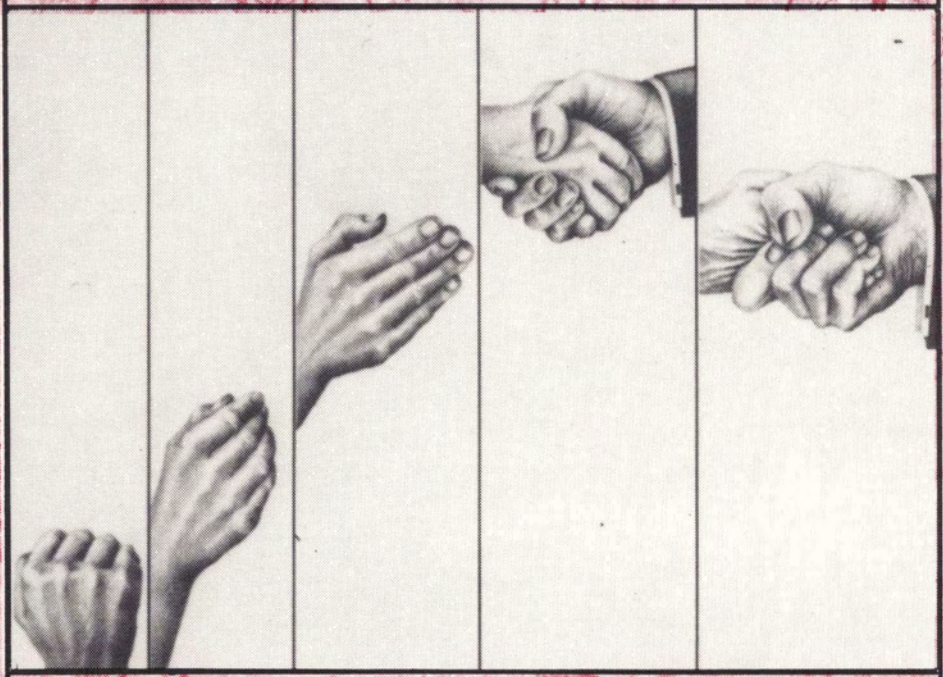
COMMON SENSE

Journal of Edinburgh Conference of Socialist Economists



- *A WORKERS' INQUIRY*
- *THE FLEXIBILIATION OF LABOUR & THE ATTACK ON LIVING STANDARDS*
- *STRUGGLE IN HIGH-TECH CAPITALISM*
- *REVIEWS: 'RACE REBELS ' & 'ZAPATISTAS! DOCUMENTS OF THE NEW MEXICAN REVOLUTION'*

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CONFERENCE OF SOCIALIST ECONOMISTS 96

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No Politics Without Inquiry!

A Proposal for a Class Composition Inquiry Project 1996-7

Ed Emery

This article is a direct appeal for like-minded people to come together in a project of shared political work.

The idea is: to muster all available forces to work on a militant class-composition study project. This is to inform, and to be the basis of, possible future political organisation.

Prelude

A small group of friends. We celebrate Mayday each year. We look forward to the day when everyone makes May 1st a dayoff-work-day, to celebrate struggles past and present - to meet, to eat and drink, to sing and dance... [Incidentally, Mayday 1996 is a Wednesday. Don't just let it pass. Celebrate it.]

Mayday as a time for reflection. Look at the past. Plan for the future. So what happened this year?

Mayday 1995: Friends reported that the TGWU branch at the Ford-Dagenham Assembly Plant voted explicitly against taking the day off work on Mayday. For fear of being "in breach of contract". That is how things have changed.

Mayday 1995: A hundred thousand workers marched in Turkey to celebrate Mayday, despite the massive presence of armed Turkish police, who had killed people on previous marches. That is how things have changed.

Mayday 1995: For our part, we ran up the red flag in the back yard. We marched with the Turks and Kurds (as usual, just about the only people marching in London). A few friends round for supper in the evening. And we sang the old songs of struggle and resistance.

But absolutely, categorically not enough. Some of us feeling an urgency. A drive for a particular kind of work. A deepseated wanting. A need to know what is happening. Because something is stirring, all around.

Twenty years, perhaps, since class power was last winning. We've lived the years of defeat. Years of impotence. Years of anger. The rich getting richer and life's been shit for the rest of us. The foundations of working class power systematically destroyed. No doubt. We've been on the losing side.

But in some vaguely definable way, class power is on the move again. We're picking ourselves up out of the wreckage. And the question is: how do we regroup, gather strength, mobilise social forces for a project of winning rather than losing?

A Small Proposition

The old class forces have been taken apart. World-wide. "Decomposed". New class forces are emerging. New configurations. This is what we call a "new class composition". Nick Witheford offers definitions, and their history, elsewhere in this issue of Common Sense.

The new class composition is more or less a mystery to us (and to capital, and to itself) because it is still in the process of formation. Eternally in flux, of course, but periodically consolidating nodes of class power.

Before we can make politics, we have to understand that class composition. This requires us to study it. Analyse it. We do this through a process of inquiry. Hence: No Politics Without Inquiry.

The Proposition Stated in Other Terms

Relations between capital and labour have been radically restructured during the past two decades, in favour of capital. Labour is being recomposed into new circuits, cycles and patterns of production. A new class composition is being formed, world-wide. In time, this class composition will begin to assert its interests - in its own new circuits, cycles and patterns - of opposition, of struggle. At that point, mere technical class composition turns into political class composition. It becomes real power, political power.

The enemy constantly studies class composition in order to fracture it, break it, disperse it, permanently dissipate its strength. We, for our part, study class composition in order to strengthen it, consolidate it, turn it into a real basis of power.

The old compositions and their associated bastions of class power (miners, auto workers, dockers, steel workers etc) have been broken down. New class compositions (information industries, services etc) are being built up.

Before we can be active in building the class power of these new compositions, we have to know who they are, where they are, what are their conditions of work and life, and around what issues, slogans, struggles they will mobilise during the coming years.

And at the moment we know just about fuck-all.

So: an invitation to comrades far and wide to join in a process of INQUIRY.

The Conference of Socialist Economists as a Possible Base

After the 1994 Conference a group of us in the CSE set up a "Working Group on Work". Our interest has been in the changes taking place in work, and struggles arising from these developments. Similar work has developed previously in CSE.

For example, in the lead-up to the 1976 "Labour Process" conference. This analytical work was particularly strong around the motor industry, and led to useful organising activity in that industry.

CSE Conference provides one useful forum for mobilising these kinds of collective energies. There are people who could build a base for a serious project of class composition analysis. Each contributing some small part of the overall inquiry.

Thus part of my purpose is to propose a "class composition" theme for a future CSE Conference. Perhaps for 1996. Left to find a title for it, I would propose:

"Class composition: Studies of changing relations between capital and labour. Global restructuring and the rebuilding of class power."

We might all, each in our own way, undertake to make small contributions of insights, towards building a pool of knowledge in these areas.

Need for a Network of Research and Action

However, the project needs a far wider base.

I could pretend to speak for a group, an organisation, a world political perspective. I am none of these things. I speak merely for myself, and for the particular baggage of historical and political experience that I carry with me.

I am convinced that serious revolutionary politics is impossible without a committed, detailed, daily work of analysing and understanding class composition, in all its varied and changing forms. This work needs to be undertaken by large numbers of people, and its methods and results need to be coordinated by a process of regular bulletins and regular meetings. It is only lack of political imagination, a sense of defeatism, and basic human laziness that stand in the way of our doing it.

A Momentary Diversion: My Envy of the Scientists

In recent months I've been reading physics books. Atoms, particles, astronomy, cosmology, that sort of thing. A new wave of popularisation in science. Exhilarating to ride this wave. Huge and wonderful discoveries. Old ways of thought turned on their heads. A lot of nonsense thrown out of the window. The whole essence of "being human" is being challenged, redefined.

I watch these scientists working. They have teams of researchers. Networks of international contact and cooperation. Extraordinary machines for observation and analysis. Confidence and enthusiasm. Reaching out to audiences that are not familiar with their language. Creating new public languages. And in the process you find them celebrating and documenting the development of the intellectual history of their discipline.

I am deeply envious.

Once there used to be a "science of class struggle". After all, class struggle is as available to scientific analysis as any area of the physical world. But the science of class struggle got itself a very bad name when it transmuted into "scientific socialism" and Stalinism.

The science of class struggle never recovered from that. It had a brief and glorious resurgence in the Italian revolutionary Left, as scienza operaia ("working-class science"), but the prevailing anti-scientism of the post-1968 Left sank any notion that the class struggle could be approached scientifically.

I hold to that idea of a scientific approach.

Another Momentary Diversion: The Rhetoric of War

The miserable debacle of state socialism in the "communist" world has deprived us of great chunks of our language. Who are we? What are we? How do we describe ourselves? What is our politics?

Where do we choose the words with which to name our politics. Communism? Socialism? Revolution? Redistribution of wealth? Social reform? Working-class autonomy? Class war? There is a problem here. These names are all variously tainted by previous associations.

So at this time I prefer to give the project no name.

Except that I believe that we must see it in terms of war.

War is being waged on us. Class war. (Sometimes literally, by military means.) We would do well to respond in the language of war.

The rhetoric of earlier communist and anarchist movements always had a strong military flavour to it. But the notion of war is less than fashionable nowadays.

When I say "respond in the language of war", of course I don't mean rushing round killing people. I mean that we begin to speak (once again) the language of tactics, strategy, fields of battle, mobilising of forces, application of technologies, and a theory of war.

I find that the joining of these elements provides me with the bones of an operating system. On the one hand, a notion of a "science" of the class struggle. And on the other, a notion of the class struggle as a "war" within which we have a part to play. Plus, as a basic foundation, the conviction that if you're not part of the solution then you're part of the problem.

Moments of Crisis and Dislocation: No Politics Without Inquiry

You might object to the notion of a somehow "objective" science.

You might object to the notion of "war" and its associations of militarism.

You might object to the notion of disembodied intervention in the body politic.

You might say that the very notion of an "Inquiry" is a nonsense without a prior questioning of the self-stance of the "Inquirer".

I agree. All these notions are deeply problematic.

In answer to the objections, I say let us take these notions and problematise them. Frankly. Enthusiastically. Without fear. Then see where we go from there.

So this article proposes an Inquiry, in the hopes of generating small amounts of discussion, and perhaps also generating practical activity.

To this end, we might look briefly at earlier instances of the Inquiry, to see whether they offer insights regarding method, content, ways of approaching knowledge etc.

A note, here. We are not starting from a basis of nothing at all. Even a minimal glance at the literature makes it clear that the Inquiry has a strong and substantive intellectual pedigree.

For example: Marx... Lenin... Luxemburg... Mao... Not to mention the US

National Commission on Civil Disorders (1968).

Over the years I have done amounts of work on class composition analysis. Some of this work has appeared in Common Sense [Sergio Bologna on "The Historiography of the Mass Worker" in CS 11 and 12, and his work on "Nazism and the Working Class", CS 16]. During this period books and pamphlets have accumulated on my shelves.

During the years of defeat my view of my books and pamphlets has oscillated (daily) between seeing them as a precious historical resource for the furtherance of struggle, and as useless mounds of paper taking up space.

Anyway, in preparing this article I went fishing in my library. I pulled down volumes fat and thin. Dusted them off. To see what they had to offer, as regards class composition analysis and the possibilities of a new communist project.

What I found was that, at each major point of crisis and dislocation in the development of capitalist society, various kinds of people have instituted mass social inquiries. Their intention has been to document and research the attitudes and conditions of life of the oppressed masses. As a political project.

Studies that ranged from Chinese peasants labouring under feudal despotism to the Black proletariat of the racist ghettoes of Newark and Detroit. Studies of various kinds. London housewives. FIAT car workers. The shifting masses of migrant labour toiling across whole continents. The collective flux of intellectual labour energies concentrated on the Internet.

In short, at certain points in history people have felt the urge to ask: Who are we? What is happening? How have things changed? Hence the Inquiry.

It is generally at points of fracture, crisis, restructuring, dislocation of capitalist development etc that these Inquiries come about. And the Inquiries see themselves as a prelude, a precursor and a precondition of politics.

We are living such a period right now. And the need for an Inquiry is urgent. It is not an optional extra. It is fundamental. In short: No Politics Without Inquiry.

Contained Excitement

I offer below a small list of some of the material I found on my shelves. The list is not comprehensive. It is indicative. It indicates the kinds of treasures that are in store when one begins researching previous exemplars of the Inquiry. Source materials for a science of class struggle. Method. Content. Theoretical framework. Epistemological basis.

The class struggle Inquiry is a scientific discipline unto itself. Related to other disciplines, but with a peculiar fire all its own. Extraordinarily exciting. Ill-considered trifles, a marginal field of human knowledge, lost and buried chapters from forgotten books, but at the same time the very basis of a political project. An incitement to action.

It would be good to produce an annotated bibliography of the Inquiry, together with a commentary on its intellectual history. The antecedents, the past practices, reflecting on future possibilities. Given time and energy, I might do this during the coming year. For the moment I shall contain the excitement sparked by these texts. I offer a few bits and pieces from examples of the Inquiry as conducted in the past 150 years. Very brief.

Some Previous Examples of "THE INQUIRY"

The Inquiry has its own typology. It has varieties of genres, varieties of intention. Some are produced by the state. Others are produced by political organisations, by way of external intervention. Others are produced from within the ranks of organised labour. Yet others are the product of people's observation of their own condition. Earlier examples include:

Karl Marx: The Workers' Inquiry

In the later years of his life, Marx prepared a comprehensive questionnaire designed to elicit the conditions of life and work of the labouring classes. [It was republished in Detroit in the early 1970s, with a view to promoting this kind of militant research in the auto industry. And again, only last year, in Italy.] Here Marx outlines the project:

> "Not a single government... has yet ventured to undertake a serious inquiry into the position of the French working class. But what a number of investigations have been undertaken into crises - agricultural, financial, industrial, commercial, political!
>
> "We (shall organise) a far-reaching investigation into facts and crimes of capitalist exploitation; we shall attempt to initiate an inquiry of this kind with those poor resources which are now at our disposal.
>
> "We hope to meet in this work with the support of all workers in town and country who understand that they alone can describe with full knowledge the misfortunes from which they suffer, and that only they, and not saviours sent by Providence, can energetically apply the healing remedies from the social ills to which they are a prey.
>
> "We also rely upon socialists of all schools who, being wishful for social reform, must wish for an exact and positive knowledge of the conditions in which the working class - the class to whom the future belongs - works and moves." (Marx 1973, p. 4)

Inevitably this brings to mind the fifteen pages at the start of The Communist Manifesto that provide the classic statement of the class-composition analysis ("Bourgeois and Proletarians") that led into the organising project of communism:

> "The essential condition for the existence and for the sway of the bourgeois class is the formation and augmentation of capital; the condition for capital is wage labour. Wage labour rests exclusively on competition between the labourers. The advance of industry, whose involuntary promoter is the bourgeoisie, replaces the isolation of the labourers, due to competition, by their revolutionary combination, due to association. The development of modern industry, therefore, cuts from under its feet the very foundation on which the bourgeoisie produces and appropriates products. What the bourgeoisie therefore

produces, above all, are its own grave-diggers. Its fall and the victory of the proletariat are equally inevitable."

And, in among all this, we also have to consider Engels' The Condition of the Working Class in England in 1844, the precursor of Charles Booth's Life and Labour of the People of London (1902) and Henry Mayhew's London Labour and the London Poor (1861). Not to mention, in our own time, Gareth Stedman Jones' Outcast London: A Study in the Relationship Between Classes in Victorian Society (1971).

Lenin and Luxemburg

Lenin. The Development of Capitalism in Russia (1898). A huge work - the bibliography alone runs to some 500 titles, begged, borrowed and perused both in prison and on the road into exile. Three years of work to provide the analytical grounding of the Bolshevik project. Detailed work on the composition of the labouring classes in Russia. And the potential for politics: "The increase in the number of peasants thrown into the ranks of the industrial and rural proletariat... The population of this 'corner' - ie the proletariat, is, in the literal sense of the word, the vanguard of the whole mass of toilers and exploited."

Rosa Luxemburg. The Mass Strike, the Party and the Trade Unions. Rosa, released from prison and recuperating in Finland. Extending the analysis of the proletariat and its real movements and interests. "We have attempted... to sketch the history of the mass strike in Russia in a few strokes. Even a fleeting glance at this history shows us a picture... Instead of the rigid and hollow scheme of an arid political action carried out by the decision of the highest committees and furnished with a plan and panorama, we see a bit of pulsating life of flesh and blood, which cannot be cut out of the large frame of the revolution but is connected with all parts of the revolution by a thousand veins." (Luxemburg 1970, p. 43)

US Riot Commission Report

An example of a state-sponsored class composition analysis. In 1967, in the wake of the riots in Newark, Detroit and other cities, President Johnson instituted a commission of social inquiry, whose report was published under the title "What Happened? Why Did It Happen? What Can Be Done?" This documented in large detail the experience of the Black proletariat living in the urban ghettoes. A comprehensive analysis of the newly-formed class composition that had rioted in the streets. A state initiative. Framed in a rhetoric of social reform and repressive control. Over 600 pages, in the popular edition.

Its Introduction reads: "...An extraordinary document. We are not likely to get a better view of socially directed violence - what underlies it, what sets it off, how it runs its course, what follows. There are novels here, hidden in the Commission's understated prose; there are a thousand doctoral theses germinating in its statistics, its interviews, its anecdotes and 'profiles'." The report represents a beginning "on a task that beggars any other planned social evolution known to human history". (National Advisory Commission 1978, p. ix)

[From our side, the Report had its counterpart in the seminal Regulating the

Poor: The Functions of Public Welfare by Fox Piven and Cloward, which uses a similar class composition approach to document the imposition of social control in both the New Deal (1930s) and the Great Society Programme (1960s). The state project unmasked.]

Mao Tse Tung

And Mao, too. A huge work of wide-ranging class Inquiry. And hints as to method. For instance, the article "Oppose Book Worship", of May 1930. Uneasy with the authoritarian tone, but the man has a point.

> "No Investigation, No Right to Speak. Unless you have investigated a problem, you will be deprived of the right to speak on it. Isn't that too harsh? Not in the least. When you have not probed into a problem, into the present facts and its past history, and know nothing of its essentials, whatever you say about it will undoubtedly be nonsense. Talking nonsense solves no problems, as everyone knows, so why is it unjust to deprive you of the right to speak? Quite a few comrades always keep their eyes shut and talk nonsense, and for a Communist that is disgraceful. How can a Communist keep his eyes shut and talk nonsense?
>
> It won't do!
> It won't do!
> You must investigate!
> You must not talk nonsense!"

The Italians

To all this we have to add the mass of documentation produced by the Italian revolutionary Left movement throughout the period of the 1960s-80s. Detailed, committed, militant research and analysis of the everyday conditions of living labour. And here was a departure. This is not the "denunciatory" style of Marx's "far-reaching investigation into facts and crimes of capitalist exploitation". Rather, the analysis is part and parcel of an everyday, capillary process of militant intervention and organisation. Leafletting, meeting, discussion, reworking of analysis, consolidation at new levels. Here we have the work of Quaderni Rossi, Potere Operaio, Autonomia, Lotta Continua etc. Buried, for the most part, in Italian-language texts that are too rarely translated.

Photography... Song...

And while we're at it, why stop at the printed word? We could include song. Woody Guthrie, singing the lives and times of the migrant workers of Dust Bowl USA. Alan Lomax, collecting blues and prison work songs. Pete Seeger and Bob Reiser with their *Carry It On: A History in Song and Picture of the Working Men and Women of America*:

> "Beware! This is a book of history. With songs and pictures, we try to tell how the working people of this country - women and men; old and

young; people of various skin shades, various religions, languages, and national backgrounds - have tried to better their own lives and work towards a world of peace, freedom, jobs, and justice for all."

And photography. For example, Sebastiao Salgado's incredible *Workers: An Archaeology of the Industrial Age*, which he defines as a work of "militant photography".

And Jo Spence, in Putting Myself in the Picture, where, among other things, she charts the process (a labour process, in the arena of reproduction) of her own death from cancer. Bringing the Inquiry right home into the front room, into the family:

"Photography can only attempt certain things compared with other media, but its radicality lies in the fact that we can produce, possess and circulate snapshots by ourselves, for ourselves and among ourselves. It is there... that the future of photography lies for me. If we truly want to democratise how meanings are produced in images... we could start by telling our stories in different ways..."

We are in Good Company

Elsewhere in the world there are active examples of this kind of militant Inquiry activity.

In Germany, for instance, there is a network of militants in various cities, connected by computer links, and producing a monthly national bulletin, Wildcat-Zirkular, which gives detailed reports on struggles in the various localities.

In Italy, in November last year, the group Collegamenti organised a conference in Turin, under the title Inchiesta, conricerca, comunicazione diretta ieri e oggi. Per una coscienza sociale e un intervento politico di base ("Inquiry, Co-Research and Direct Communication. For Social Awareness and Grassroots Political Intervention"). This conference dealt with the history and present practice of the Inquiry in Italy and Germany.

In France, a group of comrades around the journal Futur Anterieur have been holding regular seminars and producing materials on the changing class realities in France and Italy (see my paper for CSE Conference 1994).

In the USA, Collective Action Notes, published out of Maryland, documents struggles worldwide, and aims to build an international network of contacts.

And in Britain there are the regular bulletins produced by Counter Information and others, drawing together class struggle information from across the board.

All of these provide useful pointers. For us the project would probably be along the lines of what Wildcat is doing in Germany: To set up an intercommunicating network of militants doing more or less detailed work on class composition in their local areas; to meet as and when appropriate; and to circulate the results of our collective work.

I am happy to act as coordinator in the initial stages of any such project. At some point a national meeting should be called. If you would like to be involved in developing the idea, write to me:

Ed Emery, c/o Common Sense, P.O. Box 311,
Southern District Office, Edinburgh EH9 1SF.

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Flexibilisation of Labour and the Attack on Workers' Living Standards

Anne Gray

A. Introduction

The 1980s and 1990s have seen a significant worsening of conditions for the UK working class, particularly for the unskilled. The collapse of the post–war boom has brought not only mass unemployment, but reduced 'quality' of those jobs which remain, in terms of greater insecurity of work, a shift towards part time and short term jobs and increased use of labour–only sub–contracting. These trends have been echoed, with some differences, in the rest of Europe. They have been associated with changes in labour law in several countries to sweep away barriers to sackings and to temporary contracts. The spread of casualised and part–time work, frequently described as 'atypical' work, and the reduction of regulations about workers' rights are characterised in conventional labour economics as 'flexibilisation' of labour markets (Layard, 1990). The concept of 'flexibilisation' is often extended to include removal of features of unemployment benefit systems which are thought to deter people from taking available jobs (OECD, 1993). Presented thus in a positive light, 'flexibilisation' is upheld in OECD and European Commission documents as essential to the growth and survival of western economies (OECD, 1990; EC, 1993).

This paper attempts to document the other side of the coin – the ways in which flexibilisation has negative effects for workers; firstly because it involves more work for less pay, with fewer rights at work; and secondly because it tends to set up a vicious circle whereby new forms of work weaken workers' capacity to organise, which in turn facilitate further 'flexibilisation' and intensification of exploitation. To emphasise these aspects of the process of 'flexibilisation' of labour markets, that perhaps unwieldy and euphemistic term will be replaced in this paper by 'flexploitation'.

Whilst it is not the purpose of this paper to provide a theoretical analysis of the 'flexible' labour market, it may be useful to situate this largely empirical exploration of the issue within broader debates around the labour process and class analysis, and thence to define some possible forms of struggle against 'flexploitation'. Casualised forms of labour have always existed to a greater or lesser degree, particularly prior to the post–war boom, and Pollert (1988) argued that the

evidence for significant growth in the use of temporary, part–time and self–employed sub–contract labour was weak. Seven years on, the trend to increasing casualisation seems to have become much clearer, as shown in part B of this paper. Pollert, together with Tony Smith (1994), refer to the confusion in left reformist discourse of the 'New Times' variety between flexibility in the labour process (i.e. in the form in which the labour commodity is available to capital) and flexibility in production (i.e. the responsiveness of the firms to changes in consumer demand). The only connecting thread between these two concepts is that the 'flexible firm' attempts to minimise labour overheads and therefore often seeks to buy labour in the form of sub–contracts,homeworking or temporary hiring. Gough (1986) has pointed out that the 'flexible firm' in the case of the 'Third Italy' has been associated with extreme exploitation of women and immigrant workers.

