

Post modern

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Post Modern Times

In Aldous Huxley's Brave New World, Christ had been replaced by Henry Ford. Dates were counted AF (from the year the Model T was put on the market) rather than AD. Directors made the sign of the T instead of the sign of the cross. Factory methods had been extended from cars to babies, the Central London Hatchery and Conditioning Centre being the emblem of this new service economy.

Huxley's book was published in 1932, a year after the opening of the Ford plant at Dagenham, and in the midst of the spread of mass production factories around London and the West Midlands. Forty years later, Fordism - for that is what the era became - appeared to have run out of steam. The oil price rise of 1973, coupled with a decline in profit and investment, ushered in a period of interrupted crisis. US industrial dominance came to be challenged by Japan, Germany, and Italy, the three countries which in 1945 stood beaten and devastated by war. By the late 1970's Ford itself was in serious trouble in the United States. Delegations were dispatched to Japan to find out how the Japanese seemed to be winning on costs. One such delegation from Ford Europe in Essex found Mazda producing what was effectively the Ford Escort at more than \$1000 lower cost than Ford itself. The reason they reported was not wages or labour intensity, but a quite different system of organising production. Ford tried to graft parts of this system on to theirs in a new strategy which they called 'After Japan'. It seemed that the Fordist era had ended, and a new post Fordist one had begun.

Britain, along with the United States, had been one of the countries in which Fordism had taken deepest root - not merely within its factories, but in its economic institutions as well. During the 1970's and 80's, sector after sector was out competed from the continent and the Far East. Between 1974 and 1984, of the 34 major UK manufacturing sectors, only five did not have a negative trade balance by the end of the period, two of them - shipbuilding and aircraft - linked in to defence. The large British mass produced shoe factories with an average workforce of 111 in 1984, saw their output drop to 127 million pairs in that year, compared to 184 million in 1972. Similar falls were recorded in France and Germany.

All three were being surpassed by the Italians average firm size 17 workers, whose exports alone exceeded the combined production of their three main EEC competitors. In furniture and clothing there was a similar pattern. In engineering and machine tools it was the Germans, as well as the Japanese and the italians, who were advancing, the small, specialist German textile machinery producers, thriving while their volume competitors in Massachussetts were going under.

The left's response to this decline in manufacturing has been largely couched in terms of macro economic policy: devaluing the pound, controlling wage levels, and expanding investment. The critique of British capitalism (and at times British trade unionism) has been centred on its failure to deliver in terms of these macro categories, particularly long term investment. Industrial policy has in practise taken second place, and has been centred on amalgamations and scale, and the encouragement of new technology. This has been Labour's version of modernisation.

The fact remains that size has not secured competitiveness. Neither has a declining exchange rate with yen, nor wage levels which have made the UK one of the cheap labour havens of Europe. The changes are clearly much deeper than were at first imagined, and remain obscure if only looked at through the statistical portholes of the macro economy. In this article I want to describe what I think is happening, and consider its implications for an economic policy for the Left.

Fordism

In 1916 a craft built car in the US sold for \$4,000. Henry Ford sold his model T for \$360, and took 50% of the US market. The basis of this revolution in production was the application of a set of principles quite foreign to the craft tradition:

- a) the design of a standard product, which allowed the component part to be standardised and interchangeable (it didn't matter which of a batch of headlights you fitted on the car since they were all the same).

- b) scientific management, or Taylorism, whereby each task was broken down, redesigned by work study specialist, who then instructed manual workers how th job should be done.
- c) the use of purpose built tool to undertake the standardised tasks of mass production.
- d) the arrangements of tasks in succession to speed the flow of the product, in Ford's case connected by a conveyor belt modelled on that used by meat packers.

None of these principles were new. What Ford did was to combine them in the production of a highly complex good which was to transform the daily life of the 20th century. Along with cars went houses, themselves built to standard designs, and the stage for a new set of consumer commodities: hoovers, radios, gramophones, cookers, heaters, Heinz baked beans and mass produced bedroom suites. In 'My Philosophy of Industry' published on the eve of the depression in 1929, Ford devoted the first chapter not to the conveyor belt but to the home: his vision was of commodities driving deep into the domestic economy. This was his starting point, for as he said the condition for mass production was the creation of mass consumption.

Mass consumption, and its infrastructure of roads and suburbs, was the most evident part of the fabric of Fordism. Equally important was the production process itself, whose implications went well beyond the walls of the factories of Dagenham and the Great West Road.

First, the economies of mass production were acutely dependent on the high use of capacity. Fixed costs were high, operating costs low. If demand fell, costs would fall much less than revenues. With profits down, there was the continual danger of ruinous price cutting. Firms formed cartels or took over rivals in order to avoid such price wars during a slump. They pressed for protected home markets to prevent undercutting from abroad. They competed through advertising and consumer credit. Above all they came to support a system of macro economic regulation to offset slumps: Keynesian demand and monetary management, and new forms of wage and welfare

systems. Managed national markets became a hallmark of Fordism. HP and the dole cheque became as much the symbols of the Fordist age as the tower block and the motorway. The aim was to stabilise markets and reduce uncertainty. For above all else, the line once in place must be kept going.

