SCARLET WOMEN 14

January 1982.

Journal of the socialist feminist current of the women's movement.
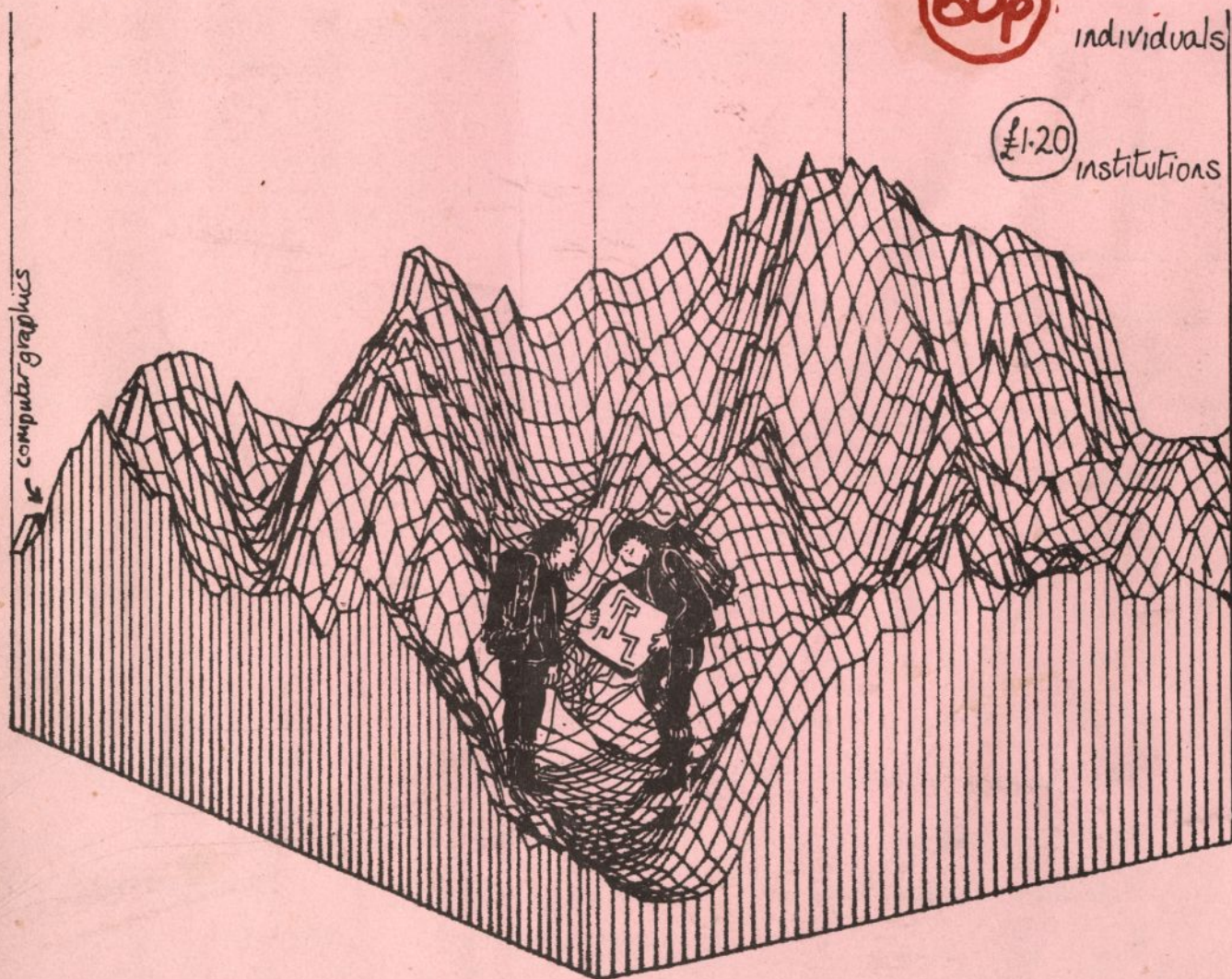
Women and New Technology.

60p. individuals

£1.20 institutions

← computer graphics

"I get lost amongst all this computer technology".

editorial statement

"Socialist Feminism is a distinct revolutionary approach, a challenge to
the class structure and to patriarchy. By patriarchy we mean a system
in which all women are oppressed, an oppression which is total, affecting
all aspects of our lives. Just as class oppression preceded capitalism, so
does our oppression. We do not acknowledge that men are oppressed <u>as a sex</u>
although working class men, gay men and black men are oppressed as workers,
gays and blacks, an oppression shared by gay, black and working class women.
Sisterhood is our defence against oppression, and as such is part of our
revolutionary consciousness.

Socialists sometimes see the struggle as being about change in the economic
structure alone. For us the struggle is about change in total social
relations. We are concerned to develop an understanding of the real relation-
ship between male supremacy and class society. As Socialist Feminsts we have
to examine socialist feminist thought and seek to develop it. What we are
looking for is nothing less than a total redefinition of socialist thought
and practice. We are working towards a socialism which seeks to abolish
patriarchy.

<u>What this means for Scarlet Women</u>

We want to publish papers, letters, articles, ideas that develop the thought
and effectiveness of socialist feminism. The debate about the class struggle
and relating to left groups can take place in our pages only if contributions
are based on the belief in an autonomous Women's Liberation Movement and also
on the belief that autonomous movements have the right to define their own
oppression and the struggle against it."

NATIONAL EDITORIAL COLLECTIVE

CONTENTS

INTRO.

This issue of Scarlet Woman is the product of the creative labours of the West Yorkshire Women and New Technology group (WYWANT). We are a group of six (fluctuating!) women who got together around the Yorkshire Socialist Feminist Conference on Women and New Technology at the end of 1979. (By 'new technology' we mean the present boom of development in microelectronics and microprocessors-see first article.)

New developments in technology mean fundamental changes in every aspect of our lives, yet this technology and the change it embodies remains mystified, especially to women. The aim of the group therefore, was to alert as many people as possible to the implications of the new technology. Over the first two years this has taken the form of evening classes and conference workshops. In addition we are individually involved with:- groups of trade unionists organising around new technology in their workplace; improving access to computer education and developing alternative strategies, particularly with women and young people; giving the women working with new technology opportunities to have their experience recognised; exploring the growing trend towards the computerisation of welfare benefits. We have also been trying to draw together a fuller analysis of what these changes actually mean for women.

We wanted an edition of Scarlet Women specifically on women and new technology for a number of reasons:-

1. Because we feel there's a great urgency for women to recognise that within a patriarchal-capitalist society at a time of recession, the introduction of new technology is pretty bad news!
2. We wanted to widen (without establishing yet another organisation!) the informal contact network of Socialist Feminists who are working on these issues.
3. Some of us felt that we hadn't moved very far in formulating Socialist Feminist demands around the introduction and use of new technology. What strategies should we be adopting within trade union and community struggles? Women through their experience of their dual role, at home and work, potentially perceive the impact of new technology in its totality - are there any organisations/demands that give expression to this?

We believe that any discussions around new technology only have meaning if they are firmly rooted within an analysis of patriarchal-capitalist society in a recession. New technology, like the assembly line, or the factory, is developed because it serves the interests of capitalism. E.g. at a time of intense competition between firms, and public sector cuts, technology that raises productivity and lowers unit costs is one route out of the crisis for those who can afford to invest. If as Socialist Feminists we hold an analysis that sees a fundamental antagonism between capital and labour, then it's clear that an understanding of the impact of new technology has to start from the awareness that it is not 'our' technology. The protection of our collective interest is in direct conflict with the reasons for its introduction, and therefore any benefits to the working class will only be won through hard struggle.... any benefits for women may involve even harder struggle!

However, even bigger questions are raised:- is the issue about 'how the technology' is applied or is it more fundamental - that the technology itself is not neutral but a product of the social relations under capitalism. As Socialist Feminists this becomes even more problematic - isn't it also an expression of the power relations between men and women? And how does this interact with class?

Even starting from the basic premise that the technology is introduced in the interests of patriarchal-capitalism, there is still the question of how - like other social and technological developments - the introduction of new technology can be a source of struggle between capital and labour and between men and women.

We therefore believe it is an important question to organise around bcause potentially it raises broader political questions:-

1. It makes untenable the old automatic assumption (still clung to by the TUC, see their publication <u>Employment and Technology</u>), that what is in the interests of British industry is also in the interest of the working class.

    > 'No matter what the growth rate is in the country.... there is no way we are going to employ more people. The difference between a successful and an unsuccessful business strategy is the rate at which the number of employees comes down.'
    > ICI spokesman

2. It raises the issue of women's specific relationship to technology. Discussions on women and work have ignored the consequences of science and technology having remained a male-dominated preserve. (See Sonia Liff's article.) The socialisation and education of women make most of us 'outsiders' in the technology debate, or passive operators of equipment we've neither designed nor know how to control. (See Ursula Huws' article.) How much does the technology express patriarchal as well as capitalist relations? (See Cynthia Cockburn's article.)

3. Our vulnerability to the effects of the recession and new technology highlights women's unequal and insecure position in the labour market because of the way our home life shapes our work role and vice versa. For example, we are concentrated into certain areas of 'women's work that happen to be particularly vulnerable to the rapid diffusion of new technology and public sector cuts. We are part-timers and have less job security; equally, increased shiftwork will demand that we are 24 hour wives and further limit our access to employment, and new technology-homeworking is likely to incarcerate us in the home. Furthermore, the dismantling of the welfare state and developments like self-service shops and petrol stations mean the transfer back into the home of tasks that were previously 'waged'. This makes nonsense of the notion that domestic labour isn't really work! (See Ursula Huws' article.)

4. It raises questions about the quality and control over our work (See 'Male Order' article) and how the organisation of production is determined by profit and not social need.

5. It illustrates the way in which capitalism exploits the sexual and racial divisions within the organisation of the working class to undermine any united fightback. (See Eileen Philips and Cynthia Cockburn.)

In writing this, we're very conscious that analysis in terms of new technology and capitalism came more easily than new technology and feminism - although we know that is denying crucial aspects of our own experience and the reality reflected in the following articles. WYWANT does not necessarily agree with everything that is written in these articles but we feel that they form a stimulating basis for debate. (There are inevitable omissions - more work to do!) We can't afford any further separation of women working on 'theory' and women 'activists'. These are false divisions and we have to recognise that any Socialist Feminist perspective on new technology has to develop from an equal dialogue. The question is where, and how? As a contribution to this, we are holding a national conference on the issue of women and new technology in March,

BACK TO THE STONE AGE?

Or - just what is this new technology all about?

Remember the old steam radio? The one in a large wooden case, that glowed and took time to warm up, that the cat used to sleep on, and that had "such a mellow tone". Well, that was full of valves, large glass 'bottles' containing fragile confections of wires which amplified the weak radio signal picked up by the aerial and turned it into the mellow tones of the BBC Home Service. Such contraptions were expensive to buy and run, produced a lot of waste heat, didn't have too long a life and were not exactly portable.

Then we had the transistor radio, and suddenly the air was rendered horrible by the caterwauling and cacophony conveyed by half the people you passed on the street carrying 'trannies'. That particular revolution we owed to the invention and application of the transistor. The first transistor was made in 1948, and by the mid 50's were in full production, originally in the USA then in Europe and then in the Far East. A transistor does the same job as a valve, but is much smaller and is made and works in a different way.

The most important physical differences are that transistors are made of silicon (the commonest element on this planet) and come as solid lumps, in metal cans or plastic coated, with three wires sticking out. That means they're not particularly fragile, consume very little power, have long lifetimes and are very cheap to ship long distances, so it's very easy to have them produced in extremely low wage areas.

So now we have transistor radios, television, cassette decks and the like chock-full of silicon transistors (there did use to be an earlier sort made of germanium but they're just about obsolete now). These are 'consumer goods', or luxury items, depending how you look at it. Although they might be nice to have around they don't significantly change our way of life. What does do so is the COMPUTER, and specifically its recent manifestation as the MICROPROCESSOR, the chip on everyone's shoulder. What makes these dread devices so significant?

The birth of a notion

During the second world war, in the interests of wiping more people out more efficiently, the American military found it necessary to perform more and more complicated calculations before launching their bombs. So they got scientists and engineers to build a suitable machine to do the job. This was the first working computer. The idea itself isn't new - Charles Babbage, over a hundred years ealier, had designed on paper 'The Analytical Engine', and Ada, Countess Lovelace, had both documented his ideas and worked out how to programme it. But the Engine could not be built with the existing technology. The concept of programming is what makes computers so versatile. A fixed piece of equipment (the hardware) can be used to perform many different tasks, according to the specific instructions it is given (the programme, or software). After the war the first electronic computer was built. This used valves - yes, it did get hot and yes, it did spend more time not working, having its valves replaced, than it did running.

After that there was no holding them. People started to talk about computers, and write science-fiction stories about all-powerful machine intelligences. But while the beasts occupied huge rooms and gave off enough heat to warm a small housing estate the effect on most people's lives was minimal. That didn't last - the transistor soon began to replace the valve. So we had the 'second generation' of electronic computers, built of

V.R.
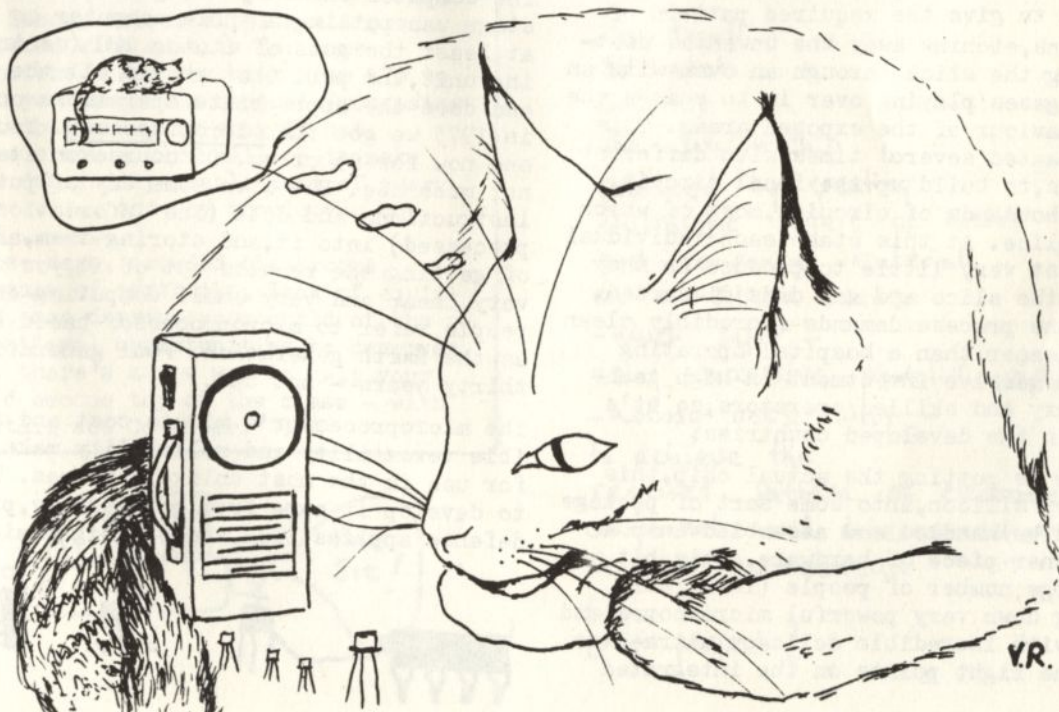
thousands of transistors. They needed far less power,were much more reliable and occupied much less room.

In a computer the valve or transistor acts as a switch i.e. it can only be in one of two states, ON or OFF,like a light switch. We call this sort of operation DIGITAL. With transistors you can connect more of these 'switches' together - but why should that be such a GOOD THING (in the words of "1066 And All That")? After all,they can only be on or off. This isn't as limiting as it sounds - put enough together and you can represent any information you like,from numbers,to text,to pictures,to sounds...it's a question of how you code it. Think of Morse Code - by sending a string of dots and dashes you can transmit any message you like,to any degree of complexity,if you have the time and stamina. With a machine,stamina doesn't come into it;the thing can't get bored, and as for time.....instead of maybe 10 dots or dashes a second a computer can churn out a million to a thousand million (1980 figures). Although the transistor is a lot smaller than the valve it's not the limit. The actual transistor itself is on a very small bit of semiconductor material (the silicon mentioned earlier). Most of the bulk is in the packaging,to make it large enough to handle. Why not put several transistors in the same package? Nice idea - it had to wait for the manufacturing technology to catch up - another ten years or so.

Cheaper by the (dozen) thousand!

It turns out that silicon is the ideal material for making INTEGRATED CIRCUITS - the reknowned SILICON CHIPS. You can design a whole circuit - a combination of transistors and other simpler components put together in a particular way - and squeeze it all together on a piece of silicon small enough to pass through the eye of a needle. The process involves taking a very pure slice of silicon crystal,about two inches in diameter and less than a hundredth of an inch thick,coating it with light sensitive film,exposing it to light through a mask to give the required pattern of interconnections,etching away the unwanted coating,and passing the slice through an oven with an assortment of gases playing over it to change the electrical behaviour of the exposed areas. This process is repeated several times,with different masks and gases,to build up the final circuit. End result - thousands of circuits,most of which work,on each slice. At this stage each individual circuit has cost very little to produce so they are tested on the slice and any duds discarded. This part of the process demands incredibly clean conditions (cleaner than a hospital operating theatre) and a massive investment in high technology machinery and skilled operators,so it's usually done in the developed countries.