Pollert refers to another type of false optimism about the significance of the 'new' labour forms, that of the 'libertarian futurologists' who 'have heralded work in the small business, self–employed, informal and domestic economy as...offering autonomy, 'flexible' hours, and in general 'flexible working lives' (Pollert, 1988). Examples of this school are the work of Charles Handy (1984) and James Robertson (1985). It is true that part–time working can sometimes be negotiated on terms which benefit workers, preserving fringe benefits and securing 'family–friendly' arrangements which are particularly valuable to women (New Ways to Work, 1993). But all too often, 'atypical' work is used by employers to reduce their labour costs at workers' expense, taking advantage of the particularly low bargaining power of certain groups such as women carers, unemployed people and rural workers. The 'libertarian futurologists', in their emphasis on the potential for greater leisure, tend to overlook the fact that part–time workers, if not struggling lone parents, are frequently the secondary earners in households which, taking both women's and men's work together, are supplying more labour to the marketplace than at any time since the 1970s. The rise in women's paid work has not been offset by a corresponding fall in men's working hours. This trend is occurring both in the UK (Mulgan and Wilkinson 1995) and in the USA (Schor, 1991; Rifkin, 1995). From the USA, there is a clear picture of couples who work increasingly long hours, often by holding several part–time jobs, to sustain their standard of living in the face of falling real wages. One third of full–time men in Britain now work over 48 hours per week, compared to a quarter ten years ago, and there is much unpaid overtime; the recession and cutbacks in the public sector make it easier for employers to impose increased workloads on vulnerable workers (TUC, 1995). In most other EC countries, working hours have been falling much faster than in the UK over the ten years to 1992 (Employment in Europe, 1994, chapter 5) The maldistribution of work between employed and unemployed suits the bosses' agenda; it sustains the 'reserve army' of the unemployed whilst keeping many workers too tired and busy to think about struggling for better conditions.

'Atypical work' is a development to which the Marxist analysis of class structure needs to respond. A recent review of class analysis and labour process theory (Carter, 1995) finds a list of actors on the social stage of this literature which one might regard as rather incomplete; the 'worker' (manual or intellectual), the supervisor, manager and capitalist are there, but the class position of self–employed

contract workers is not addressed. Given the increase in self–employed working, mainly 'own–account' working, which took place in over half the OECD countries during the 1980s and was particularly marked in the UK (OECD, 1991), this is a theoretical gap which needs to be filled, although to attempt to do so would be beyond the scope of this paper. The growth of the self–employed category implies that it is not a 'residual' group of petty commodity producers; rather, capital uses this group to reduce fixed labour costs and thecapitalist state promotes the 'entrepreneurialisation' of the unemployed through schemes such as the Enterprise Allowance (OECD, 1992). To a varying extent, self–employed workers are outside of the hierarchical structure of the firm; they are neither managers nor managed. Work discipline, for many own–account workers, is mediated purely through the contract relationship rather than through workplace supervision. They are frequently outside the scope of union organisation, and their use can be a subtle form of de–recognition, as for example in the building trades in the late '70s and early '80s. Unions such as the AEEU, GMB and, in the media sector, BECTU have had to develop new strategies to accommodate and draw in self–employed workers. Owning some capital (such as tools, a sewing machine, or a computer) but usually not enough to enter into a direct relationship with the final consumer, and bearing the costs of their own training without generally being involved in the training of new, younger workers, self–employed workers constitute a fraction of the labour force to which there does not correspond an effective fraction of the 'reserve army'. The unemployed often have neither tools nor training, so cannot easily enter self–employed work. Not only is this a problem for the unemployed, but it is a problem for capital to the extent that only the presence of unemployed who can *effectively* take the place of existing workers can help to keep the wages of those workers down. The role of the Enterprise Allowance Scheme (and its successors, the Business Start Up schemes run by Training and Enterprise Councils), as well as similar schemes in other European countries, needs to be examined in the light of this contradiction.[1]

Neo–classical labour market theory has presented the 'insider/outsider' dichotomy as a way of describing the actual or potential conflict of interest between those who have jobs, and want to preserve existing wages and conditions, and the unemployed who may be willing to accept *less* than the current wage just to get a job. The growth of precarious and part–time work creates a category of workers who do not clearly belong on either side of this dichotomy. Workers on short–term contracts are frequently forced back into unemployment (Daniel, 1990); some part–time workers are frustrated full–timers. Many factors inhibit either group from being fully 'inside' the collective bargaining system. The notion of the 'reserve army' which places the unemployed almost outside the scope of class analysis, is hardly adequate to describe the collective subjectivity of unemployed people or of the 'precarious' groups in the labour force, still less to recognise that people shift frequently between the first of these categories and the second, sometimes doing so

[1] On the one hand, such schemes draw the unemployed into the arena as an effective reserve of sub–contract labour; on the other, the schemes disallow entrants who will sub–contract for a single firm for fear that employers would deliberately use the scheme to encourage existing employees to get the wage subsidy associated with it.

for many years without having access to a long–term job (Daniel, op.cit). The concept of the 'underclass' beloved of right–wing attacks on welfare 'dependents' (Murray, 1990) makesout that some people are almost permanently unemployed; in fact the evidence for this is weak (Buck, 1992). Most of the unemployed eventually get back into work, although some older workers are forced into premature retirement (Beatty and Fothergill, 1994: Devine 1989). The concept of 'marginality' (Chapman and Cook, 1988) may be a more helpful beginning in describing the class position of frequently–unemployed people, with its emphasis on being the 'object' of state policy, on bureaucratic surveillance and its disempowering effect, on a bureaucratically mediated connection to the world of work through training schemes, and on unequal political and social rights. But it is a pessimistic view, and cannot account for the prominent role played by unemployed people in recent struggles against the Criminal Justice Act or motorway building in the UK, or for the strength of the response to the cutting of the youth minimum wage in France in 1994.

What is perhaps most important is to find forms of organisation which bridge the divide between 'insiders' and 'marginalised', an issue which is taken up later in Part D.

The next part of this paper seeks to justify the term 'flexploitation'; Part C examines why it has happened, and draws out the differences between the UK and other countries in the form and extent of the process, highlighting how the effects of 'flexploitation' are significantly worse in the UK than in many other European states, due to specific Tory policies. This leads to a discussion in Part D of the possibilities of resistance. The final section of the paper is an invitation to participate in further work.

During the past year, a CSE working group on 'The Future of Work' has been discussing some of these issues, unhappily so far with a membership mainly confined to London. This paper is not a report of the group's work, which in any case ranged wider than 'flexibilisation', and any errors or shortcomings here remain entirely the responsibility of the author. But it is an attempt to provide a reference point for some of the group's concerns and a basis for further discussion.

B. 'Flexibility' or 'flexploitation' ?

Casualisation and the increase in part–time work not only lead to lower wages, fringe benefits and promotion prospects. They also increase the ratio of unpaid to paid labour, as well as the intensity of work.

Part–time work can be more intensive (in terms of effort per paid hour) than full–time work – there are less meal–breaks, and the ratio of travel time to paid time may be larger, especially for those who need two part–time jobs to make ends meet. Part–timers have poorer training/promotion prospects, poorer leave and pension provisions (Hewitt, 1993, pp. 117–8). They can also be asked to work overtime without receiving an overtime premium. Part–time and temporary workers lose out on pensions, holidayentitlements which go with seniority, training and chances of promotion (TUC, 1994). Many occupations (building trades, teaching and vocational training, media work) are being transformed by self–employed

sub–contracting. This form of work imposes on the worker new forms of unpaid labour, such as marketing yourself, time spent discussing contracts, time spent writing invoices and tax accounts. It also means that all slack time is unpaid. The self–employed are not paid for training, and risk losing income if they spend time supervising trainees, with the result that the cost of training is thrown back onto workers themselves and onto unemployed youth.

These 'flexible' forms of work have an indirect effect of lower wages in the long run, because casualisation and part–time working makes trade union organisation more difficult. Self–employed sub–contracting has long been used by building employers to undermine union organisation; it is now spreading to other sectors. Part–time workers are easier to control and, until the Law Lords' recent defence of part–time workers' job security rights (see below), Tory legislation had made them easier to sack than full–timers. It is more difficult for part–timers to attend meetings, or to be organisationally active. They are less likely to be given time off work for union duties (*Guardian* report on the TUC's campaign for equal rights for part–timers, 7.12.94). Temporary workers are also more difficult to unionise because more vulnerable to sacking. In manufacturing industry, many part–time and temporary workers are hired on non–union contracts (Potter, 1987). There are also examples of employers recognising a union on condition that a proportion of the workforce should be on temporary contracts excluded from collective bargaining procedures (*Labour Research*, Nov. 1985, p. 277) – a kind of internalisation of the 'reserve army' within the firm.

We now come to some historical data...

i) Part–timisation

Since the late 1970s, there has been a gradual substitution of part–time for full–time jobs in the UK, as also in several other industrial countries. (*Employment Gazette*, Dec. 1994, p. 483). Between 1978 and 1993, 2.7 million full–time jobs disappeared in Britain and were replaced by only 1.5 million part–time jobs (*Employment Gazette*, Historical Supplement no. 4, Oct. 1994, table 1.1).

Thus most of the increase in employment in the UK in recent years has been of part–time work, but this does not mean that people have more leisure, rather the reverse; part–time jobs are largely taken by women, and the increasing labour force participation of women means that working hours per household are rising. In other words, the amount of total labour and of surplus labour at the level of the household is increasing.

Since part–time jobs rarely provide sufficient income for someone who is the principal or only wage–earner in a household, they are of little help to the unemployed who will often be better off on benefit. More than half of the recent growth in part–time jobs has been for jobs of less than 16 hours per week, which do notbring entitlement to Family Credit (TUC, 1994). Many of these 'low hours' jobs pay less than the threshold wage for National Insurance contributions, thus denying the worker future benefits. Moreover, part–time jobs in service industries often involve unsocial or highly variable working hours. Thus, 'flexibility' of working time patterns as sought by employers is only rarely consistent with

genuine work–sharing to help the unemployed, or with carer–friendly patterns of work. Notwithstanding this, exceptions can be successfully negotiated in some instances, and the struggle to improve part–timers' conditions is not entirely a zero–sum game (New Ways to Work, 1993). Unfortunately, however, there is a considerably lower rate of trade union membership amongst part–time than amongst full–time workers (TUC, op. cit).

Most of the increase in part–time jobs in the UK has been in the service industries (*Employment Gazette*, historical supplement, p. 5, Fig. 3 and Table 14). Part–timisation has been associated with the shift from manufacturing to services; in the UK, part–time jobs always were more common in services (28.6% in 1978, 32% in 1989) than in manufacturing (7.9% in 1978, 7% in 1989). However, this does not mean that part–timisation can be dismissed as a sector shift phenomenon. Within the service sector itself, there is clear evidence of a substitution of part–time for full–time contracts since 1989, amongst men as well as women. In manufacturing as well, the share of part–time jobs and of women's employment has risen slightly since 1989.

Between 1989 and 1993, the increase in UK part–time jobs (456,000) was offset by a decline of 391,000 in full–time jobs. Part–time men rose by 169,000 and full–time men fell by 286,000. Part–time women rose by 287,000 and full–time women fell by 105,000. Overall, women working in the service sector rose by 182,000 and men fell by 117,000.

Two separate trends seem to be going on here – a strategy of substituting part–time workers for full–time ones, and one of substituting women for men. Both are ways for capital to reduce labour costs per hour and per unit of work done, and to achieve greater 'disposability' of the labour force. In 1993, 81% of part–timers were women, trapped in low–paid jobs because of the difficulty that part–timers often experience in getting training and promotion. Female part–timers in 1993 had average hourly pay of only £4.96, compared to £6.68 for female full–timers (Labour Research July 1994, p. 9, quoting the New Earnings Survey of 1993).

Only 2.6% of the increase in part–time jobs between Sept. 1984 and June 1994 was in national government, where equality of conditions for women is securely established. Over 13.5% was in food retailing, where the shift is associated with an increased market share for supermarkets at the expense of small family–run shops with mostly male proprietors. Here, therefore, low–paid women are taking the place of self–employed men. A further 7.7% of the increase in part–timers was in business services, showing the shift to cheaper and more 'disposable' women in private sector office work.

The impact of unemployment on individuals' and trade unions' bargaining power may be the main reason for greater acceptance of part–time work as a substitute for full–time contracts. Union attitudes are changing, becoming softer towards part–time hiring, and many unemployed are prepared to take part–time jobs rather than nothing (Emma Tucker, *Financial Times*, 15.3.94, p. 25). David Goodhart (ibid.) points out that part–time work grew faster in the 1970s than it has done since, and attributes that growth to the demand for part–time work by 'married' women. But recent TUC research suggests that one part–time worker in seven is doing such work for lack of a full–time job, and that 'reluctant' part–time working

has increased by 60% in the last ten years, going by the statements of respondents to the Labour Force Survey (TUC, 1995a). The truth is that employers in the manufacturing sector took advantage of that demand to relocate plant in rural areas and new towns, away from historic centres of trade union power. Part–timisation was a cost reduction strategy then as it is now.

The recent Law Lords ruling on a legal challenge brought by the Equal Opportunities Commission on the grounds that lack of rights for part–timers discriminated against women (*Financial Times*, 21.2.94, p. 1), may lead employers to change their practices. It may, in fact, lead employers to specify a fixed term contract in situations where they would not previously have needed to do this, and use such a contract as a means in itself to continue to deny equal pension and holiday entitlements with full–time permanent workers. The EC may soon develop proposals for protection of fixed–term contract workers (*Guardian*, 7.12.94) which no doubt the UK government will resist.

For the worker, part–time work means more stress per hour paid (because less breaks and longer travelling time). Of some concern, therefore, is the finding that between 1984 and 1994 the number of people holding two jobs (at least one part–time) increased from 445,000 to 789,000. Over the same period, part–time self–employment has grown by 155,000, often held in conjunction with a part–time employee job. It seems likely that many of those holding two part–time jobs would prefer one full time job if they could get it. Yet because double job holders may be classified as full–time workers in the Labour Force Survey, they are probably not included in the 765,440 part–timers (191,000 male, 574,400 female) who say in the survey that they work part–time because they could not find a full–time job. Added to these may be women who could find a full–time job but could not take it because of the expense of child care. The recent *Employment Gazette* article on part–time workers (Dec. 1994) says that 80% of women part–timers do not want a full time job, but that implies that 20% of them do, numbering 956,000. If one deducts from this number the ones who say they could not find a full–time job (574,400), over 381,000 women might be able to work full–time (with their present or another employer) if their child care problem could be resolved.

Part–time work for the real convenience of carers would involve negotiating a right to job sharing with the same hourly pay, security and pro rata fringe benefits as full time workers. But part–timisation on employers' terms is far from that.

Part–timisation has led to a significant phenomenon of under–employment throughout Europe. Over 5% of the labour force in the EC are part–timers who would prefer a full–time job (ERGO report, 1992, p. 30) – in other words about one third of part–time workers consider themselves to be under–employed. If considered to be actually part of the unemployed, this group would swell their ranks by over 50%. In fact amongst the unwilling part–time workers are a significant element, difficult to quantify from the Labour Force Survey, who are on part–time job creation schemes for the unemployed.

The UK has an exceptionally high proportion of part–time jobs –over 20% in 1991, compared to 16% in the EC as a whole excluding Spain and Portugal (*Employment Gazette* Dec. 1994, p. 483). The increase in part–time work during

1983–91 has been more rapid elsewhere than in the UK, perhaps because part–timisation had already gone so far in Britain.

ii) Temporary work and reduction in job security

Will Hutton has estimated that seven out of ten newly created jobs in Britain are now part time or fixed term, and that workers whose contractual position enables them to benefit from unfair dismissal protection are now only 35% of the workforce, compared to 55% in 1979 (Hutton,1995). There has been a sudden upsurge in fixed–term contracts since 1992 (Beatson, April 1995, p. 9). From 1.1 million workers in 1984, the 'temporary' category grew to 1.2 million in 1992 and to almost 1.4 million in 1994. A recent TUC document finds that 85% of new employee jobs in the year to autumn 1994 were temporary (TUC, 1995b). Increased casualisation in the public sector was a major cause of this trend.

Temporary workers (self–defined) increased in the UK from the mid 1970s to the mid 1980s (*Employment Gazette*, Jan. 1986), but have remained no more than 6 or 7% of all employees, the proportion varying with the trade cycle. However, the unemployed may be presented with a different picture. In 1977, only 6% of vacancies filled by job centres were for temps, but by 1984 the proportion had risen to 32% (Federation of Recruitment and Employment Services, quoted in Labour Research Department, 1987).

An ESRC sponsored study shows a severe decline in job security particularly affecting women with children and a 'generally unrecognised rise in discontinuous employment' (*Guardian* 6.9.94).

One view of temporary contracts is that although there is some cyclical tendency for them to increase in an upturn and fall during a downturn, and a slight increase overall due to a sector shift of employment towards services, where temporary contracts have always been more common, there is no strategic change in employers' behaviour about length of hirings (Bernard Casey, 1988; and *Employment Gazette*, Apr. 1988). This view also points to the minority of temporary workers who are highly paid professionals, emphasising that the growing use of fixed-term contracts is for computer programmers, 'consultants' and trainers of various kinds. Case studies tell a different story, suggesting a groundswell of casualisation which represents a long–term change in hiring strategies. In teaching there was a shift towards fixed term contracts in the mid–80s, often given to unemployed teachers who take a wage cut to get back into the profession (*Labour Research*, Nov. 1985, p. 278). Numerous public sector jobs, particularly those being prepared for privatisation or 'agency' status, went over to fixed–term recruitment during the same period, destroying previously established notions of ' a job for life' in the civil service and utility organisations (ibid, and Terry Potter, 1987).

The growth of a dual labour market, with a 'core' of permanent workers and a 'periphery' of workers on short–term hirings or contracted on a self–employed basis, is a recognised international trend during the last decade or more, and one which has contributed to increasing insecurity and lack of bargaining power.

International data on temporary work (including both agency work and fixed term contracts) suggest that it is less important in the UK than elsewhere. In the

EC 12, 9% of the labour force were employed on temporary contracts in 1989 (EC, 1992), compared to just over 7% in the UK (OECD, *Employment Outlook*, 1991, chart 2.8). In the EC 12, temporary work is higher in the distributive trades (13.5%) and in other services (12%) than in industry (9%). But its increase, in those countries where that is marked, is much larger than can be accounted for by sector shift. Increased use of temporary or fixed term contracts during the 1980s has been present in most EC states, but a major shift in only a few – France, the Netherlands, Portugal and above all Spain. But it takes different forms depending on the country, showing that legislation can sometimes make it relatively 'worker–friendly', but also that a shift towards insecure work can be an unfortunate side effect of job subsidies to help the unemployed. In France, increased temporary work is associated with a spread of 'temp' agencies, which are subject to strict state control and compensate the worker if a new assignment is not available at the end of a job (OECD, *Employment Outlook*, July 1993). In the Netherlands, temporary hiring is used mainly as an initial screening device by employers, and about two thirds of temporary workers later get permanent jobs. In Portugal and Spain, the spread of temporary contracts follows changes in the law on job security (Spain 1984, Portugal 1991) intended to reduce fixed labour costs by making it easier for employers to fire. In the Spanish case, temporary contracts were also encouraged by wage subsidies to hire the unemployed which lasted for six months (Jimeno and Toharia, 1994; ERGO report, 1992). Now over 30% of the Spanish labour force are employed on fixed term contracts (OECD, 1993), frequently going from unemployment to temporary work and back again. Advocates of temporary 'job guarantees' for the unemployed should take note.

Jeremy Rifkin (*The Ecologist*, vol. 24, no. 5, Sept/Oct. 1994, p. 186) identifies a widespread strategy of American capital to institute 'just–in–time employment' as part of 'just–tin–time production':

> 'Many corporations are creating a two–tier system of employment; a core staff of permanent, full–time employees and a peripheral pool of part–time and contingent workers who earn an average 20 to 40 per cent less than full time workers doing comparable work while receiving little or no benefits such as health insurance....In a process of 'just–in–time employment', a contingent workforce can be used and discarded at a moment's notice and at a fraction of the cost of a permanent workforce. As one temporary worker at an automotive plant said, "They think of us as throw–away people". The very existence of part–time and temporary workers is used to drive down wages for the remaining full–time workforce'.

The difficulties of being 'throw–away' employees impact especially on youth and women, and are a major cause of becoming unemployed. In the EC as a whole, there is a strong overlap between temporary and part–time work, and the proportion of temporary workers amongst women is greater than amongst men (Delacourt and Zighera, 1992). Amongst youth under 25, who suffer almost as much as women from not having full–time permanent jobs, over 43% of part–timers were temporary

in 1987, compared to 14.2% of full–timers. Amongst women, 10% of part–timers were temporary but only 3% of full–timers (EC *Labour Force Survey*). However, in Britain about one eighth of women part–timers are considered to be temporary (Humphries and Rubery, 1992).Temporary workers are quite likely to be unemployed for part of the year, and hence the EC Labour Force Survey (a snapshot view) may underestimate their number. About 18% of the EC's unemployed have lost their jobs because of the expiry of a temporary contract (*Employment in Europe* 1991, p. 56).

It is more difficult to quantify temporary work in the UK than in countries such as Italy or Spain where legislation and statistics distinguish between 'temporary' and 'open–ended' contracts. There is little need for British employers to define short–term contracts when there is no compensation and hardly any redress against unfair dismissal for anyone who has been less than two years in the job. Because actions for unfair dismissal are only available to employees who have been in the same job at least two years, and redundancy compensation has the same threshold period, many employers may see no reason to define a contract as fixed–term.

Under the Tories, protection against dismissal has been severely reduced. Before 1979, workers could claim tribunal protection against unfair dismissal after six months' work for one employer. A minimum amount of compensation was guaranteed in successful cases. Now, at least two years' service (five years for part–timers) is required to gain access to a tribunal, as well as payment of a deposit. The automatic right to return to a job after maternity leave has also been removed. (*Labour Research*, Jun. 1987, p. 16; May 1989, p. 17). The UK now has fewer rights against unfair dismissal than most other EU states (*Low Pay Unit New Review*, Feb/March 1994). It is also the only EU country with no statutory right to paid holidays or legal restriction on hours worked – thus making it more important for workers to be in a job long enough to secure their rights by inclusion in collective agreements.

iii) Self–employed sub–contracting

Self–employment grew faster than total employment in 12 out of 20 OECD countries during 1979–90 (OECD 1992). In the UK, this trend was much faster than anywhere else, the self–employed having almost doubled in numbers during the period of Tory rule to almost 12% of the working population. This is still small by comparison with southern Europe, where artisan small business survive in large numbers. But it is significant that up to 25% of new entrants into self–employment have been through the Enterprise Allowance Scheme for the unemployed. The proportion of self–employed without employees rose from 60% to 70% during the same period; most of the new 'enterprises' are lone individuals. The OECD study also showed that the self–employed have on average lower incomes than employees, and work longer hours. The main components of the rise in self–employment have been the building industry and the service sector, including catering and cleaning work contracted out by the public sector, but there was also a rapid increase in self–employment in manufacturing. It is estimated, that for every 100 self–employed workers assisted by the Enterprise Allowance Scheme, 50 employee

jobs are lost. Thus Tory policy has assisted a shift towards insecure and underpaid sub–contracting work.

iv) De–regulation of minimum wages;the loss of Wages Councils

The abolition of most Wages Councils, leaving the Agricultural one as the only surviving example of legal minimum wage safeguards in the UK, leaves this country as the only EC state without any regulatory control of minimum wage rates (Deakin and Wilkinson, in Eithne McLaughlin, ed., 1992). Since abolition in 1992, there has been a substantial drop in wage rates (*Low Pay Network*, Manchester, quoted by Tim Laing in *Ecologist*, July 94). For example, in food retailing the average hourly rate in full–time work has dropped to £2.70 per hour, compared to the rate of £3.10 laid down by the former Retail Food and Allied Trades Wages Council. More than 40% of jobs in the Manchester area are now paying below the old wages council levels.

