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This may seem a speculative paper. Firstly it contains many unfinished thoughts. Secondly, it is in danger of asking speculative questions. Given that "mode of production" is a Marxian concept, can quotations from Chayanov's work be squeezed into a Marxian problematic? Alternatively, how strongly can we condemn Chayanov for not being a Marxist? I hope to have avoided both these questions.

The intention of this paper is to define the problem central to the idea of the agrarian mode of production, to isolate those aspects which will then emerge as central to Chayanov's theory of peasant economy, and to see where the resulting reflections lead us.

One way of posing the central problem is simply to ask : what specifically is a peasantry? This may mean isolating the structures, relations and laws characteristic of peasant societies. Sometimes this question is unfortunately confused with a form of the religious catechism: who are the peasants? (who are not the peasants? who are the analytically marginal types?). The triviality of the question is reflected in the lack of contradiction between the given definitions of Marx, Lenin and Chayanov (Marx, 1967-1971, Vol. I, p.761; Lenin, 1964, p.67; Chayanov, 1966, pp. 41-42). Whether they are defined as the immediate producers who own the means of production, or as the family household operating its farm with non-wage family labour, we know, generally speaking, who the peasants are.

The central question, rather, concerns the definite relations in which peasants are engaged in the course of their productive life (Marx, 1968, p.581). We ask this question from the point of view of establishing the conditions under which peasantries survive and disappear in the modern world.

In Marxist theory the mode of production can be defined firstly as the labour process - forces of production, the relationship between the worker and the owners of the means of production, that between the worker and the product. Secondly the mode of production is itself reproduced through an interactive process of economic, ideological and political mechanisms intrinsic to itself, and through its subordination of or by other modes of production. Thirdly the mode of production embodies contradictions at each of these points which both drive it forward and develop the conditions for its own disintegration, through the development of class struggle and of class alliances involving those emmeshed in the surrounding modes of production.

It should be pointed out that Marx himself referred to the "petty mode of production" (Marx, 1967-71, Vol. I, p.761). Was this a case of Marx falling away from the rigour established by the Marxists, or did he really mean it? Elsewhere it is broadly clear that he saw the survival of peasantries beyond the feudal epoch as predicated upon capitalist underdevelopment (Marx, 1967-71, Vol.III, pp.804-813); in itself the peasantry was a form of transition to modernity.

Thus we can begin to "place" Chayanov by observing the theoretical battle within which he is historically located. Russian Marxism saw the

Russian peasantry as a formation which had never existed in itself, but only through its subjection to the outside world. It emerged as a distinct social class with the unification of the Russian state. As a sort of peasantry it responded to different laws from the nomadic class society of pre-feudal times. With the Emancipation of 1861 it entered upon a radical transition, a period of slow and painful decomposition in which the shackles of the decaying gentry were broken down by capitalist industrialisation. Changes in the larger social order brought about the emergence of a rural petty bourgeoisie and a class of rural labourers still largely - but not entirely - attached to the land. By 1914 the peasantry faced a choice : the continued development of large-scale capitalist agriculture, or siding with the Russian working class in a socialist revolution, ultimately to be completed by the socialisation of agriculture.

By contrast, the Populist tradition focussed upon the preservation, not the decomposition of the peasantry, and the continuity of its historical tendencies under different social orders. It saw in the peasantry an intrinsic viability, an ability to survive and prosper under any conditions - in short, the capacity to reproduce itself. Some writers located this reproduction at the level of a specific peasant culture, involving a family law of subsistence. Chayanov was the first writer to locate this process of reproduction theoretically in the specific structure of peasant economy, while the level of peasant culture played an important but submerged part in his theoretical and empirical work. Thus Chayanov is perhaps the first economist in any country to

have analysed systematically the labour process in peasant economy.

In addition he saw the future of peasant economy not as bounded by the divide between capitalism and socialism, but as lying along a peasant path of modernised techniques, agricultural extension and co-operative organisation, combined with the fundamental institutional framework of the family economy.

The argument of this paper is that Chayanov had an ideologically coherent theory of peasantry as a mode of production. By studying it we learn more about the processes of ideological formation within which he developed his work, than about the peasantry as such.