The next stage is putting the actual chip,this minute piece of silicon,into some sort of package so that it can be handled and assembled into a computer or other piece of hardware. This bit requires a large number of people (invariably women) peering down very powerful microscopes,and spot-welding with incredible delicacy ultra-fine wires on to the right points on the integrated

circuit,and then on to the much larger leads of the package. In order to produce the vaste quantities of IC's demanded by industry,and keep the low prices that the first stage gives,you need a supply of very cheap but dextrous labour. Some IC's are manufactured in this country but the vaste majority are made in the Far East - see the article on the internation division of labour.

## How many Rolls-Royces on the head of a pin?

From the first integrated circuits (1959) onwards, the semiconductor manufacturers have been squeezing more and more components on to the minute chip of silicon (typically 1.5mm square). From the original 50 or so transistors on a chip we've now risen to thousands and we haven't yet reached the limits - though physical limits have been predicted and most manufacturers have hit production snags.

We left our computers in their second generation, full of discrete transistors. Third generation - build them with IC's instead and pack even more into less space. We're into the 1970's and predictions of a computer in every home,handling the accounts,monitoring the heating,remembering the groceries,helping the kids with their homework, etc,begin to seem more realistic,and more realisable. Of course,room would still have to be found for it - under the stairs perhaps - and it would cost a year or two's wages.

> It's hard to visualise just how far and how fast the associated technology has changed, but this example perhaps makes the point. Suppose the car industry had developed at the same rate as computers have: the answer is a bit staggering - you'd be able to buy a Rolls-Royce for £1.35,it would do three million miles to the gallon and deliver enough power to drive the QE2. And,oh yes, you'd be able to put half a dozen on the head of a pin.

The computer industry being what it is the next stage was putting a whole computer on a chip,or at least the guts of it,the CPU (central processing unit,the part that shoves all the data around and does the appropriate operations on it). So in 1973 we got the microprocessor. You can buy one now for £5 or so. Of course on its own it's not much use. But with some way of putting instructions and data (the information being processed) into it,and storing them,and some way of getting the results out of it,you've got a very cheap and very small computing engine. Some people refer to microprocessor-based computers as the fourth generation. Four generations in thirty years - not bad.

The microprocessor's minute cost and size,incredible versatility and reliability make it ideal for use in the most unlikely places. The impetus to develop it came from governments,primarily for defence applications,and the big semiconductor
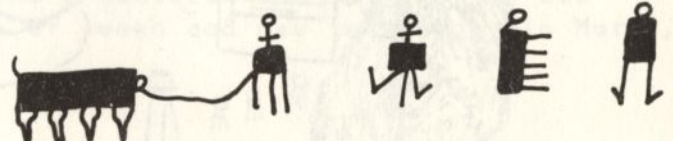
companies did the work first on defence contracts and then sold it to the rest of the industry and finally the consumer. The home computer is a reality now – for anything between £80 and £500.

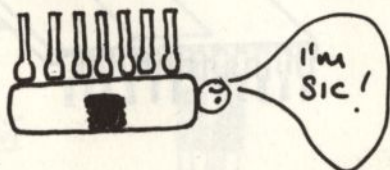## Even unto the fifth generation....

The Japanese recently announced that they were working on the fifth generation of computers, which they expect to be ready by 1990. What they're talking about are machines which embody ARTIFICIAL INTELLIGENCE (AI). The increasing sophistication of the 'analytical engines' we've described so far still cannot quite be said to 'think'. No existing computer has passed the Turing Test, proposed by the English mathematician Alan Turing some forty years ago. Turings test puts a human, the judge or tester, in a room with two computer terminals, one going to a computer the other to another person. The judge has to decide, by asking questions and receiving answers (which can of course be lies), which is the machine and which the human. If it is impossible to tell then the machine will have passed the test and to all intents and purposes will be a thinking entity.

So AI has to do with thinking machines. There exist programmes which can 'read' handwriting i.e. use pattern recognition to turn it into data for a computer. The post office use this in major sorting offices to route tupewritten envelopes by the post codes. You can buy for £50 or so an add-on for your home computer which 'recognises' speech; that is, once trained to distinguish a few dozen words in one person's voice it will take appropriate action. One trivial use – space invaders with no hands: 'left' 'right' 'fire' etc. Slightly less trivial if used by a handicapped child. The fifth generation of computers are intended to extend these techniques so that you can talk directly to your computer and it can talk back to you.

One final field opened up by AI and microprocessors is ROBOTICS, or the art of making machines with manipulative skills as well as brains. Industrial robots are already in the news – they replace men on car production lines, doing simple repetitive jobs tirelessly, and can be easily reprogrammed when the model or operation changes. We're a long way yet from science-fiction robots- probably not until the next century for thinking walking talking robots, if it still seems appropriate to build them. That's only twenty years away, of course. But robots in industry will become more and more common, replacing a lot of semi-skilled work.

What will THEY think of next?

We've taken a quick tour through the various stages of the 'new technology', covering the past forty years. In that time computers have come from huge clicking and clanking, or glowing, machines that needed vast rooms and a dedicated staff, to machines you can put in your pocket and run off a battery, and still have more computing power than the early giants. However, the necessary technology is still in the hands of giant multi-national corporations, even though a lot of small companies actually design and put together a wide variety of microcomputers. The thing that is the hardest to appreciate is the sheer volume of change there has been in the past five or ten years, which is only just beginning to affect the outside world. The British government doesn't really understand what the technology is about, let alone what effect it is having and will continue to have on our lives and on our jobs. They've declared 1982 'Information Technology Year' as well as deciding to start 20 centres to teach unemployed kids about what makes them unemployed, so be prepared to be told more than you ever wanted to know about the subject.

Janet Payne

I'm SIC!

SIC
(Silicon Integrated Circuit)

So small
So neat
So hip
the silicon chip
produced by creating
microscopic layers of metal
and component material
on a silicon wafer
– much safer –
using successive photolithographic masks
– nobody asks WHY –
to achieve the
required pattern of electronic
components and interconnections
in the microcircuit
but
is it perfect ?

Jo

Making New Technology Visible

Sonia Liff

We are all fairly familiar with the general characteristics of women's waged work. Women are concentrated within a few sexually segregated industries and within the service sector. They tend to be unskilled, low paid and often work part-time. They are subject to different legal restrictions on their conditions of work than are men. They are less likely to join, or to be active within, trade unions than are men. While there is nothing wrong with this description, it tells us little about the conditions under which women work, the way that work is organised, the likely direction and impact of changes in work organisation, and the possibilities within the work situation for strategies oppositional to capital and patriarchy. These points are all questions about the relationship between women and technology.

There is a tendency to think of technology just as bits of machinery. We need to enlarge this notion to include the way this machinery is used, the way the process is broken up into individual jobs, the form of supervision, etc. For example, there are important differences between preserving food in the household and in a factory. In the household, a woman is working in a kitchen and with equipment over which she is likely to have exercised some choice. The household owns the food which she is preserving and will consume the end product. She will probably be working alone and will do the whole process from beginning to end. She will not be directly supervised and has some choice over when and how she decides to do the job.

Women working in a factory have no control over its layout or design. They have no choice over the machinery or the way it is used. They do not own the raw materials or the end product. Women working in such factories usually only carry out one small part of the process, they must perform this continuously, as specified and under the direct control of others, often men. Thus while women within the home and the factory may produce items with a similar use they are being produced under very changed relations of production involving changed relations to technology.

I think we tend to ignore the relations between women and technology for two reasons. Firstly the left has tended to depoliticise questions of technology when considering women's position. There has been a tendency to assume that technical change, by making tasks simpler and lighter, is progressive for women, since it increases their access to waged work. Questions about the actual nature of these jobs (see Marianne Herzog's book for some excellent descriptions) - the conditions of work, the extent to which women use their abilities, the control women have over their work and so on - therefore tend to get ignored.

Secondly feminists have tended to consider women's work in terms of the most obvious differences between men and women workers - that women continue to undertake domestic tasks and responsibilities when they are engaged in waged work. Most theories have tried to understand how women's oppression within the family can explain the characteristics of women's waged work. They therefore tend to focus on relations in the family rather than on the details of particular types of waged work.

We can make a start at developing an understanding of women's relation to technology by re-examining the standard characteristics of women's work to see what features we have overlooked. At this stage we can only hope to raise some of the questions which would need to be investigated to provide a better understanding of that relationship.

Firstly women's segregation within the workforce. It is often argued that women are performing the same tasks under capitalist relations that they previously performed in the home. However, as we have seen, working under capitalist relations is very different from working under relations of domestic production. Furthermore, 'needs' can be satisfied in many different ways. Clean clothes can be produced by women working in their own homes with or without domestic appliances. Alternatively women can use their own labour but effectively rent, for a short period of time, washing and drying equipment in a launderette. Alternatively women can pay to have the whole puocess done by a laundry.
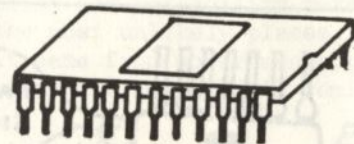
These different forms not only have consequences for the direct relationship between women and the productive technology involved, but also raise questions about the wider impact of technological developments on women's oppression. For example, what factors affect whether capital's expansion into areas of domestic production takes the form of domestic appliances or capitalist production (eg. washing machines versus laundries) and changes between these forms? What differences do these forms make for women's dependence on capital and on men? To what extent and in what ways does capitalistic takeover of domestic areas of production affect women's participation in the labour force and forms of consumption (eg. under what conditions do some women decide to go out to work and purchase commodities as opposed to producing items within the home)? What effect does this decision have on forms of subordination? Can an examiniation of capitalist relations of production tell us anything about the liklihood of capital expanding into other areas of domestic work? How does women's complex relation to technology, involving both capitalist and domestic relations of production affect the forms of women's subordination?

Sexual segregation within the workforce involves another relation to technology, in terms of ways of working. Male manual workers (car workers excepted) tend to be craft workers (involving apprenticeships and relatively high job control), process workers (monitoring semi-automatic processes) or labourers. Female manual workers tend to be production line workers (repetitive assembly and packing) or service workers. Why are there these differences? How do patriarchal relations within the family, both in terms of the different upbringing of girls and boys and in terms of women's domestic responsibilities, affect the conditions under which women and men enter waged work? Can this partly explain the different forms of capitalist relations under which men and women work? Can patriarchal relations within the trade unions also partly explain the different situation of male and female workers? What can this tell us about the relationship between capitalism and patriarchy?

There are also different legal and cultural restrictions on women's and men's employment. These include protective legislation and cultural norms about the appropriateness of women doing certain types of work. These again disguise gender relations to technology. It is claimed that some capital intensive machinery needs to be worked on a 24 hour basis to make efficient use of the investment. Process industries

"A COMPUTER THAT USED TO FILL A SET OF ROOMS CAN NOW BE FITTED INTO A SMALL SHOPPING BAG."

with credit to Evans

such as chemical or steel plants require continuous operation since the process cannot be stopped without a long start-up time. Workers in such industries tend to work rotating shifts. Protective legislation prevents women (without special exemption) from working such shifts in industry (it is interesting that such restrictions have never applied to service sector workers such as nurses). Therefore legal restrictions have not only prevented women working at certain times but have also restricted women's access to jobs involving certain types of technologies.

This need not be interpreted as a call for the removal of protective legislation. This would be to lower women's conditions to those of men. Additionally it seems unlikely that the majority of women would be willing or able to work nights, even if they were legally allowed to, because of family responsibilities. There are other jobs which have traditionally involved overtime or an early start from which women are effectively restricted. There are also restrictions on the weights which women can lift and so on. We need to look critically at both the design of jobs and the legal restrictions. For example, do certain jobs really require the lifting of heavy weights? Do they really require overtime or could they be worked on the basis of two part-time jobs? Could we change the law in a way which equalises the position of men and women by extending protection to men?

Women's position within the trade union movement can also affect the impact of techni - cal change on them. Women are less likely to be members of strong trade unions and with - in the unions are less likely to be shop stewards or full-time officials. This leads to a general lack of concern with so-called 'women's issues' - that is the problems of combining home and work responsibilities. But it also has implications for women's position at a time of technical change. Some unions are negotiating technology agreements which indirectly discriminate against women. For example, 'natural wast- eage' and 'seniority' clauses in redundancy agreements are more likely to affect women's jobs than men's since women tend to have more interrupted work histories. We need to examine other apparently neutral terms in technology agreements to see whether they have different implications for men and women.

Further, if women are not represented within trade unions then it is unlikely that the men negotiating over changes in their jobs will understand fully what the job or the changes involve, or what the problems are likely to be with the new equipment. Some women outside trade unions may be involved in mangement initiated participation schemes over the introduction of new technology. However in these cases women are unlikely to be given the information they need, or have the negotiating skills to effectively challenge management. What sort of courses would be useful to women shop stewards? What sort of new technology agreements would benefit women?

Patriarchal relations can affect the direction of technical change in a more general way. The introduction of new tech- nology does not affect the whole working class evenly. Typically it reduces oppor- tunities in some types of work but may create opportunities for others. For example, changes in print technology threaten the position of craft workers but creates more openings for clerical workers. Automating assembly lines reduces opportunities for assemblers and packers but may increase the need for technical workers. In these situ- ations there is likely to be a divided res- ponse within the Trade Union movement with the strongest sections in the best position to oppose changes which threaten them. Trad- itionally such groups have included craft unions which have been strongly antagonistic to women; for example, preventing women's access to apprenticeships. We therefore need to develop an analysis of the way technical change affects women which recog- nises that women need to counter both capital's tactics and those of certain sections of the Trade Union movement. We need to develop a theory of the ways in which technology is involved in women's oppression by capitalism and by patriarchy and to create strategies for breaking down that oppression.

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Marianne Craig, Office Workers' Survival Handbook: A Guide to Fighting Health Hazards in the Office. Available from Trade Union Book Service, 265 Seven Sisters Road, London N4. Price £2.35 inc. postage.

This book is essential in every office. For the first time someone has taken a serious look at the dangers and diffi- culties of what has always been regard -ed as easy women's work. It is an invaluable reference for anyone involv -ed with Health and Safety, having chapters on Stress; Noise; Lighting; Sitting, Standing and Strains; Danger- ous Substances, Chemicals, Gases and Dusts; Temperature and Ventilation; The Basics, Welfare Facilities and Hygiene; Injury and Fire; Microelect- ronics, what computers are; Using the Law; Organising for Safety; Improving Working Conditions in the Office. At the end of each chapter there is a checklist.
Did you know that typewriter correct- ing fluids often contain trichloreth- ylene which can in extreme cases cause liver damage but more often causes headaches; that each person should have a minimum of 40 sq. ft. of office space excluding furniture? (From your overcrowded noisy typing pool take a look at the office space occupied by any male.) All this and so much more interesting and informative reading.

Jan Cookson, Leeds.

Useful Publications

Trade Journals for your particular industry
Financial Times
Union journals
New Scientist
Computing
Computer Weekly
Science for People (BSSRS)
Hazards Bulletin (BSSRS)
State Research
Industrial Relations Review and Report
European Industrial Relations Review and Report

Where have all the workers gone?

Liz Lancaster

We are all too aware that the present levels of unemployment are the highest
since the inter-war years, that at the last count, 12.4% of the working
population are registered as unemployed, that one million young people do not
have a job, that the 'hidden' unemployment of those who do not register as
unemployed is around one million, and that this is largely made up of women.

The reasons why the British economy is in recession are varied and complex, and
only a brief indication can be given as to what they are or may be. The causes
are obviously inter-related and it is not possible to separate the effects of
new technology from the total picture, either as a contributing factor or as a
solution to economic ills. We have all heard of offices or factories where the
introduction of word processors or assembly-line robots has meant job losses,
but there is not much evidence as yet to show that new technology is a direct
or widespread cause of unemployment, even though all predictions foretell high
levels of unemployment as a consequence of introducing new technology into the
workplace.

Regardless of the variety of factors which may or may not be contributing to
depression and high unemployment, there is an indisputable underlying fact.
Quite simply, there are more people chasing the same, if not a smaller, number
of jobs than before. There are more people being born, fewer people dying
before reaching retiring age and more women looking for work who previously
stayed at home; the labour force is likely to rise by 1.2 million between 1978
and 1985. So even if the number of jobs is maintained at the present level,
unemployment will increase.

The recession is popularly attributed to the weak competitive performance of the
British economy within the slow growth of the world economy as a whole. A
multitude of reasons are tossed around as to why this should be so:- low
productivity, a strong pound, free trade and import penetration, lack of
investment and a high profit margin, Strike-Prone Britain. Each of these is
argued about endlessly yet the fact remains that British entrepreneurs have been
unable, or have chosen not to reconstruct and modernise at a rate comparable
with overseas businessmen, or at least have failed to do this within Britain.
Add to this capitalism's scapegoat of the Arab oil price rise in 1973 and the

recession has been explained without any particular questioning of the economic
system which can generate three million unemployed.

The response of any government in Britain to this situation rests on their
fundamental belief in the cyclical nature of economic activity. Whether or not
one can accept the analysis that economic activity proceeds in waves, that
troughs are followed by peaks, that recessions are inevitably followed by
recovery, the important point is that this is what the government - and the
business community as a whole - believes, and this conditions the responses
which the government makes. Thus we have enterprises such as the old Job
Creation Scheme, designed to alleviate the problems of short-term, cyclical
unemployment. No overt consideration was given as to whether the unemployment
of the mid 1970s was an indication of more deep-rooted problems which would need
a long-term approach and a restructuring of the economy. Government intervent-
ion was needed for a short period only, as the upward force of cyclical
economic activity would soon generate employment.