Second mass production created a distinct labour force of semi skilled, 'interchangeable' workers. Like Taylorism it implied deskilling, the fragmentation of tasks and the division of mental and manual labour. Wages were related to the job rather than to the skills of particular workers (as in craft work) and came to be set through centralised collective bargaining by industry wide unions. In the US a distinctive structure of industrial relations and wage regulation was established in the late 1930's and 40's around the mass production industries. Central to it were the high profile auto industry negotiations whose focus was on wages (linked to productivity gains) and employment security, rather than on working conditions. The auto deal then set standards for other large scale producers and the public sector. The system has been described as a Keynesian incomes policy without a Keynesian state. The pattern varied in Europe, with centralised industrial unions in West Germany, and a greater measure of plant control in the UK and Italy. But the central terms of the Taylorist contract - higher wages in exchange for managerial control of production - was the dominant trend.

Third, mass production was conditional on new forms of organisation, notably the multi divisional firm. These firms had been pioneered in the US by the mass transit railway companies and process producers like US steel. They were further developed by the mass assemblers, notably Alfred Sloan of General Motors. Key to these organisations was the centralisation of certain services (giving the large firms an advantage over the small), the delegation of operational responsibility to the divisions, and the introduction of systems of financial control which allowed top management to supervise without supervisors. The major firms could thus expand geographically and diversify through these large corporate bureaucracies. Economies of scale in organisation went in tandem with economies of scale in production. Sloanism became a model for private capital and the organisation of the state.

One of the features of these bureaucracies is that vertical links are stronger than horizontal ones. The links between divisions and departments tend to be made through the centre rather than at the base. It is a form of Taylorism applied within management. Planning is done by special Rule books and guidelines are issued for lower management to carry out. Enter a Ford factory in any part of the world, and you find that its layout, materials, even the siting of its toilets and Coca Cola machines will be similar, set up as they are on the basis of a massive construction manual drawn up in Detroit. In these circumstances, managers themselves complain of deskilling, and of the fact that they are left little room for initiative. A similar approach also governs the relations between large mass producers and their suppliers. Where components and materials are not supplied from within the firm itself, potential suppliers are given blueprints on the basis of which they tender and then produce.

In all these cases the mass production process has encouraged the development of particular structures which characterise the Fordist age - mass advertising, instalment credit, giant corporations, models of bureaucratic organisations, patterns of collective bargaining and industrial unions, Keynesianism, and the welfare state. I say encouraged rather than caused, because in each case there were many other influences, not least the resistance of working people to the Fordist version of Modern Times. As a result Fordism as a whole advanced unevenly; taking hold in some countries more strongly than others.

The same is true of sectors. Complex assembly operations involving more than 1,000 parts, made up only 13% of all UK manufacturing production according to a recent survey. But the operational principle and what I will call the 'culture of Fordism' covers a much wider range. It can be found in processing industries, as in services, in typing pools as in fast food outlets, as well as in many parts of the operations of the modern welfare state..

The Culture of Fordism

Taylorism and the idea of central planning separates from those who carry it out is one part of this culture, reflected in manuals, and rulebooks, and now in computer programmes. A view of technical progress as discontinuous, aimed at the development of new products and processes, is a second, and is a consequence of Taylorism in technology. The commitment to scale and volume is a third: this is seen as the main long run way of driving down unit costs and increasing specialisation. In the shorter run, a Fordist competitive strategy - steering away from price wars - emphasises cost reduction (particularly labour costs) rather than product improvement. This is a fourth part of the outlook. Fifth is a particular attitude towards organisations involving a careful specification of jobs and structures, with detailed and exclusive job descriptions, and 'organograms'. And lastly, there is the idea of a standard product, whether it be a supermarket, lamb chop or a Mars bar, the National Curriculum or an episode of Dallas.

This culture is often equated with industrialism, and regarded as an inevitable part of the modern age. I am suggesting that its connection is with a particular form of industrialism, one that developed in the late 19th century and reached its most dynamic expression in the mass production industries of the post war boom. It has been the dominant industrialism in the present century, and its impact can be felt not just in the economy, but in much broader cultural fields - whether American football or classical ballet (Dighelev was a Taylorist in dance), industrial design or modern architecture. Le Corbusier's modernism had the perspectives of the age of Ford, and in the hands of Robert Moses, the chief traffic engineer of New York, was put to the service of the automobile at the expense of the city. The productivist and technological hubris of this outlook, its Faustian bargain of dictatorship in production for a festival of mass consumption, and above all its destructiveness in the name of progress and the economy of time, all this places Fordism at the centre of modernism.