Through the 1910s and 1920s, the period of Chayanov's career, the Populist tradition in social science moved deeper and deeper into crisis. It struggled to find successive ways out of its political and theoretical impasse, thrown up by the historical development of the Russian peasantry and the revolutionary movement. In many ways the search was fruitful, resulting in a large body of research and theoretical development. But it makes any approach to the integrity of thought of even a single writer or school, such as Chayanov's "organisation of production" school, extraordinarily difficult. The unity of their thought cannot be understood at the level of pure concepts, since here they contradicted themselves as frequently as each other. The selection of common views, and of real disagreements, and the relegation of incidental ones, can only be achieved by means of a theory of ideology, and there is space in this paper for only the briefest explanation.

THE LABOUR PROCESS IN PEASANT AGRICULTURE

It is convenient to consider Chayanov's theory of peasant economy - the labour process, reproduction and contradiction - through the aspects of the labour process, on which he was most explicit. In this way we avoid as far as possible unjustified inferences from fragmentary remarks. We shall therefore look, in order, at the nature and development of the productive forces, the relationship of the peasant to the means of production, and that of the peasant to the product.

1. The Forces of Production.

Techniques of agricultural production have been a curiously fruitful source of controversy in political economy. Consider Malthus' "arithmetic ratio", Ricardo's diminishing returns or the dispute between the II and III Internationals over large-scale agriculture (among other things). The same is true for Chayanov's work, in which the nature and development of agricultural techniques is seen as fundamentally different from those of manufacturing industry.

This specificity can be summed up in three propositions broadly shared by Chayanov's school.

(i) For any given activity, the inputs of land, labour-power and means of production required to produce a given output are fixed.

As a statement relating to the short run, this is fairly strong, but not necessarily improbable. Suppose, for example, that with scarce

land and capital, the application of peasant labour-power had encountered diminishing returns, with the marginal productivity of labour tending sharply downward to zero in a given activity. Raising the marginal value product of labour would then involve investment costs which could not be undertaken in the short run.

Without the justification given here, this proposition was widely employed by the economists of Chayanov's tendency (Chayanov, 1912-13, Vol. II, p. XIV; Chayanov, 1966, pp. 78, 98, 196, 201; Makarov, 1920, p. 137; Makarov, 1927, p. 529; Studensky, 1927, pp. 63-64). Exceptions are extremely rare (Chayanov, 1912-13, Vol. II, p. XLVII; Chelintsev, 1918, p. 140).

This proposition was also applied to the long run, in spite of the theoretical admission that accumulation and technical change can in principle permit the combination of increased quantities of more efficient means of production with labour, and its more intensive application to land, thus staving off diminishing returns in the long run (Chayanov, 1966, pp. 182-183; Makarov, 1920, p. 137; Makarov, 1927, pp. 498-500, 511, 529; Studensky, 1927, pp. 63-64). In practice this statement was forgotten, and an extremely strong postulation of long-run diminishing returns prevailed in the literature. It is found in the "normed" input requirement calculations which are central to much of Chayanov's empirical work (Chayanov, 1915, pp. 87-88; Chayanov, 1966, p. 160), and in the commonplace analyses of overpopulation found in dozens of works which are critically summarised by Maslov (1930, pp. 17 et. seq.)

This proposition found two a priori and one ex post justifications. Firstly, most economists of the time believed in Liebig's Law, which requires a rigid proportionality between the nutritional constituents of the soil for any one of these constituents to be effective. This law was then applied by analogy to agricultural production as a whole. (Kosinsky, 1906, pp. 4, 17-22; Makarov, 1920, pp. 136-137; Studensky, 1927, pp. 43, 63). A second natural law was also involved : "Man cannot gather the sunbeams which fall on a hundred hectares and apply them to one hectare. He can ensnare them with the green chlorophyll of his crops only over the entire area on which they fall. In its essence agriculture cannot be divorced from space; the larger technically is the enterprise, the greater is the area it must occupy". This inflexibility in the proportions between the means of production and land area constitutes a central difference between agricultural and industrial techniques (Chayanov, 1927, pp. 5-7). (Chayanov did not envisage the development of artificial sunshine).

