## POST FORDISM AND NEW TIMES

Robin Murray

Paper presented to conference on "Technology, Labour, Enterprise and Region in the 21st century from the Perspectives of Flexibility" held in Nagoya, and Nihon Fukushi University, June 6th-8th 1990

#### Post-Fordism and New Times

Over the last 18 months, the leading edge of the debate on modernisation on the Left has centred on the concept of post-Fordism and New Times. In October 1988 the Eurocommunist monthly Marxism Today produced an issue, timed to coincide with the Labour Party conference, called New Times, and followed it up with a series of articles collected together as a book in late 1989. The pieces were not written from any coherent position. In some cases they were But they were all registering major changes in contradictory. various fields which appeared to have some parallel with each other: post-Fordism in the production process, a new form of consumption, of public and private forms of organisation, of the welfare state, of class culture and the new social movements. One common theme was the fragmentation of identity, a fragmentation which is reflected, too, in post-modern forms of culture and thought (from Lyotard's philosophy, to post-structuralist psychoanalysts like Lacan and Julia Kristever, to literary criticisms and the forms of literature itself).

As will already be clear, there was a strong emphasis on the cultural. In part this was a result of trying to reconnect politics to people's lived experience, in reaction against a politics whose abstractions - class, party, state control of the means of production, trade unions - had been alienated from those whom they were meant to represent, and, like the commodity in the economic sphere, returned in some sense against them in practise and in thought. It is the women's movement which has been particularly important here - in reclaiming the link between politics and personal experience, and challenging their mediation by men's thought and practise. Post-structuralist approaches are only one among many ways of remaking this link, one which at times recalls the traditions of anarchist individualism. But the impulse is a democratic one - of re-authenticating politics.

There was also a wider argument, that the cultural was as important a battleground in late twentieth century capitalism as the economic. Kristeva, writing as a Bulgarian from a woman's point of view, saw the struggle for economic, political and social equality as won in

theory if not yet fully in practise. The key terrain was now shifting to the symbolic world of language and culture. According to writers like Geoff Mulgan, culture can no longer be seen as part of the superstructure but is part of the base. Marketing has for long been more important than production in the curricula of the business schools. Culture itself is a material practise, a key moment in capital accumulation, and a site of most vigorous contest. The political parties consequently need to devote as much energy to the control of advertising, retailing, the development of the cultural industries, or the planning of town centres as they do to, say, the form of ownership of the steel industry, let alone the manipulation of exchange rates.

The New Times theses had an impact because they provided some categories to describe these felt changes, and because they risked addressing issues which have previously been marginalised in socialist discussion. Papers are now written on post-Fordism in education, in local government or the reorganisation of magistrates courts. It has been a strength too, to try and connect these disparate fields, to see what moves these changes, what is common to them.

But at the same time it has provoked a torrent of criticism; against its privileging of the cultural, its bourgeois individualism, its underestimation of the value of the old structures of labourism, particularly the trade unions and the welfare state, its downplaying of class, and of class struggle as the motor of history and of The tone of the attack can be gauged from the opening economics. lines of a vigorous criticism by the Editor of Race and Class, A "New Times is a fraud, a counterfeit, a humbug. palms off Thatcherite values as socialist, shores up the Thatcherite market with the pretended politics of choice, fits out Thatcherite individual with progressive consumerism, consumption itself the stuff of politics. New Times is a mirror image of Thatcherism passing for socialism. New Times is Thatcherism in drag."

The link between New Times and Thatcherism is important at a number of levels. First, its historical context: the Marxism Today project

began with a seminar in May 1988, less than a year after Thatcher's third election victory in June 1987. The defeat of Labour - on what was a not an unradical platform - returned the left to the depressive The first Thatcher victory could be blamed on the position. retreating Labourism of the 70's; her second in 1983 on the nationalistic response of the British electorate to the Falklands But for the third there were no such explanations. In spite of a savage social policy, growing inequalities, and the destruction of a whole series of established institutions, Thatcher's support stayed solid (including important parts of the working class), while the opposition refused to vote for Labour in the post-industrial areas of the English south. Marxism Today had already argued that Thatcher could not just be read as the front woman for capital in crisis, restoring the rate of surplus value by disciplining labour. extraordinarily radical economic and social project clearly struck chords amongst waged and salaried workers, not least her attack on the bastions of the old aristocratic order. What was her new order? What chords did it strike? This was one of the questions posed by the New Times project.

Thatcherism moreover had achieved an ideological hegemony in intellectual circles: the old utilitarian baggage of methodological individualism and the market had reached a high ascendency, so that her think tanks were producing papers suggesting that the Church of England should be treated as a service retail chain, with its priests paid by results, measured by the size of congregations. Nothing was sacred against the advance of private property and the market. It is necessary to have lived through the 80's in Britain to feel the strength of this new utilitarianism, and the weakness of the left's alternative way of seeing. Only the greens have a similar unified and radical world view expressed with such clarity and identity. New Times was trying to reconstruct a coherent socialist alternative.

I mention this historical background, because the nerves touched in the debate are nerves of those who have been on the defensive, who have seen even the modest gains of social democracy increasingly dismantled, and felt in so many pores of daily life the corrosiveness of the market. It is difficult to think creatively at a time of siege. The events of 1989 in China and then in Eastern Europe, as

well as in the Third World - have only deepened this sense of siege, not because of the defensibility of the past, but rather the embrace given by ordinary people in these countries, to the market, monetarism and Mrs. Thatcher. I talked recently to a member of the old Communist Party in Hungary, whose party 3 months before, had had total political power and which had just received 3.5% of the votes in the General Election. The pendulum will swing back he thought, when the effects of a private market economy revealed themselves. But there is a growing sense in the East as in the West, that the pendulum will not swing back to the old forms. What is needed is a new model - a third way - to which a pendulum could swing.

In this paper I cannot cover the range of debates reflected in New Times. I want rather to concentrate on what is recognised as a cornerstone of the argument, that associated with the idea of post-Fordism. Has there been a major change in capitalism which shapes, underlies, and even incorporates the rest? What implications do the changes in production - linked it seems with the revolutions in electronics, biotechnology and new materials - have for the social and political as for the economic world. Is there a post-Fordist way of thinking about production which could stimulate a new view of socialist production, in much the same way as Fordism stimulated the Bolshevik and social democratic visions of the first part of the twentieth century?

