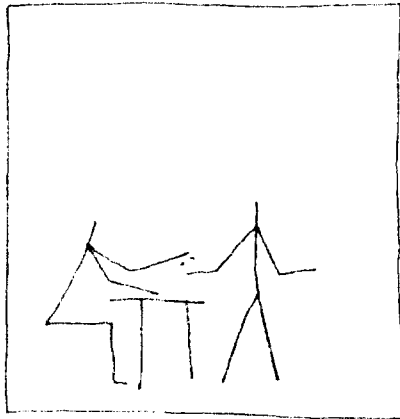


ONE HOUR OF THE FARMER'S WORK
HAS THE VALUE OF 10 MINUTES
OF THE FACTORY WORKER'S PAY,
AND A COUPLE OF MINUTES ONLY
IF COMPARED TO TERTIARY SALARIES.



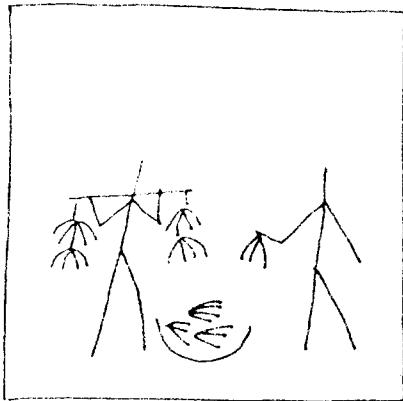
FARMERS
COULD NOT SURVIVE FROM THEIR EARNINGS
IF THEY WOULD NOT GET A SUBSIDY
FROM THE OTHER SECTORS' TAXES.

(INDUSTRIAL SOCIETY IS INTERESTED
IN KEEPING FOODPRICES LOW).

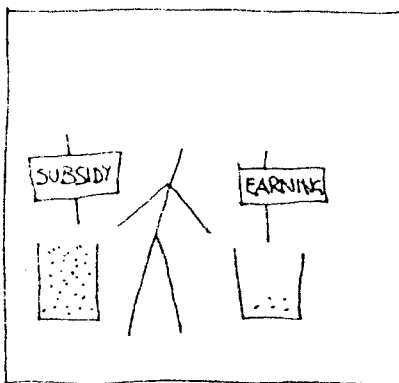


IN SUCH AN ECONOMY
A TERTIARY WORKER

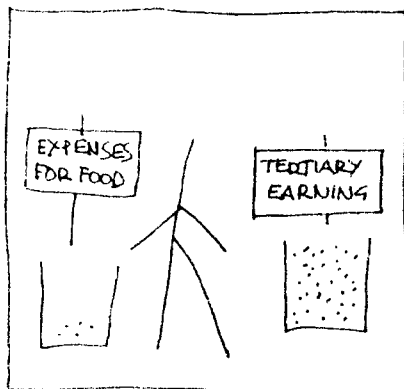
SUBSIDIZES THE FARMER,



WHO SELLS HIS PRODUCT CHEAP

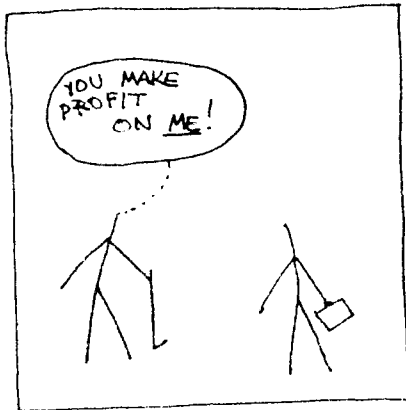


AND WHO MAKES HIS LIVING
ON THE SUBSIDY.