The third justification for long-run diminishing returns is found in the commonplace assumptions normally (but not necessarily) found in empirical work that agricultural production was typified by zero net accumulation and the absence of technical change. (Chayanov, 1915, pp. 68-70; Chayanov, 1966, pp. 218). Sometimes this became an explicit justification for a concept of diminishing returns (Chayanov, 1966, p. 219).

If proposition (i) is held to be valid in the long run, a

central implication is that, with increasing population pressure on land, peasants can only raise the marginal value product of labour schedule by the substitution of activities towards higher-yielding products which technically require a more intensive application of labour and capital to a given area of land. (Chayanov, 1966, p. 114; Makarov, 1927, pp. 27-36; Chelintsev, 1928, pp. 13-16).

(ii) As the land-intensity of production increases, so does the skill requirement of a unit of labour-time. As the skill requirement of labour-time increases, the optimum scale of organisation of labourers declines.

This proposition is only once stated explicitly by Chayanov's colleague Makarov (1920, pp. 60-63), and should not be laboured too much. Nonetheless it implies, in itself, a severe limit to the scale possibilities of the institutional framework of any progressive agriculture. Its consequence is therefore similar to the last, and much more central proposition.

(iii) As the activity-structure of agricultural production shifts towards more land-intensive, higher-yielding products, there is a necessary decline in the area of the farm which yields the minimum average cost of production.

The only systematic work on cost schedules is that of Chayanov (1928); in fact it may be the first such investigation in the history of political economy. Because of indivisibilities in the means of

production, capital costs involved in a given activity-structure decline per hectare (therefore per unit of product) as farm area increases. However, intra-farm transport costs per hectare rise exponentially with the total area. The latter summed with overhead and non-transport labour costs produce a determinate minimum average cost size of farm for given activity structure and known production functions. (Chayanov, 1928, pp. 12-15).

More land-intensive, high-yielding crops involve a higher transport expenditure per hectare through more intensive fertilisation and cultivation and the increased mass per hectare of product. Consequently the rapid upward shift of the transport cost schedule will ensure a contraction in the minimum average cost size of farm as population density increases and peasants shift their activities away from extensively cultivated grains to intensive grain-livestock complementarity, and beyond that to grasses, roots, vegetables and intensive dairy-farming, propelled by the technical logic of proposition (i) and aided by the marginal insinuation of proposition (ii). (Chayanov, 1928, pp. 17-21, 61-81).

An implicit assumption of the scale proposition is the absence of accumulation and technical change. Motorisation of agriculture, for example, would simultaneously increase indivisibilities and lower transport costs; the effect would be more dramatic, the more intensive the system of cultivation (Chayanov, 1928, p. 82; Chayanov, 1929, pp. 39-40).

These three propositions have a very simple relevance to the

peasant "mode of production". If the impact of progress over time necessarily and constantly reduces the optimum size of work-team and the optimum area of farm, then it is improbable that the forces of production will ever be seriously held back by the institutional framework of peasant agriculture - the family household farm. Marx saw the peasant small-holding as a form of property which "excludes co-operation, division of labour within each separate process of production, the control over, and the productive application of the forces of Nature by society, and the free development of the social productive powers". Beyond it he saw "its annihilation, the transformation of the individualised and scattered means of production into socially concentrated ones, of the pigmy property of the few, the expropriation of the great mass of the people from the soil ..." (Marx, 1967-71, Vol. I, p. 762) Forty years later Chayanov contradicted this in the sharpest possible way..

But the passage from Capital properly brings to our notice one final aspect of Chayanov's work on optimal farm size. One implication was that optimal area was not simply an aspect of an agricultural system or structure of activities; it was a feature of each activity taken by itself. And it was perfectly feasible that isolated branches of activity could involve optimal areas under cultivation which would exceed that of the family farm. Where there were different activities within agriculture there would always be "differential optima".