"You see, I have this terrible
fear of being replaced by a
computer".

annie smith. 12.12.81.

The Halifax Building Society managed
to treble the workload with no change
in staffing when it progressed from
automatic typewriters to word process-
ors.

A major motor vehicle manufacturer,
after a six month trial in three
separate locations, reported product-
ivity improvements ranging from 50%
for general correspondence to 450%
for standard letters, with an overall
average of 243%.

- The Impact of New Technology on the
Working Lives of Women in West
Yorkshire, TUCRIC, 1980.

This did not happen to any great extent, and government policy has grown
increasingly defensive and overwhelmingly designed with one aim in mind:- to
Balance the Budget. There are as many interpretations of what the implications
of this course of action may be as there are economic analysts, but neither
government policy not the Alternative Economic Strategy which is so freely
bandied about the left wing of the labour movement, pays adequate attention to
the role of new technology.

Policies are pursued and critiques offered without a full appreciation of the
fact that microelectronics is not just a new element within the industrial
structure, it has the potential to become the industrial structure itself.

Yet there is a dilemma. Without the introduction of new technology the British economy will become increasingly uncompetitive in terms of world trade, expansion will consequently be slow or non-existent, and unemployment will grow more severe. Yet with its introduction, more processes will become computerised, more jobs automated, and unemployment will grow more severe. Or so we are told. There is no denying that new technology has the potential to cause a huge displacement of labour, but not only is this a result of the inherent character-istics of the new technology, but it is also due to the economic, political and social structure which is witnessing its introduction and to the power relations within that structure. Machinery is introduced at the insistence of management, not of the workforce:|entrepreneurs are receptive to the new technology because it enables them both to increase their control over the labour force and to increase their profits.

The British business community has been used to a much higher level of profits than is common overseas, but during the last decade or so, these profits have been reduced by higher wages, competition and so on. Had British capitalists been able to maintain their profit margins without spending money on new equipment, the likelihood is that many would have chosen not to invest in the technology. The overall economic situation has forced many to look for ways of reducing their labour costs, and growing unemployment has ensured a lowering of resistance from the labour force. New technology is a means of restoring profits and reducing the power of organised labour, because within the existing economic and industrial structure the aim of new technology is to replace people. People cost money and people cause trouble.

New technology is currently being developed as the means by which the labour force can be reduced and inevitably has to cause unemployment. However, if the aim of new technology is seen not as the reduction of the labour force itself, but as a way of freeing people from the more boring and repetitive kinds of work which are found in our economic system and of generating new kinds of employment then the emphasis changes. In some respects the technology does not matter, what does matter is the way it is introduced, by whom, and for what purpose.

'Factory of the future'
Japanese factory, due to come on stream in September, prod-ucing parts for machine tools, 18 large machining centres served by robot pallet chang-ers and 35-station tool maga-zines, which are changed auto-matically, and all under control of a central computer. Will em-ploy 14 men on two eight-hour day shifts, with a completely un-manned, unlit night shifts. The new plant will complete in under a month what now takes three months and 106 men operating 36 machines.
From Engineering Today 6.7.81

one woman's experience......

Ward & Goldstones factory at Todmorden prodices electrical car harnesses for the automobile industry. Employing mainly women, it is threatened not only by new technology and the recession, there is now talk of a Japanese take over.

The effect new technology had on me initially was one of total panic. Automation and its effects were something I had some awareness of but here we were, a factory full of semi-skilled women workers faced with the ultimate automation. Up till then we had some power, not much but some, as long as the employers needed to buy our labour we had something to bargain with. When they did not need it we were powerless.

We felt helpless in the face of a development which not only would crush us but also, at the time, seemed to make economic sense. All the arguments were used, "We must get into the race or we will be losers", "You cannot hold back progress", "We don't want any latter-day Luddites here" and that was just from the Union side.

Women's position in the home and factory make her very susceptible to the whims of the economy. When the business is booming she is encouraged out to work, usually into the low paid, low skilled jobs. Part-timers are encouraged and creche facilities are available and everything is done to make it as easy as possible for women to take part in making profits for someone somewhere.

When the boom runs out as we have seen in the past women must then return to the kitchen and concentrate on looking after the family. The media get going on the evils caused by women working.

The juvenile crime wave is pinned on her door. She has become expendable. If this has been the pattern in times of cyclical boom and slump what will then be the result of a slump in jobs which will be a permanent feature of world wide economy.

Every obstacle possible will be placed in the path of women who must work and women who want to work. The dismantling of nursery places we are seeing at the moment will be nothing when women as producers of wealth are displaced by a robot. Whatever gains women have made towards independence will be eroded. We will be entirely dependent on the men as breadwinners and men in positions of power for every crumb we eat. The prison doors will slam shut, even if the prison is your home that can be demoralising as Holloway if there is no escape.

The extent to which the economy controls our freedom of action will become all too apparent. This will have the effect of holding back the development of women in the Third World as well as preventing women in the west from building on the all toofew gains that have been made up till now. If we are in a bad situation how much worse off will these women be. The multinationals will attempt to destroy the gains of working class people, but for the people at the bottome of the heap this is even more disasterous.

New Technology will shake out a great many women from the work force and the Trade Unions. At the same time the deskilling of certain traditional male jobs may make it possible to utilise women as cheap labour. If this happens then men workers must consider that it was their attitudes which made this not only an attractive proposition for employers but an extension of their use of women as cheap labour in their homes. If you devalue your own wife or daughter then you can hardly expect anyone to do anything different.

Likewise if unions persist in treating women as secondary to male members, they should not be surprised if women choose to opt out of an organisation which does not fully understand their problems or recognise their aspirations. At the same time we as women must make an effort to make our voice heard in unions. We must try to support each other in as many ways as possible. By pooling our experience,skills and knowledge and by drawing in as many others as possible. Supporting women's struggles with employers should be the norm rather than leaving it to union officials.

New technology carries within it the potential to destroy all the advances made by working class people since the industrial revolution. At the same time it could be the best thing that ever happened to workers. The danger now is that it has fallen into the hands of people who will not use it for everyones good. It can abolish dirty and dangerous jobs, it can do away with tedious jobs but if these jobs are the only means you have of eating and providing shelter for yourself then you are prepared to do them.

'If 'leisure' and 'early retirement' means a life of grey grinding poverty then we do not want that. If new technology means that a computer **can**

"Dextralog BX is an advanced microprocessor based utilisation recorder for single machines ....
Ready access to the facts about production rates, machine speeds, lost time, stoppages, work load-ups, material requirements and so on, provides the opportunity for REAL CONTROL.
.... One of our clients describes Dextralog as 'a Work Study Engineer on every machine for 24 hours a day.'

monitor us from the cradle to the grave and our lives are no longer our own then what kind of life is that?

For me new technology means the destruction of a factory and the breaking up of a group of people I knew. Their lives would be shattered, whatever solidarity and support for each other we had built up would be gone. Perhaps some of them would get jobs, but not jobs that could be protected. They would have to put up with whatever the employers cared to dole out and that would be very little. The thought of all the unemployed outside the factory gate would be sufficient to ensure a docile and low paid workforce.

This seems a gloomy picture not just for women, who will bear the brunt of this, but for everyone who is not in a position of power. What is our answer to this ? My thought can only turn to organisation in the community. If we have no factories to organise around then we shall be compelled to build in the home, on the council estates, in the ghettos. The issues and demands we make will be different but still with the aim of providing a decent way of life for ourselves.

We will still be compelled to fight on two fronts. One the one hand on general demands that all people make and on the other for things which relate to women's needs. The fight will go on, I have no doubt. It's just that when you have gained a little ground and you are starting to crawl up off your knees someone always seems to push you down. We never seem to have time to enjoy what we have achieved before we are fighting to retain it.

If new technology did nothing else it made me aware of the struggle we have on our hands. It made me aware of the system which places women in a dependent role. It brought home to me the plight of women abroad and it highlighted the power men have to make us submit through economic circumstances. People with power will never surrender it gladly. They may pay lip service to the ideal of women's right to equality but in reality they are more than happy with things as they are.

Pat McDougall

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TRAINING OPPORTUNITIES

From an early age social norms teach us what are appropriate ambitions for women and warn us off those 'male' areas of work. Even if we persist despite the hints the endless stream of ...."You want to be a WHAT!?"....would deter all but the most determined of women. But over the past few years more women have been building up that determination and striking out into male dominated areas. Women and Manual Trades groups around the country, and their national conferences, provide us with the opportunity to get together, and the setting up of Lambeth Womens Workshop (teaching carpentry skills) has given us a positive example - we now KNOW we're not alone and that we CAN do it.

But what do you do if, school at least a few years behind you and perhaps children in tow, you decide to try to get a skill outside the usual run of office work, nursing etc? The training opportunities that are open to us generally demand previous knowledge that we've never had a chance to acquire (and negate the real skills that we do have), take no account of our home and childcare responsibilities and anyway are full of men who view the prospect of a woman in the class with at least amusement if not downright horror. The trainers almost invariably pepper every session with strings of sexists remarks, under the pretext of humour, and the womans already fragile film of confidence is quickly torn to shreds by the antagonism, mocking and condesention.

So the demands for women-only groups and classes run by women are growing in response to these experiences. One example is the efforts of a small group of women in Leeds who have spent the last couple of years developing ideas and chasing funds for a womens workshop that has now been set up, staffed and will soon start running courses. The funding comes jointly from the European Social Fund (a Common Market pocket, see below) and the local council and is for seven jobs and to run two parallel six month courses, one in carpentry/ joinery and one in electronics/micro-computing. Limitations set by the funding and the need to give priority to the women already most discriminated against means that the courses are open to women over 25, prioritising local women, single mothers and those from low income families. But once they're established the workshop intends to run evening and weekend classes that'll be open to all women. A really significant aspect of the project is the inclusion of a childcare organiser and an employment development worker (at present both are job-shared jobs) - without these workers the project wouldn't be paying real attention to the specific needs of women. The funding is initially for three years but they intend to get it on a more secure, long-term base eventually and then maybe they'll be able to branch out even further into a whole range of subjects and skills.

Details of the courses and the workshop are available by writing to East Leeds Womens Workshops, 166 Harehills Lane, Leeds 8.

* The European Social Fund has special allocation for womens projects and it's definately worth applying to them for funds ~ information from :
Ms Wells, Commission of the European Communities, 20 Kensington Palace Gardens, London W8 4QQ 01-727 8090

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women and printing.....
sharing the toys with the boys

By dint of their power-play on the stage of history, men have arrived in the late 20th century with many advantages over women.   One of these is that they tend to occupy the better-paid and more interesting jobs. By extension, the jobs done by men have come to be defined as relatively prestigious or skilled just because men do them.   One theme in this power-play has been men's privileged relationship to technology.   As the inventors, designers, maintenance engineers and (often) users of machinery, men have disqualified women in a way that has cost us dearly in earnings and independence.

Now, as technology is developed and applied in more and more destructive, even apocalyptic, ways, women are well situated by our distance from technology to make a sceptical evaluation of 'the toys of the boys'.   But we would perhaps be better equipped to push home our critique if we had ever been allowed close enough to tell a sword from a ploughshare.

The position is not static, however, and composing for print is one area of change in the relationship between men, women and technology.   Throughout the industrial revolution, compositors, who were almost all men, managed to maintain a high degree of control over their labour process.   They have successfully fended off continuous attempts by capital to press down the value of their labour power.   They have done so mainly by means of defining their skill and the boundaries of their craft in such a way as to keep out the great mass of unskilled workers and, most pointedly, women.   The result has been that until recently only about 2 per cent of the membership of the National Graphical Association (the union representing compositors and some other skilled print workers) was female.   Nor should it be thought that even this 2 per cent were well-paid and qualified compositors or machine managers.   They were anomalies - some of whom had slipped in as part-trained substitutes during war-time, others having been in categories of work or workplace that the NGA had chanced to organise.

The employers in the printing industry have recently obtained an ideal weapon to break craft compositors' control of the labour process: computerised photocomposition.   The union's enduring grip was based on the 'hot metal' process of preparing the type for letterpress printing.   It involved a long apprenticeship in an esoteric craft, with a unique knowledge of certain tools, materials and procedures.   Pieces of lead type were selected and assembled by hand, or cast in molten alloy by a machine with a keyboard.   The 'page' was assembled from hundreds, even thousands, of pieces of lead type and spacing material.   It demanded a specialised form of literacy and numeracy and a manual dexterity that could only be achieved by years of practice.   To some extent, if done as a whole, composing work also called for a degree of physical strength and stamina.

The new technology shunts composing from the 19th to the 20th century at a single blow.   The process now involves typing material on a typewriter-style keyboard into the memory of a computer.   A video screen is used to make corrections or alterations.   The computer then in turn instructs an automated setter that produces a photographic 'bromide' print on which the text appears in the shape and form it will eventually take on the printed page.

The composing revolution is significant for printing workers in a number of ways.   The computer removes many of the decisions from the compositor - for example, decisions about how to end lines and hyphenate words.   These were the little interventions that used to make the work interesting.   Secondly, it removes much of the particular form of manual dexterity that was the compositor's stock-in-trade.   Much less skill is needed.   The training process need be no more than a few weeks.   For some of the tasks, if they are fragmented from the whole, it need only be a matter of minutes.   Computerised typesetting is a skill based on a general and widespread form of technology.   It differs little from modern office processes.   The outcome of course is that printers and publishers can get adequate compositing done without relying on qualified compositors.

Inevitably, the new process is experienced by some of the men as a threat to their masculinity. Hot metal work, for many complex and questionable reasons, was seen by the men as being 'manly' and therefore satisfying. It's difficult to see the new technology in the same way. Work with paper, office work generally (in spite of the high status of mental work and the preponderance of men in management) are felt by many working class men to have dubious gender credentials. The linotype machine, in spite of being basically a key-board, had a certain mechanical mystique to it. In contrast, the typewriter is seen as a woman's thing. Soon after its inception it became associated with doubly-subordinated female labour and has taken on woman's low status.

While composing work evades the hands of the traditional compositors, print itself is escaping from the printing industry's grasp. Much more printing is done, year by year, by firms within their own in-plant print departments. Every high street has its instant-print shop. Even where work is actually printed by a printing firm, the typesetting may well be done in the client's office or by the advertising agency. Besides, electronic media generally are challenging the written word.

This quite dramatic change in printing in the last decade leaves us, as women, with a number of unresolved practical and political questions. Two things we need to answer urgently are: is this technological thrust progressive for women? and what should be our strategy over job opportunities, pay and the unions?

More and more women have been entering areas of work that are in or adjacent to printing - operating photocopiers, small offset presses, IBM compositors, doing lay-out and paste-up. In so doing we have been challenging a male preserve. The recession has made no-one's job position easier, but some women are now finding they can earn more, have better prospects, with very similar skills to those for which they have traditionally been underpaid - typing in particular. In this respect, the new printing technology offers real gains to women.

One of the arguments men have used to justify our exclusion from composing in the past is as follows: Women seeking work in printing were almost invari-ably unqualified and not in the compositors' union; they would accept lower pay than the organised men; and this undermined the position of labour in printing. Since Equal Pay legislation in the mid-seventies this argument should no longer hold. In fact, however, the Equal Pay and Sex Discrimination legislation have <u>not</u> operated, in printing or elsewhere, to women's advantage in the way it was hoped. The earnings of women in printing, relative to those of men, had been increasing steadily until the mid-seventies. Soon after, they began to deteriorate.

Women are thus faced with a knotty problem. The recession is costing jobs. Women still have less wage-pull than men. Should women hold off from trying to get the newstyle printing jobs for fear of harming union strength? Or are we forced, as some women would say, to recognise at last that our disadvantage was not just a legal technicality but that men have been standing on our feet, that for all the new laws they continue to do so? Is the conclusion that we should take what we can get, each woman for herself?

Two cautionary factors weigh in the balance of these arguments, and they weigh on opposite sides. While women may seem to be entering some of the more prestigious or better-paid jobs that used to be the preserve of men, the

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nature of the relationship of the operator to the equipment in these jobs is
changing simultaneously.   In hot-metal printing the men were confined
squarely within capitalist work relations, but within those confines they had
a close, almost proprietorial, relationship with the equipment.   A linotype
operator, for instance, had been trained to know how to repair and maintain his
machine.   He could be sure the boss knew nothing about it.   The computerised
technology is brought in by the boss with the advice of his cybernetics
consultant.   It is maintained by the suppliers' service engineer.   The opera-
tor of the photocomposition equipment has a distant and passive relationship to
the equipment,a relationship of the kind to which women have always been
limited.   Inside the VDU it's all solid-state circuitry - nothing you could
fix with a spanner and an oily rag.   That is to say, the computers and the
peripherals, whether they are operated by men or women, are operated blind.
The real control lies with those who design and programme the computers, who
maintain and repair the hardware.   And these, the new key workers, are almost
entirely men.   The potential for power, even the limited power available to
the employee of capital, has shifted elsewhere and has remained in male hands.

The second factor is this.   Electronic technology,in printing as in office
work and industry, is introduced by employers for a clear-cut reason: to incre-
ase control and, with it, profit.   Computers are of course ideal tools for
tightening control throughout the firm because they enable rapid information
gathering and continuous monitoring of work.   More specifically, electronic
composition is seen by the employer as promising a way of bypassing the union's
and worker's grasp of work by scrapping old equipment on which that grasp was
secured and replacing it by parallel processes where his skill counts for
little and his jurisdiction is in doubt.