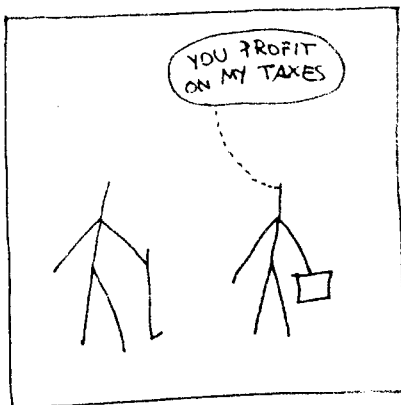
ON THE OTHER HAND
PEOPLE WORKING IN THE TERTIARY

LIVE ON THE DIFFERENCE
BETWEEN REAL VALUE OF FOOD
AND LOW FOODPRICES.



IN SUCH AN ECONOMY
WHERE IT IS THE FARMER WHO SUPPORTS
PEOPLE WORKING IN THE OTHER SECTORS

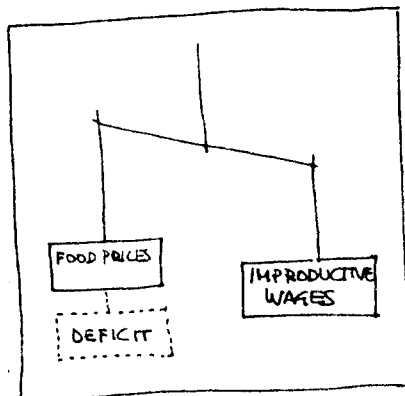
BY THE MARGE
BETWEEN FOODPRICE AND FOOD VALUE



AND WHERE PEOPLE
WORKING IN OTHER SECTORS
SUPPORT THE FARMER

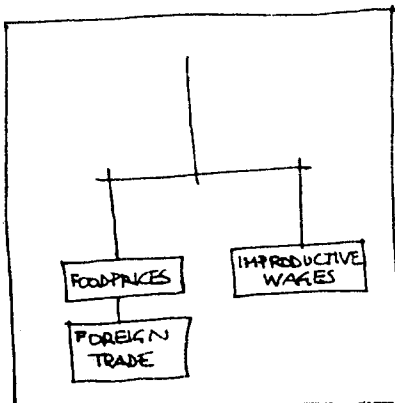
WHO GETS A SUBSIDY
FROM TAXES THEY PAY,

A STABLE EQUILIBRIUM
CAN BE POSSIBLE.

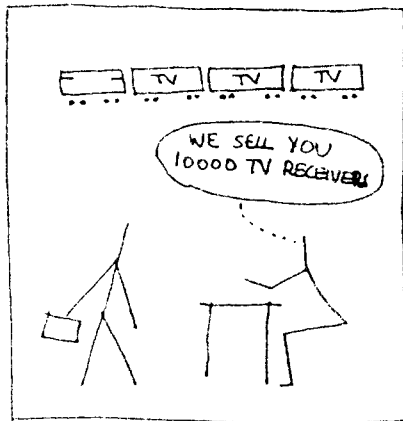


BUT
NOT WITHOUT A CERTAIN DEFICIT.

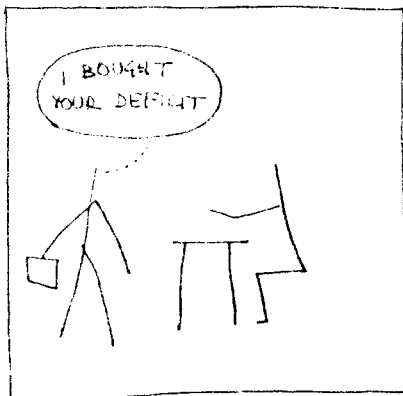
SUCH AN ECONOMY
TRIES TO COVER ITS DEFICIT
BY EXPORTING
PART OF ITS PRODUCTION:



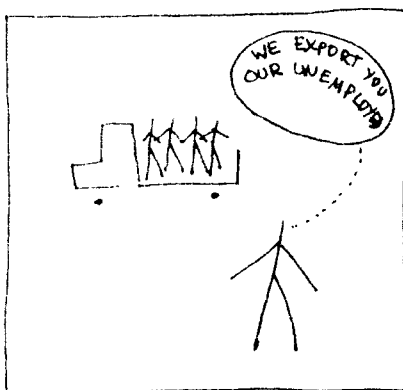
IT CAN ONLY SURVIVE
BY FOREIGN TRADE.