Under these circumstances, peasants could form ad hoc associations to realise economies of scale where necessary in particular branches of activity. They could combine "division of labour within each separate process of production" with the family household as the basic unit for the

organisation of production and consumption (Chayanov, 1927, pp. 50-55). This was Chayanov's theory of producer co-operation in peasant agriculture.

In conclusion, Chayanov's theory of the role of the forces of production in the peasant mode of production rested on a set of unfortunate assumptions and an unjustified inference.

The unfortunate assumptions concern the absence of accumulation and technical change, or of long-run diminishing returns. They circumscribe the possibilities of both labour-saving and land-saving investment, and of large-scale agriculture.

The unjustified inference concerns the implied claim that the realisation of "differential optima" is compatible only with a co-operatively organised peasant agriculture. For the realisation of "differential optima" is an important feature of the organisation of collective agriculture in the socialist countries today.

Are the agricultural forces of production intrinsically different from those of manufacturing industry? Intra-factory transport costs also increase exponentially with the area of the shop-floor ; "differential optima" must be realised under conditions of mass and batch production too. Nonetheless it is undoubtedly true that the role of land (or the problem of solar energy) makes the analysis of the agricultural labour process a complex matter. The spatial distribution

of agriculture lies behind many opaque features of peasant life. Historically speaking, however, agriculture has been organised within many different sets of social relations - feudal, capitalist and socialist among others. It is to one such set of social relations that we now turn.

2. Family labour and household property

What are the implications of the fact that peasant agricultural production is "based on" the household economy and family property? An old variant of Marxism asserted that the answer depended on the presence of commodity or non-commodity production. Natural economy might be a reflection of gentile society, in which the "household" was the clan itself; or it was a reflection of the subordination of the village to the manorial system. With commodity economy, the rise of the law of value destroyed the harmony of peasant society, inducing a schizophrenic coexistence within the peasant personality of the bourgeois and the proletarian "in one person". This contradiction was eventually realised in the transition to capitalism. Elements of this view may be traced to the present, for example, in the work of Galeski (1972, p.11).

A variant of Russian Populism held that this objective contradiction was overcome through mechanisms intrinsic to the specific peasant culture and consciousness. For example laws of subsistence motivation can be found scattered through the literature, including the work of Chayanov (Shcherbina, 1900, pp. 6-10, 224; Chayanov, 1912-13, Vol. I, p. XIV Chelintsev, 1918, pp. 8, 60-62, 125-126, 161-163;

Chayanov, 1966, p. 218). These laws had the force of denying the drive to accumulate and to compete; however they did so as a matter of assertion or by reference solely to factors of consciousness.

Others went further, and attacked the very application of the law of value to peasant commodity production. Shcherbina himself raised the first doubts (quoted by Makarov, 1920, pp. 15-16). The Marxist Kosinsky made the decisive break, abandoning the notions of wages and profits, variable capital and surplus-value in his economic analysis. Kosinsky's peasants sought to maximise total factor income, not the rate of profit or the marginal product of labour. (Kosinsky, 1906, pp. 81-84, 92). Chayanov introduced the notion of a trade-off between total factor income and leisure, that is utility-maximisation; in the manner of Jevons he defined a short-run partial equilibrium with respect to family labour supplies, and in applying it to peasant economy called it the "labour-consumer balance" (Chayanov, 1966, pp. 68-79).

In doing so, Chayanov achieved much more. He developed a systematic theory of peasant economy based on the specific structure of peasant economy - the application of non-wage family labour to the family household farm. This theory was independent of whether or not there was commodity production (Chayanov, 1966, p. 125). Thus he had broken away from the "commodity fetishism" of both the Marxist and Populist problematics defined above. Important qualifications to this statement are considered in the next section.

The short-run analysis of the labour-consumer balance can be stated briefly as follows. It proceeds from "a single organizational concept of the peasant labor farm independent of the economic system into which it enters" (Chayanov, 1966, p. 42) and seeks to establish "the living organizational ideas, the machinery of its individual economic organism which is 'the subjective teleological unity of rational economic activity', i.e. running the farm". (Chayanov, 1966, p.118). The family farm is an organism of the national economy. The analysis proceeds from its internally generated needs and resources, taking an explicitly subjective approach to farm organisation within a given environment. The justification for this analytical isolation of the family economy was the initial absence of a market for wage-labour (Chayahov, 1966, p, 11, 53).