But even before minimum wage controls (never very effective anyway) were removed, the low paid had seen a serious relative deterioration of their position under the Tories. The disposable income of the poorest 10% of British households actually fell in real terms by 14% between 1979 and 1990–91, whilst average real income rose by 36%. Increased dispersion of pre–tax earnings went together with an increase in the effective tax rate on those with less than average pay (Deakin and Wilkinson, op. cit.). The loss of wages councils is but a minor element in an increasingly difficult environment for improving the conditions of lower–paid workers. Added pressure comes from privatisation of many local authority manual jobs, erosion of trade union rights, and the fact that from 1989, the unemployed are no longer allowed to refuse a job on grounds of low pay.

v) Attacks on trade union rights in the UK

Trade union power has been severely curtailed by a battery of new laws since 1979 removing the closed shop, prohibiting 'secondary action' (and with it most opportunities for political use of the strike weapon), requiring trade unions to give employers notice of strikes (*Labour Research* May 1989, p. 17 and Apr. 1992, pp. 22–3) and interfering so far with unions' internal rules and practices that ILO experts have accused the UK government of breaking ILO agreements in force since 1949 (*Labour Research*, Jun. 1992, p. 5).

vi) Attacks on benefit rights

The scope and level of unemployment benefit has fallen severely. In real terms the level of benefit for family men fell from 26.2% of the average wage in 1979 to 20.1% in 1992 (Hutton, op.cit., p. 92). The 'replacement ratio' was, and remains, the lowest in Europe. Withdrawal of benefit from the under 18's followed, together with lower income support for the under 25s, and the replacement of some grants by loans from the Social Fund. As the unemployed, in desperation at the lack of jobs for older workers in poor health, began increasingly to seek doctors' help to classify themselves as sick (see for example Beatty and Fothergill, op.cit.), the government decided to replace invalidity benefit with incapacity benefit which

will be harder to get. The introduction of the jobseekers' allowance in 1996 will withdraw contributions–based unemployment insurance from hundreds of thousands of unemployed and subject them to a means test. It is now hard to believe that in 1979, virtually all unemployed people over the age of 16 had unconditional rights to benefit for as long as they needed.

Since 1989, there has been a marked tightening of the discipline imposed on the unemployed by the benefit regulations, making it more difficult for jobseekers to refuse low paid work, insecure jobs or anti–social hours. The intention and effect of the new policies towards the unemployed is to get them to 'work' harder, as the 'reserve army', at holding down wages and conditions of those whom they might replace.

Restart interviews, introduced in 1986, were the first of a series of measures designed to accelerate the exit of the long–term unemployed from the dole queue by inducing them to widen and intensify their search for work. Nearly a third of interviewees, according to the Department of Employment's own research, encounter a suggestion that they should be prepared to accept a lower paid or less skilled job than they had hoped for (*Working Brief*, Apr. 1993, p. 11).

Under the 1989 Social Security Act, unemployed benefit claimants must show willing to accept any job offer whatsoever after the first three months of unemployment (during which time they can restrict themselves to work they consider suitable in the light of their previous experience and pay level). Previous legislation, by contrast, permitted claimants to refuse work which was lower paid than they had previously earned in similar work, or which paid below the going rate.

In the summer of 1994, pressure on claimants was increased by a new practice of offering them 'hard to fill' vacancies as a test of whether they are really making themselves 'available for work'. Such vacancies include many which are 'hard to fill' because of low pay or unsocial hours.

The Employment Department's latest 'Skill Needs in Britain' survey finds that recruitment difficulties are sometimes caused by 'employers making jobs unattractive (poor pay, poor conditions) or...because the nature of the work is unpopular' (*Employment Gazette* Dec. 1994, pp. 485–6). Clearly the tightening of benefit conditions has an important part to play in removing these obstacles to labour market 'adjustment'. 'Flexibilisation' or 'deregulation' of the labour market goes together with greater 'regulation' of the unemployed.

The unemployment benefit level in the UK is unusually low by European standards, with a ratio of benefit to average earnings of only 23% compared to an EC average of 61% (*Working Brief* Oct. 1994, p. 1). This in itself constitutes relatively high pressure to accept low pay, but furthermore, the UK is alone amongst EC countries in insisting that claimants must accept any job whatsoever on penalty of losing benefit.

These 'sticks' for the unemployed have been coupled with new 'carrots' to take part–time work; increased Family Credit to cover child care expenses, the 'back to work bonus' scheme and the pilot 'Jobmatch' scheme subsidising unemployed people to take part–time jobs (*Working Brief*, Sept. 1995, p. 7).

C. The reasons for 'flexploitation' and its international context

The trend towards casualisation takes many forms: spread of part–time work, of temporary work, super–exploitation of insecure migrant workers and sub–contracting to smaller firms with inferior pay and conditions. The first two characterise Europe, the first three the USA, the third and fourth Japan. The trend has its roots in three major trends of international capitalism:

a) technological change, leading to the shedding of jobs from manufacturing and the shift from manufacturing employment to services in western countries

b) intensification of competition between 'first world' capitals and between them and the 'third world'

c) deregulation of financial markets, leading to rapid and sudden movements of capital between firms, between sectors and between countries in search of greater returns; to higher interest rates and therefore pressure to reduce fixed costs of all kinds, including labour

The market pressures behind casualisation are perhaps greater in the UK than for most European economies. The UK suffers from higher interest rates and more short–term lending to companies than most other EC countries, with consequently greater pressures to offload the cost of maintenance of labour power onto the workforce itself in terms of less secure employment, lack of training, and lack of redundancy compensation. These pressures would constrain the attempt of any new government to curb 'flexploitation' and permit workers to improve their conditions.

However, the difference in pay and working conditions between the UK and other EU states is partly due to the specific stance of the Tory state towards trade unions and workers' rights. The UK is now the only EU country with virtually no minimum wage regulation. The right to strike has been severely circumscribed compared to say France or Italy, where secondary and political actions remain common, and as noted earlier even falls below ILO standards. The rights of the unemployed are especially poor; there is no right to refuse a job on grounds of unfairly low pay; and the lowest benefits in Europe for those who have previously worked. The UK government resisted the EU directive on equal job security and fringe benefits for part time workers, rights which were finally won by a decision of the Law Lords in late 1994 on equal opportunity grounds rather than with reference to the directive.

The Tories' attacks on the working class have led to a marked increase of inequality. Jane Millar (in Sinfield, 1993) finds that the proportion of UK households receiving less than half average income grew from 9% in 1979 to 24% in 1990/91. She attributes this not only to the increase in long–term unemployment, but to increasing 'flexibility' and low pay, brought about by the government's attack on wages councils and trade unions, to cuts in the size and scope of benefits, and to the shift from direct to indirect taxation.

Thus inequality of incomes has increased in Britain, in a period when

inequality was falling in several other EC states. This contrast suggests that the worsening fate of the poor is due at least in part to government policy, over and above the effects of market forces such as the rise in unemployment and the shift from manufacturing jobs to low paid service sector work, trends from which the UK has suffered no worse than Europe as a whole.

Studies by the European Commission indicate that in a number of EU states, inequality has been falling since the mid or late 1970s (*Eurostat*, 1989). But in the UK, inequality has been rising since 1979 (EC, 1989a). Whilst the poorest households were getting poorer, the richest 10% have had an increase in real income of more than 50% under Tory rule (Institute of Public Policy Research 1993, quoting research published by HMSO).

Defining 'the poor' as those who have less than half the average disposable household income of the country in which they live, the EC finds that 18.2% of the UK population are in poverty – a proportion exceeded very slightly by Spain, Greece and Ireland, and rather more so by Portugal (EC, *Living Together; Basic Social Questions in Europe*, 1992).

Taking the definition of 'poverty' as households being able to spend only 40% or less of national average household expenditure, the incidence of poverty has increased in the UK during Tory rule much more than in any other EC state. Between 1980 and 1985, 'poor' households in Britain rose from 6.3% to 10.6% of the total. Italy and Portugal also showed a very slight increase in poverty during the same period, whilst in the other countries it was falling or at worst a constant proportion. (Eurostat, 1990).

We are accustomed to thinking of the UK as the 'odd one out' amongst European capitalist states because of its opposition to the 'social chapter' of the Maastricht treaty. However, the existence of the 'social chapter' should not detract attention from the coordinated international character of attempts by the capitalist state to induce a restructuring of the labour process, corresponding to the globalised character of capital itself.

Widespread on the agendas of Western governments is a drive to obtain greater 'flexibility' of hiring and firing practices, in other words to secure greater acceptance and legal legitimation of fixed term contracts, avoidance of redundancy compensation, and of part-timisation. OECD reports on labour market policy both reflect this agenda and seek to defend it theoretically. For example, writing of the concerns of labour ministers in the 1970s:

> High and quasi-fixed labour costs, rigid wage-setting procedures, generous social protection, and rules and practices which shielded some workers in secure jobs at the expense of others in unstable jobs, were some of the factors that were perceived as reducing the capacity of national economies to adjust to new international market signals and to profit from new economic opportunities (OECD, 1990, pp. 16–17).

The OECD responded in the 1980s by a series of 'expert' reports and conferences, in which:

> The emphasis in labour market policies on flexibility and adjustment objectives did not meet with general approval. In fact, some observers regarded the focus as biased by employers' interests....Many of the deregulations suggested in the labour market area...implied a serious attach on achieved social standards. The Manpower and Social Affairs Committee has over the years adopted a pragmatic stance and has attempted to steer a middle course between the competing claims for change and for maintaining certain achievements, thus trying to reconcile economic efficiency with social equity. More recently, this has brought labour supply policies such as training, job–search and placement measures back to the centre of the Committee's deliberations (ibid.).

This is an interesting passage, firstly because its admission that 'flexibility' is basically 'labour–unfriendly' should lead us to question whether 'labour–friendly' forms of flexibility are really what they seem to be. Thus it implies that the apparently more 'labour–friendly' agenda of the EC as an international institution, through the 'social chapter' and through the Green Paper on Social Policy of 1993, may be deceptive. Alongside the concern for continued 'social protection' and equal rights for part–time workers the EC manifests a concern for greater acceptance of *temporary* work at the same time as associating 'flexibility' with the possibility of net job creation. But there seems to be a curious doublethink here. To suggest that making it easier to fire the 80–90% of the labour force who are in work will create new job opportunities for the 10–20% who are not, is rather like telling a TV rental company that it would do better if it allowed its customers to cancel their contracts after six months rather than twelve. Most TV rental companies know better. They would gain some customers who wanted short–term contracts, but as the existing customers came to the end of their twelve month contracts, their demand would become more unstable and less secure as a source of income. If we imagine a trade union in the place of the rental company, the short–term gain in job opportunities made possible if the unemployed can more easily be hired and fired than before will be offset by an overall increase in insecurity, as 'flexible' contracts gradually spread to the rest of the labour force when they lose or change jobs.

The OECD presents 'active' measures for the unemployed as an adjunct to the 'flexibility' agenda. 'Flexibility' goes hand in hand with 'adjustment' – that is, the nature of labour supplied must correspond to the nature of labour demanded. Training, job search and placement measures for the unemployed are described as 'labour supply' policies because they help to change the form of the labour 'commodity'. These policies in turn are presented as the 'equity' aspect of adjustment, that is, as help to those excluded from work. But, as shown in the section on benefit rights, such policies can include a large element of browbeating the unemployed to accept low pay and insecure work.

The EC's Green Paper on Social Policy (1993) attempted to set an agenda for consensus within the EC by linking 'flexibilisation' and encouragement for unions and employers to negotiate reductions in working time. In other words, the 'flexibilisation' agenda is embraced, but tempered with a recognition of trade unions as an actual and legitimate social force, which contrasts strongly with the attitude of

the Tory government here.

The UK government's resistance to the 'social chapter' of the Maastricht treaty has highlighted the growing gap between rights at work in the UK and elsewhere in the EC, and the concepts of the EC Social Charter are a useful stick with which to beat the Tory's sweatshop labour policy. But it must be recognised that the project of the European Single Market is designed to assist 'growth' on capital's terms. In particular, it makes it easy for capital to disinvest from countries with rising labour costs. The converse of this is that a strategy of 'social dumping' (sweatshop wages, withdrawal of social protection) could be used by one national capital to undercut the others. Such a strategywould undermine the social and political legitimacy of the Single Market project:

> Although...enterprises need flexibility and...high unemployment reduces the bargaining power of workers, competition within the Community on the basis of unacceptably low standards, rather than the productivity of enterprises, will undermine the economic objectives of the Union. (Green paper on Social Policy, EC Nov. 1993)

The reference to *economic* rather than *social* objectives in this passage serves as a reminder that the social provisions of the Single Market are intended merely to legitimise and moderate the operation of the internationalisation of capital; they are not in any other sense a 'pro-worker' provision.

'Flexibilisation' is often portrayed as an inevitable outcome of technological change, to which trade unions must accommodate. But whilst it is associated with the shift from manufacturing to service jobs, 'flexploitation' also occurs as a capitalist strategy independent of technological factors. UK regional policy in the sixties and seventies encouraged 'mobile' investment into regions of high unemployment, including Scotland. This was often used by companies to move to sites where, away from the competing offers of urban service employers, they could hire part-time women at low wages, frequently non-unionised. A more recent example comes from retailing. There is no technological reason for retail chains like Burtons (*Financial Times* 15.3.94, p. 25) and Gateways (Tim Laing, op cit.) to replace full-time workers by part-time ones, as they are now doing. The spread of part-time work in retailing arises from labour and marketing strategies on the part of employers in these sectors. It is said that shops require several part-time shifts to cater for a customer service requirement which is longer than a 40 hour week, but no parallel argument has been made in relation to road transport, train driving or the police. Moreover, there is no technological imperative which dictates shops' opening hours, let alone one the necessity of Sunday trading. The shift of retailing towards low-paid part-time supermarket workers, taking the place of full-time, more skilled, better paid workers in family-run retail shops could better be described as a feature of competition rather than of technological change. Similar comments could be made about restaurants. Turning to the spread of self-employed sub-contracting, its spread in the building industry in the 1980s, and its creeping introduction into other sectors, is not a technological phenomenon but a deliberate strategy by which employers offload fixed labour costs. There is also a broader view

that technological change is itself a response to class struggle (Panzieri, 1957). If there is nothing technologically inevitable about flexibilisation of labour on employers' terms, it is something which can and should be resisted. The question is how.

D. Perpectives for resistance to 'flexploitation'

'Flexibilisation' is not a new phenomenon, with the exception of a few inventions of the last decade such as 'zero hours' or 'on call' contracts which may be regarded as a form of economic house arrest for the workers concerned (Huws, 1989). The casualisation of the 1980s and 1990s can be seen as a return to the pre–1914 years, when intermittent short–term jobs were the lot of the mass of unskilled workers. Nor is the fragmentation of production, with sub–contracting to smaller units and to self–employed individuals, anything new. In Japan, sub–contracting to small firms operating an inferior secondary labour market has been established practice for decades (EC (DG V), 1989 b). Increasing sub–contracting was a significant trend in the Weimar Republic, making it more difficult for trade unions to retain their influence, and helping to set the scene for the final conquest of the trade unions by the Nazis (Bologna, 1994).

Returning to the specific features of UK capitalism which make 'flexploitation' worse than elsewhere in the EU, the question of how 'short–termism' and the dominance of finance capital could be attacked, and whether this is practicable as a 'reformist' agenda is a complex one. Will Hutton has suggested that it could form part of the platform of the next Labour government (Hutton, 1995) but his critics have questioned this (*Red Pepper*, March 1995). The globalisation of capital places pressure on the capitalist state everywhere to deregulate labour markets and facilitate cuts in fixed labour costs. Attempts as part of a reformist agenda to radically alter the structure of UK capital markets would risk provoking an outflow of capital and a Labour administration's ultimate nightmare: a run on the pound.

In any case, the Labour leadership so far shows little political will to reverse the Tories' anti–trade union laws, and the recent wrangle with the TUC (July to September 1995) casts doubt on the strength of Blair's commitment to a national minimum wage.

Widespread unemployment goes together with continuing high level of overtime for those who have jobs. As noted earlier, Britain stands out amongst EC states for particularly long hours for full–time workers (EC, 1994, p. 113). The replacement of part–time work on the bosses' terms by job–sharing with full equality of conditions for full–time and part–time workers, and by work–sharing deals which will benefit the unemployed, is both a challenge and a problem. Whilst the engineering unions have won substantial concessions on working hours, the chances of successfully mounting such campaigns in the economy as a whole are affected by a large number of derecognitions and a fall in trade union membership, now at the lowest level since 1946 (Hutton, op.cit., pp 92–93).

Under 'Fordist' conditions, it is possible for workers' struggles to influence both the direction and impact of technological change and therefore to forestall deterioration of workers' conditions. For example. in large automated plants in

France and Germany workers have been able to negotiate modifications of working time patterns to reduce the impact of labour shedding, or to create greater blocks of leisure time within the typical working week. But unfortunately the concept of a reduction in working time to a 35 hour week without loss of pay 'mainly reflects a German male manufacturing worker point of view' (*Financial Times* report on European Trade Union Institute conference, 9.12.94). The area in which trade unions are powerful enough to negotiate pro–worker work–sharing deals is declining all the time. With the public sector shrinking and being privatised, and large–scale manufacturing plants continually falling in number, there is less opportunity for that kind of bargaining to take place.

These changes, and the threats to union strength from the phenomenon of 'flexploitation', call for specific trade union strategies to draw in temporary and self–employed status workers. One possible model is for the union itself to become the supplier of labour, through itself organising a 'temp' agency. The dock labour sector provides some interesting examples of this (Turnbull, 1994) as does the work of the GMB within construction trades. Indeed, labour cooperatives amongst agricultural workers were amongst the earliest forms of trade unionism in Italy (Louis, 1983). On the other hand, for a trade union to take on such a role may exacerbate the contradiction already implicit within 'its traditional function as half party and half merchandiser' (Negri, 1988).

Obviously there are numerous historical examples of effective unionisation of casual workers, from British dockers to Californian fruit–pickers. Nor does effective resistance necessarily depend on attachment to a particular industry or occupation, as shown by the 1993 struggle of French youth against a reduction in the minimum wage. But as labour changes, forms of struggle need to adapt. What is needed is an alliance between organised workers and the unemployed or marginalised, which attempts the organisation of jobseekers before the point of hiring, rather than after they have been hired. One option would be area–based approaches, following the example of the Tyne–Wear 2000 Group (Byrne, 1985). Another would be a unified struggle for radicalisation of the benefits system, to attack the discipline being imposed by the state on the unemployed in order to force people to accept low wages (Gray, 1988). The unemployed workers' movements of the 1930s, in Germany, in Britain and in the USA, are worthy of study.

As the state intensifies its attempts to discipline and control the unemployed, and use them to force a low–wage 'solution' to the unemployment problem, establishment of a high–level minimum wage is crucial for both unemployed and employed. Caution is also needed lest left proposals for new measures to train and place the unemployed should inadvertently assist employers' strategies to reduce fixed labour costs through casualisation. In particular, the Spanish experience shows us to beware of temporary wage subsidies. Incentives to hire the unemployed need to be linked to the offer of a long term employment contract and to the recruit's opportunity to continue in the job. Generally, there is a danger in categorising all forms of 'help' to the unemployed as positive. Unless constructed on the terms of a real alliance between workers and unemployed, such measures may be no more than a way of forcing through the employers' agenda.

E. 'Flexploitation' as part of an agenda for a co–research initiative

It is not too difficult to build up a statistical portrait of 'flexploitation' in the UK and in other countries. What is much more difficult to develop is a qualitative picture of how the various aspects of 'flexploitation' interact with each other and with changes in the form and extent of workers' resistance. From the discussions of the CSE working group there emerged the idea of a 'workers' inquiry', challenging the largely management orientation of much academic research on industrial relations and labour markets, and attempting to develop information and analysis by dialogue with workers themselves. It should avoid duplicating the collection of information which can be obtained from official or academic sources, now far more extensive than they were in Marx' own day. What is important is to gain a holistic view, from workers' experiences rather than simply statistics, of what is happening in the secondary labour market (the 'Macdonaldisation of jobs' as somebody put it in the CSE working group); to find out what impact the spread of part–time, temporary and self–employed contract work is having on trade union organisation and methods. What alternative forms of resistance are emerging as a result of trade unions becoming weaker, threatened as they are by privatisation, casualisation and part–timisation, and also by state regulation under the Tories ? To what extent can self–employed individuals develop new forms of autonomy and bargaining power ?

Perhaps 'co–research' is a better term than 'workers' inquiry' since it suggests a collaborative exercise, an interchange of views between equals which avoids defining the informants as the 'objects' of research. Academic and media workers are themselves sufferers from 'flexploitation', and their analysis can begin from their own experience. Group discussions with shop stewards, with Trades Council delegates, with strikers, with unemployed organisations, could be ways of taking this process forward.[2]

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Cycles & Circuits of Struggle in High-Technology Capitalism

Nick Witheford

Introduction

This paper explores a territory many believe does not exist – the territory of high-technology class warfare. According to mainstream theorists of the information revolution, the advent of computers, telecommunications and biotechnologies has made conflict between capital and its proletariat a relic of the past. But in reality high technology has not ended these hostilities–merely transformed them into violently unfamiliar forms. In what follows, I first sketch the historical *cycle of struggles* which has led class war onto this strange new terrain, and then map the major battlegrounds in the contemporary *circuit of struggles* as it passes through robotized factories, interactive media, virtual classrooms, biotechnological laboratories, *in vitro* fertilization clinics, hazardous waste sites and out into the global networks of cyberspace.

The perspective is that of autonomist Marxism. This is a varied, largely subterranean stream of practice and theory.[1] Its most sustained expression is perhaps found in the work of activist-intellectuals involved in the revolts of Italian workers, students and feminists during the 1960s and 70s – Raniero Panzieri, Mario Tronti, Sergio Bologna, Mariarosa Dalla Costa, Francois Berardi, and Antonio Negri – several of whom suffered imprisonment, exile, or marginalization when these movements were subjected to para-military repression.[2] However these Italian

[1] See Cleaver (1979), still the defininitive account in English of autonomist Marxism.

[2] This synoptic account of the Italian autonomists necessarily distorts their complex history: in particular it scants the relationship of the earlier Italian *operaismo* or 'workerism' focussed around factory struggles of the industrial proletariat to the later currents merged in the broad social movement of *autonomia*. Tronti and Panzieri belong to the former, not the latter. Indeed, Tronti split politically with theorists of *autonomia* such as Negri who built substantially on his work. Nonetheless, I find sufficient continuity in their line of thought to classify all as 'autonomist Marxists.' A key English language analysis of the Italian New Left is Wright (1988), which emphasizes the difference between *operaismo* and *autonomia* and gives a fascinating analysis of the debates and struggles within the movement. Other theoretical and historical introductions include Cleaver (1979), Moulier (1986:1989), Negri (1980), Lotringer & Marazzi (1980), Ryan (1989), Lumley (1990). The articles in Tahon and Corten (1986) provide a valuable retrospective assessment Important anthologies of autonomist Marxist writings are Red Notes (1979) and Negri (1988).

theorists of *autonomia* drew on earlier currents in North American, Caribbean, French and German Marxism, and their ideas have in turn been widely disseminated. Today, autonomist Marxism in the United States is exemplified by the work of Harry Cleaver, of George Caffentzis and the Midnight Notes collective, and by Michael Hardt's recent collaboration with Negri; in Britain, by the publications of the Red Notes Collective; in France, by many of the articles in the journal *Futur Anteriur;* and internationally by Selma James' organization of the "wages for housework" campaign.