## Post-Fordism

The starting point for the post-Fordism argument is Fordism itself. The greater part of twentieth century capitalism has been based on a model of production in which standardised goods were produced in long runs by specialised, 'bespoke' machines, using semi skilled labour, whose work and payments systems had been 'Taylorised' by the division of conception and execution. The administrative structures (whether of firms or states or armies) were organised on strict hierarchies, with information flowing up and orders coming down. They were relatively closed systems, which, in the case of the firm, meant arms length relations with competitors, customers, and suppliers. Caveat emptor (buyer beware) was more accurately caveat everyone else.

Externally this was the competition of the jungle, internally a Hobbesian Leviathon.

The centrepiece of the economy was the flow of the production line whether it was a process plant, a parts manufacturer or an assembler. With large investments in fixed capacity, profit depended on high rates of capacity utilisation, and the features of the Fordist firm reflected this: vertical integration, high stock levels, consumer credit and advertising, standard cost accounting, and the layout of the factory itself. So did the forms of macro regulation which developed around Fordism: the regulation of demand through Keynesian measures, the protection of a home market within which fixed costs could be amortised, as a base for competing in world markets through lowering prices to the incremental margins. Agricultural policies, immigration conditions, and, in wartime, childcare and public food preparation were organised to maintain a steady flow of semi skilled Social insurance allowed labour to be laid off during down turns while remaining available for an upswing.

There are other features of this Fordist system: mass distribution, mass production, the nuclear family, forms of education, the expansion of cities, the extensive use of materials and energy, the separation of technology from production and its concentration on discontinuous innovation. Such lists, and the functionalist nature of the interlinking, do violence to the history and politics of particular societies. They neglect the battles which were fought to secure the welfare state, the very different paths of US and continental European society, the always unfinished business of the assertion of capital's control, and the resistance of those who lived and worked within it. On the other hand this functionalist summary does point to one truth about this era. These features were in varying degrees co-terminous, they supported the particular form of mass production accumulation, and they reflected a distinct ideology of the productive system.

It is this ideology which most strikes the late twentieth century reader about the early period of Fordism. The machine aesthetic was developing in the late 19th century, and was taken to new heights by the Futurists, the Constructivists and the Communist painters like

the Mexican muralist Diego Rivera. Le Corbusier could speak of buildings as machines for living in, Schumpeter could speak of the political machine. Socialists, both Bolshevik and social democratic, had machinery at the centre of their economic vision, raising labour productivity, lowering prices, directly socialising labour under the conscious planning of the democratic centralists. Above all machinery had a progressive cultural function - clearing away the cultural detritus of the past to allow the creation of the new socialist person. The Hungarian constructivist Laszlo Moholy Nagy summed up this commitment to the machine and its imagery as the modernist dynamic for change. It was he said 'the root of socialism, the final liquidation of feudalism. It is the machine that woke up the proletariat. We have to eliminate the machine if we want to But we know there is no such thing as turning eliminate socialism. back evolution. This is our century: technology, machine, socialism. Make your peace with it; shoulder its task'.

It was this ideology, and the structures of Fordist production which came under strain from the mid 1960's. Compare a late fifties realist film like Saturday and Sunday Morning, with a Goddard or a Truffaut, and we see a new culture as well as a new cinema. In the factory there was growing resistance to Fordist control and attempts at increasing the intensity of labour through productivity deals. Rates of productivity growth were not sufficient to counter rising wages, increasing capital outlays and the accompanying falling rates of profit. The crisis of the mid 70's and the early 80's confirmed the difficulty of sustaining growth by Keynesian means.

It is then that we see a new post-Fordist model of production emerge. It substituted general purpose for bespoke machinery, cut down changeover times, and as a result was no longer tied to long runs of standardised products. Thus, Toyota's setup time in its body pressing shop is 10 minutes against 4 hours in General Motors; car dies were thus changed 10 times a day by Toyota and once every ten days by GM. Toyota produces batches of 1-2,000 panels or 3 shifts' requirements, GM 14,000. The greater production flexibility is one part of the Just in Time system that seeks to produce in line with orders and not for stock.

One of the signs of a Fordist factory is its levels of stock. Hungarian chair factory I visited recently had three quarters of its extensive site covered in stocks: inventory, work in progress, and finished goods which spilled out into the yard, under makeshift leanto shelters, some even in the open air. It turned its stock over once every three months (4 times a year). In Toyota the figure has been reduced to once every  $3\frac{1}{2}$  days. The consequent savings are not merely in warehouse space and working capital. The comparative study of press shops showed that one of the major savings of faster stock turns was saving in the indirect labour employed to move, warehouse and progress chase the stocks. There was a positive correlation between faster stock turns and higher labour productivity.

Being in Japan I have no need to describe the Toyota system: its principle of quality (the problems of which have recently been estimated to account for 15-30% of US manufacturing costs); of kaizan, or continuous improvement (which applies to the real process of production the limitless principle of expansion of capital in value terms); or the challenge of Taylorism in the organisation of production which allowed Konosuke Natsushita to tell a Western audience "For us, management is the entire workforce's intellectual commitment at the service of the company ..... without self imposed functional or class barriers ..... We will win and you will lose. For you are not able to rid your minds of the obsolete Taylorisms we never had".

Whatever its implications - for labour, for the macro economy, and for the conditions of its own reproduction, this is a system which appears to be operating a radically different model of production to that of Anglo-Saxon Fordism. Here is a system that puts greater emphasis on organisational innovation and improvement than on modern machinery; that sees innovation on the shop floor as the result of continuous small improvements by the operators as much as by discontinuous inventions in the R & D department; which aims to establish long term two way relations with suppliers rather than driving a short term bargain on costs with competitive sub contractors. Markets, workers, suppliers, competitors - all are seen as potential sources of ideas, and the organisation itself is

envisaged less as a machine for delivering a set plan, than as an institution for learning.

This is no doubt an 'ideal-typical' model of Japanese production, which is modified according to different histories and circumstances as we are finding when the Japanese move abroad. For the moment this is not the issue. What is significant is that many of the same principles have been found to operate in quite different systems in Western Europe: in the small firm industrial districts in the Third Italy for example, or the engineering networks in Baden Wuertemberg, West Germany. Here, too, we find chains of inter firm cooperation; means of regulating against destructive competition; an emphasis on design, customisation and quality; on flexible production systems that can make to order rapidly rather than speculatively producing for stock; systems of polyvalent skills, and investment in labour. Just as the Japanese have been dominating world markets in fields demanding flexible automation, so the industrial districts have been outcompeting UK, French and often West German mass producers in a wide range of light industries, as well as in branches of engineering.