It was a vision that had been challenged - on the shopfloor as in the seminar room and the studio. In 1968 this challenge exploded across Europe and in the united States. It was an attack on the central principles of Fordism, its definition of work and consumption, its

shaping of towns and overriding of nature. It challenged the foundations of certainty on which Fordism was managed. Mass producers in the seventies reported a fragmentation of the mass market, and a growing volatility in demand. Within the workplace, the mass workers continued their resistance, both collectively, and through absenteeism, sabotage and high rates of turnover. Here then was a crisis of Fordism, superimposed on slower rates of growth in demand for many of its traditional products (by the late 60's there was more than 1 car for every household in the US, and replacement demand accounted for 75-80% of the total market). By the mid 70's exchange rates were floating, the oil price was up, commodity prices were fluctuating, and the West was in the greatest slump it had experienced since the 1930's.

Neo-Fordism

What was the response? First, and still strong, is a drive to sustain Fordism by extending it. One part of this was to shift some of the mass production to the third world, so-called peripheral Fordism, which was financed by the surplus money capital that had accumulated in the West. Another was to expand still further the scale of mass production, on a European and even a world level. The 1970's saw a succession of multinationals establish a European division of labour between their plants, organised from a central European head office (Ford, ITT, Kodak). In the auto industry General Motors J car and Ford Escort Lynx projects were both attempts to develop a world car, and GM still source some of their components globally. The takeover of Rowntree by Nestlé is another example of mass production rationalisation on a European scale based on standard brands.

At the same time, Fordism has been successfully extended into new fields. Catering and fast food is one example, tourism another. A third retailing: an archetype is the American firm Toys R Us, who have 340 stores worldwide, each of 45,000 square feet and with the same layout, 28 checkouts, 4,000 linear feet of products including the full ranges of the major manufacturers, and of many medium sized companies as well. They are producer dominated, adjusting the stock of each item according to sale. In agriculture, bio-technology and battery methods have similarly transformed the industry.

Even in these extended forms Fordism still faces difficulties. The world car projects ran up against the fact that markets were distinct and diverse. Global sourcing raised problems of quality control and reliable supply lines. Exchange rate changes have turned particular plants from loss to profit and back again. Lower wages in the periphery, often went together with lower productivity, and even under authoritarian regimes, labour militancy has continued to resist the Fordist form of production. More generally, the increasing fragmentation and uncertainty of demand challenges the principle and the economy of the standardised product. Major investments may fail. Record companies have 16 loss making records for everyone that succeeds. Uncertainty has led to high stocks of components held 'just in case' and of finished goods which have yet to be sold. The size of the large mass producers has raised questions about their innovative capacity, particularly in a period where regular innovation has become a key to competitive success. It is in the face of these issues that a new form of production has emerged in some cases growing from traditional mass producers, in others developing as a rival to them. I shall call this post Fordism.

Post Fordism

Post Fordism is particularly associated with Japan, and by some has been called 'Toyota-ism'. Western managers are visiting Japan with the same urgency as Europeans visited the US in the early part of the century, hoping to learn the principles of this 'new competition'. I have mentioned the Ford visit to Mazda. A group from Citroen went to Matsushita to compare their methods of producing fridges. They found that although the Japanese machines were often less advanced, the process time to make the fridge - which at Citroen was nearly a week - at Matsushita had been reduced to 2½ hours. At Toyota it was found that the value of their work in progress (meaning the materials being worked on in the factory) equalled the value of just over one days sales, while for Western auto companies the figure was more than 14 days sales. This is a quite extraordinary speed up of production.

As the Ford party who went to Mazda found out, the key to these changes was not that workers ran up and down the line and missed their teabreaks. Rather it was to do with a whole series of methods

of cutting down waste - whether the waste was materials not been worked on, components waiting to be used, machines standing idle, goods not being sold, managers organising production rather than producing, goods being returned because they were defective and so on. It also involved making sure that workers were always working, but this had been a primary focus of Fordism as well. What the Japanese did was to focus on the economy of non-production, or as Toyodo, the founder of Toyota, put it, the 'elimination of wasteful practises'.

The best known of these methods in the Just in Time system, an idea inspired in Toyodo by American supermarkets. Instead of components being produced for stock ('just in case') he had the idea they should be produced when they were needed. When he had set his following day's production plans he would then order the components which would be delivered not to a warehouse but right beside the production line. The principle can be extended right the way through to retailing, with manufacturers producing just in time to fill the gaps on the supermarket shelves. The idea was revolutionary. It has meant that most of Toyota's parts are produced on the same day as they are assembled.

It has also led to the re-organisation of the flow of work within a factory. Flow assembly is one thing. Engineering is another, where parts may have to be worked on a number of times with different machines before they are ready. It has been estimated that in the average machine shop materials are being worked on only 4% of their time in the shop. Computerised manufacturing systems (CIM) have automated both the machines and the transfer mechanisms to cut down this wasted time.