Although there are many differences and disagreements within this autonomist current, it can be distinguished from other Marxisms on three counts. First, it takes as its premise not the dominative power of capital but the potential freedom – or autonomy – of people from that domination, a potential that manifests itself in constantly renewed struggles to win space and time independent capital's regime of work. Second, autonomists emphasize the scope of these struggles, which extend beyond the shopfloor into the "social factory."[3] The subjects of class conflict include not only waged labour but also all the unwaged workers, such as housewives, students, and the unemployed, whose activity capital subordinates to and organizes through the wage form. In each of these sectors resistances to capital involve different agents and distinct – autonomous – forms of organization. Autonomist Marxists do not seek to subordinate these diverse points of self-activity to a hierarchical party authority, but to link them in a lateral "circulation of struggles."[4] Third, autonomist Marxists reject both the authoritarianism of state socialism and the reformism of social democracy in search of communist alternatives independent of – autonomous from – both capital and state. Autonomist Marxism is not an ex-Marxism or a post-Marxism: but it is a "Marx beyond Marx" (Negri, 1984).

Cycles of Struggle

One of the autonomists' most distinctive ideas is that of the *cycle of struggles*. This proposes that it is actually workers' struggles that provide the dynamic of capitalist development. Whenever capital's laboring subjects start to unify themselves in collectivities that challenge its control – attaining a degree of *class composition* – it must respond by organizational, technological and political innovations designed to *decompose* these movements, either by crushing or coopting them.[5] However, since capital is a system of domination that depends on the wage relation, it can never completely destroy its antagonist. Instead, capital must constantly recreate the very proletariat whose presence threatens it. Each of its reorganizations, however temporarily successful in disrupting opposition, is followed by a *recomposition* of the workforce, and the appearance of new

[3]The concept of the "social factory" was first developed by Tronti (1973), but was really given substance by the work of James and Dalla Costa, which is summarised later in this paper See also Cleaver (1977, 1979).

[4]On the "circulation of struggles" see Cleaver (1979) and Bell & Cleaver.

[5]For a detailed explanation of the autonomist concept of class composition see Cleaver (1992).

resistances. Rather than being made once-over, the working class incessantly mutates, changing its culture, capacities, strategies and tactics. Class recomposition and capitalist restructuring spiral around each other in a relentless double helix, with the spectre of subversion driving capital in an ever accelerating flight into the future.

Technological change has to be understood within this context. In an early essay that established the direction for later autonomist critique, Panzieri broke decisively with left views of techno-scientific development as 'progress' (Panzieri, 1976, 1980). Rather, returning to the pages in *Capital* on the early introduction of machinery, he proposed that capitalism resorts to incessant technological renovation as a 'weapon' against the working class: its tendency to increase the proportion of dead or 'constant' capital as against living or 'variable' capital involved in the production process arises precisely from the fact that the latter is a potentially insurgent element with which management is locked in battle and which must at every turn be controlled, fragmented, reduced or ultimately eliminated (Marx, 1977, p. 563). Simply to ratify technological rationalization as a linear, universal advance was to ignore that what it consolidated was a specifically *capitalist* rationality aiming at the domination of labour.

However, autonomists emphasize that waged and unwaged workers are not merely passive victims of technological change, but active agents who persistently contest capital's attempts at control. This contestation can take two forms.[6] One is *refusal*, understood broadly as any attempt to sabotage, stop or slow machine domination – a classic instance being the monkeywrenching of assembly lines. The other is *reappropriation*, in which labour's own 'invention power' is used to reclaim, refunction or 'detourn' machinery, twisting it away from managerial to subversive purposes – as in the development of political pirate radio, with which several autonomist were closely involved.[7] Both of these responses to technology are parts of the repertoire of struggle, although in different moments and settings one or other can assume a particular importance.

Let us now put a little flesh on these theoretical bones by glancing at three twentieth century turns of the cycle of struggle.[8] The first is the era of the *professional worker* – the highly skilled craft workers who at the opening of the century use their intimate knowledge of the labour process to create a nucleus of shop floor resistance to capitalism, and who provide the vanguard members of

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[6]My account here rewrites in terms familiar to English speaking audiences the distinction Negri (1979) makes between "sabotage" and "invention power." Negri's early writings emphasizes the first aspect of worker's activity, but his later texts, the second. Many autonomists are more interested in sabotage than reappropriation, but the writings of Berardi are a striking example of the latter approach.Cleaver (1981) gives an clear exposition of autonomist Marxism's theory of technology.

[7]"Detournement" is a term deriving from the Situationists, with whom the Italian autonomists had a distinct affinity. It describes the reassemblage of elements torn out of their original context in order to make a subversive political statement; see Debord (1977) and for useful commentary, Cleaver (1992).

[8]This account follows Negri (1992).

revolutionary socialist movements.

When the threat posed by this form of class composition becomes evident in the aftermath of 1917, capital radically restructures itself. The production process is fragmented, deskilled and mechanized by Taylorist scientific management and the Fordist assembly line, and the broader social order is pacified by what the autonomists term the *Planner State* of welfare programs and Keynesian interventions.

However, this restructuring creates a new working class subject – the *mass worker.* The mass worker is made up of the concentrations of semi skilled labour assembled in the automobile factories, petrochemical plants, mines, docks at the core of Fordist industrial production. This workplace organization is surrounded by an increasingly comprehensive system of social management, intensively regulating domesticity, schooling and social welfare in order to snugly integrate mass production and mass consumption.

For a period these arrangements seem stable. But in the late 60s and early 70s mass workers revolt against the mechanized hell of assembly line work. Although they do not have craft workers capacity to control production, they can still can stop it. A 'refusal of work' – a surge of strikes, sabotage, and absenteeism–paralyses industrial plants (Tronti, 1980). Moreover, these workplace revolts start to overlap with revolts by subjects in other parts of the Planner State – rebellious students, women rejecting their role as housewives, ghettoe insurrections. These insubordinations interweave to create wholesale crisis in the social factory.

In response, capital goes on the counter-attack. From the late 1970s onward it undertakes another major restructuring, often termed a shift from Fordism to post-Fordism. And it is here that high technology plays a central role. For a crucial part of this process is the imposition of a regime of "cybernetic command" (Collecttivo Strategie). The massive investment in microelectronics and biotechnologies, widely hailed as an emancipatory 'information revolution', has, in fact been integral to a corporate offensive against the working class. Automation has decimated the factory base of the mass worker; telecommunications has allowed companies to globalize in search of cheap labour and lax regulation; and information technologies of all sorts have monitored and regulated citizens as social services are demolished in a transition from the welfare policies of the Planner State to the discipline through austerity of *Crisis State.* In association with policies of deregulation, privatization and legislated repression, robotic arms and fibre optic cables have pulverized trades unions, circumvented social movements, and effectively annihilated the aspirations of social democracy. Many on the left as well as the right interpret these events, taken together with the collapse of Soviet state socialism, as a decisive victory for capitalism.

For autonomists, the crucial question is whether amidst this apparent shambles any signs of class recomposition can be detected. And here a variety of analyses have been proposed. One of the most optimistic is that of Antonio Negri,who argues that we are witnessing the emergence of a new working class subject – which he variously calls the "*socialized worker*", "mass intellect",

"immaterial labour".[9] According to Negri, this "post-Fordist proletariat" emerges out of the "continuous interplay between techno-scientific activity and the hard work of producing commodities" (Negri, 1994, p. 90). It is characterized by involvement in computerised, informational production, by immersion in communicative networks, by the diffusion of work-sites throughout society, and by the "increasingly close combination and recomposition of labour time and life time" (ibid., p. 90) Of particular interest here is Negri's claim that this proletariat has a relation to technology strikingly different from that of previous working class generations. While the mass worker could only stop capital's assembly lines, the socialized worker is, he says, so familiarized with the wired-world of high technology that s/he enjoys a growing capacity to reappropriate this "ecology of machines" for subversive purposes – a capacity particularly evident in regard to the communications systems so vital to contemporary capital (Negri, 1989). This new working class subjectivity, having gradually formed itself over the last twenty years is now, Negri claims, beginning to manifest in new and radical social movements, which, from his Parisian vantage point, he finds exemplified in the revolts of students and workers that have repeatedly shaken France from 1986 to 1994 (See Negri, 1989, Red Notes, 1994).

This thesis is evidently controversial. Not only do many on the left regard Negri as utopian, but even amongst autonomist Marxists there is extensive criticism of his analysis for its tendency to hyperbole, for its frequent failures to take adequate account of working class divisions and segmentations (particularly those related to gender), and for its emphasis on new struggles at the expense of old resistances.[10] I share some of these reservations. Moreover, Negri, writing as an Italian exile in France, derives his analysis from a specific context out of which it cannot be easily transplanted. Nonetheless, I believe his work contains important insights. In particular, Negri's suggestion that we are witnessing the beginning of a new cycle of struggles in which high technologies appear not merely as instruments of capitalist domination, but also as resources for working class counter-power can be at least partially validated. My analysis therefore takes both inspiration from and liberties with Negri's ideas as, focussing primarily on a North American context, it attempts to chart the insurgencies of what I shall simply call the high-tech proletariat.

Circuits of Struggle

To organize this cartography I use a concept of Marx's which has been

[9]The most complete English language explanation of the statement the "socialized worker" thesis is Negri (1989); the later concepts of "immaterial labour" and "general intellect," developed by Negri in collaboration with colleagues around the French journal Futur Anterieur can be found translated in Red Notes (1994).

[10]For an exciting and informative summary of the criticism of Negri's "socialized worker" thesis by Bologna and other of his Italian comrades see Wright (1988, 287-339). See also criticism from within the Midnight Notes Collective in the debate between 'Guido Baldi' and 'Bartleby the Scrivener' (1985).

very important to autonomist theory, that of the circuit.of capital.[11] Put simply, this shows how capital depends for its operations not just on exploitation in the immediate workplace but on the continuous integration of a whole series of social sites and activities

Marx's original account describes just two moments in this circuit: *production* and *circulation.* In production, labour power and means of production (machinery and raw materials) are combined to create commodities. In circulation, commodities are bought and sold: capital must both sell the goods it has produced, realizing the surplus value extracted in production, and purchase the labour power and means of production necessary to restart the process over again .Money is thrown in at one point of the circuit, and more money comes out at another, all or some of which can then be used to start the whole process over again on an enlarged basis. For the capitalist it is a wheel of fortune; but for those who sell their labour power, it is a treadmill of never-ending work.

Since Marx proposed this model, capital has prodigiously expanded the scope of its social organization. This expansion, and the resistances it has provoked, has made visible aspects of its circuit which he largely overlooked.Thus in the 1970s Mariarosa Dalla Costa and Selma James, the feminist theoreticians of autonomist Marxism, made a crucial revision when they insisted that a vital moment in capital's circuit was the *reproduction of labour power* – that is, the activities in which workers are prepared and repaired for work. These are processes conducted not in the factory, but in the community at large, in schools, hospitals, and, above all, in households, where they have traditionally been the task of unwaged female labour. By enlarging Marx's original theory in this way, Dalla Costa and James opened the way to a concept of class conflict far better able to comprehend the wide range of rebellions throughout the social factory.

More recently, another round of struggles have called attention to further aspects of capital's circuits, previously largely taken for granted by Marxists–the reproduction of nature. Capital must not only constantly find the labour power to throw into production, but also the raw materials this labour power converts into commodities. As mounting ecological catastrophe catalyzes intensifying protests by green movements and aboriginal peoples, it has become apparent that faith in the limitlessness of such resources is profoundly mistaken. Whether raw materials are in fact available for accumulation depends on the extent of capital's territorial and technological reach, on the degree to which ecosystems have been depleted and defiled, and on the level of resistance this devastation arouses. The reproduction, or rather the *non-reproduction of nature*, thus increasingly becomes a problem for capital and a terrain of conflict for those who oppose it.[12]

If we take account of insights won not just by workers' struggles but also by feminist and environmental movements we can posit an updated version of the

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[11] This concept recurrs throghout his work, but finds its most systematic treatment in Vol II of Capital (1978). The autonomist revision of the concept is best explained in Cleaver (1977) and in Bell & Cleaver – to which this essay owes a considerable debt.

[12] For important recent Marxist theoretical perspectives on ecological issues see Lebowitz (1982) and O'Connor (1988) and the journal Capitalism, Nature, Socialism.

circuit of capital constituted by four moments – *production, circulation, the reproduction of labour power and the (non) reproduction of nature.* At each point we will see how capital is today using high technologies to enforce command over its subjects, imposing increased availability for work, an intensification of market relations, a deepening subsumption of schooling, medicine and motherhood, and the acceptance of mounting environmental pollution. We finish with an view of how computer-mediated communications integrate capital's grasp over the entirety of what Marx called the "network of social relations," creating a universal digital medium for measurement, surveillance and control (Marx, 1977, p. 1056).

However, and this is vitally important, our model is a map not just of capital's strength, but also of its weakness. In plotting the nodes and links necessary to capital's flow, it also plots the points where those continuities can be ruptured. At every moment we will see how people oppose capital's technological discipline by practices of refusal or reappropriation. We will see how these "techno-struggles" are multiplying throughout capital's orbit, how conflicts at one point in its circuit precipitate crises in another, and how, to an increasing extent activists are using the very machines with which capital tries to ensure the integration of its power as means to connect their diverse rebellions.[13] The circuit of high technology capital is thus also a *circuit of struggle.*

Production: Workerless Factory

Let us start – though not stay – at the the traditional heart of Marxist theory, the immediate point of production. This is the site at which capital squeezes out surplus value from workers, either 'absolutely' (by extending the working day) or 'relatively' (by raising the intensity or productivity of labour). Here the shop floor rebellions of the 1960s and 1970s provoked a devastating corporate attack on labour, of which we can identify three elements: *automation*, *mobility*, and *participation.*

First, automation. To reassert its control, management has invested massively in 'new production systems' interconnecting computers, robots and other information machines in increasingly self-regulating complexes. Initially introduced in the car factories, chemical plants, and steel mills where mass worker militancy had been most vigorous, these systemst are now being experimented with throughout all sectors of work, from nursing thru' pizza-making to lighthouse-keeping. Although their fully integrated versions are still futuristic islands in a sea of more traditional work methods, there is visible on the horizon the moment predicted by Marx in which capital attains its "full development " with the creation of,

> . . . an *automatic system of machinery* . . . set in motion by an automaton, a moving power that moves itself; this automaton consisting of numerous mechanical and intellectual organs, so that the workers themselves are cast merely as its conscious linkages (Marx, 1973, p. 692).

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[13] The phrase "techno-struggles" is from Fiske.

In such a system living labour is not so much "included within the production process" but relates to it "more as watchman and regulator" (*ibid.*, p. 705).

Second, global mobility. Telecommunications, computer networks and high-tech transportation systems have massively accelerated capital's capacity "to annihilate space through time," expanding and integrating the "world market" (Marx, 1973, p. 525, 528). Consequently, where insubordinate workers have not been replaced by machines, they have been outflanked. The technological capacity to integrate dispersed operations has allowed corporations to break up the factory bastions of the industrial proletariat and diffuse and disperse work – relocating it from troublespots of militancy to 'greenfield' sites; farming it out to homeworkers isolated in the electronic ghettoes of telecommuting, or, increasingly, exporting it to zones of the planet where labour is disciplined by starvation or terror. This trend culminates in the "virtual corporation" which, rather than maintaining a fixed work-force and plant uses its electronic reach to pull together contingent assemblages of labour in temporarily advantageous location, and as quickly dismiss and dismantle according to the flux of production and profitability (Davidow).

Third, participation. To prevent or fix the many breakdowns of new production systems, and to run them at peak capacity, requires operators who are creative and alert, or at least awake and not inclined to sabotage. Paradoxically, the introduction of hardware and software that quantitatively reduces the need for labour has therefore been accompanied with increasing managerial concern about the quality of the remaining 'humanware.' This manifests in innumerable post-Taylorist experiments in work organization – 'quality circles', 'team concept', 'participative management', 'TQM.' Behind all these runs one basic idea: to harness workers' desires for autonomy to the intensification of exploitation. The intellectual and intersubjective aspects of labour suppressed by Taylorism are mobilized for problem solving and participation, but only within parameters and priorities determined by upper level management. The results are arguably even more totalitarian than the old assembly line discipline, insofar as workers must now give not just their bodies, but their very subjectivity to the production of value (Lazzarato 1993, p. 4).

Potentially, these techno-organizational innovations permit a massive reduction in socially necessary labour. But as within capitalism they result in an entirely opposite outcome: an intensified availability for work. In Europe and North America, and indeed globally, joblessness and contingent employment has swollen to levels unthinkable a quarter of a century ago, restoring what Marx identified as a central weapon of capitalist command over the working class – the maintenance of a permanent "reserve army" of the unemployed (Marx 1977, p. 781-802). In a social order where income remains mainly dependent upon the wage, fear of joblessness undermines labour's strike power, enabling management to coerce worker 'cooperation' and drive down wages and conditions.

As workers compete amongst themselves for employment, capital sifts them into different strata – the declining core of permanent employees, the periphery of temporary and part-time workers, the absolute rejects destined for the welfare lines. Labour is segmented into an increasingly vicious hierarchy whose rungs tend to correspond and reinforce to discriminations of gender, race and age. Those at the

top must work ever harder, faster and more flexibly to save themselves from the immiseration below; those at the the bottom buy survival only at the price of super exploitation, pricing themselves into a job so cheaply it is not worth while replacing them with machines. Robots and child labour, biotechnology and body-parts vendors are together integrated into capital's new order.

Yet despite the apparent success of capital, the 80s and 90s have seen extraordinary insurgencies – in fact, a revival of class struggle in most explosive forms. In a North American context, the single most dramatic of these is the Los Angeles rebellion of 1992. No more striking demonstration of high-tech capital's failure to resolve its problems can be conceived than the recurrence of insurrection at the site of the Watts rebellion of the 1960s. Framed by the mainstream media simply as a race riot, the uprising was in fact multicultural anti-poverty revolt involving Latinos, blacks and whites in a community whose sources of industrial employment had been gutted through automation and global relocation.[14] The 'rioters' were drawn from the ranks of the un- and under-employed, dependent on the scanty welfare, casualized service work or criminalized industries which constitutes the underside of the high tech economy. They thus represent precisely the fate with which capital menaces all its labourers in the era of the workerless factory.

At the same time this revolt, although exceptional in its violence, displayed features of proletarian counter power which we will see repeated elsewhere in other registers. One is the possibility of turning the technological control-complex back on itself. For even in the carceral depths of the high tech repression, segregation and surveillance which surrounds South Central, the insurgency found ways of making the informational texture of contemporary capital operate to its advantage.[15] Indeed, it was ignited precisely by an instance of this capacity – the videotaping of the Rodney King beating. More broadly, the spirit of the rebellion had already been disseminated in advance by the quintessential techno-music of hip hop and rap. In the uprising itself, the LAPD failed to control the streets not only out of fear of the street gangs' firepower, but also because of the walkie-talkie coordination of looting. The omnipresence of the corporate media, covering the most televised urban uprising in history, had an ambiguous effect, for while its representations on the one hand demonized and distorted the insurrectionaries, it could not entirely avoid giving voice to their outrage, and thus contributing to the circulation of riots and demonstrations in Atlanta, Cleveland, Newark, San Francisco, Seattle, St Louis, Toronto and across the Atlantic to Europe.[16] Simultaneously, a variety of alternative media ranging from microwatt radio stations in black neighborhoods to computer networks spread a wider range of news, analysis and manifestos. Amongst these was the extraordinary "Bloods/Crips

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[14] For the ethnic composition of the uprising see the Davis (1993), and his interview with Katz & Smith. Fot an account of the crisis of unemployment "as the Los Angeles economy . . . was 'unplugged' from the American industrial heartland and rewired into East Asia" see Davis (1990), 304.

[15] Davis (1992) gives a superb analysis of the mechanisms of technological repression and containment in this context.

[16] Brown, p. 5-8. For analysis of media politics surrounding the LA rebellion see also Fiske.

Proposal for L.A.'s Face Lift" (Reprinted in Madhubuti). This document, a comprehensive proposals for the reconstruction of L.A including provisions for the urban envronment, education, health services and employment, was largely ignored by mainstream media. But it exemplifies a capacity which we will see recurring again and again, the capacity for proletarian's (even 'rioters' and 'criminals') to propose a counter-initiatives and alternatives to capital's.regime of high technology underdevelopment.

This revolt, an uprising by those from whom capital has wholly or partially withdrawn the wage, defines the base line against which other struggles within the wage workforce break out. For in a context of deepening unemployment and exploitation there are appearing, in a variety of sectors, new movements of workers fighting to preserve their livelihoods and dignity.[17] The resulting confrontations have seen both a revival of classic forms of labour struggle – strikes, sits downs, slow downs, mass civil disobedience – and dramatic innovations in tactics and strategies. In Los Angeles itself the same communities that rose up in the 1992 insurrection are generating a wave of labour militancy sweeping the hotels, fast foods, dry walling firms (Bacon). To the north, janitors and service workers have for the first time stuck the the computer mecca of Silicon Valley (Hoyos, Siegel); to the east, similar struggles are being waged in the entertainment complexes of Las Vegas (Davis); to the south, female workers in a garment industry which migrates its operations across the US/Mexico border are organizing (Chiang). Elsewhere, the late 1980s and early 1990s have seen major workplace battles waged by meatpackers at Hormel (Rachleef); by miners in the Appalachians and in Northern Canada; by paperworkers in Maine (Riker); by the vehicle, rubber and sugar workers whose simultaneous strikes and lockouts have turned Illinois into a "class war zone" (Clymer); by airline attendants from Alaska to Miami; by telecommunications operators in New England (Labor Resource Center) and newspaper workers in San Francisco; by Michigan autoworkers rediscovering the militant traditions of the Flint strikes (Downs, Slaughter); and by nurses and education workers resisting public spending cutbacks from New York to Winnipeg.

Despite their obvious diversity these movements have some family resemblances. Put schematically, we can say that they counter the three prongs of capital's workplace attack as follows: against participation in management's new work organization, they choose *antagonism*; against corporate mobility, they pit communal *alliances*; and against the automation of work, they propose increasing *autonomy* of labour.

First, antagonism. As workers face the reality of capital's new work schemes, they discover that behind the promises of participation and partnership lies a reality of speed up, arbitrary lay-offs and plant closures and declining wages. There are, increasingly, grassroots eruptions against labour/management collaboration –and an insistence that the rhetoric of decision making and responsibility translate into actual control over the conditions of work. Although trades unions often provide the organizational vehicle for these insurgencies, and in some cases give real

[17] The best single source for reporting the unfolding of these movements is the US dissident trades union journal Labor Notes. Other inteesting discussion can be found in Brecher & Costello; Kallick; Rachleef.

support and leadership, such rebellions constantly bubble up at a local level below and in opposition to the upper levels of union bureaucracies deeply complicit in participatory doctrines. Often too they arise amongst workers at the bottom of the hierarchy of labour power, amongst women and people of colour, whose networks of support are founded as much in of gender and ethnicity as in the traditions of the labour movement, and whose self-organization brings with it challenges to established union structures and strategies. Whatever the particularities of their eruption, however, these revolts have in common a refusal of workers to harness their collective intelligence to management's agenda, and a countervailing mobilization of cooperation between workers against capital.