Furthermore Western 'mass managers' are themselves becoming aware of what Michael Best calls the principles of 'the new competition'. We need only to compare the classical works of F.W. Taylor and the other pioneers of scientific management - who moulded the managerial outlooks for management in capitalist and socialist countries for bulk of the twentieth century - with the new American managerialists like Tom Peters or Rosabeth Kanter to sense the magnitude of the change. These are the writers whose books sell as Taylor's and Ford's once did, and whose lectures are taped and discussed at seminars in the public and private sectors of the West. Peters' latest book 'Thriving on Chaos' suggests in its title alone a world in which Taylorism is turned upside down.

What follows from these changes in production? First there is a tendency towards an ever sharpening duality in the labour market, between core workers whose loyalty is courted by a range of corporate welfare provisions, plus high wages, and a secondary labour market, less skilled, less secure, lower paid, who are the real buffers of

the new flexibility. For Just in Time production does not reduce demand fluctuations. Rather, it ensures that the production system moves in time with the fluctuations, and displaces the costs of adjustment from stocks to the peripheral of the secondary labour market in contrast to the functional flexibility of the core.

Second, there is an ever greater emphasis on design, as product times become shorter, and changes more frequent. It is not clear to what extent consumer behaviour itself has changed - becoming more volatile, less predictable - thus intensifying the pressure for production flexibility, or whether the quickening pulse of fashion the competitive drive of the design led producers Whatever the balance, it is here that there are themselves. immediate links between the post-Fordist economic analysis and the New Times concern with identity and the world of consumption. Certainly market research has developed a new anthropology of consumption, breaking down the mass market into discrete niches and lifestyles, creating whole worlds of identity within each of which the consumer on the high street is strangely innocent.

Third, there is the question of the system of macro regulation. Charles Sabel and Michael Piore - two of the pioneers of post-Fordist theory - have suggested that macro economic regulation of demand becomes less important in a post-Fordist or as they would put it 'flexibly specialised' world, and that the price mechanism will have a greater role in adjusting supply to demand as in the nineteenth century. Rather regulation needs to shift to the micro and regional level - ensuring that competition does not take destructive forms, that welfare services are maintained to avoid breakdowns in social 'solidarity, and that - for those regions which have been damaged by restructuring - there are national mechanisms to provide the social, financial and infrastructural conditions for the re-establishment of flexible accumulation.

What is reflected here is a break down of the nation state as a privileged unit for macro economic management as it was under Fordism. The globalisation of capital has eroded the nation state as a distinct area of commodity markets, finance and labour markets. In the era of flexible accumulation it is regions which become key sites

of public intervention, as direct support for industrial networks, and more effective providers of formerly national public services.

This in summary is the post-Fordist reading of contemporary economic changes. As with the New Times theses more generally, it has been the subject of the most virulent attack. Some of the attacks have been methodological, rehearsing other debates in relation to this particular subject. There are arguments presented against functionalism, totalising theories, the use of ideal types, the privileging of the economic and so on. The main substantive objections raised have been the following:

Firstly critics have argued that it is illegitimate to speak of an era called Fordism. Eras cannot be distinguished on the basis of labour processes, for each period is marked by a whole variety of labour processes. Moreover the labour process identified as Fordist not only extends back to the early stages of the industrial revolution, but is still alive and well today. The Fordist model is that outlined by Marx in Volume I of Capital as 'machinofacture'. Henry Ford applied these well established principles of production to complex assembly, but such assembly was of limited significance in capitalist economies.

In British manufacturing for example, less than a third of factories used assembly lines, and only half of these were mechanically paced. In the words of Williams, Williams, Cutler and Haslam:

"Ford's innovation of the assembly line factory had a limited field of application and Ford did not provide a strategic model which his successors imitated. Ford's production techniques only had an overwhelming cost advantage in the production of complex consumer durables, initially cars and electrical goods, and subsequently in the field of electronics where the products included consumer and producer goods ..... But for simpler consumer goods like clothing and furniture, mass production techniques had a limited advantage. Meanwhile the capital intensive process industries like steel and chemicals, went their own way before and after Ford."

The mass production industries not only existed side by side with other forms of labour process, they depended on them. The dedicated capital equipment required craft based machine shops, and Ford's factories also created a large number of highly skilled jobs notably in maintenance - which had nothing in common with the stereotype of Fordism. Even within Ford's factory complex, assembly was of minor importance, his methods knocking \$2.50 off wage costs for a car that sold for \$500.

There are a number of different points being made in this line of The first is to question the significance of the Fordist labour processes in twentieth century capitalism. The answer in part depends on how we define such a process. It is certainly more than the assembly line. It takes in the application of Taylorism to the fragmentation of tasks, the division of mental and manual labour, and the form of the wage. It involves the re-composition of labour according to direct labour time calculations, of which the assembly It exhibits, too, a link between standard line was one form. products and dedicated machinery - not universally (Ford himself always sought to have flexible general purpose machines wherever possible) but at enough points to ensure that changeover times were long and costly, and that the scope for product differentiation was therefore narrow. The critics may be right to say that Fordism as some ways increased flexibility because the thus defined in fragmentation of tasks allowed technology to be developed for each particular stage of production, and certainly care needs to be taken in the use of the word 'flexibility' in respect to different labour processes. But in one way the new Fordist processes were inflexible, and that was in respect to changes in market demand.

If Fordism is defined in this way - and Marx's analysis of machinofacture is remarkably prescient of what was to come - then as a system of labour control, of productive organisation, of product and industrial strategy, Fordism applies well beyond the assembly industries. The process industries are in some senses the apogee of this industrial vision - capable of extruding much of the semi skilled labour which had still to be maintained in the assembly industries. It is a vision which was applied in light industries - textiles, furniture, footwear and food processing - as much as in

In each of these industries we can trace the complex assembly. moment when the Fordist principles were applied - from guns to sewing machines, bicycles, cars, biscuits, haircream, bedroom suites, and after the Second World War - shipbuilding. In each case there was a revolution in the sector, in production, distribution and often topography. In each case the particular character of the production process - and its demand and geography - determined at what point the revolution would occur. In some cases it has still not taken root. Engineering - with 75% of its output in small batches of under 50 was for long a resistant sector to these changes. But what is striking is the overwhelming march of these principles 'machinofacture' from the late nineteenth century to the late twentieth. Taylorism became the dominant managerial ideology, along with flow, scale and standardisation. Both in managerial and Marxist thought, 'machinofacture' was the model towards which all production tended, nowhere more clearly seen than in the model and practises of Soviet industrialisation itself.