Ford himself, wanted to cut down waste and speed the flow. His problem was that it took a long time to change machines from producing one thing to another. The special machinery had to be re-set, the dies changed, new tools made. He had to shut down his production for nearly a year in 1927 when he switched from producing the Model T to the Model A. It still takes Western auto makers 4-6 hours to change the dies on large presses. Toyota have cut it to ten minutes. They have done it by re-designing the dies and fittings.

In other cases the changes can be made by computer programme, so that the resetting is automatic. This has been the secret of numerically controlled machine tools. They can now produce a whole set of different parts as if they were a continuous flow of the same part. When 75% of all engineering production consists of batches of 50 or less (and thus has never been submitted to mass production methods) the impact of this change is clearly momentous.

Computers and material technology have been used to cut material costs. Computer aided design, for example, allows more shapes to be fitted in to a given piece of material (in the shoe industry it leads to 3% materials savings). New materials like plastics are being substituted for steel and wood (modern VW Polo car uses only half the steel formerly used in the Beetle). Design itself has simplified complex products, cutting down the number of parts, and thus both materials and the amount of work to be done. Electronic devices have had the same impact in the electro-mechanical field, and in the saving of energy. The principle here is where-ever possible to avoid production: within the confines of its products it is an ecological principle.

Finally, the Japanese have followed a zero-defect policy. This was both part of a more general emphasis on quality, and a means of avoiding waste. A key development to this end was the design of machines which could detect defects and automatically stop before faulty items were produced. In the words of Michael Best (one of the pioneer interpreters of post-Fordism production) "for Toyota automation meant machines with a built in capacity to stop". Another technique was the development of statistical quality control. This detected normal as against abnormal departures from norm, and was pioneered by an American W. Edwards Deming, who had been ignored in post war America and was adopted and championed by the Japanese.

All the above represent innovations around a theme. But they illustrate a second general principle of Toyotaism which is that of continuous innovation. Some it is true are the product of technical research. But many were produced by people with practical knowledge of the shop floor. Take Deming's methods for example. From his experience defective products were 85% of the time the fault of poor

systems not poor workers (which is one of the reasons he was not welcomed in the US). Workers would often be in the best position to understand the faults in the system, hence statistical quality control is centred on workers both collecting and analysing the statistical data. Statistical methods are used even by hourly workers. They are used to detect faults and both repair and improve the system to prevent them happening again. The same was true of the automatically stopping machines. Every time the machine stopped, it was seen as an opportunity to improve the process (any defective products which do get through are treated in the same way).

When technical research is involved, the Japanese - in contrast to Fordism - do not separate off the research technicians and the production engineers from manufacturing and marketing. Rather they form product teams across the departments which are responsible both for the development of the new product or process, and its later production and sale. The aim is once more continuous learning and product improvement. When Toyota's first car for the US car failed in the 1950's, the project was not abandoned in spite of heavy losses. The cause of the failure was worked over to improve the second attempt. Now Toyota have 25% of the US market. In part we can say that Japanese technology is rooted in an economy of errors.

I have gone in to the workings of this new economic clock rather than just telling its time because these changes, taken together, do amount to the major economic change in production of the contemporary period. They have occurred in somewhat different forms in Italy Sweden and Germany. But the basic principle of speeding up the process of the circulation of capital (which is what it comes down to in economic terms) is similar. What is important are the implications of this new system of production for the wider structures of our economic life.

First there are implications for labour. Toyotaism is based on corporate unions, established after the defeat of union militancy in the low wage/mass production phases of Japanese industrialisation after the war. It has depended on a continuous flow of shopfloor manual labour from the countryside, as well as a large, fragmented, peripheral workforce for unskilled and semi skilled work, often

through sub-contract. Within the factory, the pace of work has been intensified, since wasted materials. In all this, Toyotaism has much in common with Fordism, particularly peripheral Fordism.

But at the core of production there is a major change. The self stopping machine means that a worker's task is changed from spotting faults to seeing how they can be mended and improved. One worker can now tend a number of machines. Maintenance and repair are now blended in with operations. Deming takes this further. He criticised US managers for taking quality control away from workers, and keeping statistics for the elite. It should be everybody's job, and this implies teamwork, pride in the job and security. Taylorism, the threat of redundancy, incentive, quota and piecework systems of pay, all worked against these requirements. He saw the US system as preventing hourly workers from doing good work. His words are different from those of William Morris and Mike Cooley, both visionaries of craft production, but they follow something of the same course. And it is no accident that Professor Rosenbrock's human centred lathe (which programmes from the manual operation of a skilled worker, and which has been a symbol of Mike Cooley's argument for a technology which builds on skill rather than devalues it) should have been ignored in the UK, taken up in Japan, and is now being imported to this country as the first trickles of post Fordism work their way into British manufacturing.