AN ECONOMY WHICH WOULD BECOME DEFICITARY WITHOUT FOREIGN TRADE,

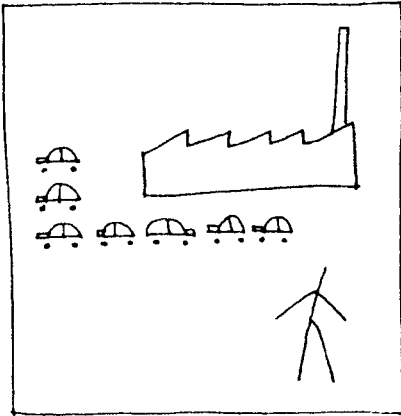


IS, IN REALITY, EXPORTING ITS OWN DEFICIT.

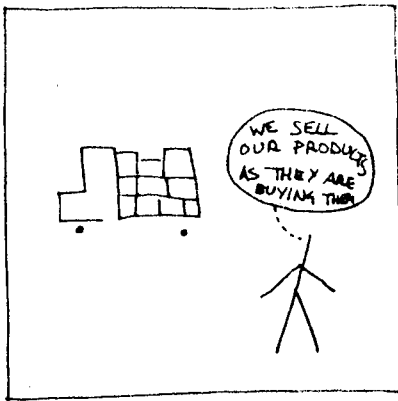


THUS INDUSTRIALIZED COUNTRIES EXPORT THEIR OWN POVERTY

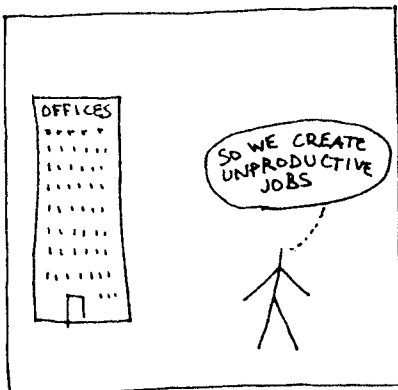
INTO LESS INDUSTRIALIZED ONES.



AN INDUSTRIALIZED COUNTRY
WOULD NOT BE RICH
IF NOT EXPORTING ITS OWN DEFICIT.



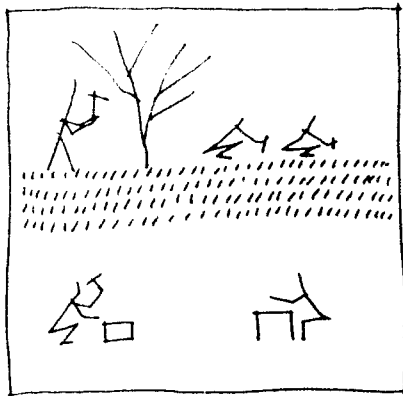
IF NON-INDUSTRIALIZED COUNTRIES
WOULD NOT BUY THE PRODUCTS
OF THE INDUSTRIALIZED ONES,



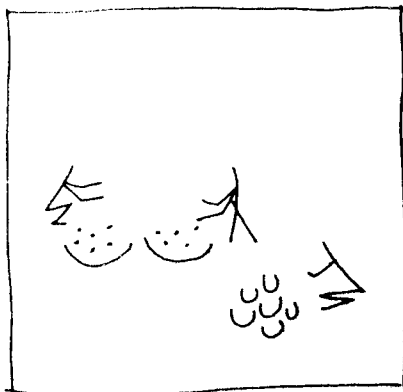
THESE LATTER
COULD NOT LIVE UP
TO THE LIVING THEY HAVE

(SUBSIDIZING FARMERS,
OVERSIZED TERTIARY SECTOR
ETC).