On this count, therefore, I find the Fordist case strong. It is certainly the case that each sectoral revolution created new skills and 'non-Fordist' production - whether in the tool room, maintenance departments, design studies, or R & D labs. But the competitive advantage came from the productivity increases afforded by the new production organisation, not the supplementary crafts, and these crafts themselves were always under pressure to 'Taylorise'. My argument is then that the Fordist processes, as I have defined them, were at the leading edge of capital accumulation. As Marx put it, this was the path to the increase of relative surplus value. extent and pace of its adoption varied by sector, and country. depended on market size, imperial power, the strength of labour, cultural traditions, and embedded institutions, (hence the great rapidity with which Fordism spread in the United States). But overall I suggest it was the innovations of Fordism which underlay the growth of productivity for the greater part of the twentieth century.

How does this leave the second part of the objection: that periods of capital accumulation - historical eras - should be explained by the history of the expanded reproduction of  $\underline{\text{value}}$  - capital

accumulation - and class struggle rather than the use value characteristics of the labour process? Simon Clarke, for example, suggests that the post war boom was based on liberalisation (circulation) which created the conditions for a settlement between capital and labour, rather than on the spread of Fordism. The welfare state he sees as a reflection of crisis and at the same time a factor deepening crisis, rather than a functional brick in the Fordist system of regulation. Fordism he sees as a dream which by controlling labour and raising productivity would allow the inherent crisis tendencies of capitalism to be overcome; but it was incapable of realising this dream. The crises of the recent era are the result therefore not of the exhaustion of Fordism but of the inherent tendencies of capital accumulation.

I can only set out in brief the connections I see between labour processes and the wider process of accumulation. One of the great qualities of Marx's analysis of the labour process is his insistence that it was simultaneously a use value and a value producing process. Changes in the labour process were reflected in the realm of value, as were changes in the value realm fed back to material production. One of Marx's distinct theses was about the way in which the material labour process would develop. To raise labour productivity, and to re-assert capital's immediate control over labour, he saw a drive towards the very type of production we have been discussing -machinofacture. I regard this as a thesis distinct from his value analysis - for it is a thesis about how physically and politically labour productivity can be increased.

The growth of machinofacture has its consequences and contradictions in the value sphere. One is represented in the rising organic composition of capital - a theorem often discussed in terms of disembodied equations as if Marx had never written about the labour process. Another is felt as a lack of markets. In Volume II of Capital, Marx shows how expanded reproduction is possible, in simultaneous value and use value terms. But the development of machinofacture provides a new drive because of the low cost of the incremental product. There is an ever greater incentive for capital to expand beyond its value limits, through private or state sponsored credit, or through expansion into new markets. Capital has always

depended on credit. It has always had an outward drive for new markets. The development of machinofacture gives a new pressure to them both.

The writer who first insisted on this point to the post-1968 Marxist left in Britain - and who introduced us to F.W. Taylor and the concept of Fordism - was Alfred Sohn Rethel, who died earlier this year. He saw Fordism in the way I have tried to describe it as the moment when labour was socialised - or synthesized - not indirectly through the market but directly via capitalist planning using directly calculated labour time in the manner of Taylor and Ford. This prefigured for Sohn Rethel the socialist planning of the economy on the basis of labour time,. Capitalism came into increasing contradiction with the value relations around it. Sohn Rethel's argument was a classical formulation in many respects, but his introduction of the Fordist labour process allowed him to highlight the explosive drive for market expansion which underlay imperialism, the Great Depression and - in a remarkable book based on his own direct experience - the assumption of power in Germany by the Nazis. It formed the basis, too, for explaining many of the developments of the post war world, globalisation, US hegemony, and the development of European integration.

The Italian autonomists link the Fordist labour process and macro developments in a different and equally interesting way. For them, machinofacture posits the mass worker, just as worker's resistance posited mass production. The history of twentieth century capitalism is one of the continual decomposition and recomposition of the mass worker against capital - both at the level of the firm, and in the `wider society. Mario Tronti argued that the New Deal can only be understood as a response to the strength of the American mass workers, and Tony Negri makes a similar argument about post war In neither case was it the official social democratic reforms. representatives of the working class who were responsible - trade unions or political parties - but rather the direct actions of the mass workers, and those with whom they lived in the social factories (cities) created by mass production.

I mention these two treatments of Fordism and its links with wider social and economic developments as a way of indicating how a history of the twentieth century could be developed. Michael Aglietta and the French Regulation school provide a third alternative. What each suggests in their different ways is that what Simon Clarke calls 'the crisis ridden tendencies of capitalist accumulation' cannot be analysed separately from the developments in the labour process, for the dynamic of the labour process provides the basis for both a materialist theory of politics and explanation of the tendencies at work in the value sphere. Capital accumulation is simultaneously a value and use value process, inextricably and contradictorily linked to each other. The labour processes which are addressed by the Fordist analysis must therefore be at the very centre of any overall treatment of contemporary capitalist development.

#### Neo-Fordism or Post-Fordism

A second set of objections is that the changes identified in the post-Fordist analysis are best seen as extension of Fordism, rather than a radical departure from it. It is pointed out that Fordism is fields, from convenience foods, into new maintenance, satellite broadcasting, retailing, stock rearing, and traditional fields, the financial services. In drive globalisation is reflected in increased multinationalisation production, based not on economies of scale in production, but of economies in marketing (product branding), in R & D, finance and acquisition.

Even the production changes, it is argued, are strategies to overcome barriers to the full development of Fordism, both in the field of the circulation of capital, and in that of labour control. They do no more than further realise the dreams of Henry Ford.

These propositions all have some force. Fordism is expanding into new fields. It is extending its scale and scope in old ones. Many of the elements of the new managerialism are consistent with Fordism. None of these points are in dispute. The question is, however, whether there is any feasible alternative path which could contest these developments, or does the traditional Marxist view of the inevitable drive to machinofacture and the direct socialisation of

labour still hold. Put another way, when and in what sense, do modifications of Fordism constitute an alternative rather than an extension?