The important point is this, however: although it is the well-organised
and better-paid men that the employers first want to smash, they in fact seek
to manage more intensively and profitably the labour power of whoever replaces
them in print, man or woman.   Though as women we may find ourselves earning
more than we did in the last job, we should not fail to see that the job it-
self, as we now do it, may involve more exploitation than it used to do.   That
is to say, the employer gets more out of the effort we put in, that proportion-
ately our wage is a smaller reflection of our productiveness than it used to be
in the old technology.

So what should we be doing as women, practically and politically?   The
only way to fight the tendency to increased exploitation, to defend ourselves
let alone advance ourselves, is to join the relevant union.   It is clearly
vital that as we take on the new work or see our own jobs merge with printing
we should make contact with a union, if its officers have not already made
contact with us.

Wait a bit, now, many women would say.   The unions have always been a
male step-ladder and all of them are led by men.   Is there any chance of our
changing them or will we just become fodder to their ambitions?   The NGA,
the compositors' trade union, has radically shifted its policy in response to
the new technology.   It is now actively recruiting new kinds of member, many
of whom are women.   There is no guarantee of course that women will not
become ghetto-ised in a semi-skilled section.   One key to escape, however, may
be through amalgamation between skilled and unskilled unions, though that would
not be without problems for women too.   Another will be training.   If the
NGA adopts the new training scheme that it is presently discussing, apprentice-
ship as such would go out of the window.   Theoretically, anyone, girl or boy,
man or woman, entering printing would be able to take modules of practical and
theoretical training in a more flexible way with more individual choice.   It
will be important that women put themselves forward for the full range of
courses to break the precedent that only certain work is 'women's work' before

the new training system rigidifies.   Gradually it may be possible to break down the sectionalism, strongly gender-patterned, within and between unions.

By far the most important resource for women however,would be our own organised strength.   Once within the unions (and why not before?) we will have to meet automonously as women and be continually inventive and active over women's interests if the unions are not to continue to play their old part as a male power-base.   Within the NGA or any other union it is only common sense to recognise that there is an internal struggle going on between progressive forces that may be pro-woman and in which women may already be present and active, and retrogressive forces that are among other things anti-woman.   Often these defensive interests may also be elitist, reflecting the sectional interests of the skilled worker against the rest of the working class.   A complicating (and depressing) factor is that among the negative forces are many women. Employers for instance successfully lead women office workers to feel part of the management and to look down on production workers.

If as women we do establish a strong union presence through our engagement in new technology, whether in printing or outside, such a foothold may also enable us to challenge their limited perspective and aims.   The working class is so often portrayed in labour movement iconography as white, male and of a single mind.   'The worker' is also a woman.   In pointing up ·the reality of one division in the working class we can help peel off the paper that has been plastered over other cracks.   Workers are also black.   And unskilled workers often have interests that differ in part from those of the skilled.   We should not be afraid of facing up to these differences and oppositions.   It is not the divisions as such that have weakened the working class and its organis- ationsso much as their repression.   It is their subterranean, muffled existence, the process of denial and distortion, that has interacted with the capitalist relations of work to produce our reformist and static set of unions.

Some women are rejecting many of the structures and practices of trade unions because they have immobilised us for so long.   Some women in many unions are refusing workerist blinkers and putting on the agenda some of the exploita- tions and oppressions that go on outside paid work.   They are suggesting that our second-class and over-worked status at home put us at a disadvantage within work, and that our low earnings and marginal position at ·work don't help us too much at home either.   Taking the lid off the unions in this way will not weaken working class organisation.   In the long run it will strengthen it.

* * * * * * * *   **Cynthia Cockburn**

NATIONAL CONFERENCE ON WOMEN AND NEW TECHNOLOGY

LEEDS: 20TH MARCH, 1982
♀ WOMEN ONLY ♀

This issue of Scarlet Women will form the background papers for the conference, and there will be workshops based around the articles/topics, and also others, including introductory ones.

Organised jointly by Leeds TUCRIC and WYWANT.

Further details from/offers to run workshops to:-

Jane Stageman,
TUCRIC,
6 Blenheim Terrace,
Woodhouse Lane,
Leeds 2.

** Your Job in the 80's, Ursula Huws, (Pluto Press:1982)

This women's guide to how new technology affects our jobs will be launched at the above conference.

REPORT OF FIRST NATIONAL CONFERENCE ON WOMEN AND COMPUTING

The first National Conference on Women and Computing took place in Brighton on September 12th, 1981. After some open meetings of the Women and Computing group, in June 1981, a decision was made to hold a conference and a conference planning group was formed. There are many issues that exist under the head-ing of 'Women and Computing' and the women in the Conference planning group had varying politics so the conference would undoubtedly reflect this. Al-though the conference arose out of the WLM we agreed to advertise it in the public media and the computing press so we knew that women would come who had never been to a women-only conference before and would not have had the opp-ortunity to discuss many of the issues. We also knew that there would be many feminists who had developed their pol-itics over a long time and who would want more than an introduction to many of the areas to be discussed. Thirdly, there was us — we all had topics which interested us and which we wanted to discuss. We drew up our aims as follows-

To provide an opportunity not only for women in the industry but for all women to meet and discuss the relev--ant issues.

To emphasize the impact of New Tech--nology on women's lives.

To discuss the effect of New Technol--ogy in women's jobs.

To develop a feminist interpretat--ion and approach to computer technol--ogy.

To encorage women to learn about comp--uting and its basic principles.

To enable women to meet other women with similar interests and to wel--come more women onto the Women and Computing network.

There were 4 workshops arranged during the day. There was a film and discuss--ion on sexual harassment at work, work--shops on images of women; working moth--ers; exploitation of 3rd World women; women and girls in science education; health hazards; money and power in the

WLM; fear of technology and many others. Women new to computing were catered for in an Introduction to Computing workshop where they were able to gain experience of how to use a microcomputer.

There was a friendly informal atmosphere during the day. My own feeling was that I enjoyed it very much but there wasn't enough of it ! I think a 2 day confer--ence with longer workshops would be better.

One of the most interesting aspects of the conference for me is that in several workshops the issue was raised of 'How the WLM can use computers'. I feel that we could gain considerably from present technology and, judging by the confer--ence we have a great deal of knowledge and computer experience amongst femin--ists to do a lot for the WLM. On this issue, a group of women have formed, calling themselves the Feminist Computer Project and they can be contacted at AWP. As a result of the conference, many wom--en are interested in the Women and Com--puting Newsletter, and many want to be part of the Network. To be in the net--work you just give your name, address, interests and skills for the Network list. All the women in the Network then get the details of all the other Women in the Network. If you want to sub--scribe to the Newsletter (£1 for 4 issues) or belong to the Network, write to Women & Computing c/o AWP. Also, other women who are interested in the issues are meeting and forming groups. If you want to be put in touch with other interested women in your area, write to Women and Compu--ting.

I feel that it is really important that we keep discussing computer technology and the effect it will have (is having !) on women since it is perfectly clear to me that comput--ers are here to stay whether we like it or not, so the more we know about them, the better.

IS EVEN PATRIARCHY NOT SACRED?

Feminists have long been arguing that the position of women in society should be distinguished from that of men, in that the former are subject to mechanisms which control and subordinate them which are qualitatively different from those which assign to men their social situation. The concept of 'patriarchy' has been developed in an attempt to explain the specificity of women in the class structure and in the labour process. The concept, however, is not a single or simple one, but has a whole variety of different meanings. At the most general level 'patriarchy' has been used to refer to male domination and to the power relationships by which men dominate women. While radical feminists have focussed solely upon the system of male domination and female subordination, Marxist feminists have attempted to analyse the relationship between the subordination of women and the organisation of various modes of production. And it has been argued that it is not useful or satisfactory to treat concepts like 'class' and 'patriarchy' as separate formulations (which Marxists on the one hand and feminists on the other have tended to do), but that a "more progressive union" between Marxism and feminism is required (Hartmann, 1979), if we are to understand the position of women in the class structure, and in the labour process.

While there has been plenty of theoretical discussion around the concept of patriarchy, therefore, and the extent of the usefulness of the various formulations of the concept that have emerged, few studies have been undertaken to attempt to gauge the value of the concept in practical terms. In other words, there has been little examination of how patriarchy affects women in our daily working lives, what it means to women in practice.

This article, therefore, represents an attempt to examine in concrete terms how patriarchy affects women in the workplace, how in turn it may be affected by the introduction of new technology, and how women may resist both patriarchy and new technology as forms of control over them. I shall be focussing on women in offices since about 40% of the female workforce is now engaged in office work, so that an examination of this area will shed light on the working situation of a significant proportion of women workers.

One piece of work which has attempted to outline some concrete manifestations of patriarchy in the office and on which I shall draw for this account, is Jane Barker and Hazel Downing's (1980) article in <u>Capital and Class</u>. In it they describe how patriarchy acts as a mechanism for controlling and maintaining the loyalty of female office workers, particularly secretarial workers. "Flattery and praise, the engendering of a sense of indispensability, as well as an underlying, albeit sometimes explicit sexual innuendo, are all forms of patriarchal control." (1980:74)

Female clerical workers are encouraged to fulfill the dual 'feminine' role of 'office wife' - caring for and servicing groups of or individual men - and conventional dolly bird/sex object. Secretarial manuals explicitly state that women should perform specifically feminine tasks which involve caring and servicing, many of which may appear totally irrelevant to their work as defined by their technical skills, but which are in fact essential to the reinforcement of their exploited and subordinate position in the office hierarchy. During one of my own jobs as a legal secretary I was required to water the plants daily and make my boss cups of tea whenever he rang down and asked for them. Even when I was up to my neck in typing and had no time to stop, and he had nothing to do, he went without rather than making the tea himself. And Barker and Downing point out that the general qualities and abilities desirable in the ideal secretary are those which are learnt through 'an apprenticeship in womanhood'.

They also point out, very importantly, that this 'office culture', while being a factor in the reproduction of women's oppression, also constitutes a world which the male bosses cannot penetrate, thus allowing women to get away with doing certain things that cannot be controlled. It is susceptible to forms of resistance rarely recognised in accounts of workplace relations (which focus predominantly on male manual workers' methods of resistance), and yet which constitute equally valid forms of sabotage. Classic examples are those of office workers pretending to look busy while chatting with their workmates, taking long lunch breaks with the excuse that 'it took ages to get round the shops' (which I've done dozens of times); there are many other methods of breaking the routine of typing and gaining some time for oneself.

However, in a time of recession and falling rates of profits, managements are looking at ways of cheapening the labour process, and this non-productive

time described above is one area ripe for rationalisation. As Harry Braverman (1974) points out:

"Among the subsidiary benefits management expects to derive from (office automation) is the reduction and thus cheapening of the skills of administrative employees, and not least the squeezing out of the minutes and hours of labour power lost in the personal relations and contacts among secretaries and between secretaries and their 'principals' - which is what they mean when they speak of the 'end of the social office'." (1974:347)

According to Barker and Downing, word processors are an attempt to achieve this by the replacement of patriarchal forms of control by more direct capitalistic forms of control, based on the mechanisation and fragmentation of operations. If they are correct, patriarchy as a direct method of controlling female office workers may henceforth be taking a back seat, while control is transferred to machinery through increased use of scientific management techniques. The effect of automation in the office will be to remove skills and knowledge (which provide workers with control over their movements and pace of work) by fragmenting operations in much the same sort of way as has already happened in factories. People will execute <u>pieces</u> of tasks, not entire tasks. More and more, office workers will need to know nothing other than how to push buttons, all other tasks being incorporated into the machine's programming. Marx's contention that such fragmentation of tasks leads to the worker becoming a mere 'appendage to a machine' has a chilling accuracy when one thinks of rows and rows of workers sitting all day at a screen, feeding the machine with inform- ation which IT then processes and channels. And with the incorporation of work timing devices into word processors, it seems as if machines will be controlling the workforce rather than it controlling the machinery.

"Any company which employs more than one person full-time to look after administration and clerical work should be think- ing now about using a computer to save time and money, not to mention a lot of monotonous work."
From 'Engineering Today, 29.6.81

When managements introduce such innovations in an effort to tighten control over the work process and workforce and hence to cheapen these, what they do not take into account is the capacity of the workforce to resist. My own studies have indicated that word processor operators do not always accept changes in the organisation of their work and indeed find ways of retaining some control over it. One operator I spoke to used her word processor exactly as if it were a typewriter, checking her work very meticulously after she had keyed it into the machine, thus giving herself the chance to use her mental faculties, and also a break from the monotony of typing all day. Others experimented with the gadgetry and played "tricks" with the machines which they demonstrated to me. One operator would print out her documents with the layout deliberately incorrect (vertical tables arranged horizontally, for example!). Another varied the layout of every piece of work she did, so that she could spend time fiddling with and adjusting the controls. While this is by no means the stereotyped, almost glamourous sort of sabotage one hears that assembly line workers engage in, it does represent an attempt by the women to resist being turned into mere machine minders and to hang onto elements of control and dignity over their work. Attempts by managements to tighten control will not, therefore, be unproblematic and perhaps the course of new technology will not run totally smooth.

Juliet Lazenby
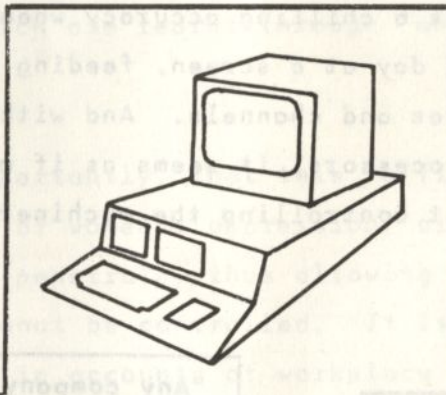
"A microprocessor automatically controls the machine's functions, allowing the operators to concentrate on maximum productivity.
The word processor will not become sick, take time off to get another job, or leave to have a family."
Contessa Word Processing Handout.

union aggreement

Nalgo awoke to the necessity for such agreements in this area in August 1979 with the first meeting of the district working party on Word Processors and Allied Technology. They realised then that the introduction of such technology meant job loss and cuts were already beginning to bite. Employers were introducing mach;nes without any con--sultation or training. (Saturday 3rd November 1979 saw a meeting organised by the Yorkshire and Humberside Socialist Feminists on Women and New Technology which sparked off more local interest and broadcast the imminence and scale of the innovations).

A working party was set up at the University to negotiate the 'new techn--ology' which first met 14th November 1979. A first code of practice was suggested by Nalgo and the University began to draw up a draft policy state--ment.

Information continued to mount and Nalgo was aware that visual display units and Word Processors were being introduced in various stations of the University (outside finance being avail--able to the Heads of Departments who can therefore operate autonomously) and non-union staff operating them without proper training or information on safe working conditions.

A lunch-time branch meeting was held to inform members about the new technology and its implications but be--cause it was only an informative meet--ing and not about wages, very few peop -le bothered to attend.
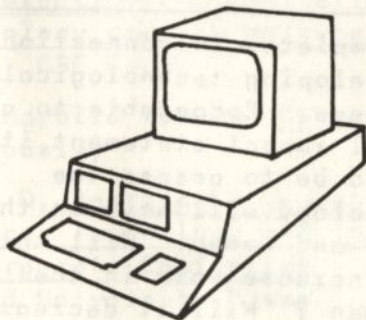
The first draft procedure agreement was presented by Nalgo's Area Officer to a joint Union/University meeting on 12th May 1980. Machines continued to mush-room. Nalgo Headquarters produced a mod-el agreement May 1980. In June, a back-down and backout procrastinating letter was received from the University, with, instead of a procedure agreement, a 'Guiding principles: The Introduction of New Technology' joint statement.

This prompted the Union to send a letter to the University that the status quo would exist on the introduction of New Technology until an agreement had been negotiated. Only very slightly nervous, the University continued to introduce NT. ....Another draft appeared on 25th November 1980 littered with 'as appropriate' and 'where convenient' and 'as far as possible'. This was edited at an executive meeting of the Branch and further disagreements reached with the University. Patience - only one year has gone by.

The University Safety Officer issued an information sheet on Visual Display Units: Associated Health Problems in February 1981. New Technology featured at the Nalgo Annual Conference and the National Committee decided to reiterate advice issued to Branches. Headquarters (optimistically) asked for copies of all New Technology agreements. Another draft - another meeting - 13th May 1981. 29th June - yes - yet another draft ! This, however, with the addition by the University of one more 'as far as poss-ible' appears to be going before the University Council for approval on 17th December 1981.

So it has taken over two years to negotiate which it not an agreement only a Code of Practice. However, this is more than most other Universities and branches of Nalgo have achieved.

Jan Cookson
Nalgo, Leeds University

some thoughts from the Women & Computing group

In this article, we decided to write about our group, rather than any specific issues, and we hope that our account may be of use to other, similar groups. Our method of writing the article was to assign each section to a different member of the group and edit the results collectively.

We are a group of women who came together as a result of a series of meetings called by some women, who met at a conference on Women and Science. Not all of us work with computers, but we are all interested in their effect on women - our lives, our jobs, our health and our futures. Many women came to the open meetings but eventually it ended up that six of us wanted to make a more regular committment.

During the early months of the group, we met fortnightly and spent our time in general discussion, sharing experiences of working with computers, and providing mutual support as we got to know each other. It was great for each of us to meet other women who were interested in computers and in feminism. For a long time, these apparently conflicting interests had been uneasy partners in our lives.