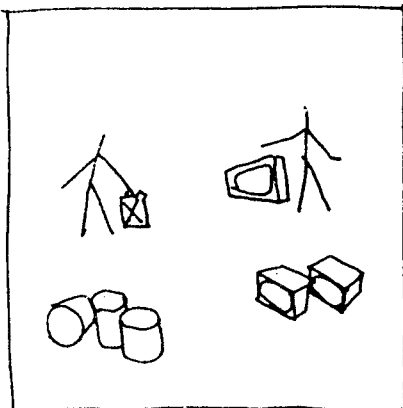
NON-INDUSTRIALIZED COUNTRIES
HAVE A DIFFERENT ECONOMIC STRUCTURE:



IT IS THE PRIMARY SECTOR
WHICH IS THE LARGEST.



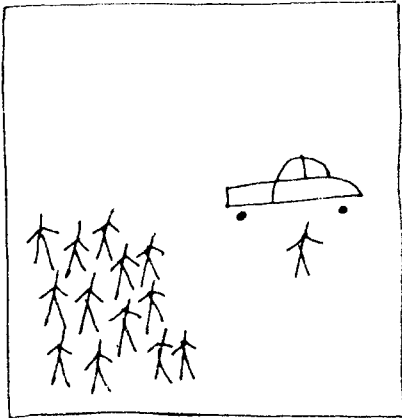
IT PRODUCES ENOUGH
FOR INTERNAL USE.



NON-INDUSTRIALIZED COUNTRIES
GENERALLY ARE SELF-SUFFICIENT.

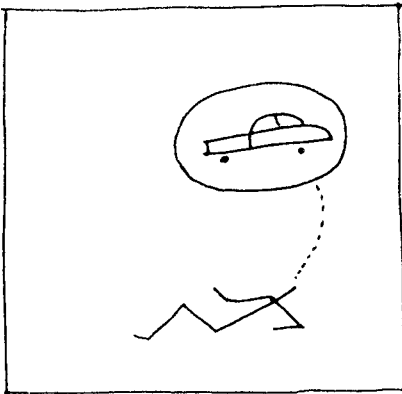
PRODUCTS
IMPORTED FROM INDUSTRIALIZED COUNTRIES
ARE PAID
BY SELLING AWAY NATURAL RESOURCES
(MANY OF WHICH ARE NOT RENEWABLE).

(LIKE PETROL, MINERALS ETC).

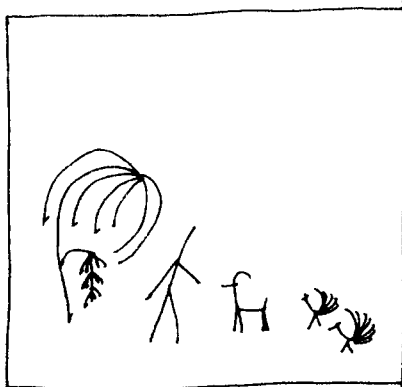


PRODUCTS
IMPORTED INTO NON-INDUSTRIALIZED COUNTRIES

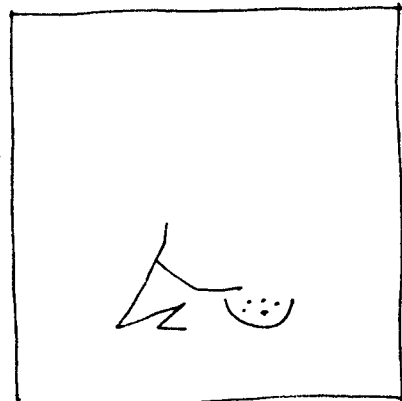
DO NOT PROFIT
EXCEPT FOR A SMALL FRACTION
OF PEOPLE:



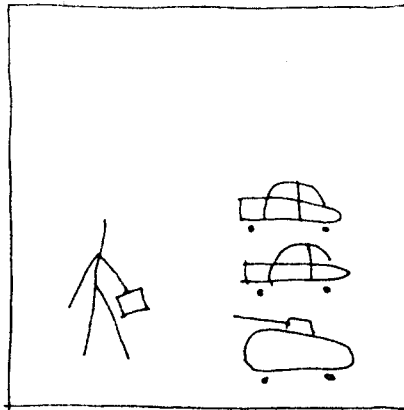
THESE PRODUCTS
ARE UNOBTAINABLE FOR OTHER PEOPLE.