There is much in the Japanese system which seems to me not only consistent with Fordism but a development of it. This is the case, at least partially, with the general principle of Just in Time. rapid changeover times, the strategy of producing to order rather than for stock, of pull through rather than push through production, way contradicts the principles of mass Programmable machinery has helped in cutting down times, and has turned small batch engineering into quasi volume production. US and British mass producers have improved their stock turns and cut their they may still not match the Japanese, but the changeover times: changes are there. There is no need to abandon Taylorism to reap the benefits of Just in Time, or to improve product flexibility.

The same is true with respect to labour organisation. Job enlargement and team working are compatible with the preservation of semi skilled jobs, with targets and piece rates being applied to the group. The sphere of autonomy is still highly constrained, and subject to Taylorist forms of discipline. Sub contracting semi skilled work indicates a change of ownership, but not a change in substance, save in the negative sense of further fragmenting the labour employed by the sub contractors.

On the other hand there are changes which I do think mark a discontinuity with the very principles on which Fordism was based. The first of these concerns Taylorism. What the Japanese model has done is find a way - as they put it - of appropriating 'the gold in worker's heads'. In his celebrated essay on Americanism and Fordism Gramsci notes that under Taylorism, "once the adaptation has been completed, what really happens is that the brain of the worker, far from being mummified, reaches a state of complete freedom. The only thing that is completely mechanised is the physical gesture; the memory of the trade, reduced to simple gestures repeated at an intense rhythm 'nestles' in the muscular and nervous centres and leaves the brain free and unencumbered for other occupations... and not only does the worker think, but the fact that he gets no

immediate satisfaction from his work, and realised that they are trying to reduce him to a trained gorilla, can lead him to a train of thought that is far from conformist" (309-10). The Japanese system has found a way of appropriating that thought.

To do so they have increased autonomy on the shop floor; they have extended the range of responsibilities of the worker; they have encouraged the worker to initiate improvements, and to discuss new ideas with others in the shop. The Kaizen principle of continuous improvement is the organising principle around which intensification of labour is arranged. The targets are set externally, the details are left to those on the shop floor and their support workers (including the production manager). Payment systems act as the spur to achievement. In the press shop study I cited earlier, the basic wage was only 30% of the total, 2/3 are bonuses, 40% of the monthly wage being a shop bonus. This is not, however, a collective piece rate system, like the Coventry gang system in the 1950's in the UK. Rather it is a reward for co-operation with management and being a group bonus, it uses peer group pressure on the individual worker concerned.

This system makes a break with Taylorism. It recognises that workers themselves may be in the best position to organise the production process and to improve it. Many technical tasks on the shop floor - from maintenance to statistical quality control - may be most effectively done by the operative rather than specialist staff. The operative must therefore be given an autonomy he or she lacked under Taylorism, and be encouraged to recompose the fragments of production through team work and quality circles. The greater autonomy, and thus immediate control over the labour process is contained within the discipline of targets which control line pacing and a whole series of devices to encourage conformity - from the group bonuses, to corporate welfare provisions, and to the threats of punishment which given the absence of external labour markets, may amount to life time demotion.

Richard Schonberger, the American management writer, reported after his study of Japan, that 'the Japanese out-Taylor us all'. By this he meant that they used industrial engineering/work study extensively. But it is the industrialisation of the mind and the new forms of labour control and work planning which mark the Japanese systems off from traditional Taylorist ones.

The result is the Toyota system which has been called 'management by stress'. The constant lowering of buffer stocks and buffer workers, is seen as part of the drive for continuous improvement, as is the principle of running the line up to or just over the limits of workers and machinery in order to expose the weak points and thus further encourage improvement. But elsewhere these changes have not been associated with such severe stress. Kern and Schumann's celebrated exposition of the new production concepts - involving the breaking down of the mental/manual division, the increase in autonomy and the development of new skills - cited inter alia the robotised body shops in the West German auto industry. The auto industry in Sweden has a range of alternative assembly systems, many of which Berggren (in his recent survey of them) refers to as flexibly Taylorised. But a number in the commercial vehicle field do signal a radical change. They have strong group organisation on the one hand and on the other unpaced work cycles, and complete assembly being undertaken by a single team. So there are a range of possibilities. Much appears to depend on the labour market and the strength of the trade unions as to which strategy is adopted. All we need to note, however, is that they are all substantially different from the traditional Fordist line.

The second change I want to talk about relates to systems. The analysis of the labour process in Marx was concerned with stages in the direct socialisation of labour, that is to say its organisation outside the market, from simple cooperation to manufacture and then machinofacture. In machinofacture labour was brought under the real subordination of a machine system, but the analysis was very much at the level of a particular machine or factory. The development of information and communication technology has now extended the range of this direct socialisation to what I will call the productive system.

To an extent this was already true of the Fordist period. What else were the giant companies that grew up in the late nineteenth and

early twentieth centuries, or the vertical system set up by Ford himself to ensure the principle of flow operated not just within assembly but through the entire chain of production and distribution? But the sheer volume of information to be processed in such organisations set limits to the extent to which they could be directly planned. Ford UK was by and large independent from an operating point of view until the early 1960's. Ford Europe was not established until the late 1960's. From that time on, Ford, like other major multinationals - ITT, Kodak, GM - greatly increased their direct span of control.

The control was not simply over their own employees, but over their sub contractors and their distributors. This is what I mean by a productive system. Increasingly over the last twenty years, it has been the control of the key points of such a productive system that has been more significant than formal ownership itself. Benneton provides an example. The core firm controls the management information systems, the design capacity, and the automatic warehouse and dyeing plant. The retail shops are franchised, and the bulk of their clothing production is undertaken by small sub contractors clustered round the head office in the Veneto region. Major retailers - handling perhaps 12,000 different lines, operate a similar system, and like the large assemblers, act as the effect planning agency of their productive system.