Let us define p as the value return to labour per day worked, and n as the number of days worked per person-year on the farm. Then $p.n = x$ is annual total factor income per person on the farm. Given declining marginal utility of income and increasing marginal disutility of labour, it follows that any increase in income per day worked will bring about a less than proportionate increase in annual total factor income per head, i.e.

$$dx < n_o \quad dp \qquad (1)$$

where subscript o indicates the intial value of the variable before

the change. Given

$$n_o = \frac{x_o}{p_o} \tag{2}$$

we can rewrite (1) as

$$0 < \frac{\partial x}{\partial p} \cdot \frac{p}{x} < 1 \tag{3}$$

that is, the elasticity of demand for annual income with respect to income per day worked is less than unity, or the supply schedule of labour is "backward-sloping".

This model is not important because Chayanov empirically verified it. It is important because it is based axiomatically in utilitarian philosophy.

However, Chayanov used it to derive certain secondary propositions which purported to describe the laws of motion of the Russian peasant economy. Assuming variable supplies of non-labour inputs, as the family grows and decays the family economy will also experience a cyclical development. The addition of children to the nuclear couple will expand family needs relative to resources in terms of labour-power. The family's equilibrium will shift towards increased effort and output per worker, reduced leisure and reduced per capita income. As the children mature, the tendency is reversed. The family divides into new sets of nuclear couples, and the cycle is repeated (Chayanov, 1915, pp. 3-5; Chayanov, 1966, pp. 57-60). The population of families within a local peasant economy will thus manifest a degree of inequality

in the utilisation of labour-power, productivity and income per head which is "demographic", or at any rate non-social in origin. (Chayanov, 1966, pp. 66-69, 71-89).

Over time, as population pressure increases relative to the availability of non-labour inputs, the family life-cycle is repeated amid a constantly shifting structure of activities in the direction of more intensive, high-yielding products. Thus macro-demographic laws impose a second, non-social level of inequality across the national peasantry in terms of the utilisation of labour-power, productivity and income per head (Chelintsev, 1928, pp. 13-16; but see Chayanov's cautionary comments, 1966, p. 142).

The evidence for all these propositions is unsound and is critically analysed elsewhere (Harrison, 1975a, 1975b). From a theoretical point of view the reason is as follows. In a perversion of normal procedures, Chayanov assumed that the availability of means of production was variable in the short-run and fixed in the long-run. In the short run he saw the flexible supply of non-labour inputs as an essential condition for the family life-cycle to be reflected in the development cycle of the farm (Chayanov, 1966, p. 68). In the long run, however, he saw the possibilities of accumulation as limited by the technical constraints described above, and by the subsistence motivation of the peasant family (Chayanov, 1966, pp. 201, 218). In this way, strong ideological associations determined the concrete inferences which he formed from a model so axiomatic as to be trivial.

Again at a theoretical level, the inference which he drew can be summarised as follows :

(i) Peasant economy involves an intrinsic social relation : "self-exploitation" of labour power.

The measure of self-exploitation is the number of days in the year which the peasant "chooses" or "compels himself" to work. The inequalities within peasant society spring from this subjective relation, and do not involve the exploitation of some people by other people.

(ii) Peasant economy reproduces itself through the family.

The family is the progenitor of the family life-cycle and of population growth. It is the owner of property. As such, it expresses the fact that the aim of production is household consumption, not feudal rent or bourgeois profit. From an ideologically based conception of consumption and accumulation, Chayanov here slipped back into the world of subsistence motivation and the static economy.

(iii) Peasant economy embodies a contradiction between human needs and the forces of production.

This is what generates the laws of motion of both household and economy, and which propels agricultural production towards more highly developed systems of cultivation and more valuable products.

But this contradiction is not antagonistic. Not only is the scale of peasant production technically appropriate. It is also more appropriate, more efficient and more competitive than capitalist production. Peasants do not "need" to earn a profit; where capitalists go bankrupt, peasants survive. (Chayanov, 1927, pp. 39-44).