MOST PEOPLE
LIVE IN A SUBSISTANCE ECONOMY

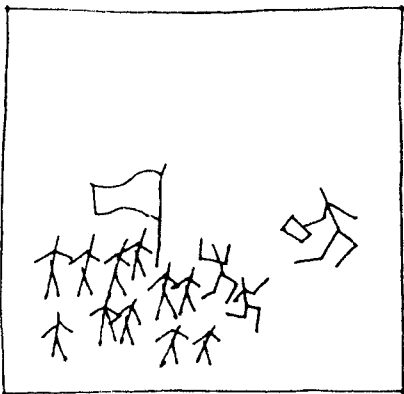


AND DO NOT PRODUCE
BUT FOR THEIR OWN NEEDS.

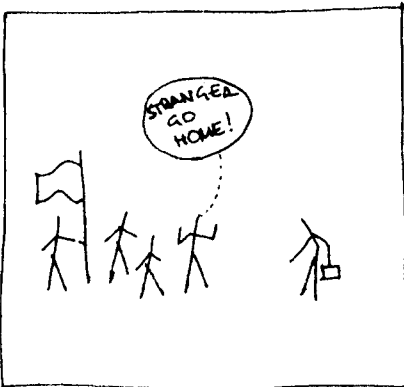


GOVERNMENTS
OF NON-INDUSTRIALIZED COUNTRIES

IMPORT
PRODUCTS OF INDUSTRIALIZED ONES.

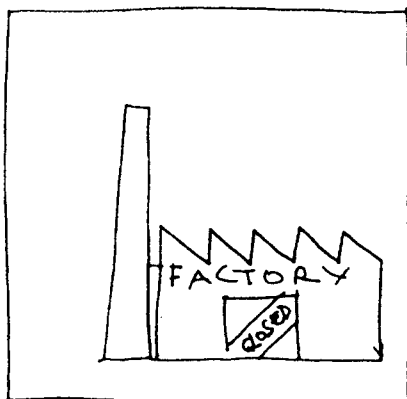


BUT
SUCH GOVERNMENTS ARE FRAGILES,



AND CAN BE REPLACED BY OTHERS
(FROM ONE DAY TO ANOTHER).

THESE LATTER
MIGHT MAKE STOP FOREIGN TRADE.



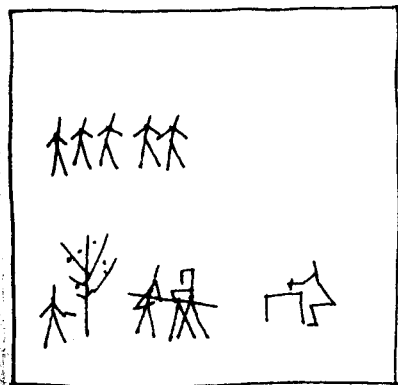
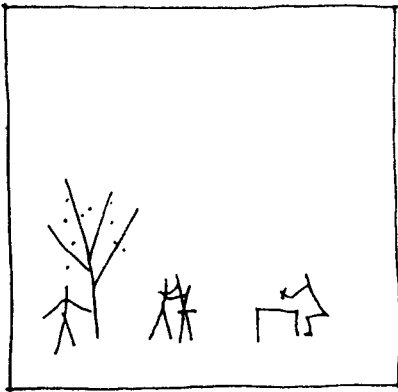
AS FOR THE MAJORITY OF PEOPLE
SUCH THINGS THEY DONT CARE FOR:
THEY DONT PROFITE OF FOREIGN TRADE.