Part of the gains from such systems are those we referred to earlier, in terms of amortising R & D, globalising sales of branded products, and mass producing or duplicating particular management systems. MacDonalds, for example, supplies its Moscow outlet from Russia `rather than America: what it has exported is a recipe, but more important, a production and marketing system. But there are also 'system economies', which refer to the ways in which central coordination speeds up the turnover time of capital in the system as it does in any one plant. Benneton can replace the product lines sold in the UK with products made in Italy within 5 days. closely monitor sales to ensure changes in the reproduction mix. They can also coordinate the strategic development of the productive system, speeding up the development and diffusion of new products. The strategic planning of changing productive systems is one of the

important 'system economies', with coordination between design and development, production and distribution established through CAD-CAM and EPOS technology. Some writers now refer to an era of 'systemofacture'.

These developments are - in one version - important components of They represent decisive extensions of the Fordist system. But we can trace a different variant, one which changes the form of organisation within these systems, and the nature of the relationship between the component parts. Operational decentralisation within firms is one aspect of this, with central management concentrating on strategy, monitoring and developing the corporate systems themselves. Another aspect is the two way relations between a firm and its suppliers, with concern for a sustained relationship, where innorative capacity is more important than low cost tenders. A colleague of mine interviewing a Japanese electronics firm in the United States was told that its method of choosing suppliers was to inspect their restaurant and toilet facilities, and if there was any class distinction within them, they would walk out since such structures were not conducive to The image of the organisation and its external relations innovation. is one that is centred round learning. In many ways the new organisational models - organic rather than mechanistic - parallel the changing structures on the shop floor: greater autonomy for operating units, strengthening of horizontal links, and economising on the vertical ones, freeing the structures from blue-print, top down plans (and the information systems that go with them) towards constantly self adjusted strategic progress. They comprise the second key feature of post-Fordist production.

A third relates to scale. It had been one of the presuppositions of Fordism that big was beautiful. It was reflected in all spheres of social life - steel plants, power stations, schools, hospitals, shops. But the last twenty years has shown a growing recognition of the potential diseconomies of size, and has been full of examples of effective small plants and organisations. The small plants are more adaptable to changing levels and types of demand. Small organisations are often more administratively flexible; they also have a strong record of innovation. Much of the growth in the Third

Italy, Southern Germany and Jutland, is based around small and medium size enterprises, who have been outcompeting the large mass producers on grounds other than low labour costs. Similarly small plants have often been more adaptable to the changing levels and composition of demand, while new technology has decreased the direct cost disadvantage of the smaller plants. Post-Fordism has sown a distrust for economies of scale, and the principle of indivisibility.

I have picked out three things which seem to me particularly important: the changing labour process, systemation and organisation I could have cited some of the other points referred to and scale. in the initial summary of post-Fordism: customisation and short runs; the materials and energy savings of the new production; the shift of competitive strategy towards innovation and quality and away from simple cost minimisation; an emphasis on software rather than hardware (which is one aspect of the organisational changes). problem with debate is that in each of these cases the changes can be handled in different ways, and taken serially could be incorporated But my argument is that taken together they open up into Fordism. possibilities, alternative ways in which production can be organised, and though there is no necessity for them to take a non Fordist form, there have been many instances where they have done so.

I cannot offer statistical proof of this. What I can say - and it is a point confirmed by many people working directly in the industrial field - is that there is a tendency for the new developments to come together in particular firms. Entering a factory, you can quickly sense whether it is run on a Fordist model or a post-Fordist one. The Fordist one will be concerned above all about driving production through. There will be short work cycles for each operative, a range of specialised technical staff, hold ups because of machine break down, and everywhere there will be stocks. In a post-Fordist factory - and I am thinking of the light industrial sectors with which I know best - there will be a substantial design department, longer work cycles, a more open relation between management and the workforce, including improved workplace facilities, a greater emphasis on workforce training. In a boat building factory I visited recently there were notices hung up about quality. In a textile factory the manager sat in his office with his back to the workers so that they

could see if he was working rather that the other way round. He spent half his time working with operatives and systems designers on problems in the factory, the other half training. He produced branded products, with a delivery time of a week. What is distinct about these post-Fordist factories is a different set of priorities and relationships. It is a point which could best be relayed by photographs, or a novel. It is why so many researchers who have worked in this field talk about a new production paradigm.

At this point I want to register rather than prove this circumstantial difference. I am not talking about Toyota, but about a wide range of industries where this strategy is being pursued. The European industrial districts are among the most striking instances because their small firm size seems to contradict one of the most basic presupposition of Fordism - that of the necessary superiority of scale. The important part of the debate is not whether these new production systems exist. They can be felt palpably to exist, at times with the support of the unions as in the Swedish auto industry cases. Rather it is their significance.

One argument is that the new production systems are tolerated by capital as a more effective means of labour control, and that the firms practising these systems are effectively sub contractors for multinational Fordism. Daniel Laborgne of the French regulation school puts this point forcefully in relation to the Third Italy, arguing that the cloth making firms of Prato are simply suppliers to large retail chains through the mediation of their impannatori, just as the engineering firms of Modena are dependent on Fiat. Far from being a new general paradigm of production, they are a new form of exploitation.

This argument does not hold, however, for much of the Third Italy, which sells its output direct to small and medium sized Italian retailers and to specialist shops overseas. For these there is an alternative thesis: that the new forms of production are geared above all to a luxury market. As Gramsci observed sixty years ago, quality means 'specialisation for a luxury market'. If a nation specialises in qualitative production he asks what industry provides the consumer goods for the poorer classes? The point has some force:

many of the new production systems I have seen and discussed have served upper segments of the market: this is as true of the Swedish auto industry, as of reproduction furniture, or fashion ware. In a sense - with the emphasis on design and quality - it would be surprising if this were not the case.

The question is whether this is necessarily so, and here I think Gramsci is wrong. We can talk about quality and design as applied to mass production - this after all was the vision that moved the Bauhaus and the modernist movement. It is possible to have product differentiation and smaller runs, while still competing on price. It is also possible - as the work of Mike Cooley and Howard Rosenbrock has shown - to have human centred work systems which are superior in quality and cost terms to Taylorised systems.

On the other hand the competitive strength of alternative production systems is itself open to increasing challenge in the non luxury markets. Part of their success has been due to the fact that - based as they are on a different way of looking at production than Fordism - the major Fordist producers have been slow to recognise the important of the new approaches. But as they have become aware of them during the 1980's - and the pages of Harvard Business Review, let alone the investigative managerial journeys to Sweden and Japan, both indicate a trajectory of consciousness - so Fordism has attempted to adopt many of the post-Fordist innovations into its own I have suggested many of them can become instruments of a neo-Fordist project. I suspect some of the success of the industrial districts has been because the mass producers have been so slow to incorporate some of the advances of post-Fordism into their own `productive systems.