The well known job security for core workers in Japan is a reflection of the Deming philosophy, as is the heavy investment in training, the multiskilling, the corporate welfare systems, and the strong company ideology. It is too limited to see them merely as tricks of management condition for this new production system to operate. Japanese cultural traditions and its political and industrial history help explain how a new bargain - quite different from that of Taylorism - has been struck at the core of Japanese industry: Craft flexibility in return for job security.

Elsewhere similar effects are achieved in different ways. In the third Italy, co-operation and craft skills have developed within much smaller firms, some originating from progressive workers expelled from mass production factories who set up on their own or with

friends. Firms are linked cooperating through consortia, with the bonds strengthened by family ties, local networks and the Communist Party. In other countries, including the United States, successful craft traditions are established within ethnic communities. None of these step out of the pages of News from Nowhere. The point is that the new competition does represent a break with Taylorism in its Fordist form. Co-operation, useful work, creativity democracy within the workplace - all part of the socialist tradition in the organisation of work - can no longer be dismissed as going against the historical tide. It is Taylorism which should be on the defensive in the post Fordist age.

The move towards a more multiskilled, and company bound core workforce, and a fragmented, low paid periphery, threatens divisions with industrial unions and between them. If for some there is a shift from rates for the job to rates for the person, with a break down of demarcations, and the offer of a range of company welfare schemes, this comes into direct conflict with the Fordist tradition of industry bargaining and a publicly organised welfare state. The EETPU's lead in embracing private pensions schemes and BUPA, internal flexibility, union organised training, single company unions, is all consistent with one path of post Fordist industrial relations. Not the least of the dangers is the trend to an American or a Japanese welfarism, with a core workforce provided for privately, ceasing to support public provision, leaving the peripheral workforce and those not in paid work with an increasingly underfunded and inadequate welfare state. This could be taken as a description of Thatcherism. The point is that neither the EETPU's policy, nor that of Mrs Thatcher should be read as purely political. There is a material basis to both, rooted in changed systems of production.

A second set of implications relate to organisation, both within and between firms. There is a double movement in post Fordism. On the one hand there are gains from co-ordinating different stages of production with the aim of synchronising the flow. Economists call this somewhat inelegantly, 'systemation'. On the other, within the wider systems, there is a move to push responsibility down the managerial line. There is simultaneously centralisation and decentralisation.

What has got squeezed in the middle is managerial Taylorism. Fordist organisation has proved ill suited to the pace and range of change. The manuals become out-dated before they are printed. Organograms stay frozen while the world moves on. Post Fordist organisations accept that not everything can or should be planned from head office. No central think tank can gather all the necessary information. Internally therefore responsibility is delegated much more to the operating units. Layers of middle managers are taken out as Taylorist control is weakened - and overheads reduced in the process. With flatter hierarchies, the horizontal links are strengthened. The interdepartmental teams which were encouraged in Japan to adapt imports of Western technology are now a growing feature in European firms.

Central control is instead focussed on the corporate system - on large scale finance and corporate strategy, and on the design and supervision of the reporting systems and material flows. Once the system is in place, operations can be delegated, and even sub contracted or franchised to independent firms. Some companies sell only their systems, as technical consultants or management contractors. Others may control only the commanding heights of the business - product development and marketing for example - sub contracting manufacture elsewhere. In the assembly industries it is the components which are sub contracted. Toyota buys in 70% of its manufacturing costs, as against 25% for General Motors. Over the past 20 years there has been a striking growth of such external delegation via the market.

What is distinct about these market relations - and it applies not just to suppliers, but to customers and direct competitors - is that they are seen not in terms of arms length competition, but as sources of information, and new ideas. For example, when Nissan built its plant in the North East the general manager was given not a Detroit manual but a few pages of guidelines, one of which was to work with local construction companies on the most appropriate design and materials for the area. The result was a plant which cost less than half that of Ford. Similarly the German firm Bosch operates a 20% of their sales, in part so that they can be linked in to other networks

which will encourage innovations of value to Bosch. Customers are seen in the same light: a recent study of 9 product groups in the US found that innovations in five of them came primarily from the users, and concluded that if manufacturers were not close to their customers they would lose out on such ideas.

The Fordist view of a firm as a centrally organised island in a sea of competition changes to one of an interrelated archipelago. In the small firm regions like the Third Italy the consortia provide services which in a large firm would come from head office: market information, overseas sales, training, and expensive machines like CAD equipment. They also provide a framework for work sharing and spreading ideas. In West Germany inter firm relations take place through industry associations and cartels. In Japan firms of all sizes are linked in to the networks, within their own industry, with a hierarchy of suppliers, and with cross industry groups. The result is not to eliminate competition but to shift it from price cutting to one based on product.

The idea of productive interfirm co-operation complementary to market competition is one quite foreign to Fordism, to economic theory, and to Anglo-Saxon competition policy. Equally significant is the idea of the organisation as a framework for learning, and to be judged as such, and not simply as a means of delivery or a concentration of power.