We became more active - at first, in a small way - by writing to "Datalink", a computer trade paper, about their insulting attitudes to women. We also handed out leaflets entitled "Look around - how many women do you see here?" at Compech, a computing exhibition.

Our first major event, and a turning point for the group, was our first workshop in February 1981. Called "Computers Made Simple", it was an attempt to de-mystify computing to women who knew little or nothing about the subject. Our most optimistic hopes were that perhaps twenty women might turn up, so it was with a mixture of delight and panic that we saw sixty women, one baby and a dog cram themselves into the largest sitting room at "A Woman's Place".

Women Changing Technology
Bev Easton in 'New Roots'
Dec-Jan 81, p.23-6
..."One suggestion for overcoming the male bias in technical fields is to require a 'sex role impact statement.' "Scientist and feminist Jody Smith (Women's Resource Center, Missoula, Montana) "said such a statement should be completed in connection with any developing technological tool or process. Comparable to an environmental impact statement, its purpose would be to assess the impact technology will have on the roles of men and women. Will this technology increase work in the home for women ? Will it decrease women's mobility ?"

Due to the publicity around the workshop, we now began to receive a steady flow of letters from women wanting to know more about the group, or asking for advice. Clearly, there was a need for women to get together to break down the barriers of isolation and alienation, which most of us feel when confronted with technology - and this often includes women working with computers and other "high technology" equipment.

With this in mind, we began to increase our contact with other women through Open Meetings, speaking to groups such as EPOC - the Equal Pay and Opportunities Campaign, students on a return-to-work course, attending the Gender Equality and Maths Conference and many more.

To develop further communication between women interested in computing and technology, we set up a network. The way it works is that women who want to be on it fill in a form telling us their particular area of interest, e.g., health, sexism at work, using computers for women and so on; their skills, where they work and how they can be contacted. Each section of the form is optional, but most women fill them all in. A list is compiled, and circulated to all the women on the network.

The network is as yet very new, and we feel that it can be used in all sorts of ways, e.g., to help women form other computing groups, share skills, help each other find out what is going on in the job market, or simply make friends with women working or living near them.

With the network, the idea of a newsletter followed naturally, and this is available to any woman who contributes £1 towards the costs, receiving in return four issues within a year. Contributions are also welcomed. We hope when other groups are established, to rotate production of the newsletter, so that there will be the maximum of opportunity for women to participate.

FURTHER READING

General

Counter Information Services (1979)
The New Technology

CSE (1980)
Microelectronics: Capitalist Technology and the Working Class CSE Books

The Ladybird book on Computers (seriously)

Noble D, America by Design: Science, Technology and the Rise of Corporate Capitalism
Oxford University Press

COURSES

For courses on new technology, contact your local WEA or university Adult Education Department, or contact these organisations nationally:
TUC, Congress House, Great Russell St, London WCl
WEA, Temple House, 4 Upper Berkley St, London WlH 8BY, Tel: 01-402 5608

VIDEOS

Increasing number of videos and films of TV programmes. See especially:
BBC Women in the Eighties Film on women's perspectives on Office Techno-logy in Sweden.
Whose Progress? Critical film on new technology. Raises all the issues.
Education Media Group, 2 Ridge Mount, Ridge Road, London NW2 (01-794 2825)

We wanted to meet some of the women who wrote to us, so we held several open meetings in London. There was a lot of enthusiasm at these meetings, without which we could not have got the network or the newsletter off the ground. The meetings were also the starting point for our most ambitious project to date — the first National Women and Computing Conference, which was held recently in Brighton.

The Conference was organised by a group formed from Open Meetings, and independent of the Women and Computing Group, although it included members of the latter. Workshops at the Conference included Employment and New Technology for Women, Health Hazards, Fear of New Technology, Women in Science Education and Money and Power.

After all this public activity, we are now returning to discussion of the basic questions concerning the relationship of feminism and technology. There is very little feminist theory in this area and we want to develop our ideas through writing articles, and perhaps even a book!
Here are some issues that the Group felt were worth raising:

1. KNOWLEDGE IS POWER - As New Technology grows, women are becoming the new TECHNOPEASANTS. Women have traditionally shied away from technology, but we can no longer afford to bury our heads in the sand. For too long we have been controlled by technology, rather than controlling it. Computer technology is not the great mystifying mass of glittering machinery men make it out to be. Men want to control it and us, so they have created this mystique. To know about technology in this technological society is essential to give women a sense of power and control. Knowing, we can see through the myths; knowing, we can see the real dangers; and knowing gives us power and strength to act. Our workshops try to give women this knowledge and power so that we can feel confident and strong when confronted with New Technology and can effectively challenge it.

"Increasing numbers of women has not meant they carry out a broader range of functions within the workforce. The types of occupations in which women and men are over-represented have changed somewhat but women consistently and increasingly form the majority of the lowest grades in the labour force in white and blue collar jobs. These occupations closely mirror those functions women perform in the home on a non-paid basis."
Department of Employment Gazette, Nov 78 - Catherine Hakim on sexual divisions in the workforce

"You find management and trade union bureaucrats collaborating to let things drift upon you, letting you drift into a situation where, imperceptibly workloads increase...The new machinery comes in. You don't notice much of a difference to start with, and then you find after a year or two the workload has doubled or trebled and no extra staff has been taken on."
A Fleet Street Worker.
Harman C. 'Is a machine after your job' (SWP Pamphlet).
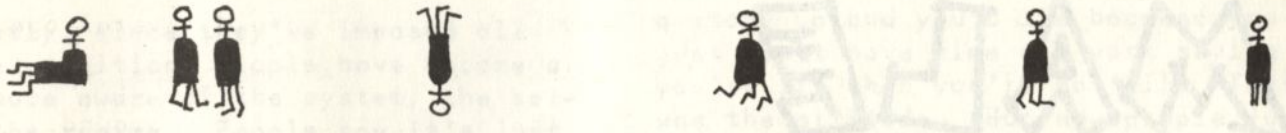
2. USING TECHNOLOGY FOR US - As well as enabling us to challenge the misuse of technology, knowledge also gives us insight into the ways we could create a new technology for ourselves. We have taken over medical technology and set up self-help clinics. There are women's recording companies, women carpenters and plumbers, electricians and car mechanics. International travel is important in the Women's Movement, as women travel the world to meet other women. Computer technology could also be used along feminist lines. Possible uses are micro-computers in resource centres, feminist data bases so we can all have access to our history, and feminist networks so that women's communities can exchange information and ideas. And in the present, we could write our own programmes to research our history.

3. FEMINIST TECHNOLOGY - All of us in the group enjoy working on technical matters and discussing technical issues, and reading feminist science fiction. We are technically-minded women. Technology is in many ways no more male than history, with its distortions of women's lives and its denial of women's achievements through the centuries. As women are writing to create a feminist history, so we want to remake technology into a feminist technology, community based and life-enhancing.

We feel the pressure of these issues keenly, looking at how much the government is putting into New Technology, concerned that women realise its importance and feel empowered to deal with it.

We are one of the few groups in the country working on this issue and feel somewhat isolated because of that, and overwhelmed with the work that needs to be done.

4. THE FUTURE - We have many ideas for the future. As well as continuing our present activities, we want to spend time developing our analysis of technology and creating practical feminist projects. We want to write a book on technology. We want to buy our own computer to make it easier for us to run workshops and set up our own systems, perhaps develop systems for other women's groups, e.g., mailing lists, etc. One thing is for sure, we're going to be very busy!
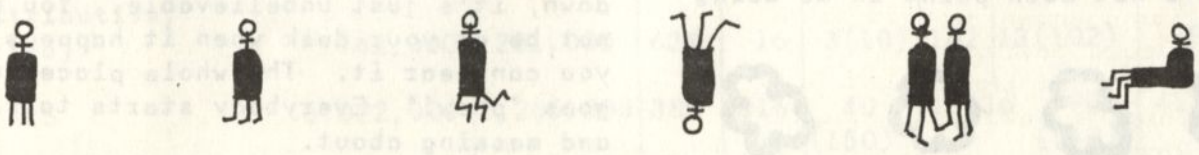
MALE ORDER..

The following is an extract from an interview with 'Angie', who works as a VDU operator for a mail-order company in West Yorkshire.

At the same time as you're working there are print-outs being made of each operator. There's a number of different print-outs they can get on you. One is your actual performance - how many times you sign on and off - and it goes right down to seconds. Then there's another print-out that comes on a weekly basis which tells the management how many letters you've logged out, so they can check the scores you've handed in. They know how much of the time you're actually working and how much work you do. They can measure it right down.

Up until the beginning of May they were quite lax on the score, there was no pressure to get the score. But in May they introduced this figure of sixty, that was the number of queries a clerk was expected to deal with each day. They really clamped down. Every day we have a score taken. You start from the day before, because at four o'clock your final score is taken. What you do from four while a quarter to five is taken at eight thirty, and they'll take another score at eleven and another at two, and then you hand in your score sheet at four. I have my own system. By eleven I'll try and get twenty done, and then by two I like to have done about forty. And then I know I'm going to get sixty. But if I'm nowhere near by that time there's not much point in me doing sixty.

Some people are scared of not making their scores, some people say they can't give a damn. I think underneath we're all scared. I am. I have to really push myself sometimes. You know, mentally you have to push yourself. That's why there's all the friction. You get a lot of friction amongst the girls. Bitching and back-biting over really stupid little things. I think if the job was different you wouldn't have that. I'm sure of it. The difference in atmosphere between where we work now and where we worked before, doing the job manually - there's just no comparison.

Now, obviously, if there's down time on the line, they take that into consideration. That means there's a fault on the line that comes to the terminals. It means you can't enter anything into the terminals. It's a fault in the system. Sometimes it might only last a few minutes, sometimes it could last hours. It usually goes in days - you might go for three or four days and nothing goes wrong and then the day after it's off a few times, but not for very long. That's worse, people don't like it going down for a few minutes. It's just frustrating because you've still got to get your work done. If it goes down for longer - half an hour or an hour - it's a bigger break. But then they start dishing work out. If they know it's going to be off for a few hours, then they give you other things to do. The relief people feel when they book you off - when you know the line's down, it's just unbelievable. You might not be at your desk when it happens, but you can hear it. The whole place just goes 'phew!' Everybody starts talking and messing about.

Recently, since they've imposed all these conditions people have become a lot more aware of the system, the set-up, the regime. People say it's just like a military camp. It's just so dictatorial, it's terrible. The absent-eeism has really gone up. A year, eighteen months ago, nobody, just nobody would say, 'I was away yesterday because I didn't want to come in.' You'd make a story up and you'd lie because you just don't have time off work saying you're ill when you're not ill. That was the attitude. But now people just don't care. At one time even friends wouldn't admit to each other they were just fed up. But now ... If they asked for voluntary redundancies they'd get loads, people hate it so much.
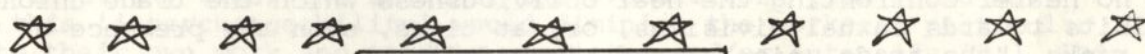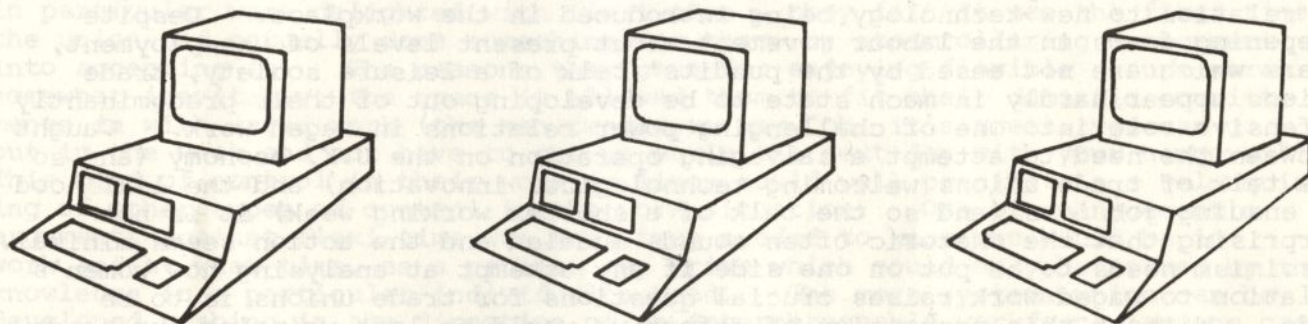
WOMEN IN THE UNIONS

Figures in brackets show how many women there would be if they were represented according to their share of the membership.

	MEMBERSHIP			EXECUTIVE MEMBERS		FULL TIME OFFICIALS		TUC DELEGATES	
	TOTAL	F	%F	TOTAL	F	TOTAL	F	TOTAL	F
APEX (Professional, Executive, Clerical, Computer)	150,000	77,000	51%	15	1(8)	55	2(28)	15	4(8)
ASTMS (Technical, Managerial)	472,000	82,000	17%	24	2(4)	63	6(11)	30	3(5)
BIFU (Banking, Insurance, Finance)	132,000	64,000	49%	27	3(13)	41	6(20)	20	3(10)
GMWU (General & Municipal)	956,000	327,000	34%	40	0(14)	243	13(83)	73	3(25)
NALGO (Local Govt officers)	705,000	356,000	50%	70	14(35)	165	11(83)	72	15(36)
NUPE (Public Employees)	700,000	470,000	67%	26	8(17)	150	7(101)	32	10(22)
NUT (Teachers)	258,000	170,000	66%	44	4(29)	110	17(73)	36	7(24)
UNTGW (Tailor and Garment)	117,000	108,000	92%	15	5(14)	47	9(43)	17	7(16)
TGWU (Transport & General)	2,070,000	330,000	16%	39	0(6)	600	6(96)	85	6(14)
USDAW (Shop, Distributive, Allied)	462,000	281,000	63%	16	3(10)	162	13(102)	38	8(24)
TOTALS	6,022,000	2,265,000	38%	316	40 (150)	1,636	90 (640)	418	66 (174)

TRADE UNION DEALS:
BROTHERS
SELLING OUT THE
SISTERS?

It is probably an act of reification to talk of trade union strategies in relation to new technology being introduced in the workplace. Despite deepening fears in the labour movement about present levels of unemployment, fears which are not eased by the pundits' talk of a leisure society, trade unions appear hardly in much state to be developing out of their predominantly defensive role into one of challenging power relations in waged work. Caught between the need to attempt a salvaging operation on the U.K. economy (and so the talk of trade unions welcoming technological innovation) and the liklihood of ensuing job loss (and so the talk of a shorter working week) it is not surprising that the rhetoric often sounds muddled and the action seems minimal. Pessimism needs to be put on one side if any attempt at analysing how women's relation to waged work raises crucial questions for trade unions is to be made. Without this suspension of defeat we would be left wringing our hands and no nearer confronting the near obliviousness which the trade union movement exhibits towards sexual divisions, or, at times, even the presence of women in its ranks ("the trade unionist and his wife").

For the clerical unions with a majority of female members, unions which are in the front line as far as new technology and/or erasing jobs are concerned, this invisibility may seem unbelievable. Apart from public statements about women's jobs being the first to go as they are the most routine and therefore the most open to automation, little is said or done. But to understand this we have to look closer at what that white collar trade unionism consists of, and at the same time try to connect this to what possibilities are opened up (or closed down) for women, with new systems of working in the office. I will discuss the Civil and Public Services Assoication (CPSA) and APEX as two unions I have had some contact with in the context of introducing or expanding computerisation, and hope to raise some productive criticisms.

A starting point is to look at what a trade union can bargain over when management proposes to introduce computerisation into the office: health and safety controls - for example a restriction on the length of time spent at one stretch in front of a terminal; extra payment for using computers either in the form of a once-off payment or an upgrading; productivity bargaining so that any increase in productivity of the workforce is reflected in members' wage packets; status quo agreements so that the new system does not lead to redundancies, and, at a more sophisticated level, there is no de-skilling of workers using the system. A myriad of difficulties are raised by these negotiating points, not least of which is the fact that any management decision to develop new technology is going to be taken on the basis of its capacity to up productivity. 'Increasing efficiency' can be easily translated into cutting overheads i.e. cutting jobs. Union strength can be measured by how far it is capable of at best improving conditions of work for its members, at worst, preventing a deterioration.

But if we look at the position women hold both in the office hierarchy and in relation to the union organisation, these questions broaden out. For instance, given women occupy the low-skill, low-status jobs, negotiating to preserve the status quo, the existing hierarchies, can be cementing them even more firmly to routine and repetitive work. In the case of the Post Office (now British Telecom) the CPSA was able to negotiate for telephone billing clerks an agreement that the new system would be designed so as to preserve the type of work previously done by clerical assistant and clerical officer grades. This meant constructing a hierarchy of access to the computer programme, so that the pass keys issued to Clerical Assistants allow them to

do routine in-putting, whereas keys for Clerical Officers allow them also to access certain kinds of clerical information. Information which includes data on the monitoring of workforce productivity is only available to manager-ial levels. It could be argued that this rigidification of existing work practice accentuates the barriers to developing knowledge and control over their work for the lower, predominantly female, grades.