This leads to their second feature of such struggles – alliances. Faced with capital's new abilities to outflank and overwhelm isolated revolts, workers have with increasing urgency sought linkages between different points of resistance.This tendency takes a variety of forms. It appears both in increased efforts to organize sectorially, rather than on the basis of single plants and in cross-sectorial connections, such as the linkages made by the Latina women of Fuerza Unita between striking workers in the telecommunications and garment industries, or in the mutual support between airline attendants, construction workers and bus drivers organized by Jobs With Justice in Miami (Chiang, Banks). It appears also in a drive to extend the arena of struggles beyond the confines of the workplace through consumer boycotts and 'corporate campaigns' hitting at every aspect of an employer's investments. Even more importantly, it leads workers' organizations into experimental coalitions with other social movements – welfare, anti-poverty, students, consumer and environmental groups – which, for reasons we will explore in moment , are also in collision with corporate order. Thus Silicon Valley workers fighting the toxic production practices of computer companies have linked their struggles with those of environmental and housing activists; strikers against Nynex telephone company join seniors, minorities and consumer groups to beat back the company's proposed rate hike, and unionizing drives in the ghettoes of fast food and clothing industry intertwine with campaigns against racism and the persecution of immigrants. Although such alliances are often fraught with difficulties, they increasingly breach the boundaries of official 'labour' politics. Contrary to postindustrial fantasy, workplace conflicts are not dissolved by the fluidity of the new technological environment; but they *are* decentred and recomposed with other arenas of activism. The agency of countermobilization against capital becomes not so much the trades union *per se* as the "labour community alliances" – or what autonomists would describe as alliances between different sectors of waged and unwaged work within the social factory (Brecher and Costello).

Central to the creation of these new solidarities is the reappropriation of the communicational and informational machinery capital uses to ensure its own mobility. Cross-sectorial linkages, corporate campaigns and community organizing are 'information intensive' activism, requiring both the careful tracking and targeting of capital's flows and movements, and the organization of complex counter-actions. Many of the emergent labour struggles are therefore using information technologies both to map the deployments of corporate opponents and to mobilize their own

membership. Activists in Los Angeles use data base analysis to identify potential organizing sites, Miami coalitions rely on computerised membership lists, and Illinois workers computer-coordinate teams of "road warriors" harassing corporate opponents nation-wide (Rachleef, 1994; Banks; Clyme). Moreover, while some of the new communities of struggle are formed on the basis of geographical proximity, as the 'peoples strikes' of Pittston mineworkers, many require dialogue, discussion and coordination between agents dispersed within the social – and increasingly global – factory. To enable this, they are taking hold of the very technologies capital intends as instruments of division and decomposition – videos, telecommunications, and video – and turn them into channels of connection and recomposition. This is so crucial a feature of the new insurgencies that we will examine it in detail in subsequent sections.

Third, the new movements contest not only capital's control of space – through communication – but also its command over time – through automation. In its most conventionally trades unionist form, the response to the immiseration of unemployment is limited to the call for 'more jobs.' However, around and under this ameliorative pea for the perpetuation of the wage relation see the more subversive ideas. One is an issue which Marx saw as vital to the emancipation of labour but which has since the end of World War II been largely abandoned by trades unions – the shortening of the working day, or, as autonomists put it, the drive for "zerowork."[18] Demands for the the reduction of hours without loss of wage are now on the agenda of the most innovative sectors of labour revolt.[19] This strategy is often favoured because it tends to solidarity between the employed and the unemployed: rather than dividing those impoverished by too little work and those exhausted by too much, it opens towards a society where "everyone works, but only a little" (Berardi). Ultimately, however, the horizon towards which it points is even more radical: the dissolution of the link between work and income – and hence the end of the wage as an instrument of capital's command over labour.This direction is also latent in apparently much more modest objectives – in demands that layed off workers be compensated and support for retraining; that casualized workers receive better pay and proper benefits; in strikes against speed up; in the drive for time off for parenting; against reductions in welfare and unemployment benefits. For what links these diverse struggles is a rejection of capital's perogative to plan and manage to its own advantage the vast potential surpluses of labour time produced by automation. Instead of this reservoir of free time being translated into wagelessness and vunerability, there emerges a proletarian demand that it be converted into a resource for self-development, permitting joblessness without poverty and labour without exhaustion (See Virno, 1992).

These initiatives towards the quantitative reduction of work unfold

[18]This perspective, which insists that the goal of revolution is to end, not enlarge, the realm of work, and which focuses not just on the qualitative improvement of working conditions but on the quantitiative reduction of working hours orgiginated with Italian autonomists and was then vigorously developed in the 1970s by the Zerowork collective in the US. See Zerowork.

[19] See the recent pamphlet "Time Out: The Case for a Shorter Work Week" put out by Labor Notes.

alongside others for its qualitative transformation. As corporations eliminate jobs, workers and communities have sometimes experimented with plans for 'socially useful' or 'autonomous' production, meeting social needs which capital has chosen to neglect.[20] These can range from projects for 'green' production, to the conversion of military plant to civilian purposes, or the preservation of public health services, telephone or education services. Often these projects evolve out of militant actions – such as the occupation of plants designated for closure: factories have been surrounded by picket lines aimed not only at stopping scabs getting in, but at preventing machines being taken out. Again, such responses are often intended simply to secure jobs. But at their outer limits they explore the formation of new collectivities, new processes of productive organization, new criteria for the production based on use-value instead of exchange value. In doing so, rather than simply perpetuating work as we know it – work as equated with a jobs and a wage – such initiatives point to a fundamental reconfiguration of productive activity so radical as to warrant another term.

Implicit within these reworkings of the quantity and quality of working time is a dramatic inversion. Historically, capital has legitimated itself as the source of wealth and societal organization, as the power that 'keeps things going', while workers strength has lain in the ability to stop production, to 'bring things to a halt.' Now this pattern reverses itself. High tech capital stands as the agent of austerity and dismantling, and socialized labour, appearing in the form of new alliances, emerges as the constructive force sustaining community against disintegration. So at the cutting edge of friction, the tendency is as follows: as capital expels human subjects from production by means of machinery, these subjects reply by reappropriating machines to reconstitute production outside of capital. To see the full scope of this process, however, we have to go out into the wider domain of the social factory.

Circulation: Interactive Media

High technology transforms not only production but also circulation. If it is at the site of production – the workplace – that capital extracts surplus value, it is in circulation – the sphere of the market – that this value must be realized

[20]The concept 'socially-useful' prouction is usually associated with the famous initiaitive by workers at British Aerospace in the late 1970s-- see Wainwright. 'Autonomous production' is a term used by Japanese workers involved on the eight year occupation of a Toshiba-Amplex paper described later in this paper--see Tsuzuku.

through the sale of commodities.[21] As production requires a labouring subject, circulation needs a consuming subject. And just as in production capital develops machinery to reduce labour time and control subjects in their tasks as workers, so in the market it resorts to technology to speed circulation and control subjects in their tasks as a consumers. To absorb an expanding volume of production people must believe both that they need what capital produces, and that these needs can and must be satisfied in commodity form. This is the project of a steadily intensifying regime of advertising and marketing which has unfolded through the development of ever more sophisticated waves of communication media.

During the era of the mass worker radio and television became indispensable instruments for consolidating the virtuous circle of mass production and mass consumption. However, the revolts of the 60s ruptured this circle. The demands of workers and community groups drove up wages and social expenditures to a point which threatened profitability. To regain control, capital had to discipline society by austerity. But in doing so it undermined the purchasing power of the mass-markets, and risked a classic realization crisis. Not only the workplace but also the market place therefore had to be restructured. Increasingly, corporations sought both to internationalize their sales efforts in order to make up for shrinking domestic markets, and to segment them, stimulating hyper-consumption amongst the relatively thin strata of well-paid workers to compensate for the limited consumption capacity of the poor and unemployed.[22]

This remaking of the market has been inseparably tied to a refinement and multiplication of media channels.[23] From the late 70s to the mid 90s there has appeared, as counterpart to the new production systems, a proliferation of new communications technologies – cable and satellite TV, VCR's, camcorders, computers. Even as they have been deployed beneath the mantle of increasingly concentrated media empires, these technologies have been publicized as inaugurating a new era of choice, liberation, and personal fulfillment. Central to this euphoric rhetoric has been the promise of various kinds of 'interactivity'–roughly speaking,

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[21] Although Marx distinguished the extraction of surplus value in the workplace from its realization in the market, he also noted that the faster capital circulates, the more often in a given period it can flow through the production process and be augmented by the addition of surplus value. Increasing the speed with which commodities are bought and sold can thus have the same consequence as increasing the productivity of the labour: more profits. See Marx (1973), 539.

The treatment of the sphere of circulation offered in this section is truncated, in that it deals only with struggles surrounding capital's attempt to sell commodities, and not with its activities as a purchaser of the labour power and raw materials required for production. This latter discussion is to some extent collapsed into the sections on "Production" and the "The (Non) Reproduction of Nature." Here it will simply be noted that the development of communication technologies has also been associated with the attempt to procure cheap raw materials and cheap labour power, and that here too they have often been recaptured by groups fighting exploitation and environmental degradation.

[22] This line of analysis of the 'post-Fordist' has been followed by a number of authors. For a clear exposition see Castells.

[23] On this inseparability of media and market see the observations by Jameson.

systems which unlike unidirectional broadcasting permit a dialogic exchange between receiver and transmitter.

In practice, these new media fulfil two corporate purposes. First, they have enabled an explosive growth of markets for entertainment and information. Through their channels, the desires for cultural diversity and self-expression which erupted in the 1960s have been subjected to an unrelenting commodification, in an attempt to convert popular culture, rock music, fashion, style, personal growth and communication from zones of subversive activity to areas of vertiginous commercial development. Here, as on the shopfloor, capital has only advanced by harnessing the energy unleashed against it. In this context, interactivity essentially means selection from predetermined menus of cultural commodities on a pay-per-basis by those who can afford it.

Second, the new media not only create fresh cultural commodities, but also permit extraordinary refinements in marketing other products. One common feature of interactive systems is their capacity to transmit back to the corporate provider detailed information about consumers' identities, location, consumption habits, and daily schedule. Integrated with other electronic traces left by point-of-sale devices, credit card scanning, billing and subscription records and direct polling, this allows the compilation of comprehensive profiles of consumer behavior. Such data then forms the basis for the highly targeted, demo- and psycho-graphic micro-marketing required by the increasingly stratified and hierarchical organization of consumption. Furthermore, 'interactive' data about consumer tastes can be fed back into systems of 'flexibly-specialised' production and just-in-time inventory control designed for rapid response to shifts in market conditions. They thus hold out the promise of what Kevin Wilson terms "a truly cybernetic cycle of production and consumption" (Wilson, p. 36).

The implications of this situation were perhaps best recognized more than a decade ago when Dallas Smythe suggested that the watchers of TV, in "learning to buy," effectively "worked" for advertisers.[24] In this perspective, electronic capital's expanding media reach amounts to an extended command over its subjects use of time, enabling it to exploit not just labour power in the factory but also "audience power" in the home (Smythe, p. 4). As the home entertainment centre becomes the conduit not only for for an incoming flow of corporate propaganda but also for an outgoing stream of information about its viewers, such analysis gains in strength. The level of surveillance in the home tends toward that already experienced in the workplace, and the activity of the waged "watchman" in the automatic factory becomes integrally linked with the unpaid "watching time" s/he passes in front of the television (Smythe). Within the circuit of high-tech capital the rate of exploitation and the velocity of circulation merely measure different moments in continuous, overarching, internally differentiated but increasingly unified process of valorisation.

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[24] Smythe, p. 6. This line of thought has been developed by Jhally. In a personal conversation shortly before his death Smythe agreed that his perspective converged with the autonomist's "social factory" analysis. His perspective can usefully be compared with that of Lazzarrato (1993, 11-12) as to how "Immaterial labour finds itself at the crossroads (is the interface) of a new relationship between production and consumption."

However, analysis such as Smythe's often assumes capital's intended exploitation of audience-power is successful. From an autonomist perspective, the more interesting question is how it *fails*. Most left analysis understandably emphasizes the degree of ideological control exercised by today's media conglomerates. But it is also important to remember that these empires depend on echelons of intellectual and techno-scientific labour – journalists, film makers, script writers, musicians. Some of these media-workers have autonomous interests in creativity, integrity, freedom of expression or even social justice. The regimes of explicit and implicit censorship, cooption, standardization, and resource rationing that constrain this potential are formidable, and the price for repeated transgressions predictably high. But to assume that capital maintains a monolithic command over media content is to overestimate its control of the informational labour process, which, like other labour processes, is a site of friction and struggle: things are, against the odds, slipped past the grids of 'corporate-speak' – the sit-com that slyly speaks of class, the music that names the conditions of the ghettoes, the satire that ridicules corporate graft, the less-than-anodyne investigative report.The media is a mechanism of capitalist indoctrination, but it is one which, because of the irrepressibility of high-tech labour, sometimes springs a leak.

Perhaps even more subversive than the autonomy of media workers is that of media audiences. For if audience power is today analogous to labour power, then it too is a disobedient subjectivity which evades, resists, and reshapes the machinery of control. There is now extensive documentation that viewers, listeners and readers are not passive receptacles awaiting hypodermic injection with narcotic messages, but rather active agents who engage in thousands of little lines of flight and fight – from turning off advertisements to the oppositional reinterpretation of programs and the creation of micro-networks of decommodified cultural activity.[25] And just as in the factory or office the response to new technologies can take the form of sabotage, passive resistance or play, so in the field of circulation capital has found itself bedeviled by a shadow world of counter-usage. The corporate quest for constantly expanded markets has in fact so socialized the use of communications technologies as to make them available for an entire spectrum of uses which violate its designs – zapping, surfing, recoding, piracy, bootlegging, descrambling, and culture jamming.[26]

Much of this self-activity by media workers and audiences is disconnected from political organization, and hence easily recuperable.[27] But some takes forms that are consciously collective and oppositional – notably in the field of

[25]Such 'active audience' analysis has been particularly developed by the cultural studies such as Fiske.

[26]For a handy sketch of this spectrum of activity see Dery.

[27]Failure to note this is a problem with some of the more clebratory accounts of the active audience by cultural studies theorists.

"autonomous media" associated with radical social movements.[28] Such experiments blossomed in the pirate radio stations, port-a-pak video, left presses, and independent film of the 1960s and 1970s. Indeed, much subsequent corporate innovation in media can be seen as attempted recuperation of these efforts. What is remarkable, however, is that despite co-option, austerity, and attack from the right, this impulse toward the autonomous media has not only persisted, but in some respects broadened, developing new organizational forms, new technologies and new participants.

Indeed, as Dorothy Kidd observes, we currently appear to be witnessing two contradictory movements: corporate consolidation and transnationalization of media for "the extension of market-type controls of social interactions throughout all of the working day," and yet "at the same time, a wide variety of oppositional social and political movements . . . using communications media locally, regionally, nationally and internationally to sustain and build a communications commons" (Kidd and Witheford, p. 1). Radio-activism has continued and spread, organizing globally through bodies such as the World Association of Community Broadcasters (AMARC), and reinvigorating itself in North America by the proliferation of inexpensive, low power, and usually illegal microwatt FM broadcasting by ghettoes communities, squatters and the homeless (See Girard; Boozell, Thomas). Oppositional video-making has passed from the avant-garde to common practice amongst social movements – recording the cultures of aboriginal groups fighting corporate development, the occupation of pharmaceutical companies by AIDS activists , and the working conditions of Latino and Chicano janitors fighting the Los Angeles hotel industry (See Diamond; Halleck; Kidd & Witheford). New areas of activism have opened around television, with the attempts in the US and Canada to create and sustain public access cable – a medium whose political potential has been developed by the Paper Tiger Television collective and its satellite broadcasting Deep Dish project (See Aufderheide; Kellner; Kahn; Lucas & Wallner; Tuer). And computer networks have added a dimension which we will examine in a separate section of this paper.

Such experiments posit an alternative to capitalist interactivity. Corporate interactivity is ratificatory: it posits dialogue within the preset limits of profitability in a way which, as Barry Carlsonn points out "mimics the false control offered by workers'.participation schemes, wherein workers decide how to accomplish the business' mission, but , crucially, not *what the mission is"* (Carlsonn , p. 32). The logic of autonomous media, on the other hand, is "alterative "– probing the limits of established order (Roncaglio, p. 207). At its best, it moves towards practices of self representation, involving subjects in the definition and documentation of their own social experience; attempts to overcome the restrictions of technical expertise central to capital's division of labour; posits collective forms of ownership; and make these experiments are seen as prefigurations of a different

[28]The term "autonomous media" is used here in preference to the more common "alternative media." Downing, in what is to date the most comprehensive analytic account of such experiments, uses the same term. This clearly reflects his exposure to Italian radio activists within the sphere of the autonomia movement of the late 1970s. For an account of the most famous of the autonomist radio stations see Collectif/A Traverso and Berardi.

social order. Against capital's use of communication technologies to circulate commodities, autonomous media make these same technologies a channel for the circulation of struggles, connecting and making visible to each other a multiplicity of social movements. But to understand this multiplicity we must go beyond production and circulation, and into the realmof reproduction.

Reproduction of Labour Power

Resistances to capital spring up not only in the workplace or the market, but throughout the community – in households, hospitals, welfare office, schools, and universities. Autonomists analyze these as sites of the reproduction of labour power, that is, as places where people are prepared and repaired for work.[29] This is the sphere where capital attempts to shape, maintain and renew the supply of minds and bodies it requires, sorted into appropriate ranks, and invested in only according to anticipated return. Here, however, corporate power, rather than manifesting nakedly, usually appears mediated through the structures of a leviathan-like state on which it has, over the course of the century, increasingly relied for the planning and control of the social factory.[30]

In this sphere too,however, people's desire for a fuller life than that allowed by the world of work – better health, more education, less drudgery – leads to conflict. Increasingly the fight for the factory wage has come to be paralleled by struggles for a "social wage," redirecting public spending and welfare state structures away from paths purely functional to capital partially reappropriating them as resources of working class strength. Indeed, in the crisis of the 60s and 70s the demands of social movements for greater democratization and higher social expenditures threatened capital with both serious problem of governability and a "fiscal crisis of the state" (O'Connor).

The response has been the scorched earth policies of neoconservatism and neoliberal governments, with their systematic self-destruction of any social infrastructure which might provide protection from the discipline of the of market. And again the counterattack has involved an intensive deployment of technology. From the automation of public sector jobs to the electronic fingerprinting of welfare

[29]Marx noted that "The maintenance and reprodcution of the working class remains a necessary condition for the reproduction of capital." But he left this activity out of his account of the circuit of capital, because he belived that "the capitalist may safely leave this to the worker's drives for self-preservation and propagation" (1977), 718. The idea that the increased scope of 20th century capitalism included the intentional organization of this function was raised by Tronti. But the major autonomist contribution was the work of James and Dalla Costa on struggles in the household and the conjunction of patriachal and capitalist power. The implications of their analysis for the marxist model of the circuit of capital has been developed by Cleaver (1977).

It should be noted that In so far as this preparation, repair and sorting requires labour, the sphere of reproduction is itself an arena of work, waged and unwaged, performed by housewives, teachers, doctors, nurses on children, patients, students, but also work which people perform on themselves as they try to educate, train and keep themselves healthy in order to better sell themselves as as the commodity wage labour.

[30] For the development of Negri's thought of the state and an innovative contemporary analysis, see Hardt and Negri.

recipients and the electronic braceleting of prisoners through to state-of-the-art arsenals of internal security forces, computers, telecommunications and biotechnics have provided the instrumentation for an attack on a welfare state whose expenses had become incompatible with capitalist profitability.

At the same time, despite free market rhetoric, capital has continued to maintain and enlarge the functions of government as a planning, funding and security agency for its own technoscientific development. Even as it deteriorates, schools, hospitals, universities, and families, business still – indeed more than ever – demand literate workers, drug and disease free technicians, and world class molecular biologists. The disintegration of general social welfare thus proceeds simultaneously with a public financing of private research and training – by direct subsidization, university collaboration, military contract, or privatisation.

However, this cannibalization of the welfare state has catalyzed new movements of opposition, different in themes and styles from that of the 60s, originating from very diverse communities, but increasingly entering into networks of alliance with each other. Initially defensive, the most innovative of these have begun both to explore new collective forms for the provision of social needs, and to discover new uses and designs for the enormous technoscientific apparatus the capitalist state brings to bear against them. We will look at three instances of these struggles – in universities, in health care, and around the control of maternity.

(a) Virtual Uuniversity

In the 1960s students from Berkeley to the Sorbonne burst into revolt against universities' subordination to the military industrial complex – the first uprising of an knowledge-proletariat in training.[31] State managers' immediate response to this rebellion of youthful human capital was tear gas, shootings and purges: their longer term answer, reduction and restructuring. Over the late 70s and 80s funding levels for post-secondary education in most capitalist economies were cut, tuition fees and student debt sharply raised, and programs seen as dangerously radical or simply inutile eroded or eliminated.

With campus unrest apparently quashed by financial anxiety and the decomposition of centres of dissent, conditions seemed set for a new, deeper integration of universities and business, one vital to the development of high tech 'knowledge industries.' Moneys subtracted from base operating budgets were partially reinjected back into programs of applied science, schools of communication, engineering and business administration, and special institutes for computer, biotechnology and space research. Increasingly, the virtual university of on-line laboratories, tele-seminars and video-lectures has become the training ground for the various gradations of techno-literate labour power required by the virtual corporation. At the same, a proliferation of targeted and sponsored research programs, industrial parks, private sector liaisons, consultancies and cross appointments provided high technology businesses with the facilities to socialize the costs and risks of research and privatize the benefits. Not only does academia now reproduce successive generations of students for for future employment –

[31] For two parallel analyses of the student movement in these terms see Negri (1989) and Wainwright.

appropriately trained, socialized, sorted and indebted – but it also often immediately places their cheap or unpaid labour at the disposal of entrepreneurial ventures. As David Noble observes, "while business has always ruled universities . . .there is now an intensification of the interlock to the point where it approaches identity." [32]

However, the belief that campuses were pacified now appears premature. The late 1980s and 1990s has seen the emergence of a new cycle of university struggles. These include the French student insurrections of 1986 and 1994; the "Panther" movement of Italian students against privatization; similar unrest in Spain; major strikes and occupations at Australian universities; and a resurgence of political activism on North American campuses.[33]

Writing of the North American revival, Robert Ovetz notes that it stems from numerous different sources which nevertheless often interanimate one another (Ovetz). These include a protests against tuition fee increases, program closures, cuts to student aid, and skyrocketing debt loads; movements against the the 'development' of university lands for research parks and technopolises; and human rights campaigns against academia's integration with the global corporate investment in places such as South Africa or East Timor. These movements intermingle with a wave of struggles around racism and sexism, as women and people of colour challenge the patriarchal and eurocentric content of curricula, appointments and administration – a challenge which also defies the logic of university-business integration, both in its general spirit of insubordination, and because it demands the allocations of resources to 'non-productive' purposes such as women's centres, daycares, safety provisions, and programs of multicultural and feminist studies.

This web of protests then further overlaps with the fights of staff fighting rollbacks and casualization; here graduate students, simultaneously situated as waged employees and as unwaged students, have played a significant role, setting in motion a series of teaching assistant's strikes. Moreover, while the absolute integration of academia with the job market removes the latitude of action enjoyed by student activists in the 1960s, it opens the way for connections between students and other waged and unwaged workers. In North America this has not yet reached the level the giant confluence of student and labour activism catalyzed in France in 1994 by the proposal to cut minimum youth wages. But in Canada and the US it is increasingly common to find student and teachers entering into broad coalitions against the assault on the wage and the welfare state

The net result of these intersecting vectors has been a slowly mounting campus turbulence, ranging from picket lines, demonstrations, and occupations to national student strikes in Canada and major confrontations between police and students on several U.S. campuses. Many of these protests assert a politics of

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[32] Noble, 46. For other discussions of the corporatisation of the university see Krimsky, Newson, Kenney. For a useful autonomist analysis of the campus movements of the 60s and 70s see Caffentzis 1975.

[33] For journalistic overviews of this surprising development, see Altbach, Hodge. For discussion of the French student movement in 1986, see Negri (1989); in 1994, see Red Notes (1994). For the Italian Panthers, see Lazzarato (1990). On the North American situation see, in addition to the other sources cited here, Vellela and Loeb.

knowledge radically at odds with the technocratic agenda of the information industries. This is implicit even in the defence of 'basic' sciences against the mounting demand for applied research. And it is often affirmed explicitly in the defence or initiation of programs in feminist , ecological, cultural or labour studies.