The early stages of the debate have emphasised the two sharply contrasting systems. This also reflected lived experience. But both the debate and the experience now suggests that the packages themselves can be decomposed, and re-assembled in different mixes. Neo-Fordism or Toyotaism may take over some of the post-Fordist forms. But equally post-Fordist enterprises may develop their own elements of Fordism in the distribution sphere - namely international marketing and financial networks. Post-Fordism in a positive sense

will not be delivered by technological imperatives, nor by the unfolding of the law of value. It has market weaknesses vis a vis mass production, particular as mass producers appropriate some of post-Fordism's new clothes. But the point of the debate is not to guess the winner. It is more modest, but of profound significance none the less. It is to question the inevitable drive of capitalism to ever higher realisations of the Fordist dream, and to establish that there are alternative production systems which cannot be dismissed as archaic. There is in short a sphere of alternative possibility.

### Culture and consumption

One of the most insistent but allusive lines of attack on postFordism has been on its concern with culture and consumption.

Consumption, it is suggested, is a dependent variable in capitalism, being moulded by productive capital to suit its ends. Hence the alleged increased volatility in demand in the 1970's is said to be the result of capital's ability to generate an increasing quantity of new styles. Market niching is a reflection of changes in capitalist production methods, not a change in consumer habits. From this perspective there is a deep sickness in capital's modern marketing system, and the way in which those in work have been caught up within it. It is the dominant form of modern ideology, where ideology is defined as a way of looking at the world which is unaware of its own limits and partiality. In this sense it should be a prime object of attack, particularly when there are so many basic needs which remain unmet.

The interest shown by post-Fordism and New Times is doubly unsatisfactory. It neglects needs and collaborates with the ideology of consumerism. Hence the sharpness of the attacks on New Times as 'designer socialism', and post-Fordism as representing the interests and ideology of a new post industrial service class.

There is much that is important in this line of argument. But it reveals at the same time a serious absence. The way of posing the problem also presents an impasse for further development beyond the contradiction which is at the heart of the question.' For the reaction towards any discussion of consumption does not just reflect

an identity for those with unmet needs. It is also sympostmatic of a long standing productivism in socialist thought. It is the system of capitalist production which is at the centre of a critique of capitalist society, and through a change in production relations that a new socialism will be born. The rub is the second of these propositions. It is not enough to try and construct new production relations without considering the social relations of consumption, and indeed of the whole sphere of reproduction. Again it is the women's movement which has insisted on this point, and it is the gay movement which has demanded that the left relate to creativity and issues of personal identity which are raised, inter alia, by the discussion of consumption. The continual affirmation of the question of need throws a road block across any development of the theme.

Why such a development is important is that you cannot refashion an ideology by simply dismissing it. The starting point is common sense and immediate appearances, not the counterposing of an alternative idea. Marx started from the commodity in order to reveal the inner working of capital: socialists should also start from the commodity to investigate the inner workings of a culture. Such a project is necessary if the socialist project is to reconnect with people's lived experience. The failure to do so, and the power of the consumerist ideology (and some basic needs), has been unceremoniously revealed by the events of the past year in Eastern Europe.

There is some interesting work now appearing on these issues. Peter Ewen's discussion of style in contemporary culture, and Fritz Haug's explorations of what he calls 'Commodity Aesthetics' are two examples. But I want to approach the question from a different angle, one which links the experience of post-Fordist production systems to the issue of capitalist consumerism.

One of the consequences of the spread of Fordism is an extraordinary destruction of old social institutions, and geographical spaces. This is the field analysed by sociologists of mass society, who have tended to welcome the passing of the 'archaic' and then analyse how Fordism develops compensatory institutions and spaces. The family takes much of the early strain but is itself reshaped. The state plays an important part as a welfare provider and supplier of

infrastructure (and ideology). Where this rebuilding is inadequate, then come extreme statist solutions to the problems of social fragmentation - whether in the form of Fascism or religious fundamentalism.

Capital also has an interest: it knows - in a way which the neoliberal economists do not know - that the economy depends on society. It needs a society for the provision and the ideological disciplining of its labour force, and for the adequate operation of consumption. As Fordism has spread in the twentieth century so this issue of social fracturing and fragmentation has become of increasing concern in these economic heartlands. The problems are evident in their extreme form in the United States - a country with a weak tradition of public provision. In a culture where the ethnic and religious solidarities of past identities sit so uneasily with the atomistic ambitions of the socio economic future, the socially binding institutions are relatively weak. Capital is therefore forced to spend an ever greater proportion of its funds on the reshaping of the fragmented society - in the form of industrial relations departments, organisational specialists, marketing and PR activities and the structure of the mass media itself. The project is to reshape the culture in line with the needs of accumulation, a project which is able to leave out a substantial portion of the secondary labour market, and which therefore only cements the economic divisions created in the labour market. The result is a society under siege.

Let us contrast this with the post-Fordist heartlands of Europe. What marks off the Third Italy, Baden Wuerrtemberg and Jutland is that they are all areas which Fordism ignored. As a result they have predominantly pre-Fordist social structures (particularly striking in the Third Italy where the industrial districts overlay the area of former mezzadria/sharecropping farming, a system which survived into the 1960's). There are strong urban cultures in the small and medium sized towns that make up the bulk of the Third Italy. There are extended family networks, and a strong, inclusive political and/or religious culture. One of the insistent themes of the literature of the Third Italy and on Jutland is that these social and historical conditions are the fundamental conditions for the economic success that has taken place. The social consensus, the ability of firms to

co-operate and the conditions of trust are all the preconditions for the new forms of organisation which I discussed above. Without trust there needs to be a more rigid system of control and organisation. With trust, these can be relaxed.

Commentators are right in doubting the transferability of the Third Italy model to the zones of Fordism. Fordism has destroyed the basis on which such systems could work. It is its greatest weakness, and suggests limits to the question I raised earlier - the extent to which Fordism can adopt the elements of post-Fordism.