A further complicating factor in this situation is raised by the apparently co-incidental introduction of flexi-time. Leaving aside the discussion of how far flexi-time can operate to develop a highly time conscious workforce, clocking in and out for perhaps the first time, and vastly increasing productivity in a process invisible to the workers, there remains the potential impli-cations in relation to how future computerisation is designed. Women workers in particular were delighted with flexi-time - they felt it was the first time the union had actually done something for them, by steamrollering management into accepting it. The reasons they gave for enjoying flexible hours were, somewhat inevitably, the space it allowed them to fit their domestic committ-ments in with waged work (the men tended to say "oh, it's great, you can go out in the week and not have to get up early the next day with your hangover"). This kind of control in their working lives could well precipitate a relinquish-ing of other types of control in the work situation. One of management's arguments against flexi-time was that they needed to know who would be in work and at what time, as a problem may arise which could only be solved by the knowledge in a particular individual's head. The more systems which can be developed pushing in the direction of an interchangeable workforce (anyone can be slotted in at any time) the smoother the overall work flow would be. Obviously this 'interchangeability' would diminish the workers' particular relation to their own work and tend to routinise and/or intensify it. This could possibly be something women were willing to 'trade-off' in exchange for a greater freedom to control life outside work.

A significant finding of some research done by Juliet Lazenby on the infamous example of word processors in Bradford Metropolitan Council (at the time of introduction they cut the workforce by half) points to another twist in the contradictions embedded in women's relation to waged work. Juliet found to her surprise, when talking to the word processor operators, that they really liked the new system. Partly they had managed to salvage some of the social side of their working environment by having the word processors grouped in circles.

Partly they expressed enthusiasm for the fact that they were no longer continually bothered by men coming to them and asking for changes in the work they were typing. Having the work fed through the terminal is often described as one of the alienating aspects of word processing work, i.e. diminishing the social contact between author and typist. To the women at Bradford , this mechanisation relieved them of a major source of irritation; autonomy from male demands on their attention, even if at the cost of a speed up in work flow (although Juliet also discovered ways they'd created of getting round this) was something they welcomed.

It is interesting that trade unionists often use the example of their female members welcoming "these new toys" as proof of their distance from a basic trade union understanding and their vulnerability to management white-wash. It's important to look below the surface of these expressions of positive attitudes to discover exactly why women might accept certain kinds of new technology, too readily, according to their trade union representatives.

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In Commerce office practices are being made more cost-effective by microelectronics. In some cases, this means modifying existing de-vices....but in most it means a reorganisation which increases office productivity. For example word processing - automatic pre-paration of letters and documents has increased typing output by up to 300 percent, while improving the typists' job satisfaction and working conditions. (!)
From 'Microelectronics - The New Technology. Dept. of Industry 1978

But then reflecting on women's dissatisfaction with male demands, either at work or in the home, is not something which comes easily to male trade unionists. Looking back over some notes on an APEX school for new technology representatives which I attended last year, I came across my rather sympathetic assessment of the problems in the nearly-always-male representative's kind of trade unionism:

> "The question of whether to fight redundancies and how to broaden the struggle around the new technology to include challenging management's right to manage, is closely linked to the question of methods of organisation. It seems more than a co-incidence that emphasizing the necessity for 'sharp' negotiators goes together with a lack of optimism about struggle involving the membership. And it's easy to see how a representative could begin to trust his/her assessment of the situation and restrict the response to winning a better deal <u>for</u> the members. As Alan said: 'You need good leaders, the membership take from their leaders.' I don't doubt Alan's committment to bettering the conditions of work for the workforce but I do see him both enjoying the control he exercises through the fact that he is a skilled, intelligent fighter, and being blind to what is problematic in his relationship to his members. This relationship revolves round their passivity and this can serve to reinforce an acceptance of power structures operating through the work process. It certainly isn't calculated to precipitate a militance in the face of managerial attack."

A somewhat less sympathetic account would have some strong things to say about the machismo and sexism of trade union representatives, who like another APEX representative say such things as: 'People say they're not going to use a system unless there's something in it for me. These are all men, women don't really bother unless <u>you</u> say there's something in it for you. And then they rely on you - they say "ooh what are you going to get for us?"'. When I questioned this representative about women workers being in the lower grades, he said: 'They're not ambitious. They're doing it to augment their husband's pay. Once things get better - their husband's pay goes up - they'll leave work, they won't resist. It's not that the company has a policy of oppressing women, it's women not wanting higher grade work.'

What I think is significant about these APEX representatives is that they are working in a manufacturing environment. Despite the work being non-manual, the greatest ethos is attached to those workers who are nearest the shop floor and who's job depends on them engaging in often aggressive arguments with manual workers and foremen. Or else status is granted to the usually male workers who deal directly with the customer, and who often have to cope with an irate customer who hasn't received their order on time. When I asked these male workers, in an engineering factory in West London, if they considered women could do their jobs, they all pointed to the pressure and aggression involved and suggested it would be a rare woman who could cope with it. All the women, working in other jobs, whom I asked the same question to, said if a woman wanted to do the job she could.

> "Near Asaka in Japan, 300 families live in a 'wired city' - a government financed experiment. They shop by closed circuit TV and pay for their purchases by electronic fund transfer. Their accounts for gas, electricity, etc are settled directly between the bank and the utility. They have access to a video tape library for films and TV programmes. Their children are educated by computer-aided instructor...and so on."
> From University of Bradford Newsheet. Autumn 1980.

This links in a very direct way to the trade unionism in the plant. Militancy was seen by both trade union representatives and these male workers as equivalent to fighting for better pay, winning increases off management when new computerisation was brought in. Women were counted, at worst, as pushovers for management, at best, grateful for the men's vanguard activities.

Given this scenario, it seems important to question how much the failure of trade unions to challenge sexual divisions in the workplace can either be traced to weak trade unionism, or simply an under-representation of women in the trade union structure. Certainly both if women are to keep their jobs, and ghettoes of low-paid, low-skill work are to be dismantled, trade unions need to begin to move away from an area of struggle based solely on sharp, stroppy negotiators succeeding in preventing a deterioration of working conditions, or else winning extra payment for the use of new technology.

Eileen Phillips

Are Computers Feminist?

The question 'Are computers feminist?' was posed at one of the London based Women and Computing Group's open meetings held in August 1981.

It stimulated a particularly interesting discussion because of the arguments of the women who took part – some from within the industry, others with no experience or knowledge of computers at all – underlined what looks like becoming a crucial dilemma for the Women's Liberation Movement.

This dilemma turns on resolving mutually exclusive positions on the appropriate response to the development and use of technology.

Some feminists argue the WLM could and should benefit from the burgeoning of information technology and its increasing availability and comparative cheapness.

Computer systems could, they argue, be devised to automate mundane tasks at women's centres like answering routine queries or addressing letters and labels.

More ambitiously, they could be used to set up a central information bank to serve women's centres across the country which could give easy access to current women's action groups and the progress they're making, or to generally useful data on available jobs, training programmes, banks with good loan policies, and so on.

The painstaking and inevitably arduous job of unearthing and collating the facts about women's lives down the centuries could be speeded up dramatically using inexpensive and already available microcomputer systems connected to the data base of a much larger computer miles away.

Feminists who envisage systems like these are actively urging women to demystify the jargon surrounding the whole computer industry, to storm the technological barricades and seize what they need for their own ends.

At the other end of the ideological divide, however, some feminists are deeply concerned that technology should not be seen as a neutral means whereby society (woman) achieves its (her) goals.

They argue that women must not forget that the range and nature of a society's technology is a reflection of the dominant socio-economic system. And in the Western culture that means that it is a process guided by the values of the various patriarchies and one which owes its very existence to the requirements of the military-industrial complex. At its furthest development, their argument challenges the whole nature of technology and the societies that spawned it, asking the final question: can feminists use technology as it stands at all, or does using it involve fatal compromise and collusion with the forces of patriarchy?

None of the women at that meeting back in August had any answers; it was enough that they registered anxiety about issues like job displacement, the gross exploitation of women workers in the Far East who produce the silicon chips for computers, and the deskilling of jobs generally by machines like word processors.

The WLM will have to open up this debate and tackle it without fear especially with media events like the Government-sponsored Information Technology Year (known as IT 82) bringing only the received wisdom of the Establishment to the woman in the street.

We will have to decide, and very soon, whether we are for IT or agin IT; there is no middle route.

Technology and our attitude to its future development precludes the usual shades of grey in both argument and resulting action because it can be argued to be the clearest, most direct message from men about the state of a world they have created almost unaided.

The most important question then is : can women really change its nature by being more involved, more informed or are they deluding themselves about the nature of the beast in assuming it will or can admit of challenge and change?

Liz Else.
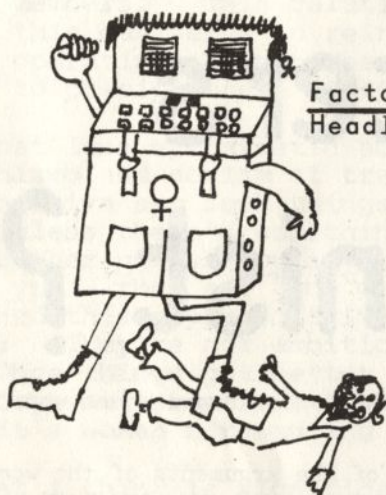
Factory's robot kills a worker
Headline in 'The Guardian' 9th December 1981

"A sexual division of labour, with women doing the production jobs and men the design and management, is one of the foundations of (the micro-electronics) industry. Another is an international division of labour." CSE, Microelectronics, p. 17.

COMMUNITY CONTROL

In December 1981, a meeting was convened by ATEC (Alternatives in Technology and Employment Centre) on Leeds to discuss recent attempts to introduce new technology into the community sector and issues that arise out of this for voluntary organisations and advice centres. The writing out of discretion in supplementary benefits legislation in favour of standardisation must be seen in this context. In fact it is a necessary prerequisite for any fully computerised system.

The program developed by the Citizens Advice Bureau in Cardiff for calculating benefits is now on the market and many local authorities have expressed keen interest. This has enormous implications for welfare work. Applications by Local Authorities for money to purchase the necessary hardware and software compete with applications by welfare agencies for workers at a time of scarce resources. Computers may seem a more attractive proposition than welfare workers to funding bodies - a magical solution to the 'problem' of giving people their benefits.

The computer produces print-outs of entitlements but this in turn generates vast quantities of work for welfare workers. But the computer cannot negotiate with the DHSS and much of welfare benefit work in terms of turning entitlements into hard cash. Also, very few people have welfare problems that can solely be defined in terms of benefit entitlement. A woman who has just left her husband will require sympathetic advice on legal, custody, financial, maintenance and housing matters. How conducive is computerisation to counselling ? How far will welfare problems be redefined in terms of computerisation ?

Locally there has been no automatic consultation with welfare agencies. What arose out of the meeting was much-felt need for education around new technology and the need for workers to get together to devise negotiating strategies. Women with experience and ideas should contact Bradford Advice Centres Group through WYWANT - see Resource List at the back).

domestic technology

Ursula Huws ~ liberator or enslaver?

It is a tradition among Marxists, including many socialist feminists, to assume that new technology is basica--lly a Good Thing. The argument much simplified runs something like this:

Once upon a time, before capit--alism was established, nearly all work (production and services) was done in the home, unwaged. Women were the property of their indiv--idual menfolk by whom they were oppressed and workers were isolated from each other in their homes. Then along came the twin Forces of Progress science and technology. One after an--other, the tasks which had been carr--ied out in the home became socialised Spinning, weaving, brewing, baking, doctoring, making soap and candles, even entertaining, all the tradition--al women's tasks became paid jobs outside the home, creating as they did so a new self-conscious working class which sold its labour for wages.

This process did not happen all a at once, of course, but can be seen as a continual development, lurching for--ward in the fits and starts which ch--aracterise capitalist development, over the last 200 years or so. In that peculiar amalgam of the moral and the 'scientific' which permeates Marx--ist thought, this was seem simult--aneously as both inevitable and a Good Thing. It freed women from the 'drudgery of housework' and released them to become full-time members of the ever-expanding working class on the same basis as men. Thus placed, it was only a matter of time before they were finally liberated by the socialist revolution which would bring about a society in which all domestic labour was socialised and private pr--operty and women's oppression sim--ultaneously evaporated from the face of the earth.

Over the past decade, socialist feminists have challenged the trad--itional conception of science and technology in the workplace, argu--ing that science is not neutral, and that the effects of the introduction of new technology may not improve the quality of work, but by de-skilling workers and instituting new control mechanisms, actually bring about a worsening of working conditions (I am not talking here about the effects of new technology on numbers of jobs, which socialists have always recog--nised as destructive to the working class under capitalism). One area which has been neglected, in this general reappraisal of traditional socialist tenets, has been the effects of new technology on women's position in the home. Surprisingly enough, it still appears to be generally held view among socialists that automation in the home (and, for that matter, other applications of science) is unproblematically a Good Thing, while for many socialist feminists the slogan 'socialisation of domestic labour' still stands, almost an art--icle of faith, for one of our fund--amental aims, and, furthermore, that which distinguishes us from other, non-socialist, feminists.

The purpose of this article is to examine some of the traditional assumptions about technology in the home, and see how they stand up to actual experience, to explore some of the contradictions in housewives' sit--uations, and look at the implications for socialist feminist strategies around new technology. Inevitably, this will be just a sketchy and tent--ative beginning but hopefully it can lead to more substantial work in the future.

Any investigation of the effects of new technology in the home has to start with the incontrovertible fact that the technology which has so far been intr--oduced has failed to liberate women from the role of houseworker and from the reality of many hours of unpaid household labour. Despite much liberal theorising about the 'symmetrical fam--ily' and changes in the boundaries

between 'men's' and 'women's' work in
many homes, housework is still seen as
the woman's responsibility, and such
research as has been done on hours of
labour in the home suggests that, if
anything, the amount of time spent by
the average woman on housework is act-
-ually going up - from around 60 hours
a week in the 1920s to over 70 in the
'70s, and this during a half-century
when there has been an unprecedented
increase in the number and variety of
'labour-saving' appliances, household
chemicals, convenience foods and so on.
What can be the explanation for this
phenomenon ?

It appears that several different
factors make a contribution to this
state of affairs.

The first of these is ideological.
Barbara Ehrenreich and Deidre English
have shown in much of their work the
power of ideological forces in bringing
about the 'manufacture of housework'
as they call it. The education system,
advertising, the advice of 'experts'
in medicine and psychiatry have all
combined to persuade women whose
grandmothers made do with an annual
spring clean that every corner of
their homes must be disinfected week-
-ly or even daily, that clothes should
be washed after each wearing and that
children will suffer extreme depri-
-vation if not given undivided,
continual attention. So well have
they done their job that none of us is
immune from the crippling guilt which
comes from believing we have neglected
a child, or put someone's health at
risk by allowing germs to breed in our
filthy kitchens.

A second factor is a direct con-
-sequence of the privatisation of

domestic life. Each housewife, iso-
-lated in her own home, duplicates the
work of every other housewife, and
requires her own individual washing
machine, fridge, cooker, hoover and
all the other items which make up a
well-equipped home from lemon squ-
-eezers to chip pans, many of which
are probably out of use 95% of the time.
There is thus no economy of scale,
which is often the main saving which
automation brings, Getting out the
food mixer, assembling the bits, dis-
-mantling it, washing it up and putting
it away again takes as much time
whether one is cooking for two or
twenty, and the same applies to
hundreds of other operations which all
women carry out separately.