Post Fordism also has consequences for consumption. Whether the post 1968 changes in consumption acted as a spur to changes in production or were conditioned by them, which way the influence ran, cannot be determined with any certainty. What we can see, in Europe at least, is a measure of resistance to mass consumption and a greater fragmentation and unpredictability in markets. Instead of keeping up with the Jones's. Some of these differences are vertical, intended to confirm status and class. But others are horizontal, centred round group identities, linked to age, or region or ethnicity. (These differences are the subject of a fascinating book called 'Distinction', by the French anthropologist Pierre Bourdieu and recently published in English).

Such developments have cut across the requirements of mass production. They have led to a whole industry of market researchers trying to pin down the changes and analyse the fragments. Some work with so called Acorn groups, a set of eleven categories based on types of housing. Such categories are then correlated with 'lifestyles', and linked consumption patterns from food and clothing to health and holidays. A report on British Lifestyles by the market research company Mintel attached the London based stereotypes used in marketing, which they say 'always restrict the imagination'. Their broad survey pointed to the increasingly diverse range of customers, linked in part to the increase in discretionary income. More 'choice' was being demanded. There was new scope for specialist shops. Above all there was the break up of the 2+2 model household of the TV ads, and the growth of single person households.

The new wave retailers have been structured round this changed consumption. Next is focussed by age, class and now region (they have recently begun to gear their styling to regional variations). Burtons have a range of shops tailored to different ages and incomes, and, incidentally, employ a number of anthropologists on their head office staff. Terence Conran's Storehouse group (which includes Habitat, Heals - for the post Habitat generation, Mothercare, Richards and BHS) offers not only clothes, but furniture and furnishings, entire lifestyles. At the heart of his organisation in the Heals Building in Tottenham Court Road is a factory of 150 designers, with collages of different life styles on the wall, Bold Primary, Orchid, mid Atlantic or the Cottage Garden. As with all these shops, and others like the Body Shop, or the Italian chains Benneton and Stefanel, style is central.

The point of all this is that as mass markets fragment, producers are targetting sub-mass market 'niches'. This is as true of speciality chemicals, or speciality steels as it is in the high street. But in the high street, even these niches are not behaving as volume producers require. There is a demand for change and for difference, which has led the life cycle of cars and other consumer durables to be halved, and caused even the more staid Marks and Spencer to move from two to three changes per season, with surplus productive capacity kept in hand for new requirements. Some companies have

followed a strategy of market experiment rather than market forecasting, trying out a variety of possibilities and then producing in volume those which succeed, (this is particularly so in the cultural industries, whether books or records).

In each of these cases there is clearly an advantage for those with flexible production. At the same time producers faced with shorter runs have an interest in creating a family of products which can be sold in packages (like furnishings, or systems of machinery) or which command a customer loyalty (like a film star or brand name). In this way many short runs make one long run. This is one of the aims behind the lifestyle packages offered by Next. It is another reason for the shift of power to retailers. Retailers enjoy economies of scope beyond the dreams of any manufacturer. Sainsbury's for example stock 12,000 different products in their larger stores. Like the High Street shops, they target a distinct class of customers, they design products and ranges accordingly, they guarantee a quality, and advertise developed a Just in Time system of production and delivery which allows them to re-order nightly on the basis of the day's sales, for delivery into the shops within two days, they and four other multiples now dominate the food industry in Britain as decisively as the car assemblers dominate the motor industry.

In the High Street, the process has gone a step further with retailers selling not just products but the act of shopping. Shops have become, in the words of Anita Roddick of the Body Shop, a stage in which the shop design is the set and the assistants and the consumers are the actors. Shop design has become as important as product design - indeed the two are consciously fused in the Body Shop and Benneton - and the chains see one of their principle competitive advantages the ability to mass produce shop design. Burtons in Dundee will look the same as Burtons in Plymouth. (Carnaby Street in the 60's prefigured the retailing of the 80's, where new forms of consumption met flexible production on a stage prepared, and orchestrated by the new sectoral sovereigns of the retail trade. At the centre of it all is design. There are now 29,000 people working in design consultancies, who together have a turnover of £1.6 billion per annum. They are the engineers of designer capitalism. Together with the market researchers they have

steered the High Street from being retailers of goods to retailers of style.

There are geographical changes which follow from all this. Just in Time systems, whether in retailing or cars, is helped by the proximity of the suppliers. Toyota is surrounded by its suppliers. General Motors in attempting to follow them, required its main suppliers to be located within 200 miles of its most modern factories. Burtons have recently moved from 50% UK sourcing to 80% over the past few years, Next, Richards and M & S are similar. Benneton's suppliers are located close to the automatic dyeing plant in Treviso, Italy. The result is that the shift of labour intensive production to the third world - which marked the 70's - has stopped and in some instances has been reversed.