BUT
FOR INDUSTRIALIZED COUNTRIES
THIS MEANS THE OVERTHROW OF THEIR ECONOMY.

IF INDUSTRIALIZED COUNTRIES
WANT TO KEEP THEIR LEVEL OF LIFE

WITHOUT BEING DEPENDANT
UPON FOREIGN TRADE,

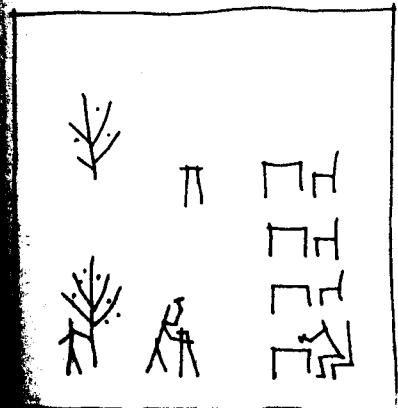
A REDISTRIBUTION OF THE SECTORS
BECOMES NECESSARY.

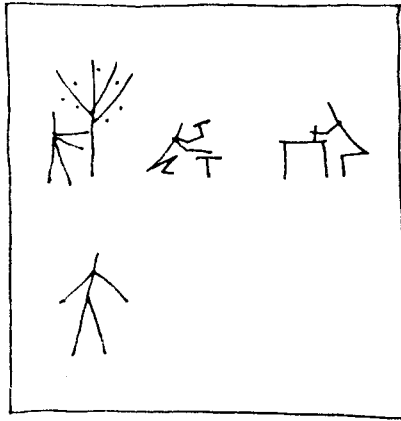


THIS REDISTRIBUTION STARTS
— IF ONE WANTS IT OR NOT —
BY UNEMPLOYMENT

IN THE SECONDARY AND TERTIARY SECTORS:

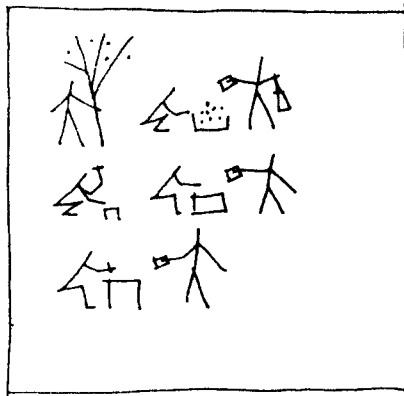
IT IS IMPOSSIBLE
TO CREATE SUFFICIENT JOBS
TO ABSORB UNEMPLOYMENT.



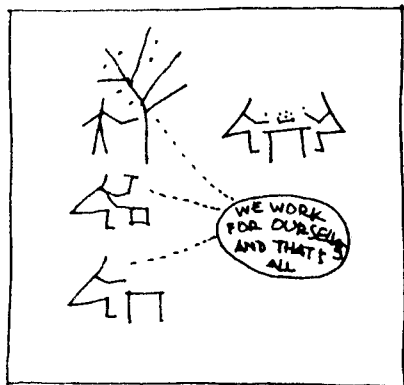


BESIDE THE SECTORS ALREADY MENTIONED
THERE IS ANOTHER ONE:

WE WILL CALL IT "QUATERNARY SECTOR".

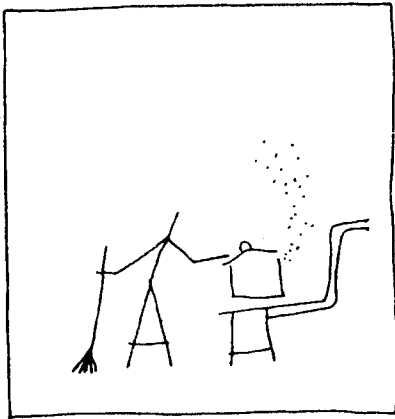


ACTIVITIES OF THE FIRST 3 SECTORS
(PRIMARY, SECONDARY AND TERTIARY)
ARE REMUNERATED IN CASH.