At the same time as student movements challenge the corporate boundaries of learning, they also aggressively interfere in the very information systems the university develops for its business partners.In some instances, this involves blocking the high-tech colonisation of education, as in the case of the Unplug youth activists who have ejected the Whittle corporation's commercial Channel One from several high schools in the U.S. (Spillane). In others, it entails reclaiming info-tech for alternative purposes. While the activities of Chinese students in mobilizing communications against state socialism during the Tianaman Square massacre have been well publicized, similar initiatives by students in capitalist societies have been less noted. In fact North American and European students protests of the 1990s have been characterized by their sophisticated understanding of the media, and by an adroit use of faxes, video and, in particular, computer networks. The huge French student protests of 1986 saw extensive use of the Minitel system to coordinate protests and disseminate students positions to a larger perspective. In North America, students not only played a major part in the unauthorized creation of the Internet, but have used it to link protests at geographically dispersed campuses. Thus in spring of 1994 when Latino and Chicano students at the Universities of Michigan, Colorado, Nebraska and numerous sites in California erupted in hunger strikes and occupations demanding new programs, anti-racist intitiatives, grape boycotts in support of farmworkers, and the naming of buildings in memory of Cesar Chavez, their protests were connected with computer communications facilitated by sympathetic librarians, faculty and union organizers (Rodriguez). Similarly, 1995 saw the computer coordination of multi-campus protests against reductions in student aid ("Students Fight the Contract").

Conservative hysteria about the campus 'political correctness ' is sometimes interpreted as a last push by a triumphant right against a left in retreat. But it can be read quite differently – as a real ruling class panic attack, precipitated by the disturbing realization that the very institutions prerequisite for knowledge based economy are not as firmly under control as had been assumed, and continue to breed minds that not only break from the role allotted them by capital, but are now also trained to disseminate their dissent through the most advanced technological channels.

(b) Medical Screening

Even in the era of high technology, however, capital needs not only minds but bodies. And it is to managing of the intractably corporeal processes of birth, sex, death aging and illness – the biopolitics of reproducing labour power – that a large part of its technoscientific apparatus is dedicated.

In the crises of the 1960s and 1970s , the health care sector, like other areas of the social factory became a site of rapidly escalating expense and unruly demands by social activists. Again the capitalist counterattack took the form of

reorganization and new technologies. The 1980s and 90s have seen a massive neoconservative attack on public health care costs, freezing or rolling back the wages and conditions of nurses and service workers, closing hospitals and clinics, lengthening waiting lists, and eroding free coverage. Yet at the same time as capital regresses basic health care towards nineteenth century levels, rediscovering tuberculosis epidemics and other anachronistic ills, it is also developing an array of futuristic medical techniques – biotechnology, organ transplants, new super pharmaceuticals – heralded as transforming the very limits of mortality.

In fact, the calculus of value dictates that capital's real interest is somewhat different–lowering the price of the reproduction of labour power and opening new areas of commodification. As a case in point let us consider genetic engineering – the transformation of organic life through splicing, cuttings and recombinations of cells and chromosomes. This technology has since the 1970s become the basis of a multi-billion dollar industrial complex, involving dizzying sums of venture capital, a proliferation of academic entrepreneurs, and a frenzy for property rights in transgenic species and human cell lines. Today, the ambitions of this industry focus on the Human Genome Project, the US state sponsored attempt to map and sequence all the DNA of a 'normal' human prototype – a project comparable in cost and scope to the space programme of earlier decades.[34]

Although genetic engineering is generally publicized as a means of curing hereditary diseases, its main achievements are currently neither therapeutic nor even diagnostic but predictive. Genetic testing allows the the probabilistic identification of conditions for which no known remedy presently or forseeably exist. The attraction of such techniques to corporate and state managers is that it offers a way, not of healing, but of targeting subjects with an alleged predisposition to costly disease (Hubbard; Greely). The capacity to identify 'hypersusceptible' workers with supposed genetic sensitivity towards toxic chemicals or radiation has already become a significant source of employment discrimination in the US. It also provides an alibi for failure to eliminate such pollutants, which become redefined not as social hazards, but as problems of individual predisposition, capable of being handled by genetically 'subsensitive' labour. Extensive genetic screening holds out the promise of comprehensive, DNA-level quality control over the reproduction of labour power, control aimed not at the cure of disease put at the discarding of potentially unproductive, oversensitive or expensive units.[35]

Eventually, genetic engineers may indeed be able not merely to predict but to repair or modify an individual's genetic constitution. When they can, the biotechnology industry anticipates lavish profits from the the creation of new ways to improve health, longevity and pleasure–for those who can afford them. This potential is already apparent in the burgeoning market for synthesized human

[34]For a multi-perpectival collection of readings on the Genome Project see Kevles and Hood.

[35] The implications are most immediately apparent in the US where many employers directly carry the costs of workers health insurance, and thus have a powerful incentive not to hire workers who can be expected to get sick. Although the peculiar atavism of the US health care system makes these issues surface very rapidly, the implications are far wider. For even where capital only bears the costs of labourers ill health indirectly -through the welfare state programs - genetic screening offers the potential for lowering this expense.

growth hormones, in vitro fertilization, silicon breast implants, cometic surgeries, performance enhancing drugs and transplantable hearts, livers, kidneys and corneas.[36] It is expected to explode as the Human Genome Project generates the raw data necessary for new 'breakthroughs' to enhance the human body. These developments extend capital's fundamental tendency to subsume every aspect of human activity within the commodity form down to the micro-cellular level.

Ultimately, genetic screening and enhancement offers the prospect of eugenic agenda once thought to have been discredited with the fall of fascism. The ground for such a development are already being layed in tendencies to genetic rather than social explanation for all ills from delinquency to dyslexia; to clinical diagnosis of departures from prevailing norms; and to the revival of racist theories naturalizing inequality. However, the commercial thrust behind the biorevolution means that a contemporary, high-tech eugenics would probably have a different 'feel' from its historical predecessors. While state programs for the elimination of unwanted genetic strains cannot be precluded, the operation of the marketplace will be equally important. As employment possibilities become increasingly dependent on a clean genetic profile, or even on possession of certain bioengineered enhancements, positive and negative selection will be left to the survival instincts and pocket book of individuals required to bio-technologically reproduce the labour power of themselves and their children in most saleable form, in context of an increasingly stratified, privatized and expensive medical system. Capital will thus move towards establishing a hierarchy of labour powers in which the various classificatory grades are distinguished not simply by education and training, but according to fundamental bodily modifications.[37]

However, at the same time as capital moves toward to an even more comprehensive organization of medical science, counter-movements have appeared. People have mobilized to defend or extend the socialization of health care, as in the opposition to health care cuts in Canada, or in the struggle over health insurance in the US. At the same time, a number of movements have arisen fighting for more democratic and collective control of medical knowledge, questioning dominant definitions of and approaches to health and disease in ways which often pose radical challenges to corporate order. These movements of "popular epidemiology" now wage their battles at the cutting edge of high technology medicine.[38]

One of the most striking examples is AIDS activism.[39] As Steven Epstein has argued, one of the "defining features" of the this movement has been its

[36]On the growth of the "human body shop" see Kemble and Berlinguer.

[37]For speculations along this line by a member of the European elite see Attali.

[38] The term "popular epidemiology" comes from Novotony, who applies it to the community health initiaitives of the environmental justice movement. I use it here in a wider sense.

[39]Although AIDS is not, to date characterised as agenetic disease, its treatment -including the prospects for an eventual vaccine - are widely believed to henge on te most advanced techniques of biotechnological enginnering. And insofar as AIDS is currently an incurable but identiifable condition, it raises in a most pointed way the issues at stake in medical screeing and advanced techno-medicine.

relentless critique of the official expertise of the medical profession, regulatory bodies, and drug companies (Epstein, p. 36). Grassroots anti-AIDS organizations such as ACT UP and Project Inform, initially based primarily within the gay community, have attacked both the governmental underfunding of research, and the corporate subordination of research to commercial priorities. Although they have cooperated with pharmaceutical companies, they have simultaneously criticized these corporations unsparingly for either ignoring AIDS treatment as an unprofitable disease, or attempting to super-profit from its exploitation. These points have been underlined by dramatic demonstrations and occupations against companies such as Hoffman Larouche, Boroughs Welcome, Kowa Pharmacuticals, and Astra – perhaps most famously in the ACT-UP invasion the New York Stock Exchange protesting AZT price gouging ("Seconds before the 9:30 am opening bell, the activists began to blare portable foghorns . . . Fake $100 bills imprinted with the words 'Fuck your profiteering. We die while you play business' were tossed to the traders below") (Arno & Felden, p. 137).

At the same time, PWAs have undertaken an extraordinary self-organization of medical knowledge. Inserted within the the medical-industrial complex as objects of experimentation, they have insisted on restructuring research to take into account their subjectivity and needs (e.g. forcing the abandonment of double blind drug testing), amassed and circulated their own banks of knowledge about immunology and virology, investigated alternative treatments stigmatized and repressed by corporate science, set up guerrilla clinics, smuggling rings and buyers clubs, and clandestinely manufactured commercially patented drugs. In this way they have contested the corporate monopoly over health care, and to a large degree driven the agenda of AIDS research and treatment from below.[40]

Moreover, as the epidemic has progressed, these issues have become central to agendas not just of white male gay community but people of colour and women. In the process, AIDS has been recognized as a disease of poverty, primarily afflicting those whom the disintegration of social infrastructures, community networks, health care and education render vulnerable. Anti-AIDS struggles have thus become increasingly tied to campaign for improved public funding for health services, comprehensive medical insurance, the reallocation of military spending and the reversal in neoliberal austerity budgets (Carter).

As Epstein points out , the struggle over AIDS research and funding is part of a wider current of activism over the control of medical knowledge (Epstein, p. 37). Anti-AIDS organizations drew on the example of the women's health movement , and their strategies and tactics have in turn inspired groups such as those seeking to establish causal links between breast cancer and industrial pollution

[40]Treichler : Arno and Felden record that in 1991 clandestine chemists began manufacturing pirated versions of Hoffman-La Roche's ddC.

or win access to RU-486.[41] Such movements, challenging the authority of the medical-industrial complex, reappropriating popular capacities for research, rejecting the commodification of health and demanding the democratization of the development and deployment of high technologies are amongst the most crucial of today's struggles for autonomy.

(c) Surrogate Motherhood

The basic site for the reproduction of labour power, is, however, neither the university, nor the hospital, but the family. And it is over the control of the most elemental form of reproductive labour – that of the female child bearer – that some of today's most intense technological struggles are waged. In the 1970s feminist autonomists such as Dalla Costa and James pointed out that the basic activities of reproducing labour power, child-bearing and raising – maintaining the household, tending the ill, caring for the elderly – formed a vast domain of unwaged, female and (to male theorists) usually invisible labour: 'housework.' This constituted the unrecognized basis of accumulation, without which the commodity labour power would not be available for work in the morning (Dalla Costa and James).

The classic nuclear family paired the waged male worker and unwaged female housewife in a relation where role of the latter was to maintain, repair and reproduce the labour power of the former. The male worker's wage thus commanded unrewarded labour time not only in the factory but also in the home. This conjunction of masculine domination and capitalist exploitation was challenged by the feminist revolt of the 1960s and 70s on a multitude of fronts – in the exodus of women from unpaid domestic labour in search of waged work, in demands for "wages for housework," in the rejection of the various medical and psychiatric controls placed over housewives. None of these, however, was more important than the struggle for abortion rights, in which women asserted control over their own fertility and repudiated their 'natural' fate as the unwaged reproductive laborers of the social factory.

The response from state and corporate power to this feminist insurgency has been multifold. On the one hand, capital has sought to harness women's escape from the home by making female labour the mainstay of a low-paid 'service' sector whose swelling ranks partially off-set the loss of jobs in the industrial sector.[42] But simultaneously neoconservative governments identified with capitalist restructuring have attempted to force women to resume their role as unpaid domestic workers – on the double -shift if necessary. This backlash, proceeding under the slogan of a 'return to family values,' has been central to the restructuring of the social factory.

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[41] Insofar as the fight against the stigmatiisation of PWA entails the destabization of a hierarchy of gender it enters into a whole spectrum of issues - womens entry into the workforce, loss of traditonally 'male' jobs, 'same sex' benefits, erosion of mariage which by problematizing the structure of the family simultaneously shakes loose and break-up presuppositions about work and wages, unacknowledged necessity of domesticity and household as the underpinning of social production.

[42] For an autonomist analysis of this tendency to create "wages for housework outside the house" which builds on the earlier work of Dalla Costa and James see Caffentzis (1992).

For as welfare services are degraded, the resumption of the traditional female role as a 'voluntary' care-giver for the young, sick, and elderly becomes critical to prevent total social disintegration. In this campaign for the re-domesticization of women, the shock troops have been provided by a patriarchal and fundamentalist anti-abortion movement. Indifferent as most corporate executives may be to the religious manias propelling Operation Rescue, the association between class warfare from above and the right-to-life offensive is not accidental, but rather reflects a political economic logic – namely, capital's desire to re-secure its source of unpaid reproductive laborers.[43]

At the same time, however, the most advanced sectors of knowledge-based capital are experimenting with an alternative system of control over motherhood, one centred around new reproductive technologies of *in vitro* fertilization, amniocentesis, embryo selection, and artificial insemination. These are becoming the instruments for an extraordinary experiment – the conversion of motherhood into a domain for the direct extraction of surplus value. For, as feminists such as Maria Meis and Kathryn Russell have argued, the commercial application of such techniques drives female 'labour power' – in the procreative sense – towards the condition of abstraction, divisibility and alienation traditionally experienced in industrial work (Mies, Russell). Reproductive engineering applies a technological deskilling strategy, classic in form but unprecedented in intensity, comprehending both conscious knowledge and corporeal capacity, detaching, permutating and recombining the various moments of pregnancy until the unifying factor governing the conception, gestation and delivery of a child is no longer maternal but managerial.

This is clearest in the so-called 'surrogate mother' business – the ultimate in female service sector labour – in which poor women are, through an entrepreneurial intermediary, paid by rich clients to undergo either artificial insemination or *in vitro* fertilization and carry and bear children. Such agreements,

> ". . . routinely require that the prospective mother submit to massive doses of fertility drugs, hormone injections, amniocentesis and an array of genetic probes and tests at the discretion of the client; require that the mother agrees to abort the fetus on demand, and is all liable for all 'risks' associated with conception, pregnancy and childbirth" (Kemble, p. 101).

Payment is in the region of $10,000-$1,000 if the child is still-born. But such obviously exploitative repro-tech arrangements only represent the extreme of tendencies evident even in more seemingly benign uses. For example, women who voluntarily attempt *in vitro* fertilization not only pay for the service, but also, in a complex and painful process of self-surveillance and constant testing often

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[43] Petchesky, 241-252. Once the link between the re-criminalisation of abortion and the destruction of the welfare state is grasped, it also becomes possible to see the link between apparently contradictory policies, such as the 'pro-natalist' erosion of abortion rights and 'anti-natalist' proposals to make single mother welfare recipients subject to mandatory Norplant implants: both discipline women in the interests of reducing the costs of the welfare state.

knowingly or unknowingly providing the surplus material – 'excess eggs '– required for further commercial experimentation (Spallone).

Anti-abortion crusades and reproductive technology businesses seem antithetical, one resting on a sacralization of procreation, the other on its utilitarian industrialization. And there are indeed real contradictions between them. But they are also intimately connected. Both counter the reproductive autonomy fought for by feminists. The family values campaign simply cancels 'choice' in an outrightly reactionary manner. But the corporate biotechnologists co-opt 'choice' as the watchword for the commodification of procreation (See Basen et al). As in the workplace capital has sought to harness the power of shopfloor revolt, so the genetic engineering industry takes its momentum from the rebellion of domestic female labour. And just as in production capital combines sweated labour and robotics, so family values and genetic engineering are poles in single overarching regime of reproductive control, with biotechnological options commercially available to the rich, and surrogate mothers drawn from the ranks of poor women deprived of welfare support and circumscribed by restrictions on abortion. Both extremes depend on technology to remove control of pregnancy and birth from women – whether through the right-to-lifers use of the fetal iconography made available by advanced monitoring techniques to legitimize their campaigns of harassment, bombing, and assassination, or in the hygienic setting of the corporate laboratory.[44]

However, once again this regime of technological commodification and control has provoked counter-initiatives. In North America the 1980s and 90s have seen not only a reactivation of the movement for abortion rights, but has also a strategic reorientation sometimes described as a shift "from abortion to reproductive freedom."[45] Women have of course continued to fight the recriminalisation of abortion and to protect clinics, and have also sought to enlarge their own technological control over the conditions of procreation by campaigning for access to the abortion drugs such as RU 486. However, largely as a result of the influence of women of colour, many groups now redefine the abortion rights struggle within a broader spectrum of issues. Increasingly, the emphasis on individual choice has been replaced by an emphasis on collective control over the research and availability of medical technologies, on opposition to both both compulsory fertility and eugenic sterilization, and on the provision of adequate health services, housing, and wages and welfare as"social conditions necessary for autonomous choice" (Copelon, p. 39. See also Petchesky).

One aspect of this expanded definition of reproductive freedoms has been an intensive critique of the repro-tech industry. International feminist alliances such as the Feminist International Network of Resistance to Reproductive & Genetic Engineering have exposed the deceptive success rate claimed by the *in vitro* fertilization industry, its exploitation of female labour, the damaging effects of the fertility drugs it routinely uses, the misogyny of sex selection amniocentesis, and

[44] On right-to-life high tech image and abortion activist responses see Zimmerman.

[45] For an anthology exploring this shift see Freid, and in particular the essay by Angela Davis.

the eugenic potential of the new technologies.[46] They have argued that the 'choices' offered by the biotechnologists in fact erode female freedom because they, as Sue Cox puts it, "close off women's abilities to refuse various kinds of technological intervention"(Cox , p. 87). These theoretical critiques have been linked to concrete interventions. In Germany, FINRAGE members were subjected to police harassment following the sabotage of corporate biotechnology laboratories by the feminist armed struggle group Rote Zora, while in Canada the attempt by the Royal Commission on New Reproductive Technologies to suppress lines of critique opened by FINRAGE and other feminist groups exploded into public scandal (On the Canadian events see Basen et al).

Within this feminist opposition to reprotech there are important differences as to strategy. FINRAGE takes the position that such technologies are inherently dominative, and aims at an outright ban on their development (Spallone and Steinberg). Other groups believe that while current patriarchal and corporate control make these technologies inimical to women, it may be possible to bend their trajectory in more positive directions, and call not for the halting of development but rather for free and non-discriminatory access – thus, for example making new reproductive possibilities available to lesbians and gays. Similar positions have been advanced by those concerned that the FINRAGE position fails to build links between feminist critique and the women participants in *in vitro* fertilization programs, who constitute not only the consumers but the unwaged and experimental labour force of the reprotech industry (See Menzies).

This tension between refusal and reappropriation is a topic of intensive debate amongst feminist activists. But it should be noted that even the rejectionist line cannot be characterized as simple negation of technoscience. For an important part of its critique has been the demand for new research agendas to discover different remedies for the problems which the repro-tech industries complex purport to 'fix' technologically – for example, the investigation of social and environmental causes of infertility. In this respect both lines of approach not only dissent from capital's trajectory of technological commodification, but also move toward the construction of an alternative and emancipatory body of knowledge.

The (Non) Reproduction of Nature: Hazardous Wastes

Capital's mobilization of high technology arises from its drive for control not only labour in the workplace, nor society as a whole, but nature itself. To make commodities it needs not just workers but raw materials. In its moment of primitive accumulation – a moment constantly recapitulated from the 16th century enclosures of the English commons to the 21st century burning of Amazonian rainforests – capital violently splits the laborer from the land, dispossessing and destroying indigenous and peasant cultures and annihilating their traditional knowledges of and relationships to the earth. It then recombines landless workers and appropriated resources in industrial processes.

The development of a technoscience aimed at the domination of labour has thus been inseparable from an unprecedented intensification in the domination of

[46]For the FINRAGE position see Spallone and Steinberg. See also Thobani.

nature. As capital reduces people to labour power, so it reduces nature to a resource: both exist only to be used up. And as capital as far as possible avoids paying for the reproduction of labour power by assuming the unpaid, domestic work of women, so to it minimizes costs for the repair and restoration of the natural world, assuming its inexhaustible, regenerative powers. 'Mining' resources – deploying ever more intense applications of machinery and chemicals to strip ecosystems without regard to sustainability, externalizing the costs of such damage by dumping them on the surrounding community or deferring them forward onto future generations – becomes its *modus operandi.* For all that Marx often participated in the scientific triumphalism of his century he nonetheless clearly recognized the outcome of this process when, describing capitalist agriculture, he spoke of it "simultaneously undermining the original sources of all wealth – the soil and the worker" (Marx, 1977, p. 638). Today, as the undermining of the entire planetary ecosystem discloses a global vista of deforestation, desertification, dying oceans, disappearing ozone, and disintegrating immune systems, struggles for autonomy have at stake not just the wage or the social wage the very species-being of humanity.

Indeed, an eruption of 'green' struggles was one aspect of the general crisis of the social factory in the 1960s and 1970s. At sites from Diablo Canyon to Love Canal activists storming fences and blockading gates disrupted industrial mega-projects just as effectively as labour unrest on the assembly line. The post-industrial leap into the world of computers, telecommunications and biotechnologies was in part a response to this threat. As the advent of high-tech on the shop floor was accompanied by promises of liberation from work, so it was also celebrated as the answer to the evils of pollution. Clean information systems would replace industrial smokestacks, recycle wastes, reduce the use of fossil fuels, eliminate paper from offices, replace motorcars with telecommuting, allow for better planning and preservation of natural resources and dematerialize production into an innocuous flow of bits and bytes. These promises have become integral to a succession of strategies – 'sustainable development', 'Third Wave environmentalism', 'ecological modernization' – all of which announce that technological surveillance, substitution and surrogacy can deflect ecological apocalypse (See Luke; Boland).

Such schemes do nothing to touch capital's relentless drive to perpetuate work, consumption and "production for productions sake" (Marx, 1977, p. 1037). In practice, therefore, high technology has been primarily used not to halt the destruction of nature but to circumvent opposition to it. Automobile factories, petrochemical plants, and pulp mills have, amidst fanfare about green business, been made more energy-efficient (and hence more profitable) – but have not slackened their search for expanded (and hence more ecologically punishing) global markets. The advanced synthesis of substitutes for scarce natural materials has become a licence for the anxiety-free liquidation of vanishing animals, minerals and vegetables. Telecommunications and transport networks have dispersed pollution away from centres of activism and regulation onto the doorstep of those least likely to resist, making the shipment of toxic residues to urban ghettoes, native reservations or Third World a post-Fordist sunrise industry.

Most ironically of all, the capitalist development of postindustrial technologies itself replicates the very patterns of industrial pollution it purportedly eliminates. Despite the clean image of microelectronics industry its basic process – the manufacture of silicon chips – involves extraordinarily dangerous chemicals and poison gases. Companies avoid the costs required to properly handle these materials or seek safer alternatives, devastating both production workers – through allergic reactions, miscarriages and immune system disorders, and surrounding communities and habitats – through the contamination of ground water and airborne leakages which have made Silicon Valley home to the highest concentration of hazardous-waste sites in the United States (See Howard; Hayes). While the biotechnology industry is still too young to have fully revealed its long term hidden costs, similar dangers are already becoming apparent, in the liquidation of plant diversity by corporations controlling patents for bioengineered seeds, and in the unanticipated effects of the bovine growth hormone used to hyper-accelerate the milk production of cows.