Within the developed countries, a new significance has been given to industrial districts - areas with strong informal networks, often supported by local government, and specialising in a particular product. Italy has had the most celebrated examples of such districts, together with regions in Southern Germany, but Barcelona is rapidly developing its clothing and shoe industries on the basis of similar networks, while in the UK the most striking recent examples are around electronics in the South East (where pools of scarce technical labour are one of the main forces of attraction) and the new business services. Regional policy based on the shifting of footloose mass production factories is clearly not appropriate to sectors dependent on strong informal geographical ties.

Post Fordist Culture

These changes have clearly taken different forms in Toyota, Next, or the furniture makers of Poggibonsi, yet we can already distinguish a culture of post Fordism which stands in strong contrast to? The emphasis shifts from scale to system, from cost to quality, and from planning to strategy. The watchword is flexibility, of buildings, machines, product and labour. Organisations are geared to the temporary and response to rather than regulation of markets. Their hierarchy are flatter and their structures more open. The guerilla force takes over from the standing army. This is an era of decentralisation. Core labour assumes more importance than machines

(Rank Xerox have been trying to develop a new accounting system which treats its labour as the assets, not its buildings and machines). Post Fordist managers will be marked by their attention to training, and to the formation and animation of teams rather than direct control of production. Their bibles are not Alfred Sloan but Peters and Waterman and Rosalind Cantour, their models Channel 4 and Covent Garden rather than ITV and the Metro Centre. Even some of Fordism's technological modernism has been wiped away, with the recognition that the same goal may be reached by many paths, each with its own vulnerability and danger. In literature as in the theatre these changes are reflected, as they are in town planning, where rehabilitation takes over from redevelopment, and docks become water gardens and railways stations offices.

The Industrial Divide

Fordism itself has responded to this culture and the changes in production which underlie it. Ford Europe have tried to introduce quality circles, and flexible working at their Dagenham plant; they have introduced team working (with serious effects on the trade unions) and pressure their labour to apply intelligence to work. From the outside it would appear Ford was post Fordism. In a similar way Toyotaism through automation. They have spent more than \$40 billion on new manufacturing equipment and factories. But at their automated Hamtramk factory they found that productivity and quality barely matched the quality and productivity of their old plant in California, where it had a joint venture with Toyota, while their automated dish washing plant increased productivity by a third, and cut warranty calls by half, but all at too high an overall cost. In each case the old Fordist companies are trying to graft the new systems onto old structures, and have not yet got the graft to take. A recent survey of automated factories in the US and Japan found the Japanese plants achieving twice the capacity use of the US plants with similar equipment. The Japanese were automating flexibility, rather trying, like the US companies, to achieve flexibility through automation.

Hawlett Packard have said that US firms should learn first what the Japanese do and then automate it, and it may be that this strategy will succeed in extending Fordism. In one sector after another the

picture you get is of an open moment in industrial history, where alternative production systems are in intense strategic competition. In clothing for example, the Japanese are trying to automate the industry in a seven year programme, and there is a similar European project funded under the Bright programme. Yet the small scale design intensive Italian consortia continue to control 20% of world exports in many branches of clothing, and have real doubts about whether the automation route will ever be pervasive.

In energy the drive for scale by the three most centralised electricity industries - the UK, France and the USSR - has resulted in a system that has been inflexible to the fall in energy demand after the oil price rise, while the CEGB in contrast to the decentralised industries in Germany, Holland and Scandinavia, has been notably slow to develop conservation technologies like interactive metering. In sectors as varied as food processing and retailing, or banking and broadcasting, similar contending strategies are evident, and it is by no means clear which will eventually win out. Even in capital's terms, there is no one technologically determined path of accumulation. Politics, Governments and history matters.

The Socialist Response

Faced with these great contending currents, what on earth can we do? First we must realise how much of traditional socialist economics is a reflection of Fordism. Soviet type planning is in many ways its apogee. Lenin embraced Taylorism and the stop watch. Soviet industrialisation was centred on the construction of giant plants, the majority of them based on Western mass production technology. So deep is the idea of scale burnt into Soviet economics that there is a hairdresser's in Moscow with 120 barber's chairs. The focus of Soviet production is volume (like post war US plants), and given the absence of any consumer discipline, the lack of attention to quality and hoarding of stocks caricatured these features of Western Fordism.

In social democratic thinking state planning has a more modest place - but in the writings of Fabian economists in the thirties - Dalton, Burbin or Douglas Jay - as in the Morrisonian model of the public

corporation, and Labour industrial strategies since the war, we see the same emphasis on central planning, scale, Taylorist Technology and Sloanist organisation. The image of planning was the railway timetable, and the commanding heights were defined as the main industrial inputs and infrastructural utilities. In the welfare state the mass production idea of the standard product was given a progressive and democratic interpretation as the universal service to meet basic needs. Although in Thatcher's Britain this formulation can still take us a long way, it effectively forecloses the issue of varied public services and user choice.