The third factor, less obvious but
perhaps even more pervasive in its
effects, results from applications of
technology and science elsewhere in the
economy. As areas of paid work are
automated and 'rationalised' to maxi-
-mise profits and efficiency and min-
-imise labour costs, so more and more
unpaid 'consumption work' (as it has be
been labelled by Batya Weinbaum and
Amy Bridges) is foisted onto consumers
- in other words onto women as house-
-wives. Thus, since the beginning of
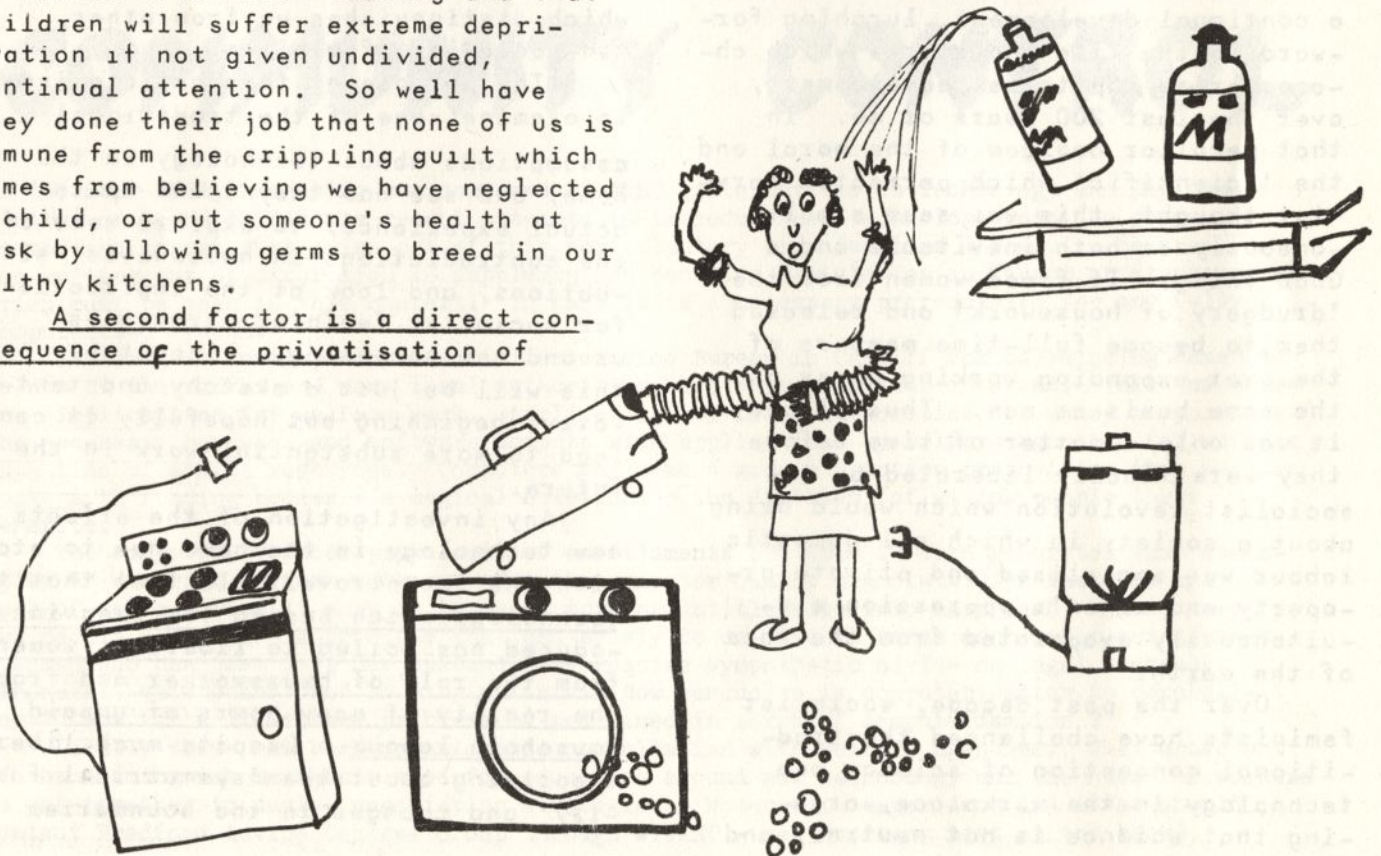
this century, a whole new range of self
service tasks has been added to the tr-
-aditional responsibilities of the hou-
sewife. If someone is ill, it is no
longer the doctor's paid time which is
spent travelling to and from the home,
but the patient's unpaid time, trav-
-elling to and from the clinic and,
once there, waiting. The housewife is
now expected to transport herself to
the nearest supermarket, find the goods
she wants, take them down from the
shelves, transport them to the checkout,
wait, and transport them home - nearly
all tasks which used to be somebody's
paid job. The increased size of sup-
-ermarkets has meant that distances to
travel are much further, which in its
turn has led to increased reliance on
home storage of food e.g. in freezers
(so the retailing industry is even
managing to transfer much of its stor-
-age costs onto the consumer). Many
other examples could be quoted of this
trend towards what Jonathan Gershuny
has called a 'self-service economy'.
What liberal economists like Gershuny
fail to point out is that in a society
in which unpaid work is equated with
women's work, such self-service tasks
will inevitably fall preponderantly
on women, thus reaffirming the low
value placed on women's labour in the
wider economy, in a self-confirming
circle, and perpetuating women's
oppression in the home.

The roots of the fourth factor
which contributed to extra housework
lie in women's role as carer. She
is expected to take responsibility for
the health and safety of the entire
family in and around the home, more
particularly that of children and
aged or handicapped dependents. As
paid workers have discovered, new
technology leads to new hazards, and,
as a result of the scientific and
technological developments of the past
century or so, the home and its imm-
-ediate environment are now a death-
-trap for anyone who is not able-
-bodied, quick-witted and literate.
Perhaps the three most important
'advances' of the twentieth century
- the internal combustion engine,
the many-branched growth of the chemi-
-cal industry, and electricity, are

also the three greatest killers, as
anyone who has had to keep a toddler
safe will appreciate. Outdoors, the
danger from traffic is a constant
nightmare; indoors, poisonous chemi-
-cals are used for everything from
cleaning the lavatory to keeping
mummy tranquillised, while sockets
and trailing leads make every room
potentially lethal. Safety adver-
-tisements on TV and in clinics emph-
-asise, with guilt-provoking details,
that it is mothers who are responsible
when children are mutilated and killed,
and it is actually a legal offence to
leave a child alone. Childcare, thus,
has become a tense, fraught, 24-hour
responsibility and again science and
technology have added to housework with
one hand, while seeming to lighten it
with the other.

In any discussion of the disad-
-vantages of the new technology or s
science there is a danger of appearing
to glorify some pre-technological past
golden age. That danger exists too in
the discussion of housework. It is
important to remember that it's always
been hard and that technology has
brought about advances for women in
terms of reduced physical effort, more
choice, freedom from some types of
diseases etc. But we must always
remember that it's contradictory. Just
as contraceptive technology has given
some freedom of choice to women about
whether or not to have children al-
-though it hasn't brought our liber-
-ation from male domination of our
bodies, and has created new health risks,
so domestic technology has brought some
advantages, while in no way bringing
about our liberation from housework.

In some ways, the effects of tech-
-nology in the home parallel very clos-
-ely the effects of technology in the
factory, as analysed by Harry Braver-
-man and his many followers.
The workers' skills and knowledge
are appropriated, and incorporated
in the design of the machines. Just
as skilled craftspeople, such as lathe
cutters, suddenly find themselves
needing only to know which button to
press on the computer-controlled
machine, so the housewife can now
discard all her expert knowledge about,
for instance, different methods of

washing different types of fabrics, and need simply select the right programme on her automatic washing machine. Similarly, cooking may become a simple matter of following the instructions on the packet - the only skill required is literacy.

Dependence on the 'expert' is also increased. We no longer under-stand what things are made of and how they work. In the workplace, this leads to a polarisation between the few high-status jobs at the top and the mass of unskilled workers at the bottom. In the home, it leads to an increased helplessness and dependence on the part of the housewife. She does not know why the label on the aerosols say 'Caution, do not use near pets or foodstuffs; keep away from children' so has no alternative but to slavishly follow the directions, abandoning any possibility of creative improvisation with the materials to hand. She also spends ever-increas-ing amounts of frustrating time waiting for the 'expert' repair man, gas fitter etc.

The effects of all this are very contradictory. On the one hand, the fact that household tasks have become easier and less specialised means that anyone can do them. This opens up possibilities of men taking a larger share in housework and potentially liberating women. On the other hand, it also gives men a greater confidence to criticize when work does not come up to the standards the advertisers claim for their products. The myster-ies once handed down from one woman to another are now common property, and do not command any respect. For older women in particular, this can lead simply to a feeling of dispensibility and interchangeability with other women which results not in greater lib-eration but in increased economic insecurity. This closely parallels the experience of older skilled industrial workers who feel themselves devalued and made redundant when their jobs become easier as a result of new tech-nology.

There is another sense in which these developments adversely affect women economically. A fully-operat-ing home these days requires a much bigger capital investment than it did in the past, and while most women earn little more than half men's wages, this can mean that a woman who decides to leave her man and set up on her own is plummeted into quite extreme deprivat-ion, going as she does from the standard of living of a 1½-income fam-ily to that of a ½-income one. As society is increasingly reorganised on the basis that every 'normal household is equipped with a telephone, fridge, TV, etc., surviving without these things becomes increasingly intolerable.

What are the implications of all this for socialist feminists ?

In our personal lives, many of us find liveable solutions - we live collect i vely with other women or cheaply on our own, push men into do-ing their share of housework or find sufficiently well-paying jobs to buy our way out of the worst problems (though we often pay a price for this in perpetual exhaustion, or enforced childlessness). When it comes to formulating demands to benefit all women, things become more problematic.

Clearly, it is not enough to take on new technology just in the workplace. We must recognise that it affects every other area of our lives too, and find ways to resist its worst effects. Community organisations might provide part of the answer. Perhaps we should start demanding more home visits from doctors, DHSS off-icials, midwives etc ? or delivery services from supermarkets ? We should definitely continue with campaigns for day-care facilities for children, the aged and the handicapped, and for safer streets and play areas and better-designed housing.

We must also, I believe, clarify what we mean by the socialisation of domestic labour. It is possible to imagine a society in which just about all the things now done by women in the home are automated or carried out as paid services without capitalism hav-ing been dislodged or women achie-ving liberation. We must start def-ining what sort of services we want and insist that they are brought in under our control.

BUGS, FILES & TAPS
New Technology & Civil Liberties
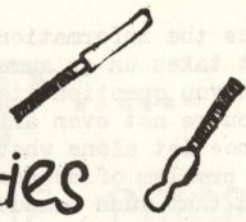
This is where the paranoia creeps in. You know 'they've' got files on you - well you're keeping your eye on them too. But when you sit down and start to list all the pieces of information on you that are kept somewhere - half of them you didn't notice being collected in the first place and the rest you'd forgotten about anyway- you really begin to feel hemmed in. Taking it altogether 'they' know more about you than you do yourself. And we as women are particularly vulnerable in this situation because we are more often in direct relationship with the state.
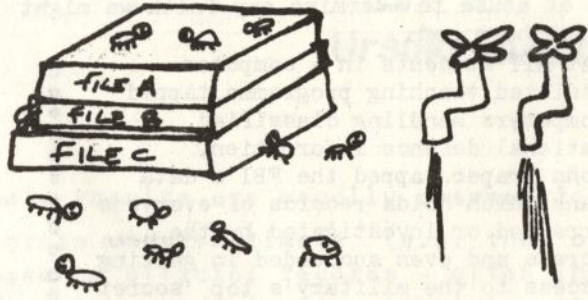
On the simplest level an awareness that information is kept on people can be a strong deterrent from even simple political activity - you won't put that sticker in your car, sign that petition or challenge social security about a benefit. Though they're legal and legitimate ways of voicing our political views and demanding our rights, the fact that the state obviously keeps its eyes on such minor things gives them an aura of 'wrongness'. It's by such small bricks that the blank wall of state security and power is preserved.

But this sort of thing has always gone on, that's how states protect themselves and, supposedly, us. Why should you have anything to fear if you're a good law abiding citizen with no intention of setting up an arms cache in the cellar? And why as women should we be concerned?

Women are particularly at the mercy of the 'information system'. The state benefits we claim are more often vulnerable to being stopped on the basis of 'information gathered'. We are more often in direct contact with the 'information gatherers' - signing children on at school, taking them to the doctors, dealing with social services over elderly or disabled relatives. Sexist stereotyping means that medical information on past problems quickly labels us as 'neurotic' and 'hypocondriac' - external factors such as bad housing, poverty, violent partners etc are conveniently left out

of the records. And with easier access to more information the state is in a stronger position to reinforce traditional roles - they may be more able to trace a missing father and insist on the mother being dependant on him rather than on the state.

With the new developments in technology a much wider range of information can be gathered with greater ease and more secretly; a much greater quantity of information can be stored; and that information can be cross-referenced, transferred and recalled much more easily. Everyday new examples come to light of how this information that is being gathered about increasing numbers of people's legitimate activities is being used to undermine their basic democratic rights.

"It is no business of any official to try to allow the Government to be embarrassed. That is what we are working for. Embarrassment and Security are not really two different things."
Foreign Office official quoted in 'The Politics of Secrecy'
James Michael, NCCL.

Previously most information on individuals or groups, whether legitimately acquired or not, was kept manually - written on cards and reports and stored in filing cabinets. Increasingly this information is being kept in computers. As the size and cost of computer storage plunges it becomes feasable to "stick everything on the computer". So 'data banks' are built up - large stored of computerised information.

In the Lindop Report on data protection they identified the following formidable list of potential computer data sources that should be looked at - Inland Revenue, Dept. of Employment, DHSS, Office of Population Censuses and Surveys, Civil Service Dept., Home Office, NHS, Police and Security Services (including Vehicle Licensing), local government, Post Office, education, employment, credit, banking, insurance, building societies and direct marketing. At the moment there are not many direct computer links between data banks but there are very few legal restraints or safeguards at the moment and in this country we have no statutory right to privacy.

There are various dangers with such data banks. The information in them may simply be incorrect, through collecting error, inputting error etc. Or it may be based on opinion.

The General Household Survey, carried out by the Office of Population, Censuses and Surveys, identifies every person seen by the interviewer according to the interviewer's own estimate of a person's colour.

But once the information is there on the tape or disc it takes on an aura of truth. And anyhow how can you question its truth or its relevance when you're not even allowed to know of its existence let alone what it says. Then there is the problem of access. Although we're reassured that such computerised data has more protection than Fort Knox there are enough examples of abuse to undermine any faith we might otherwise have had.

> "At MIT students in a computer assisted teaching programme tapped computers handling classified national defence information. John Draper tapped the FBI's data bank which holds records of everyone arrested or investigated by the Bureau and even succeeded in getting access to the military's top 'secret' phone system.
> In 1974 a 15 year old English schoolboy, using his school terminal, cracked the secret codes of a timesharing system, gaining access to other users' files and discovering how to change passwords and alter the bills other users would have to pay."
> Quoted in 'Privacy - the Information Gatherers', Patricia Hewitt, NCCL.

It is virtually impossible to really protect such data, so even correct information legitimately collected for one purpose can be obtained and used against you by other parties. This 'unauthorised' access of information becomes ever easier with link-ups of data banks and terminals situated away from the main computer.

Though two separate issues, privacy and freedom of information are inextricably linked. Even with safeguards on what information is collected we need to be able to see and check it. And we need access to official information if we are to exercise basic democratic rights. Sweden has a Freedom of the Press Act (passed in 1809!), America passed a Freedom of Information Act in 1966 and many other European and Scandinavian countries have similar laws but Britain has nothing - except the Official Secrets Act which effectively says that all official information is secret unless specifically designated otherwise. This double-bind was shown up particularly strongly in the Agee/Hosenball case when they were deported for activity prejudicial to the state, but they were never allowed to know what exactly they'd done so their right to defend themselves was a complete farce.

Much of the information kept is collected quite legitimately, though not necessarily with our conscious knowledge. But much of it isn't. While credit agencies, S.S. snoopers etc. may simply go around interviewing neighbours or the milk-man, the state's secret services have developed much more sophisticated methods, and these are now being given additional power by developments in the 'new technology':-
Letter 'opening' - techniques involve everything from carefully unsticking the envelope flap; slitting the edge and resticking with paper pulp, inserting fine tweezers, rolling and extracting the letter; using special sprays that make the envelope temporarily translucent; to the developement of electronic scanners that can detect the carbon used in most inks.
Bugs - micro-circuits enable ever smaller bugging devices to be built with even larger transmitting capacities, though not even entering the building to place the 'bug' is no longer necessary with the use of laser guns that reflect a beam off a window and pick up the conversation going on inside.
Crowd surveillance - ever more powerful telephoto lenses are used to photograph demonstrations etc. The photographs taken can now be electronically scanned to identify individuals. In the USA laser controlled TV cameras are now being used for such surveillance.
Telephone tapping - although with traditional electro-mechanical telephone exchanges the 'taps' still have to be installed by hand, computerised equipment can now record large numbers of conversations simultaneously, automatically log the number called, record only calls to 'significant' numbers and pick out 'key' words and only record those conversations. But with the fully electronic System X exchanges that are now being installed all that will be needed will be small changes in the controlling programmes and then the rest can proceed automatically.

The more sophisticated of these techniques are still very expensive but the prices are effectively coming down all the time. The fact that much of what goes on contravenes national and international laws doesn't seem to bother the 'eavesdroppers' overmuch - they're confident to tell parliament its none of their business, and trainees are given this illegality as a main reason for keeping all knowledge of their work secret from the public.

All this ability to 'spy' on its citizens doesn't automatically create an authoritarian state and we know full well it's possible to have these without the help of high technology. But these technologies make creating and maintaining such a state much easier, and even possible behind a thick veneer of democracy. We won't need a military coup to make Britain into a repressive dictatorship, just plenty of little steps limiting our access to information, to privacy to freedom of action.

THE MENWITH THE BIG EARS AND THE ENORMOUS NOSES

Lynette Willoughby

CHIPS ON THE CHEAP......
SOUTH EAST ASIAN WOMEN PAY THE PRICE

This article is an edited version of
a paper originally written for the
Yorkshire Regional Women's conference
on Women's Oppression and Imperialism
held in Leeds on October IIth, 1980.

Ursula Huws

THE CONTEXT

In the post-war period, up to the mid-
60's, capitalism, based in the industrial-
ised countries, found its supply of cheap
disposable 'reserve' labour (discounting,
for a moment, the permanent 'reserve'
formed by indigenous women) by importing
it - in Britain by encouraging immigra-
tion from the ex-colonies, and in other
countries by means of 'guest workers'
who weren't offered permanent settlement.
(e.g. North Africans in France, Turks in
Germany, South Koreans in Japan etc.)
Since the mid-60's, a new trend has em-
erged: instead of bringing the workers
to the production process, the production
process is taken to the workers. Multi-
national companies have been able to
steadily increase their profitability,
at a time when their 'home' states have
been in economic crisis, by transferring
their production to countries where they
do not have to pay the 'price' demanded
by the organised working classes of the
industrialised countries - in terms of
physical protection, minimal job security,
pollution and planning controls, social
benefits etc. as well as wages.

Unemployment may be high, and rising, in
the Western industrialised countries, but
the numbers of unemployed pale into
insignificance when set beside those in
the third world. In 1975, the ILO (Inter-
national Labour Organisation) made the
first systematic attempt to estimate the
'labour market' in the developing count-
ries.