Out of a sense of historical fairness it should be pointed out that many peasants did not survive; first among the survivors were the emergent rural bourgeoisie.

In summary, Chayanov had a definite theory of the relationship between peasant labour-power and the means of production. It was based on a non-social view of human nature - sometimes utilitarian man, who exercises choice and whose behaviour is analysed as a set of revealed preferences; sometimes man as the agent who determines the goal of his own labour, in the sense of production for the sake of consumption - sometimes quite specifically for the sake of subsistence. All these elements are important aspects of the unity of Chayanov's work, in itself and with a whole tradition.

In fact there were relations of production developing through the labour market, in particular the massive migrant labour market in agriculture. These developments, while in many ways shallow and marginal in relation to the whole economy, indicate the existence of a growing network of social relations between households mediated through

product and factor markets, with a number of consequences for the freedom of choice exercised by the peasants involved. For example it is possible to detect the exercise of leisure-preference on the part of wealthy households, combined with the hiring of labour-power on their farms. Among those who supplied wage-labour, it is possible to detect under-employment or leisure-preference exercised within the context of the impossibility of finding full employment in the underdeveloped national economy. (Maslov, 1930, pp.57-63).

Within households, also, it may be that "self-exploitation" was an unfortunate conception. We know very little about the sexual division of labour in the Russian peasantry. It seems possible however that the changing role of patriarchy had considerable impact upon the position of women and youth, as well as upon processes of class formation generally. (Harrison, 1975b, pp.38-41). However patriarchy, an institution by no means intrinsic to peasant society, cannot be analysed through the labour-consumer balance.

Let me repeat, however, that Chayanov's utilitarianism, while set firmly within the Populist ideological tradition, was a great scientific advance. Peasants cannot be analysed either as innocent savages or as split personalities. Perhaps Chayanov was the Newton of agrarian studies. The trouble is that today we believe in relativity.

3. Markets and modes of production

Having considered the peasant farm as an abstract productive

organism, we now go on to consider more closely the relation between the peasants and their product - the articulation of peasantry as a mode of production, and its combination with other modes of production - in a serious way. Once again the question of commodity production appears. Here we begin by modifying the generalisation made above, that Chayanov had broken away from the "commodity fetishism" of his contemporaries.

In an early work published at the end of the period of War Communism, Chayanov considered the problem of socialist planning. Socialism, he wrote, is a "natural consumer-labour economy" - "natural" because production is for use, not exchange; "consumer-oriented" because consumption is the aim of production; "labour-oriented" because the state power is "the organising will of the workers themselves. The entrepreneur and the direct producer are united here in one person, and every intensification of the organising will at once raises the disutility of labour (experienced by) the ones who will it". "In a way the socialist economy resembles the economy of the patriarchal peasant family under non-market conditions". (Chayanov, 1921, p. 13).

Under socialism, therefore, scarcity remains but wages and prices disappear. This sets up a number of optimal planning problems, due to the absence of prices which prevents the commensurability in exchange of inputs and outputs, leaving only a variety of real outputs of given labour-time. (Chayanov, 1921, pp. 14-17).

Chayanov then proceeded to analyse the resulting problems of

value-maximisation and utility-maximisation (1921, pp. 17-37). But his "solutions" evaded the questions of how to compare alternative employment and how to maximise the value of a bundle of goods without even implicit prices. He also pointed out, in the pre-1917 tradition, that he could not foresee the institutional structures that would generate optimal solutions (Chayanov, 1921, pp. 19-20 ; see also Chayanov, 1966, p. 23).

Both evasions are of significance. The refusal to consider the mediation of information and decisions about needs and resources as a concrete institutional problem suppresses the problem of planning in a socialist democracy; it is the same sophistry which suppressed the analysis of patriarchy and class relations, by considering the household as "one man", the utilitarian self-determining individual. The refusal to consider price problems under socialism - the macrocosm of the peasant household - as a necessary part of mediating social relations reflects the outlook shared by many of Chayanov's colleagues that the peasant farm, existing independently of externally generated social relations, was behaviourally insensitive to relative product and factor scarcities in rural and rural-urban markets.