The reaction to left Fordism in practise, both in East and West, has been an invocation of the market. In the West this represents an ideological regression to pre-Fordism, and utterly fails to address the major socialist economic question of our time, the left can intervene in the economy to ensure that economic restructuring takes place in a progressive direction. Mrs Thatcher has shifted economic power from labour to capital and from the poor to the rich, and imposes the market so that this new concentration of power determines the direction of restructuring. She can confine her policy to markets and money because the control of production is in the hands of her people. Socialists cannot do this. We cannot rely on the management of markets linked to defensive trade union power while the initiative in production remains under the discipline of the juggernaut of capital. The Left needs a policy of production, and a range of new forms to allow it to carry such a policy through in practise.

In the UK at the moment Fordism is being extended geographically and into new industries; forms of post Fordism are also emerging, with the divisive core/peripheral labour regime so evident in Japan. While considerable swathes of British industry have failed to modernise in either of these ways, the Thatcher policy of weakening labour cutting tax and deregulation has attracted large amounts of US, UK and Japanese multinational capital investing for the Europe market. This is footloose industry (both in manufacturing and services) and volatile in respect both to the reimposition of controls or the matching of UK deregulation by continental countries. In these circumstances there can be no blanket approach. In each

sector the situation and the options those dominated by multinationals be different. In some it will be imperative to get the EEC Commission to enforce EEC wide regulations. In a Labour government should work with unions and other levels of Government in Europe around an alternative restructuring strategy. In the sectors which are still predominantly national - whether private, privatised or public - there needs the user, labour and green issues excluded by the market. These strategies should form the core of a socialist economic policy.

The production of such strategies will involve the building of coalitions around a progressive sectoral programme. Since the richness will be in the detail, the main issue is how to organise the many groups who should be part of the formulation and carrying through of the strategy. Take the Post Office as an example, on which there are half a dozen pamphlets and reports from right wing sources urging privatisation, and none from the left. The Labour Party should set up an independent commission, with a modest budget raised externally, which would draw in academic researchers, trade unionists, and a variety of user groups. Local Labour councils and GMC's should be asked to work with Trades Councils and trade union branches on local studies of the Post Office. The Commission could arrange for these to be presented along with other evidence at regional hearings and conferences. My experience of such work is that there are many ideas which can be pursued immediately by local councils and trade unions. Others require national legislation, and it is these which would be synthesised by the Commission and recommended to the Party.

Something of this kind has been done, less systematically, with respect to the motor industry, clothing, the cultural industries, retailing, energy, water, and some branches of transport. The main initiative has come from local authorities, and inter-authority strategic groups like SEEDS, CLES and MILAN. Although undertaken on tiny budgets, the work has proved rich politically as well as economically. It needs to be taken up by the Labour Party nationally in the most open way, and extended, taking ten pilot sectors during the first two years.

Just as strategic planning needs to be both decentralised and synthesised, so does public intervention. We need an economy which is honeycombed with local enterprise boards, local sectoral technology and resource centres, publicly supported user groups and trade union support centres. Local and regional authorities could be given a much greater role in the economy, as innovators, co-ordinators of fragmented national public industries and services at a local level, and sources of support for industrial districts. They should also have a much greater role with respect to the local labour market - in providing childcare, in monitoring health and safety, equalities, and a minimum wage. They should also play a much greater part in training, replacing the Training Commission whose organisational shambles is now almost as serious as its policy direction.

A local infrastructure of this kind would form a much sounder base on which to build national bodies (sectoral enterprise boards, a Ministry of Economic Strategy, a Ministry of Social Labour with departments concerned inter alia with the quality of work, with working time, with conditions of consumption and domestic work, and with promoting the interests of the peripheral workforce). Necessary national strategies and national industries and services could then have a more organic connection to their constituency than they do at the moment.

The structures of Fordism are not dead. They are interationalising, diversifying and automating in their struggle with post Fordism. These changes and the rise of post Fordism are undermining the forms of regulation of Fordism, Keynesianism and the welfare state. The resulting crisis of economic policy has found both Left and Right (and the main structures of the Labour movement) still locked in the culture of Fordism. The way out is not the embracing of the culture and methods of Japan. Rather we should recognise that the older co-operative tradition late 19th century socialism has found a new relevance. It too was concerned with networks, with product quality and the interests of users, with proper wages and the conditions of working life. It had a principle of democracy in work and its organisations, and a view of the market as part of co-operative relations not opposed to them. As a retailer - having been in the

sectoral vanguard in the early 1950's - it has lost touch with the new wage. But its traditions have had growing relevance. Post-Fordist capital has itself adopted some of them, but in a stunted and contradictory form. If the Left can reformulate them and learn their practise - then from the rubble of the 80's a post Modern socialism can be born.

Robin Murray
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