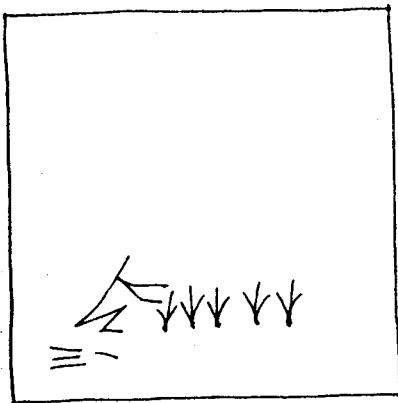


ACTIVITIES OF THE QUATERNARY SECTOR,
ON THE OTHER HAND,
CONCERN WHAT IS NECESSARY
FOR THE SURVIVAL OF EACH OF US,

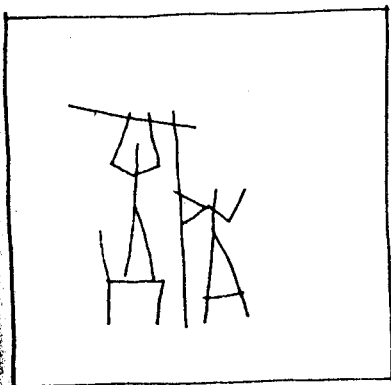
AND THEY ARE NOT REMUNERATED IN CASH.



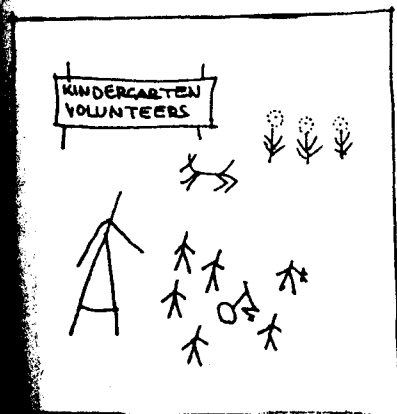
THUS HOUSEWIVES
(WHOSE WORK IS INDISPENSABLE)
GET NO WAGE IN CASH,



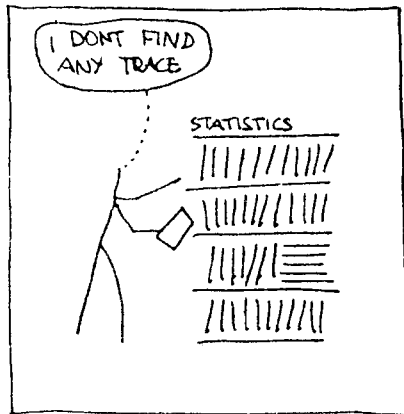
NEITHER DO PEOPLE
WHO WORK IN THEIR GARDEN
AND PRODUCE A PART OF THEIR FOOD,



NOR THOSE
MAKING OR REPAIRING THINGS
THEY USE THEMSELVES,



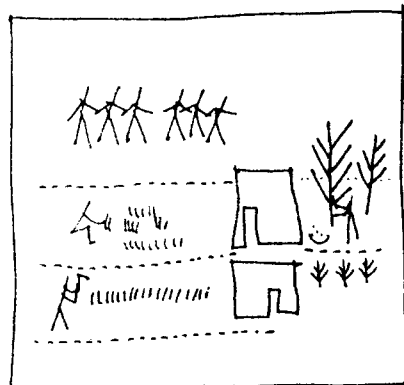
NOR PEOPLE WHO ASSIST THEIR NEIGHBOURS
AND PERFORM THUS
QUATERNARY CIVIL SERVICE.



QUATERNARY PRODUCTION
DOES NOT FIGURE IN STATISTICS (GNP)



NEITHER IN COMMERCIAL LISTS,
NOR ELSEWHERE.