Chayanov considered this insensitivity to hold in areas only weakly monetised (Chayanov, 1966, pp. 123-125), and in general, given the non-commodity nature of peasant labour-power and therefore the non-substitutability of on-farm and wage labour. (Chayanov, 1966, pp. 88-89, 234-236). Chelintsev (1918, pp. 51-63) was still more uncompromising.

Of course these economists were among the first to perceive

real problems which could not be explained by a stereotyped classical economy; however this does not make bad theory scientific.

The content of the theory was to establish the following proposition :

(i) Peasantry as a mode of production is insensitive to prices and scarcities arising from the social interaction among peasant farms and between them with the outside world.

The conditions of progress in peasant economy were internally generated through its own intrinsic mechanism.

In considering more closely the points of interaction betwen peasants and the external economy, a stronger proposition also arose :

(ii) Peasantry as a mode of production itself determines the market rates of product and factor substitution in all markets and in the national economy as a whole.

It was the peasant demand for land which determined land prices; the peasant demand for credit determined the level of interest rates. (Chayanov, 1966, pp. 235-239). With regard to the level of wages and the supply of non-agricultural labour again peasant agriculture was the critical factor: it was "not only free of control by wages, but, on the contrary, precisely through this category it also subordinates the whole system of the capitalist economy to its internal equilibrium between demand satisfaction and the drudgery of labour". (Chayanov, 1966, p. 240). It was the peasant disinterest in profits which drove

capitalism out of agriculture. (Chayanov, 1927. p. 7). This led to a final and crucial proposition :

(iii) The best way of organising the modernisation of agriculture within a national developmental framework is the integration of co-operative peasant farming within a planned socialism economy.

Chayanov saw the links between peasant agriculture and the national economy as forming through a process of vertical integration along input-output linkages with the urban manufacturing, financial and consumer sectors, as opposed to horizontal integration (the formation of large-scale production units). This tendency resulted from the technical and social features of the peasant mode of production (Chayanov, 1927, pp. 5-7) which limited producer co-operation to the realisation of "differential optima"; however, there were boundless opportunities for the development of vertical linkages with suppliers of machinery and credit, and product purchasers.

Vertical integration would take place irrespective of the nature of the larger social order; within a capitalist framework it would involve the penetration and domination of agriculture by financial interest (Chayanov cites the contemporary American scene, and the role of U.S. banks and railways as an example). (Chayanov, 1966, pp. 257-262-263). Sometimes this capitalist penetration could be

resisted by peasant co-operatives; but the relationship between co-operatives and finance capital, and among the co-operatives themselves, would be based on antagonistic market positions and unequal market power. Within the "state capitalist" framework of N.E.P. in the Soviet Union, however, the peasantry could grasp the opportunity yielded by the weakness of private capital to develop co-operative integration into the national economy. The development of these co-operative links would eventually entail the reshaping of the whole productive life of the countryside, bringing about a planned co-operative economy with socialised means of production, "leaving the technical execution of certain processes on the private farms of its members more or less as (their) technical obligation". (Chayanov, 1927, pp. 9-13; Chayanov 1966, pp. 263-269). Thus in his work co-operation, initially a weapon of defence against capitalism, becomes a tool of socialist construction (Chayanov, 1927, p. 25 ; Chayanov, 1966, p. 267).

In fact anyone who has read The Grapes of Wrath will be fully aware of the simultaneity of processes of vertical and horizontal integration in U.S. agriculture. The same is true of the U.S.S.R. Nor was the Soviet co-operative movement in the 1920s antagonistic to the interests of rich or capitalist peasants, who were foremost in its early development (Lewin, 1968, pp. 98-100). However it was the co-operative strategy which Chayanov and Makarov (1917, pp. 67-70) put forward as a means to the gradual abolition of commercial imtermediation,

speculation and market antagonism in the relationship between the peasantry and the socialist urban sector.