But because the new technologies do not of themselves halt the sacrifice of the planet, they also fail to stop revolt against it. While schemes of high-technocratic resource management have played a part in coopting mainstream environmentalism, they have also unintentionally provoked new and radical opposition. Thus in the US the intensification in the long-standing practice of dumping hazardous wastes – including postindustrial toxins – on the most impoverished and vulnerable sectors of labour.has catalyzed the rise of an 'environmental justice' movement in communities of colour, traditional working class neighborhoods, Native Indian Lands, and regions of the rural poor (See Hofrichter). This includes Puerto Rican farm workers opposing pesticide poisoning, tenants associations fighting oil and petrochemical industries in Lousiana's "Cancer Alley", mothers battling incinerators in Latino neighborhoods of East Los Angeles, and Latino and African American students of the Toxic Avengers coalition fighting the transportation of nuclear waste in Brooklyn (See Hofrichter). Often led by women – whose unwaged reproductive labour deals with the miscarriages, birth defects, and slow deaths created by corporate poisoning – and characterized by strategies which unites class, gender and race issues, these groups have dramatically challenged the elitism of traditional environmentalism, and engaged in a series of head-on confrontations with corporate power.

The environmental justice movement is undoubtedly a movement of refusal, aimed at stopping the malignancy of capitalist growth. But it also a movement which fights corporate expertise with proletarian counter-knowledge. Generating its own programs of self-education, community research, and communication (including access to computer networks such as the Right to Know data bank on hazardous wastes) it represents an astounding flowering of popular science amongst the excluded and dispossesed. Ultimately, its objectives are not just resistance but societal reinvention, going far beyond the established limits of 'regulation' to demand for superfunds for workers unemployed as a result of ecological concerns, restrictions on capital flight, elimination of the production of toxic substances, the development of a less polluting transport system, community economic development, equitable distribution of cleanup costs, and international

laws that protect the environment and workers (See Hofrichter).

One of the most important aspects of this movement has been its tendency to overcome of the rifts between working class and ecological activism. The 1970s had seen both extreme tensions and tentative alliances between these movements. But the crisis of post-Fordist restructuring measures polarized them. By playing off of 'jobs versus the environment,' capital counterposed labour and ecological concerns, dividing red and green.[47] However, as it becomes clear that high-tech business destroys livelihoods at the same rate as it destroys ecosystems, the falsity of this choice has become increasingly apparent. While the 'worker-green' split remains virulent, in some sectors groupings of industrial and resource workers have developed there own environmental projects and entered into dialogue with ecological activists. The Oil, Chemical and Atomic Workers Union are fighting for a superfund to clean up hazardous waste sites (Hofrichter, Gottlieb); organizations such as The Network for Environmental and Economic Justice for the Southwest ally community and workplace fights against high-tech wastes (Almeida); striking paperworkers in Jay, Maine put control of plant effluents on their agenda; and Judith Bari's wing of Earth First has built links with forestry workers whose jobs are threatened by super-mechanized logging.

Indeed, ecological struggles can sometimes overlap with the tendency toward "autonomous production" which we noted as a feature of contemporary workers movements. In 1992 an extraordinary coalition of black and Latino workers and community groups in Van Nuys, California, which had for *ten years* successfully opposed General Motors's plan to close its local car plant by threatening a boycott in the lucrative Los Angeles auto market, was finally defeated. However, it then underwent a dramatic metamorphosis, with the "Save GM Van Nuys" campaign providing the nucleus for the WATCHDOG Organizing Committee – a group combatting corporate air pollution of working class neighborhoods, and seeking the conversion of the auto industry to clean, ecologically viable forms of production (Mann, 1990, 1991; Bloch and Keil). These activists have made connections with workers from the Caterpillar vehicle plant in Toronto, who, following a unsuccessful attempt to prevent closure of their plant by occupation, had entered into dialogue with environmental and anti-poverty groups to devise a "greenworks" conversion campaign (Keil). This alliance has in turn linked with Japanese workers from a joint Toshiba -Amplex enterprise, whose resistance to plant closure lead to an extraordinary eight year plant occupation. During this time they continued, under worker-control, to manufacture high-tech media, educational, medical, and plant operation systems. They were supported by the Japanese peace and anti-nuclear movements, for whom they designed and produced portable loudspeakers for demonstrations, a citizens' Geiger-counter, and another special radiation detector, funded by popular contribution, made for the victims of

[47]For a detailed autonomist analysis of the class composition of the anti-nuclear movement see p.m. A more sympathetic analysis of the Italian green movement can be found in Negri, 1987.

Chernobyl at half the cost of commercial systems.[48]

Several autonomist Marxists have suggested that, contrary to primitivist and misanthropic currents within the environmental movements, it may be neither possible nor desirable to disentangle an originary, untouched nature from the socio-technic web which now so totally englobes it .[49] But this interpenetration of 'first 'and 'second' natures is not *necessarily* terrible. Computer and communications networks could (if used in conjunction with electricity sources other than catastrophic megaprojects) be elements in a benign and careful planetary metabolism which, rather than pillaging and defiling ecological systems, repaired and protected them. As capital has been compelled by labour struggles to develop technologies which could *potentially* end the need for wage work, so green activism has spurred the adoption of machines that *potentially* diminish the depletion of the natural world. However, just as capital makes of automation a means to increase people's availability for work, so it deforms resource-saving technologies into means to extend and intensify the reduction of nature to raw materials. The undoing of this vicious paradox requires the emergence of social alternatives free from capital's compulsion to perpetuate work by endlessly converting the world into commodities.

The Network of Social Relations: Cyberspace

To this point we have travelled through the circuit of struggles, examining the encounter between high technology capital and its new proletarians in the workplace, the market, the community and the environment. It will have become apparent that these conflcits constantly bleed into one another. Indeed, high technology capital is characterized both by the way it extends its command society-wide– so that "along with labour it has also appropriated its network of social relations" – and by the way it attempts to acheive maximum mobility and flexibility across its various sites of control (Marx, 1977, p. 1056). A concrete manifestation of these tendencies is the development of computer-communications networks. Such networks, originally designed as part of nuclear war fighting preparations, received their first large-scale civilian application during the crisis of

[48]Tsuzuku, p. 266. This strategy was initially a matter of financial necessity, it lead onto broader perspectives on "socially useful production" ("we could not but ask ourselves whether or not the system as ordered would really promote the interests of the workers of the client company, and if not how the design concept could be improved"). They see this process of broadening connection with alternative groupings as something that differentiates it and other recent 'workers production' movements from earlier experiments which "reopened with former union leaders as new executives, turned into firms not too different from ordinary ones" (267).

[49]Cleaver points out that while in Vol 1 of capital, 'nature' appears as an object, outside of and opposed to humans, in later sections:Nature increasingly becomes one aspect of social organization and is incorporated into it rather than standing outside it as an object on which individuals work as subjects. In Volume III, in the discussion of ground rent, it will be found that , as the soil (Nature) is increasingly worked up and capital invested in it, its original or "natural" fertility . . . becomes largely unidentifiable. In short, we must recognize that any separate concept of Nature becomes increasingly diffuse as we see how capital englobes "it" and "transforms "it" until it is no longer readily identifiable as something outside." (1979) 134. For a similar point see Negri (1989).

the social factory in the 1970s, as emergency management systems used by the Nixon administration to monitor a wage-price freeze and report picket line violence in a trucker's strike (See Hiltz & Turoff; Balka). Subsequently they have been widely adopted by corporations and state on both a local and global basis, as a means of linking automated machines, connecting dispersed production sites, creating interfaces between previously distinct industries, delivering interactive services, and managing the instantaneous transfers of deterritorialized finance which determine the fates of entire populations. Increasingly , digital flows give capital a comprehensive command, control and communications capacity, providing a universal medium through which all aspects of its operations can be synchronized with extraordinary speed and scope.

However, to create and operate this technology capital has had to summon up whole new strata of labour power, ranging from computer scientists and software engineers, through programmers and technicians, to computer-literate line and office workers, and ultimately to a whole population, largely relegated to tedious and mundane jobs yet required to be sufficiently 'computer-literate' to function in a system of on-line services and electronic goods. As this virtual proletariat emerges, there also appears a tension between the potential for freedom and fulfillment which it sees in its technological environment, and the actual banality of cybernetic control and commodification.

As so often before, the new forms of conflict appear first under the guise of criminality and delinquency – as 'hacking.' If, following Andrew Ross, we define hacking simply as the unauthorized use of computers, we can embrace under this term computerized sabotage; the reappropriation of work time to play games or write novels, or exchange unauthorized email; so-called crimes of data copying, electronic trespass and information dissemination; and unofficial experimentation with and alteration of systems up to and including the invention of new machines and the self-organization of alternative electronic institutions.The multiplication of these activities is now giving capital's managers multiple headaches over loss of productivity, theft of trade secrets, cybernetic revenge by terminated workers and the compromising of its security apparatus (See Hafner & Markoff; Clough; Sterling).

Indeed, at moments hacking has diverted the whole course of technological development from that planned by its official sponsors. One example is the invention of the personal computer, a discovery initially made outside the parameters of corporate planning by the homebrew experimentation of the "computers for the people" movement of the 1970s (See Hauben). This unlikely combination of techno-hobbyists, student activists and young scientists disillusioned by Vietnam and Watergate intended home computing as a democratic subversion of state and corporate information control. Their invention was of course rapidly recuperated by capital and made the foundation for multi-billion electronics enterprises. But it nevertheless radically reconfigured the terrain of communicational struggle, and laid the foundation for an even more surprising development – the popular invasion of the Internet.

The Internet, the world wide network of networks, has its origins in the Pentagon's search for communication systems sufficiently flexible to survive nuclear war. The resulting highly decentralized architecture was later applied to link

the university centres vital to the military-industrial complex with the aim of increasing the productivity of research. However, the technoscientific labour employed in these sites – especially students – extended the network far beyond its original scope, using it for non-military research, designing successive layers of alternative systems which connected into the main backbone (See Sterling, 1993). This accretion of self-organized services proceeded until, as Peter Childers and Paul Delany put it "the parasites had all but taken over the host" (Childers and Delany, p. 1).

The result was the transformation of a military-industrial network into a system that in many respects realizes radical dreams of a democratic communication system: omni-purpose, multi-centred, with participants transmitting as well as receiving, near real-time dialogue, a highly devolved management structure, and – since universities and other big institutions have (so far) paid a flat rate for connection – offering relatively large numbers of people access for little or no cost. In the era of marketization and privatization, the most technologically advanced medium for planet-wide communication has in fact been created on the basis of open usage and cooperative self-organisation - in short, by a huge explosion of autonomous activity.[50]

There are at least two aspects of this explosion of serious concern to capital. One is that the Internet makes available a voluminous amount of information in uncommodified form . Large amounts of software have been dropped into the Net *gratis* by creators who prefer to see their work used rather than sold. Others have been electronically stolen – or liberated – from commercial owners and given instantaneous world wide availability. Just as computerized automation moves the requirement for labour in production towards zero, and thus undermines the wage form, computerized communication seems to so diminishes the time required for the circulation of electronic goods – through instantaneous and multiple copying – as to fundamentally jeopardize their commodity form. The massive confusion that now reigns over copyright and patent law in the electronic domain suggests that the enforcement of property rights in cyberspace will be extraordinarily problematic (See Barlow; Clapes).

The other challenge for capital is that computer communications are increasingly used by social movements in conflict with its agenda. In North America, Inernet mailing lists such as ACTIV-L, LEFT-L, PEN-L (the Progressive Economists Network), news groups such as P-NEWS, and gopher sites such as that of the Economic Democracy Project are now widely used by broadly 'left' constituencies to by-pass the filters of the information industries, speed internal communication, send out 'action alerts,' distribute documents and connect with

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[50] A broadly similar story can be told in regard to the way the French 'Minitel' system was transformed by hackers.The origins of the French on-line interative services lies in the activity of hackers who broke into the 'Gretel' videotex services of the Alsation daily Les Dernieres Nouvelles d'Alsace, designed as a 'normal' business service, with advertisments, banking information, timtables - and converted a small in house one-way mail service, designed to allow technicians assist users 'lost' inside and converted it into a real time interactive message exchange. The system was upgraded in response to this unofficial initiative, making it the origin of the famous Minitel message service. See Marchand 1988.

potential allies. This cyber-organizing has extended to the construction of independent networks which interface with the Internet but are entirely devoted to social activism. Thus the Association for Progressive Communications, which originated in the mid-1980s from the coalition of Peace-Net, Eco-Net and Conflict-Net, now constitutes a global computer system dedicated to peace, human rights and environmental preservation. While its largest computer is located in Silicon Valley it has partner networks in Nicaragua, Brazil, Ecuador, Uruguay, Russia, Australia, the United Kingdom, Canada, Sweden and Germany, affiliates from Vanuata to Zimbabwe, subscribers in ninety-five countries, and boasts of "providing the first free flow of information between Cuba and the United States in thirty years" (Frederick, p. 4). It provides email and conferencing systems for a wide array of non-governmental organizations whose concerns with poverty, political rights and planetary catastrophe are a persistent thorn in the side of neoliberalism.

So-called 'organized' labour has been far slower to enter cyberspace, perhaps because of an abiding view of technology as a managerial domain. Nonetheless the 80s and 90s have seen major 'Labortech' conferences; the establishment of lists such as LABOR-L and networks such as Labour Net; and a burgeoning of North American union-affiliated bulletin boards, run by teachers, firefighters, plumbers, communication and public service workers, musicians, and journalists (Illingworth). Some, such as the Canadian Union of Public Employee's Solinet, are now well established. Several have connection to similar networks outside North America - Glasnet in Russia, WorkNet in South Africa, Geonet in Germany, and Poptel in the United Kingdom (Waterman).

Although the full potential of these connections often remains untapped by trades unions, some recent struggles have seen net-workers take the offensive on-line. In Silicon Valley superexploited janitors subcontracted by major computer corporations both used the Internet to publicize their working conditions and penetrated the company email systems to embarrass management and mobilize support amongst professional staff (Siegel). Auto workers in Michigan, faced with the discontinuation of company sponsored computer training not only responded with a legal suit against corporate misuse of public education funds, but also formed an Usenet news group devoted to self-education, the democratization of computer networks and support for the shortening of the working day.[51] Telecommunications workers in the US and education workers in Canada have used email to disseminate bargaining information to members and to coordinate picket lines (Illingsworth; Labor Resources Centre). And newspaper strikers in San Francisco activated left networks to promote boycotts of 'scab' advertising and created probably the most widely distributed strike bulletin in the history of civilization on World Wide Web.

It is often objected that such computer-activism is exclusive to a privileged, white, male strata of labour power. Certainly the Internet originated as a 'boy toy '; much of it remains a domain of techno-puerility; and obstacles of time, money, socialization, education and harassment discourage the involvement of women, minorities and workers at the bottom of the wage hierarchy. Nonetheless,

[51] See the electronic journal The Amateur Computerist. There is a brief account of its genesis in Penley and Ross.

the devices and spaces created by hacking *are* becoming available to a widening array of social subjects – in part because capital's own omnipresent deployment of computers as work-tools and consumer-goods unintentionally makes a expanding numbers of people capable of their alternative use, partly because of the self-education of activists.

Thus feminist analysts, while highlighting the forces which tend toward male monopolization of cyberspace also frequently affirm the possibilities for women's on-line activism (See Balka; Shade; Truong). There are now several initiatives underway to realize this potential. Although women continue to be significantly underrepresented on the Net, there are numerous feminist lists and newsletters, most university based, but many with connections to wider arenas of activism. Left lists regularly post messages mobilizing support for the protection of abortion clinics, the defence of lesbian activists threatened by right wing violence, and the prevention of domestic violence. The networks are also being used to support the struggles of female workers in the electronic ghettoes of the clothing, electronics and fast food industries. For example, in Europe and North America, homeworkers dispersed in garment industry are using computers both to establish links between each other and to build the "clean clothes" consumer boycotts of retail chains marketing 'sweated' products, while in Canada female home-dispatchers for a pizza company have claimed the right to use company-supplied terminals to contact a union.[52]

While computer-activism is – like the Internet itself – concentrated in 'developed' countries, it has a global dimension of crucial importance in era of nomadic capital. This is strikingly illustrated by the communication between groups in Canada, the United States and Mexico opposing the Canada-US Free Trade Agreement and NAFTA. Recognition that these treaties were designed to place the labour forces of the three countries in competition with each other prompted an unprecedented transborder dialogue amongst trades unions and social movements. Much of this was conducted using the Internet. Participants in this on-line exchange included organizations such as the North American Worker to Worker Network, linking workers outside formal union structures; Mujer a Mujer, a coalition of women's groups in Canada, the US and Mexico opposing capital's global restructuring; La Mujer Obrera, an organization fighting to improve the conditions of women workers in the US border region; and numerous environmental organization, such as the Pesticide Action Network, which played a crucial role in helping Mexican farmers defeat medfly spraying schemes (See Frederick; Brenner; Mujer a Mujer).

Although the mobilization against NAFTA was unable to stop the signing of the treaty, exactly one year later the electronic connections that had been established were reactivated when the Zapatista revolutionaries burst out of the jungles of Chiapas. As Harry Cleaver has documented, one of the salient features of this insurgency was the speed by which the positions and demands of the EZLN and news of its offensive were relayed by computer network out of Mexico and given international visibility, creating an "electronic fabric of struggle" (Cleaver 1994, p.

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[52] On the 'clean clothes' campaign see Manicom, and on the pizza-workers, Illingworth.

141). Indeed, it seems likely that the reason this revolt was not – like so many other Mexican peasant insurgencies – snuffed out with massive military force includes not only the Zapatistas' strategic skill, and the support they mobilized within Mexico, but also the Mexican government's concern about the international attention which email communiques focussed on Chiapas. Certainly this phenomenon attracted the attention of capitalist planners: the RAND corporation issued a report expressing anxieties about the use of "netwars" to destabilize capitalist global order (Wehling).

The question now confronting capital is whether it can reabsorb the unruliness of the networks. The Clinton administration's National Information Infrastructure initiative, with its plan for a publicly subsidized, corporately owned and operated information 'superhighway' aims to achieve this. The prospect has excited a feeding-frenzy of mergers and manoeuvres amongst telephone, cable, video and software companies anxious to recolonize cyberspace with the aid of their four 'killer' applications – video-on-demand, tele-gambling, pay-per-computer games and info-mercials. Flanking the highway initiative are a series of other measures aimed at making cyberspace safe for business as usual - privatization and commercialization of the Internet, the infamous 'Clipper chip' to render digital communication transparent to national security agencies, and an electronic 'law and order' crackdown culminating in Operation Sun Devil's armed raids on supposed hackers.[53]

However, this attempt to constrain computer communications has also evoked opposition from groups largely outside the traditional orbit of the left, such as the activists in Computer Professionals for Social Responsibility, or the "cyberpunk librarians" on the front lines of the fight for public access to the nets (Miller & Wolf). Coalitions such as the Telecommunications Round Table have called for the construction of universal public access, two way communications, no censorship, the preservation of common carrier status, protection of workers, privacy protection, and democratic policy making - demands which, though often framed within a reformist perspective, actually imply a radical challenge to corporate intentions. At the same time a variety of community computing initiatives, such as the Freenet movement, are springing up, attempting to overcome the exclusion from the networks of the poor, elderly, and ghettoized, and linking control of information services to wider issues of social infrastructure (See Weston).

The outcome of this melee is uncertain. The blossoming of the Internet may be swiftly "paved over" by the corporate highway builders, as has largely occurred with radio, television and earlier generations of communication technologies (Schiller). But this familiar pattern of recuperation may also encounter unexpected problems. Technically, it will be difficult to stop hackers disrupting and circumventing commodified networks. Moreover, it is precisely the communal freedom of the Net which gives it its unique value as a torrential source of productive ideas and innovations. In commercializing this flow, computer-age capital may discover itself in a contradiction similar to that which beset state

[53]Sterling 1992; for accounts of similar repressive measures in Britain and Italy see Wehling.

socialism - obliged to restrict the productive force of technoscientific labour in order to preserve the social relations of domination. The most adventurous sections of information age business – such the libertarian cyber-entrepreneurs of the Electronic Frontier Foundation – gamble that they can avoid this impasse by entering into a symbiotic relation with Internet culture, preserving a degree of openness within the networks, benefiting from constant challenges and probes of hackers to perfect a new round of digitally based accumulation. However, such a strategy entails accepting that the relative liberty it permits will provide the platform for a plethora of alternate institutions and subversive experiments.

Problems for capital mean opportunities for autonomy. Cyberspace is important, not, as some postmodern theorists suggest, because it replaces struggles 'on the ground,' but as a medium within which such struggles can be made visible to and liked with one another.[54] Lists carrying postings from labour, environmental, feminist, indigenous groups implicitly assert these movement's interconnections even while participants may still be searching for the explicit formulation of such links. In combination with other autonomous media, they increasingly provide a channel within which a multiplicity of oppositional forces, diverse in goals, varied in constituency, specific in organization, can through dialogue, criticism and debate discover a new language of autonomy and alliance.

The European Counter-Network, an autonomist network circulating news of struggles by workers, refugees, anti-fascists within the EEC notes the potential hazards of its computer activism: technical fetishism, new hierarchies of expertise, health risks, and the "ultimate nightmare" – "a simulated international radical network in which all communication is mediated by modems and in which information circulates endlessly between computers without being put back into a human context" (ECN). As Dorothy Kidd and I have written,

> "Attempts to use computers . . . in the struggle require constant, collective reevaluation, to determine which strategies are effective, and which dangerously compromised. At the same time, such reappropriation of the means of communications is vital precisely because it opens new channels for the collective self-reflection which the scope of contemporary movement requires" (Kidd and Witheford, p. 23).

But given such ongoing reassessment, there is plausible hope in Peter Waterman's suggestion that computer networking can help constitute what he calls a "fifth international" – one that does not, like the four previous socialist 'internationals,' rest on the directives of a vanguard party, but rather arises out of the transverse, transnational connections of oppositional groupings (Waterman).

Indeed, the experiments of hacker-activists may have even farther reaching implications. For there are visible within the networks the prefigurative outlines of global alternatives to the mechanisms both of the capitalist world-market and of the socialist state-command economies. Computer-communications can freely and

[54]For the claim that cyber-struggles displace street-level activism see Poster.

instantaneously disseminate vast amounts productive knowledge. And they can act as a means for the rapid but decentralized and democratic negotiation of resource allocation. These combined capacities could undermine capital's imperative of monetary exchange without substituting the centralization of state authority. In this sense, the full potential of the networks exceeds both the predatory logic of the "virtual corporation" and innocuous notions of "virtual community," and unfurls as the red flag of a "virtual commune" in which computer communications would provide the connecting threads for new forms of distributed collectivity capable of coordinating socio-economic cooperation from the bottom up. This is the cyber-spectre currently haunting information capitalism.[55]

Conclusion

Various forms of "automatic Marxism" have in the past declared that capital will inevitably collapse under the weight of its own technological development – automating itself out of existence (Jacoby). That is not what is suggested here. As we have proceeded through the circuit of struggle we have seen how capital is using high technologies to crush opposition to its command – enforcing availability for work, commodifying ever larger areas of experience, deepening social controls and intensifying the depletion of ecosystems. In the face of the ferocity and extent of this assault any teleological confidence about the future would be naive.

Yet we also reject the pessimism which sees in the current situation only a monolithic technological domination. On the contrary, our travels along capital's data highways have discovered at every point insurgencies and revolts, people fighting for freedom from work, creating a "communication commons," experimenting with new forms of self-organisation, and new relations to the natural world. [56] Such movements are incipient and embattled, but undeniable. Capital has not succeeded in technologically terminating the cycle of struggles. Indeed, without in any way diminishing the magnitude of the defeats and disarrays suffered by counter-movements over the last twenty years, it can be suggested that there are now visible across the siliconized, bioengineered, post-Fordist landscape the signs of a strange new class recomposition.

This is proceeding on a much wider basis than that traditionally conceived by Marxism. In the integrated circuit of high technology capitalism the immediate point of production cannot be considered the 'privileged' site of struggle. Rather, the whole of society becomes a wired workplace – and potential sites for the interruption of capital's logic simultaneously proliferate. In this sense, the new class composition displays a very postmodern multiplicity of sites and agents. But the fragmentary post-Marxist thinking that finds only contingent connections between the movements of workers, women, anti-racists, greens, peace activists and others misses a crucial dimension of this process. For all these struggles are taking place within a global order coercively unified by the dominative logic of capital.