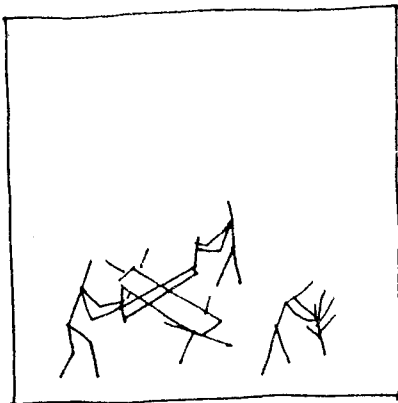


IT IS THIS QUATERNARY PRODUCTION
WHICH, ALONE,
COULD RE-BALANCE ECONOMY

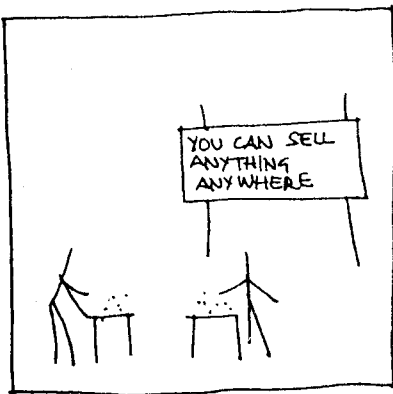
AND ABSORB UNEMPLOYMENT

BETTER THAN DOES FOREIGN TRADE.

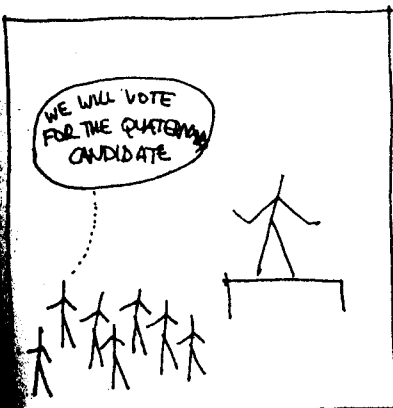
TO PREPARE PEOPLE
FOR RECOGNIZING THE IMPORTANCE
OF QUATERNARY PRODUCTION:



TO TEACH APPROPRIATE TECHNIQUES,

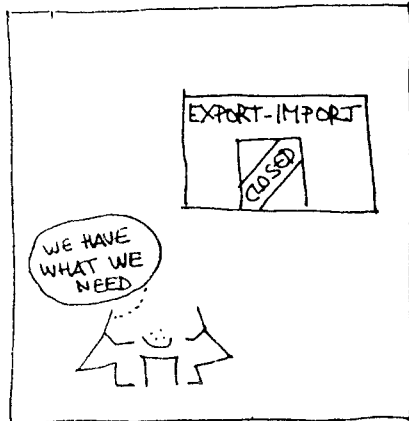


TO LEGALIZE QUATERNARY PRACTICE
(ACTUALLY PROHIBITED IN MANY COUNTRIES),



AND, AT LAST,
TO GIVE FOR QUATERNARIES STATUS
AND DIGNITY
CORRESPONDING TO THEIR SOCIAL ROLE,

SEEM TO BE THE WAY
TO ESCAPE THE ACTUAL CRISIS.

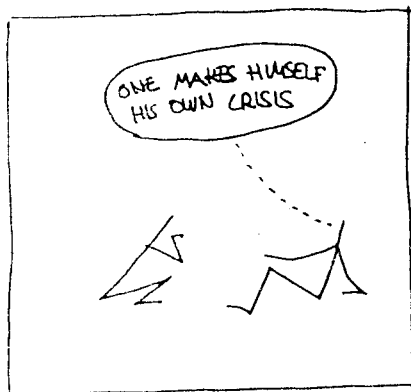


FOREIGN TRADE



AGAINST INTERNAL SUFFICIENCY,

THIS IS THE CHOICE
OUR GENERATION HAS TO MAKE.



IT IS DIFFICULT TO DECIDE IT
WITHOUT THINKING IT OVER SERIOUSLY.

TO MAKE YOU THINK IT OVER
IS THE GOAL OF THIS PAMPHLET.