CONCLUSIONS

Everybody gets frustrated by peasant studies sooner or later. Some people react by retreating into super-conceptualisation and mechanical constructs fuelled by 100-octane theory. Others flee back to the world of commonsense four-letter symbolism. Some become quotationists and others firmly reject every shred of the theoretical tradition. All these tendencies are probably present in this paper, and none of them are particularly helpful. The possibility of writing a conclusion without resorting to one or another of these devices seems pretty remote. At the same time it would be irresponsible and even disrespectful to leave the life's work of Chayanov hanging in mid-air, suspended by a few ad hoc comments.

In the work of Chayanov one may discern the framework of an ideological tradition and some scientific insights. Chayanov's work is really frustrating because it has to be first dismantled to be understood in its parts and as a whole.

The ideological framework can be understood on the basis that ideology is always founded on real forces and relations of production, and arises out of real struggles. The conjuncture, must be understood as the underdevelopment of the Russian economy,and the Russian revolution.

(i) Chayanov's work expresses the limitations imposed upon the development of the productive forces, and seeks the constraints at the level of the specificity of agricultural techniques, rather than in the social forces which delayed accumulation and technical change : the despoilation of agriculture by the gentry and the state, and the international division of labour which made Russia export grains at the expense of domestic living standards and domestic rural savings. In doing so it interpreted the pockets of Russian agriculture where accumulation and technical change were proceeding with great rapidity as an index of the potential of peasant co-operation and agricultural extension, rather than as an index of the development of capitalism (in southern wheat-farming, in the intensive agriculture of the industrial centre and the Baltic states).

(ii) Chayanov's work expresses the limitation imposed on the utilisation and exploitation of labour-power, seeking the constraints at the level of leisure-preference and subsistence motivation, rather than at the level of a theory of under-employment.

In doing so, it interpreted the developing local and migrant labour-markets as a marginal and transitory phenomenon; it saw the widespread prevalence of low consumption levels as indicating a revealed preference. Rather, they may be seen as fundamentally opposed to the autonomy and self-determination of the peasant farm organism.

(iii) Chayanov's work expresses the subordination of peasant agriculture to industrial and financial capital, but seeks the liberation of the peasants through altering the conditions of exchange and terms of trade, rather than through the free association of peasants in their productive life.

Not only are the dangers well documented that co-operatives based on 100% membership, elective leadership, and supply-sales functions tend to reproduce the existing village class structure through the chanelling of resources (not that there is anything wrong with elections, but their context is also important). In addition, any strategy based on the preservation of family structures and property will not challenge the patriarchal relations which sustain the frozen apathy of much village life.

At the same time, Chayanov's work contains much that is of scientific value. Above all it was continually forced into an insistence upon real problems : the explanation of behaviours and transactions which became steadily more perceptible over the latter part of the 19th century, and which could be explained neither by the classical Ricardian stereotypes nor by Slavophile mysticism. The immense body of statistical research for which Chayanov's school is responsible is alone a valuable legacy. In addition, Chayanov has challenged many of us into a more rigorous approach to our subject.

Fundamentally, however, the notion of the peasant mode of

production in his work belongs to the general ideological problematic. To set up a conceptual mode of production as a way into examining historical change and development, class relations and struggles, and the emergence of new forms of society is one thing. However, in Chayanov's work, the peasant mode of production appears as a way of asserting a lack of development, stagnation and persistence of a traditional disintegration in the economic structure of society as a whole.

Peasantries must be understood within the societies of which they form a part. In defining the Russian peasantry of our period, we observe a combination of structures which reproduced low levels of accumulation and specialisation, the patriarchal family and non-commodity relations of production (in particular the allocation of non-wage labour within the family and to the payment of feudal rents).

No individual element in this combination is specific to the peasantry. The combination itself, arising with the development of feudal society, constituted a part of that society as a peasantry. The rise of new social orders in Russian and Soviet society affected each individual structure and played upon their mutual interaction. One may call the peasantry a formation in transition from feudal society, not in the sense that it proceeded towards a determinate goal, but in the sense that the structures which had traditionally reproduced it were progressively and necessarily challenged. Around this challenge revolved the question of the manner and direction of the transformation of the peasantry, and material struggles to which Chayanov's work referred.

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