At the same time, this helps us understand the nature of modern consumerism, and the commodity aesthetic. Both are grounded in the fragmented experience of late Fordism. This is the meaning of the post modern condition, of the turn to individual experience to relativism and rootlessness. To castigate the post modernists for daring to talk about this condition is to try and forbid the expression of lived experience. It is the experience which needs to be addressed not the thinking and writing which such experience has engendered. Merely holding up the image of another society, an earlier culture, is not in any possible way sufficient. only distances one from the current of experience, it also ignores the main structures of cultural hegemony, and the political importance of contesting them. This is why the post-Fordist argument that culture has become so central to the economic infrastructure is well taken; why their highlighting of the forms and control of the mass media, of advertising, of town planning, and retailing, is so ' perceptive. It is in these areas - as much as in the workplace that the direction taken by late Fordism and mergent post-Fordism "will be determined.

# Summary and conclusions

One of the difficult features of the post-Fordist debate has been that those describing the changes have somehow been seen to be contaminated by them. Too often it has seemed that those who have said it was raining, have been held to be in the pay of the umbrella manufacturers. Post-Fordism has been taken both as a tendentious description of what is, and an unsatisfactory affirmation of what ought to be. I have suggested it is neither.

There are major changes taking place not only in manufacturing but in agriculture, materials and service industries as well. These changes have within them no teleogical course. They may develop in many different ways - as adjuncts of Fordism, as neo-Fordist, as Toyotaist, or in some of the directions which have been called post-Fordist.

The importance of clarifying these issues is two fold: from the viewpoint of trade unions the introduction of these new principle changes the axis of bargaining, and has left many confused. That is often the purpose of their introduction. Some of the best writing on the changes has come from those directly involved in the negotiations such as the Canadian autoworkers. They have shown how important it is to consider the details of the changes and judge them in terms of their implications for labour. They recognise the alternative paths of development which exist.

But - writing in 1990 - the debate has even wider significance, and that is to inform the reconstruction of a model of socialist economic organisation itself. It is now clear that both Eastern European and social democratic socialism has founded its economic policy and principles of economic organisation on the Fordist model. One of the most interesting consequences of the post-Fordist developments is they indicate ways in which institutions could be run differently. The welfare state for example, or state structures, or socially owned and controlled industries. Those who have been most responsive to the New Times discussions have been those involved in community movements, co-ops or local authorities, where they face day to day the problem of socialism not as a counter culture but an They cannot be dismissed as ·alternative project of construction. advancing the class interest of a new service class. addressing the leading question to face the left today: productive economy be established which incorporates in its pores the principles of alternative social relations, which is not subject to the discipline and diseconomies of the law of value, and which works.

As one model of alternative construction now stands in ruins, a new one is struggling to be born. The theses of post-Fordism have been the first tentative steps to assist in such a birth.

TDS, University of Sussex June 1990

#### REFERENCES

- Berggren, C., "New Production Concepts in final assemble the Swedish experience", in: Stephen Wood (ed) The Transformation of Work, Unwin Hyman 1989
- Belussi, F., "Benetton: a case study of corporate strategy for innovation in traditional sectors", in: M. Dodgson (ed) Technology, Society and the Firm, Longman 1989
- Best, M., The New Competition, Polity Press 1990
- Clarke, S., "What in the F....'s name is Fordism" Paper presented to the Annual Conference of the British Sociological Association, April 1990
- Cooley, M., Architect or Bee, Chatto and Windus, 2nd edition, 1987
- Dohse, K. et. al. "From Fordism to Toyotaism" Politics and Society, 1985
- Ewen, P., All Consuming Images, Basic Books 1988
- Gramsci, A., "Americanism and Fordism" in The Prison Notebooks, ed.
  G. Nowell Smith and Q. Hoare, Lawrence and Wishart 1971
- Hirst, P. and J. Zeitlin, (eds), Reversing Industrial Decline? Industrial Structure and Policies in Britain and her Competitors, Berg, 1989
- Hirst, P. and J. Zeitlin, "Flexible Specialisation vs Post-Fordism: Theory, Evidence and Policy Implications", Paper for the conference "Pathways to Industrialisation and Regional Development in the 1990's, Los Angeles, March 1990
- Haug, W., Commodity Aesthetics, Ideology and Culture, IG 1987
- Jacques, M. and S. Hall, (eds), New Times, Lawrence and Wishart 1989
- Kanter, R.M., The Changemasters, Unwin Hyman, 1983
- Kaplinsky, R., Automation, Macmillan, 1984
- Kern, H. and M. Schumann, "New concepts of production in German plants" in: P. Katzenstein (ed) Industry and Politics in West Germany: Towards the Third Republic, Cornell U.P. 1989
- Lash, S. and J. Urry, The End of Organised Capitalism, Polity Press, 1987
- Matthews, J., Tools of Change: New Technology and the Democratisation of Work, Pluto Press, 1989
- Morgan, G., Images of Organisation, Sage 1986
- Murray, R., Regional Economic Policy in Europe in the 1990's, Agenor, Brussels, 1990

- Murray, R., A. Joffe and S. Sipos, "Fordism and Socialist Development" mimeo. Institute of Development Studies, 1990
- Negri, T., Selected Writings, Red Notes, 1988
- Piore, M. and C. Sabel, The Second Industrial Divide, Basic Books, 1984
- Rosenbrock H., Designing Human Centred Technology, Springer Verlag, 1989
- Rustin, M., "The Politics of Post-Fordism" New Left Review, June/July 1989
- Sayer, A., "Post-Fordism in Question" International Journal of Urban and Regional Research, vol 13, no 4, 1989
- Schonberger, R.J., Japanese Manufacturing Techniques, Free Press, 1982
- Sivanandan, A., "All that melts into air is solid: the hokum of New Times", Race and Class, vol 31, no 3, Jan-march 1990
- Sohn Rethel, Alfred, Intellectual and Manual Labour, Macmillan 1978
- Sohn Rethel, Alfred, The Class Structure of German Fascism, CSE Books, 1979
- Tomaney, J., "The reality of workplace flexibility", Capital and Class, no 40, Spring 1990
- Tronti, M., "Workers and Capital" in: CSE, Labour Process and Class Strategies, Stage 1, 1976
- Williams, K., T. Cutler, J. Williams, and C. Haslam, "The End of Mass Production?" Economy and Society, vol 16, no 3. 1987
- Williams, K., I. Mitsui and C. Haslam, "How far from Japan: a case study of management calculation and practise in car press shops", mimeo, 1990