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55 "Virtual community" is from Davidow, "virtual community" from Rheingold, "virtual commune" from the Marxist electronic journal Breakaway.

56 I am indebted for this phrase to Dorothy Kidd, work-in-progress.

Their specific aims thus entail the defeat of a totalizing system which subordinates and sacrifices every other social objective – gender and racial equality, peace the preservation of the natural world – to the imperatives of commodification.

On this extended social basis there is now unfolding a struggle over the direction of the combined techno-scientific intelligence of society – what Marx called "general intellect."[57] At stake is whether this collective intelligence will be harnessed by capital to perpetuate its regime of work, or escape to explore and realize other potentialities. For those opposed to capital, an immediate priority is to halt the social and environmental destruction wrecked by the pathological profit-driven deployment of machines. The revival of a neo-Luddite spirit of resistance to so-called 'progress' has therefore been vital. But the emergent alternatives are now going beyond this moment of resistance to mobilize their own invention power. In struggle, they are developing abilities not just to stop capitalist technology, but to reappropriate, redesign and divert it from its intended course. There is appearing a capacity for technological counter-planning, a collective ability to set the agenda of technoscientific research and application 'from below,' a revolution of hackers and midwives.[58]

There is no need to emphasize the present fragility and uncertainty of this movement's reappropriations, counter-plans and alternative logics. In their isolation, each provides only a minor problem to corporate power. But in their proliferation and interconnection they constitute a growing challenge to its dominion. Indeed, it is precisely the breadth and variety of such subversions that makes the fields of information and communication so crucial today. For it is by a process of mutual discovery, recognition and reinforcement – by an accelerating circulation of struggles – that such insurgencies will attain an autonomous strength capable of breaking the constricting the circuits capital now coils around the planet.

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[57]Marx (1973), 706. For in depth analysis of "general intellect" see Negri (1994), Lazzarato (1994), Virno (1992) and other writings by the Futur Anteriur group, which centre onthis category.

[58]On 'counter-planning' see Cox & Federici; Benjamin & Turner; Kidd & Witheford.

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Book Reviews

Between the Magic and the Realism

Shadows of Tender Fury:
The Letters and Communiques of Subcomandante Marcos and the Zapatista Army of National Liberation

Introduction by John Ross. Afterword by Frank Bardacke. Translated by Frank Bardacke. Leslie Lopez, and the Watsonville, California, Human Rights Committee. Monthly Review press, New York, 1995, $15.00
ISBN 0-85345-918-5

ZAPATISTAS!
Documents of the New Mexican Revolution

Foreword by the Editorial Collective. Introduction by Harry Cleaver. Autonomedia, New York, 1994, £8.99
ISBN 1-57027-014-7

Reviewed by Olga Taxidou

Unlike Garcia Marquez's colonel, Subcomandante Marcos of the Zapatista Army of National Liberation has indeed many people to write to. And it is due to his fervent correspondence with the international press, with intellectuals on the left, with children in various cities and sometimes with imaginery recipients, that we have any image at all of the *Sup* [subcomandante] and the revolution his army has helped create. These two books document the communiques of Marcos and the Zapa-tistas and present a valuable testimony of the Mexican insurrection. Both bear witness to this local, Mexican event and to its multiple and diverse interconnections with world markets, world banks and lifestyles. The striking aspect of these books, in the framing of their introductions and in their general editorial approach, is the insistence on the relevance of what is happening in the mountains of the Mexican Southeast (all the communiques end this way) to what is happening to us; the ways we live and understand notions of collectivity and action in an era of contemporary capitalism. In their refusal to present a programmatic or theoretical analysis of the revolution, these writings also open up a new space for revolutionary literature. This space is inhabited by anecdote, story-telling, notes in the margins, postscripts, reflections, poetry. It is a kind of writing that stubbornly refuses to present us with a final resolution, thematic or stylistic and hence political.

If someone wanted to write a parable that represented a critical reflection on the traditional Gramscian ideas of national-popular and international cultures, on hegemony and periphery, on the role of civil society and organic intellectuals, the Zapatista uprising would provide the perfect plot line; a critical revival of a dissident left tradition that is more interested in the political potential of small autonomous groups rather than in seizing political power. And indeed this story would be

complete with an 'omniscient', but distanced, narrator who steps in at moments of crisis to offer words of wisdom. This narrator in Marcos's writing is aptly called Old Antonio.

When Marcos and a group of progressive intellectuals left the city for the mountains in 1984 with the sole intention of 'changing the world', they were not quite prepared for what they encounted there. Rather than present a 'natural' backdrop to their various theoretical pursuits, or simply be ready to take up arms when the 'conditions were ripe', these mountains presented a culture of their own; one that the Zapatistas had to come to terms with. As Marcos puts it:

> The events of this last January [1994] will bring change at the theoretical level as well. We arrived here and we were confronted by this reality, the Indigenous reality, and it continues to control us. Ultimately the theoretical contronted the practical, and something happened - the result was the EZLN. Therefore our combatants are right when they say, 'We are not Marxist-Leninist, we are Zapatistas'. They are referring to this synthesis, this coming together... (Marcos, 1994, p. 294).

In his other tongue Marcos re-works the same ideas from a different perspective:

> There are two kinds of faith. The kind that is in books, and the kind that is in the mountains. When companeros go to the mountains they hear stories that come from far away and they hear them when on guard duty, or at campfires.
>
> Stories of ghosts, of magical worlds, that cross over from one ethnic group to another. Stories of the great fear created by the mountains. It's sad to be in the mountains, isn't it? Well, yes, it is. There are stories that dance in the mountains... (Marcos, 1994, p.200).

If there is one clearly defined political project that emerges from the various intricate layers of these texts it is that of autonomy. As Harry Cleaver poignantly stresses in his insightful introduction, it is this ideal and this vision that have made the Zapatistas so appealing to the international community. When the Zapatistas first appeared on the international scene, with their timely debut on 1st January, 1994 - the day that Mexico joined the North American Free Trade Agreement - there were already various grassroots groups in Canada, the USA and Mexico opposing the NAFTA. These already comprised an intricate network, a very broad coalition - a 'mulitplicity linked autonomous groups'. These groups helped to promote information about the Zapatistas and in turn continued many of the debates promoted by them. Hence another theme both these books touch upon, namely that of the relationship between autonomous groups and information technologies. This is a site which is at present contested in left theory and practice and again the Zapatista reception and their insistence on controlling their image and the information disseminated about them bears witness to this.

Both Harry Cleaver in the introduction to one book and Frank Bardacke in the afterword to the other, are deeply concerned with how the whole Zapatistas 'phenomenon' is interpreted by other communities throughout the world. Warnings are voiced against simplistic and romantic readings which tend to isolate local political activity, particularly if it

derives from Latin Amerca, which has for a long time been the 'the experimental other' for the left of the 'first world'. At the same time, it is crucial that this revolution be read in its own historical and political context. Both commentaries state that there are lessons to be learned from the Zapatistas. For Cleaver they provide 'inspiring examples of workable solutions to the post-socialist problem of revolutionary organization and stuggle' (p. 23). Frank Bardacke offers creative interpretations of the notion of 'civil society' and its workings within late capitalism. For example, he reads Marcos's use of *patria* as a broad term which is significantly different from old-style, 'emancipatory' nationalism. Bardacke argues that the term translates better as homeland or indeed homelands; all those places, people and events that help construct an identity, a sense of continuity and a reason for action for a given community. 'All the attempts to build local left politics, to define and defend regional identities, are in the spirit of the Sup', writes Bardacke. What these 'professionals of hope' offer us at a time of theoretical and political crisis, is a new way of organising and activating communities; a new mode of political intervention. As Marcos states in the Zapatista revolutionary goals (number 14), the aim is not to seize power:

> And the result [of the revolution] will not be the triumph of a party, organisation, or alliance of organizations with their particular social programs, but rather the creation of a democratic space for resolving the confrontations between different political proposals. This democratic space will have three fundamental premises that are already historically inseparable: the democratic right of determining the dominant social project, the freedom to subscribe to one project or another, and the requirement that all projects must point the way to justice (Marcos, 1995, p. 261).

It has been hailed as the first postmodern revolution, possibly because of its stern refusal to align itself with any one programmatic ideology, its refusal to represent any one group or class of people and its total disinterest in seizing power. As Bardacke, asks, however, what about the Zapatistas' firm faith in the 'old-fashioned' category of truth and their belief in humans as the agents of historical change? No, there is nothing postmodern about this revolution. There is at once a strong sense of historical continuity and 'newness' that derives from these books; a sense that the Zapatistas revolution comes from a specific historical context and a left theoretical tradition but, at the same time, it proposes new ways of interpreting that tradition and re-writing it in ways that 'make it new', immediate and vital within the context of late capitalism.

These books present two ways in which the Zapatistas experience can enhance our understanding of political action. On the one hand, we are urged to listen and learn. The documents are presented without editorial intervention. It is important that we get the story in the words of the Zapatistas. There has been so much distortion and trivialisation through the press and media. And in doing so, we find an inspiring example. We cannot simply stop here, however. We are then urged not only to read and listen, but to start a dialogue - one community talking to another. From this point onwards, the

Zapatistas are not only an example (and examples are always slightly romanticised) but a group of people with whom we are linked. As Cleaver says, 'if these voices from the mountains of the Mexican Southeast tell us nothing else, it is that a multiplicity of voices can achieve coherence, and with coherence - action that can change the world' (p. 23).

It has been said of Subcomandante Marcos that he has read more Carlos Fuentes than Karl Marx. It would probably be more precise to claim that he has read Carlos Fuentes as if he were Karl Marx and vica versa. If this is a movement that relies on a multiplicity of voices, giving each more or less equal ground, why should the literature of that movement be any less complex and diverse? It seems only appropriate that Marcos's so-called 'literary style' is one that fuses the aesthetic with the polemic, the private with the public. Marcos's ability at story-telling has also been used by some critics either to attack his lack of a coherent political analysis or, at the other extreme, to site it as an example of postmodernism. In fact, it is neither. What these writings show is a much more ambitious project, one that opens new directions for revolutionary literature. Just as the Zapatistas movement breaks down the oppositions between centre and periphery, between intellectuals and activists, their literature confronts the opposition bewteen the political and the literary, re-inforcing the belief that literature could ever be anything other than political. Marcos's writing - passionate, ironic, self-referential, distanced, masked - is a testimony to how the creation of stories and the creation of histories is inextricably linked. Just as the Zapatistas wear ski-masks that offer anonymity but also the strength of collective identity, the Zapatistas writings wear narrative masks that make them multi-faceted, diverse and polyphonic. In the same way that the Zapatistas claim that they will 'return to the mountains' from where they came when their work is done (rather than seize power), Marcos refuses to write the ending to this story. Even though the style is recognisably his, it is a style that quite consciously tries to 'democratise' itself, by fusing different modes, literary traditions, 'high and low' registers, dialects and languages.

In his Speech to the National Democratic Convention, 'Here is Your Flag Companeros', which was held at Aguascalientes in August 1994, Marcos presents us a document that is at once a political declaration and a piece of literature. Sometimes it is difficult to tell where one begins and the other ends. For the purposes of the conference a huge theatre was built in the middle of the forest. Indeed, theatre occupies a privileged position in his discourse. As Frank Bardacke writes, 'the Zapatistas went to war, but it was twelve days of war, followed by several months of theatre' (p.264). This 'theatricality' is by no means an indication of fake histrionics, it is more to do with the recognition that theatre, possibly more than any other art mode, deals with notions of collectivity and change. In this revolution, where art and reality blend, it seems only appropriate that theatre provides literary ammunition. At this theatre, Marcos addresses his audience:

> Aguascalientes, Chiapas: Noah's Ark, the Tower of Babel, Fitzcarraldo's jungle boat, neozapatista pipedream, a pirate ship; an anachronistic paradox, the

> tender madness of the faceless, the absurdity of a civilian movement in dialogue with an armed one
> (Marcos, 1994, p. 243).

In a sentence that combines biblical, colonial and left-wing imagery Marcos speaks to his audience as one of them; as one of the 'faceless'. This document, which demands an analysis beyond the scope of this text, is saturated with theatrical language, mainly that of comedy (explicitly referred to throughout). Comedy, the quientessential popular mode, relies on notions of collective identity and derives from rituals that deal with birth-death-resurrection. As Marcos presents himself to his audience, ready to give 'everything for everyone and nothing for ourselves', he is also enacting a time-old ritual; that of the sacrificial 'scapegoat' - or later hero - who is sacrificed for the re-birth of the collective. I believe the Aguascalientes speech is consciously playing with this theme and this structure, even ironisng it, as it refuses heroic matrydom. The Zapatistas want 'the opportunity to disappear in the same way we appeared: at dawn, without faces and without a future' (Marcos, 1994, p. 250).

Both these books provide valuable testimonies to a revolution that from the mountains of the Mexican Southeast has mananged to shake the world economy (as John Holloway's article in *Common Sense*, 17 points out). They not only provide inspiration but present us with models of political action which acts as an example and feeds into on-going debates on the issue of autonomia. As for the writing of revolutionary literature or literature that records history, Marcos's communiqués open a whole new chapter; one that has not, as yet, been fully explored. It is worth stressing, lest we believe it is all a story, that it is a story whose ending has not been written yet, and it is one in which we can all have a voice.

Race Rebels:
Culture, Politics and the Black Working Class

by Robin D.G. Kelley (Free Press, 1994)

Reviewed by Curtis Price

> If conspicuous consumption was the badge of a rising middle class, conspicuous loafing is the hostile gesture of a tired working class
> (Daniel Bell, quoted in *Race Rebels*)

Back in the early nineties at a non-unionized Baltimore recycling plant, the workers – overwhelmingly Black and male – had set up an informal work organization. Of course, they did not call it that. To them it was just a group of co-workers, linked together by a common employer and eight hours of back-breaking, underpaid mind-numbing tedium. But in fact an informal work organization is what it was.

According to someone I knew who had worked there for several years, a subtle but real everyday guerrilla warfare gradually evolved within the confines of the plant. At first, the battlelines were drawn over workers' attempts to smuggle in half-pints and drugs at lunch time.[1] The management responded by posting a foreman outside the nearby cut-rate and pleading with the cut-rate manager not to sell to known workers

from the plant. Of course this turned out to be a futile gesture because instead people just pooled their money and sent a messenger out by car to score.

Over a period of time, the tactics escalated as some night shift workers were able to organize selective raiding parties on the lumber yard next door to the plant, in the process liberating choice pieces of wood for resale in the neighborhoods. Since this was a recycling plant and at the time the price of copper was at an all time high, many pieces of copper mysteriously ended up walking out too, smuggled in workers' bags and coat pockets.

At another point – and the person recounting this story told it with obvious relish – a tow motor was secretly set up to run into a bank of wood palettes in the process, thoroughly wrecking both.

Not too long after this incident, the firm went bankrupt and closed its doors. A short time later, the plant reopened under new management.

Many months after I had heard this story and purely by one of life's little coincidences, I ran into someone over small talk in a corner bar who as luck would have it, was presently employed at this same inner city facility. Of course, he was completely unaware of the first workers' story. When I inquired about the current conditions in the plant, it turned out there were some traces of the same informal organization and non-work culture still intact, probably transmitted by a few of the previous workforce who had managed to get rehired. At any rate, the norms of work resistance were definitely present, if not as open and defiant as before.

Now there are people who upon reading this story of everyday "non-political" work resistance might conclude nothing very special had happened at this recycling plant. They would point to the fact that even if it was true that the firm went bankrupt in some part due to the workers' noncompliance with work norms, it was a Phyrric victory at best. After all, it was the workers who ended up in the unemployment line, was it not? This, interestingly enough, is the same criticism made of the ending of the recent British film "Riff-Raff", where the two workers involved burnt down the means of production instead of taking them over.

Others would point to the undeniable fact that since the workers didn't read socialist newspapers or join socialist groups they were not fully aware or class conscious. Afterall, the workers didn't even struggle for a union or create any formal organization to really challenge management prerogatives. [2]

It is exactly its refusal to write off such "hidden" forms of resistance that makes Robin Kelley's "Race Rebels" such an interesting and engaging read. Drawing on the pioneering work of George Rawick and C.L.R James and others on working class consciousness and self-activity [3], Robin Kelley successfully synthesizes these insights into working people's everyday refusals with James Scotts' rich theoretical concept of "infrapolitics"- the everyday resistances of exploited, subordinate and marginalized groups which easily escape detection when viewed through the traditional scholarly lenses worn to judge whether something historically significant happened or not.

Kelley, quite correctly, challenges head-on the blind spot of those observers who, even if they are undeniably sympathetic to the issues

involved in a given struggle, evaluate oppressed and exploited people's actions by whether an organization or movement of some type was created – or pre-existing organizational forms reinforced.

Describing his experience as a teenager working at McDonalds, Kelley observes:

> Like most working people throughout the world, my fellow employees at Mickey D's were neither total victims of routinization, exploitation, sexism, and racism, nor were they rational economic beings driven by the most base utilitarian concerns. Their lives and struggles were so much more complicated. If we are to make meaning of these kinds of actions rather than dismiss them as manifestations of immaturity, false consciousness, or primitive rebellion, we must begin to dig beneath the surface of trade union pro-nouncements, political institutions, and organized social movements, deep into the daily lives, cultures, and communities which make the working classes so much more than people who work. (p. 3)

And further on:

> If we are going to write a history of Black working class resistance, where do we place the vast majority of people who do not belong to either 'working class organizations' or black political movements? A lot of black working class people struggled and survived without direct links to the kinds of organizations that dominate historical accounts of African American or U.S. working class resistance. The so-called margins of struggle, whether it is the un-organized, often spontaneous battles with authority or social movements thought to be inauthentic or un-representative of the 'community's interest,' are really a fundamental part of the larger story waiting to be told. (p. 4)

Kelley sketches out the parameters of 'writing Black working class history from way, way below' especially forcefully in the opening section of three chapters, entitled *We Wear the Mask: Hidden Histories of Resistance.*

Here we see embryonic everyday forms of resistance being wielded by Southern Black workers despite the overwhelming odds deployed against them by the white power structure. Domestic servants, unable to strike and so completely outside of the concerns of the existing trade unions as to be for all intents and purposes invisible, still managed to develop informal tactics to press home basic wage demands and preserve a modicum of dignity, even if such tactics were considered beneath or outside of traditional trade unionist concerns. One such tactic was threatening to quit right before important social occasions - a tactic employed with tacit collective support from co-workers who would be suddenly unavailable to fill in as replacements. Another everyday tactic was 'pan-toting': the right to take home left-over food, discarded materials and other items from the employer for one's own use.

Using E.P Thompson's concept of moral economy, Kelley points to the way these Black workers engaged in counter-actions which were considered forms of crime by the employers because they transgressed the sacred norms of private property but to the workers themselves were merely considered expectations of 'just-due' compensation for appalling wages and working conditions. In this category falls the still keenly aware quote of one domestic: "We don't steal; we just 'take' things."

In the chapter "Congested Terrain: Resistance on Public Transportation", also part of *We Wear The Mask*, Kelley uses similar criteria to provide an absorbing and radically different interpretation of the events in Birmingham, Alabama, which eventually led to the birth of the civil rights movement. Beginning in the 40s, many Black people in Birmingham used the city's public transportation system, which was one of the few public spaces where inter-racial commingling occurred, to transgress the oppressive restrictions of American apartheid.

By examining police reports, newspaper articles, and other contemporary reports, Kelley is able to document the varied forms this resistance and insubordination took. Black bus riders would talk loudly, use profanity or otherwise disturb or violate white space from which they were physically excluded, often leading to heated confrontations and summary ejections at the hands of gun and blackjack wielding bus drivers, if not the cops themselves. And this was just merely the tip of the iceberg. From September 1941 through September 1942, Kelley cites eighty eight cases of Blacks who defiantly refused to vacate seats for whites or openly occupied vacant seats in the front of the bus. Black women in particular were disproportionately involved in open and often physical confrontations with bus operators. Ignored by traditional historians, such refusals paved the way for later events in Birmingham that seemed on the surface to explode spontaneously, but like all so-called spontaneous actions had clear antecedents in everyday collisions and did not arise mystically out of thin air.

In the following chapter, "Birmingham's Untouchables" Kelley contrasts the tactics used by the Black working poor and unemployed once the civil rights movement erupted with the more respectable tactics employed by the movements predominantly middle class and church-based leadership. In May of 1963, when nonviolent demonstrators were brutally attacked by Bull O'Connor's police dogs outside the Sixteenth Street Baptist Church, enraged ghetto inhabitants – described by historians as mere 'onlookers' or 'spectators' because they were unaffiliated with any formal organization or movement – retaliated by hurling bricks, bottles and rocks at the police. Shortly afterwards, when a firebomb gutted the home of a well known civil rights minister, Birmingham's Black neighborhoods exploded with a pent-up fury of looting and arson. Deeply shocked by the violence, civil rights leaders denounced the rioters as "wineheads" and "riff-raff" whose actions were threatening to discredit the legitimacy of the movement's objectives. In fact, the denunciations underscored what had already become a yawning gulf between the aspirations of the movement's leadership and the ghetto masses. While the mainstream leadership was focused on attaining formal, legal equality, to the anonymous rioters it was police brutality, unemployment and the daily rituals of humiliation suffered at the hands of the authorities that counted and it at these targets and not legal challenges or moral symbolism that the anger of Birmingham's ghetto poor was directed.

Throughout collection of essays in *Race Rebels*, but particularly in this first third of the book, Kelley's

emphasis on "micro" level politics serves as a refreshing corrective to the tendency of many on the traditional Left who, for example, still see struggles as a matter of heroic "upturns" (such as the 30's and late 40's strike waves and the Civil Rights Movement) and lethargic "downturns" (the past two decades). One of the weaknesses of much of the Left lies exactly in its dismissal of precisely the sort of ordinary struggles documented here – absenteeism [4], sabotage, theft – as being individualistic and hence unworthy of attention. In fact these everyday defiances may serve as a far richer and complex gauge of the rejection of capitalist norms among ordinary workers than attendance at union meetings. If *Race Rebels* can contribute toward overcoming this neglect, it will have performed a valuable and long overdue service.

Notes:

[1] Workers' drug use should be kept in perspective and not automatically be seen only as a pacifying activity that effectively keeps people resigned and dependent. In the early 70's, one of the key indicators of worker dissent in the Lordstown G M plant was an increase in both hard and soft drug use on the assembly line. This of course did not preclude a high level of militancy from taking place. For an interesting historical view on the question of drug use among the U.S. working class and the moral panics it engendered among the ruling class, see *Drug Use, The Labor Market and Class Conflict* by John Helmer and Thomas Vietorisz, (Washington.D.C, Drug Abuse Council, 1974).

[2] More often than not, the Left has developed a reverence toward the institution of work that practically no workers in real life ever hold. In the late eighties, as a contact of an orthodox Trotskyist group who specialized in issuing plant bulletins at workplaces where members worked, I remember engaging in a conversation with one of the group's core militants who emphasized one of the purposes of the bulletin was to teach the workers pride in their work, and that it was management who undermined this "pride" by engaging in sloppy production techniques, speed-up etc. The fact that this particular factory produced paper and plastic products for the likes of McDonalds and Wendy's would seem to militate against this sort of reverence.

(3) Although, interestingly, Kelley doesn't cite the European proponents of the "refusal of work" and other tactics of everyday worker resistance, such as *London Solidarity*, the early *Socialisme Ou Barbarie*, or the latter day work of the *Echanges* network. See in particular the latter's *Refusal of Work* pamphlet, available in English from *Echanges*, BP 241, 75866 Paris Cedex 18, FRANCE.

(4) After several years' decline, absenteeism rates have again been on the upswing. According to *Industry Week*, Aug. 14th 1994, absenteeism rates among U.S. workers rose 9% in 1993 alone.

[Curtis Price lives in Baltimore where he edits "Collective Action Notes"].

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