Their results are usually assumed to be
a gross under-estimate (e.g. they are
based on official records - often in-
adequate - and, in many countries only
on men over 21) but they concluded that
there were 33,000,000 completely complet-
ly unemployed and 250,000,000 under-
employed, a total which is <u>three and a
half times</u> the <u>entire</u> workforce employed
in manufacturing industry in all the
industrialised countries put together.
A high proportion of these people are
literally destitute, displaced from the
land they have traditionally eked a sub-
sistence from by the penetration of agri-
business into farming and driven to the
slums and shanty-towns of the cities to
seek work. With a 'reserve' like this
to draw from, the multinationals can get
away with paying wages which are actually
below subsistence level and find people
willing to work under the most inhuman
conditions.

Free Export Zones

To enable the companies to carry out this
transfer of production to the developing
countries, a new phenomenon has emerged.
the 'free export zone 'also known as 'free
trade zone', 'export processing zone' and
similar names. These zones were first set
up in the mid-60's and by 1975 there were
79 of them, in 39 countries in Asia,
Africa and Latin America, with another
II countries in the process of establish-
ing them. A conservative estimate in the
same year reckoned that at least 725,000
workers were employed in them. By now
there are many more.
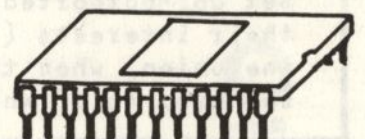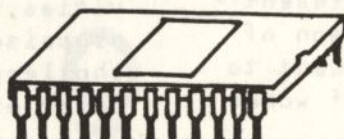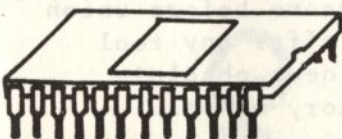
The zones are usually physically separated , with fences and watchtowers, from the surrounding environment; all production in the factories is for export only, and companies are exempted from import and export controls, payment of tax and tariffs. The host country usually provides free factories, ready built with supplies of water, energy, etc. and grants or preferential loans for additional building or services. It also usually supplies housing for workers, exemption from planning regulations, environmental pollution regulations and sometimes from social security or employment protection legislation as well, in addition to various other subsidies (in Chile, they even subsidise wages!). In most countries some of these inducements only last for a limited period, e.g. for three or five years, but there is nothing to prevent the companies moving on after that time, nor is there any control of the repatriation of profits.

*　*　*

"People will adapt nicely to the new systems...if their arms are broken," says one IBM vice-president. "We're in the twisting stage right now."
From 'American Labor' No. 13

*　*　*

The sales literature produced by the governments of these countries to encourage investors lists a bewildering variety of 'selling points', but by far the most important one is cheap, controllable labour. The average cost of labour in Korea is about 50% that of labour in Hong Kong, 30% of that in Japan and roughly the same as that in Taiwan' and another, 'foreign investors are given special protection from unwanted labour disputes'.

In an article reprinted in <u>Isis</u> a group of South Korean women describe the treatment meted out to them when they attempted to organise independently in a textile mill. After electing their own union representative, they were intimidated and finally nailed up into their dormitory. They reta liated by going on hunger strike. After three days, the police were sent in:
'Though guardsmen, police and other company employees beat us with police clubs, trampled us, dragged us by the hair, and pushed us into a truck, we broke windows to try to free ourselves. We crept under the truck to stop it, but we were kicked and lost consciousness. 72 of us were taken to the police station, and over 50 out of those 72 lost consciousness; 14 were taken to hospital. We were beaten and bruised all over. Two did not recover consciousness'.
Despite this incident, and other setbacks, the women continued to fight, even when a puppet union was set up, purportedly to represent their interests (the chairman of the union, when the women went to see him, said 'What sort of women

are you, who prefer labor movement to marriage?' and began to trim his nails). They determined to elect their own union representative. 'On the day when the elections were to be held... gangsters with orders to disrupt and destroy our labor union threw human excrement on us. Not only did they throw it on us, but they wore rubber gloves and rubbed it in our faces, eyes, ears, mouthes and on our clothes... Park Pok Nye (the opposing candidate for the chair of the local union chapter) was giving orders to the gangsters and singling out workers, yelling "Make her eat it!"....
About 70 of us were injured. One worker was thrown through a glass window."
The courage and determination of these women is exceptional, but the attitudes of the employers, the state and the puppet unions is not, and similar tales are emerging from other countries with Free Export Zones. Under such conditions, there are enormous difficulties to be overcome before union organisation can offer any real challenge to the near-absolute power of the factory owners.

Other similar brochures harp on the nimbleness of the fingers of the country's women, an attitude to work which sees it as a family duty and encourages workers to treat their employer 'like a father' and the workers' docility and eagerness to learn. It is made clear that the local state will step in to make sure that workers cannot organise to improve their conditions. In many of the countries strikes are illegal (in South Korea the penalty is 7 years in jail). In fact a list of the countries with Free Export Zones reads rather like a who's who of repressive, right wing regimes.

Overwhelmingly, the workers employed in these factories are young women. In most countries, and most industries, less than 15% of the workforce in the zones is male. And the vast majority of the women are under 25 e.g. in Taiwan, 87% are aged between14 and 24. Asked their reasons for choosing women, the employers cite good vision, dexterity and longer attention-spans than men. Wages are even lower for women than for men, in Singapore, 58% less. Working hours are much longer than in the industrialised countries, A 50 hour week plus overtime is not unusual.

Employers also spend much less on welfare benefits - they are estimated at an average of 20% of total payroll in the free export zones, compared with 85% in the industrialised countries - a negligible amount when you consider how much lower the wages are to start with.

Some idea of the profitability of these conditions for the companies can be gauged from a comparison between costs in the industrialised countries and in the free export zones. A German based company estimated that it cost I2,20 DM to make a pair of shoes in Germany - in Tunisia, the same pair costs 4.I3 DM. Even allowing for extra transport etc. (I.I0 DM for a pair of shoes) this still leaves a colossal margin. Investment levels are low too. Most companies recover the cost of their initial investment in machinery etc. in the first year of a factory's operation.

When quoting statistics about low wages in third world countries one often gets the response 'Ah yes, but then the cost of living's much lower there isn't it.' To scotch this one, just one example: in one factory in Malaysia, the wages are US$ I.80 a day - and a canteen lunch costs US $ 0.80

NEW TECHNOLOGY
How new technology changes the structure of production processes.
New technology has played an important role in facilitating the rapid develop-ment of thirld world factories by multi-nationals. Firstly, it has enabled rapid and easy communication between different parts of a company, making it possible to co-ordinate activities between plants on opposite sides of the world. Secondly, it has drastically reduced the size and weight of many components, making it feas-ible to air-freight them about, rather than use slow, and often bureaucratically cumbersome, traditional means of transport by sea, road or rail. Thirdly, and perhaps most importantly, it has enabled companies to free themselves from their dependence on the skilled workforces of the indust-rialised world.

Automation has made many traditional skills redundant, the 'knowledge' which was traditionally the workers' being in-corporated into the machine programmes, enabling the production process to be broken down into different stages, which can be physically separated from each other, each stage requiring only routine work, usually of a kind that can be learn-ed in a matter of days. A pattern is de-veloping in many manufacturing industries whereby the research and development work (the only stage of the production process requiring highly skilled work, but empl-oying only a tiny number of people) is concentrated in a highly industrialised country, usually at or near the company's head office: once a product has been de-veloped, the various components are man-ufactured separately, often in several different countries (the companies don't like 'putting all their eggs in one basket'

- especially where there are politically unstable regimes) and then assembled in yet another group of countries. Factories in the traditional manufacturing areas are run down and closed, and the workers' skills rendered useless, while the work is resited anywhere in the world where conditions are suitable. The new work-forces each do one, small, repetitive type of work, and are not in a position to understand how it fits in with the rest of the production process, so they learn nothing which would be useful to them in another job, or which could be productive-ly applied in the local economy. This is the 'new international division of labour' – world production for a world market, with a highly segmented, super-exploited workforce, mainly young women.

PRODUCTION OF THE NEW TECHNOLOGY ITSELF

Ironically enough, one of the industries in which this new division of labour can be seen in operation at its starkest level is the production of semiconductors (silicon chips) themselves. Presentations of microprocessor technology in the media make it seem as though chips are produced by magic, or at least by one super-prod-uctive robot in an immaculate laboratory. The reality is very different : the prod-uction process is highly labour intensive, and produced in some of the most appalling working conditions in the world. Research and development for new chips is carried out by well paid, usually male, scientists and engineers in California's much publicised 'Silicon Valley'. The next stage of the process, when circuits are photographically etched onto layers of silicon is also carried out in California, but in very different conditions.

About 90% of the 60,000 workers in the Californian assembly plants are women, roughly half are of Asian or Latin origin, and many are single parents, providing their families' primary support. Wages are poor, and conditions are pressurised and hazardous, but the women are kept in-secure by their managements' constant reminders that the work could be transfer-red to Southeast Asia, which makes it difficult for them to resist. In fact, it is unlikely that this part of the process would be relocated, since it involves the use of extremely expensive testing equip-ment, involving major capital investment.

The silicon slices then have to be cut up, bonded onto circuit boards, sealed in a ceramic coating and tested. The stages are really labour intensive, and are carried out in free export zones in South East Asia. These components can then either be sent to other third world companies to be assembled into calculators, watches, etc. or sent back to the industrialised countries to be in-corporated into bulkier and more sophisticated products such as computers.

Rachel Grossman describes what the conditions are like in the South East Asian factories.
'The visitor often gags on the strong smell of chemicals, and a trial look through a microscope quickly produces dizziness or a headache... Caustic chemicals, all toxic and many sus-pected of being cancer-causing, sit in open containers beside many work-ers, giving off the fumes which so assault the first-time visitor to the plant... workers must dip components into acids and rub them with solvents frequently experience serious burns, dizziness, nausea, sometimes even losing their fingers in accidents. A major cause of accidents is the high speed at which workers are required to carry out their tasks. It will be ten or fifteen years before the car-cinogenic effects of these chemicals begin to show up in the women who work with them now.'
Other hazards are conjunctivitis and loss of eyesight.

In Korea, 95% of the workers develop eyestrain, astigmatism or chronic conjunctivitis within the first year of employment and in Hong Kong, elec-tronics workers are called 'grandma' because, after the age of 25 they almost invariably have to wear glasses. Needless to say, the com-panies usually refuse to pay for glasses, although they require good vision as a condition of employment. On average, workers last about 2 years in these factories, after which they are usually unemployable. Wages are extremely low e.g. in Indonesia, where it is estimated that US$ 26 per month are necessary for survival, the

starting wage is US$ 19.20 a month, reaching US$ 29.25 only after two years employment.

HOW CAPITALISM AND PATRIARCHY INTERACT

It is impossible to understand this extreme exploitation of young women as workers by capital without looking at how it is reinforced by patriarchal attitudes, both in the traditional family structures from which these women come and in the consumption -orientated capitalism into which they are being inserted.

They feel oppressed by the patriarchel culture of the collapsing rural economies in which they have been brought up. Women interviewed by Rachel Grossman in Malaysia said that they had come to work in electronics because they wanted freedom. 'They talk of freedom to go out late at night, to have a boyfriend, to wear blue jeans, high heels and make-up. Implicitly they contrast this with the sheltered, regulated lives they would lead with their families in Malay villages and small towns. They revel in their escape from the watchful eyes of fathers and brothers'.
A worker in Indonesia recounted:
'When I started working at Fairchild, I didn't tell my father. He finally found out after a week when my mother explained why I was leaving so early every morning. At first he was upset but then he saw that I was able to bring home some money for food so he let me work..
I would like to move out and contract a room near the factory but my parents won't let me do this. It's just that my house is so crowded - with nine brothers and sisters there are always people around.'

Managers of the electronics factories are well aware of this motivation, and do everything they can to deflect the desire for freedom into a desire for commodities, promoting as they do so a Western idea of 'femininity'. They give classes in how to apply make-up, and arrange for cosmetics and costume jewellery to be on sale during the lunch-break on pay-days. Competition between workers is encouraged in every possible way -production competitions, to see who can work fastest, sports contests, 'guess whose legs these are' competitions and beauty contests. These are a regular feature of factory life in the free export zones of South East Asia. Grossman describes one such beauty contest in Malaysia:
'This year's beauty contest winner willreceive: first prize, a package tour to Medan (the nearest big city); second prize, a night for two at the Rasa Sayang (the ritziest hotel in Penang). When I asked about the implications of offering a night for two to 18 year old Malay women, primarily from rural Muslim backgrounds, the officer quipped, 'We tell the winner, "This is your prize. Whatever happens nine months from now, we aren't responsible." '
The 'glamerous' Westernised clothes and lifestyle adopted by most young electronics workers often bring them into conflict with their families, but the image of submissiveness and passivity associated with the western sex-object is not incompatible with the submissiveness and passivity of the dutiful daughter expected by these families.

When their usefulness to the companies has come to an end, because they have lost their eyesight, got pregnant or because the company has moved on to somewhere labour is even cheaper, these women find themselves in an impossible situation: ostracised by their families and neighbours in their villages because of their 'immoral' appearance and lifestyles, with no saleable skills, often the only way they can survive is by prostitution, and this too has not stood still as an industry, and now has its own 'international division of labour.

We are familiar, from the spate of books and films about the Vietnam war, with the ways in which prostitutes were exploited by the US Army. Alongside this, with the connivance of local governments, an international tourist industry has grown up in South East Asia, with women as the main attraction.
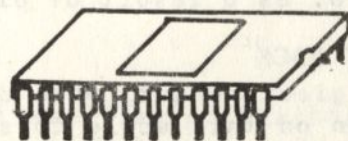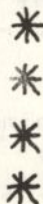
The following quote is from an article by A.Lin Neumann about 'hospitality girls' in the Philippines:

As the nearest rich country, Japan provides much of the new tourist business.....Prostitution has been banned in Japan since 1958, and free access to women has long been offered as an inducement to visit the poorer count -ries of Asia...In 1977, over 200,000 Japanese visitors spent an average of $ 55 a day... Nearly 85% of the Japanese tourists are male, and a healthy number of them double the per capita figure with unreported yen spent on women. Typically, a large Japanese operator will advertise a 'package tour' to the Philippines in co-operation with a large Manila agent. The deal includes everything from shopping to hotels to women, who are either chosen from picture books in Japan or selected in person in one of the large clubs. Sources in the business report that the men on tour pay an average of $60 for one night with a woman. Very little of the figure arrives in the hands of the women. A rough breakdown looks like this: club owner: $15; tour operator $15; local guide $ 10; Japanese guide $10 . The women receive from $4.25 to $5.75 from the owner's share. They report that they often do not even get that much because the club management imposes fines for improper dress, smoking, drinking, tardiness, and other arbitrary infractions.'

A similar situation prevails in South Korea, where again it is Japanese men who are the main clients. In Buddhist Thailand over a million, largely male, tourists pour in each year, mainly from the US,West Germany, Britain and Holland. The statistics for Bangkok are truly staggering. Out of a female workforce of 241,III, 27,000 work in restaurants, bars, and nightclubs; II,500 in special services such as massage parl -ours and an estimated IU0,000 as prostitutes, 70% of whom are reported to have V.D. In other words, 30% of working women have V.D. as a result of prostitution.

WOMEN FIGHT BACK

There is a great danger, when describing exploitation on this scale to see the women as passive, helpless victims, like the starving children on the Oxfam ads.

In fact, many are fighting back with a courage and ingenuity whigh commands our respect and solidarity rather than our pity or cheque-book sympathy.

Just a few examples:
In August 1977, over 3,000 workers in a US-owned electronics factory, Signetics Korea, in Soth Korea, went on hunger strike demanding a 46.8% wage increase. As striking is illegal, they continued working their shifts, taking turns at carrying on a continuous sit-in in the cafeteria where they sang, made speeches and refused to eat. With in a fortnight, they had won a 23% increase.

Also in 1977, the first conference was held in which women grass roots labour organisers from different Asian countries came together. While some of these women were 'professionals with jobs as researchers or educators, the conference in Manila represented a valuable coming together and pooling of knowledge and experience, including as it did representatives from Hong Kong, Indonesia, Japan, Pakistan, the Philippines and Australia.

In 1978, electronics workers in Hong Kong organised a visit to their sisters in the Philippines in another concrete attempt to build up international solidarity.

In South Korea, women students have organised demonstrations at the airport against 'kisaeng' tourism (tourism prostitution).

Feminist groups in Japan, Germany, Holland, and the U.S. have also done valuable research on tourism prostitution and demonstrated, sought publicity and found ways of bringing pressure to bear on the tour operators and advertisers in their own countries.

In the U.S., women's groups have attempted to forge links between workers in the electronics industry and their sisters in South East Asia employed by the same multinationals.

There must be scope for similar work in this country.

☆ ☆ ☆ ☆ ☆ ☆
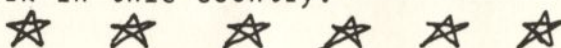
Central contacts: A definitive list of all resources/groups working in this
area proved impossible. Below are a few cental contact
points.

Women & Computing: C/o A Woman's Place, 48 William IV Street, London WC2
01-836 6081. They are compiling a national list of
women working in this area and publish a regular news-
letter.

WYWANT: Us! 46 Exmouth Place, Bradford, West Yorkshire BD3 0NA.
Focuses on work in West Yorkshire and interested in
responses to this edition of Scarlet Women.

Brighton Women and
Science Group: 15 Camelford Street, Brighton. Tel: Brighton 682475

Imperial College
Women & Science
Group: C/o Jill Hanson, Imperial College, Consul Road, London SW7

East Leeds Women's
Workshop: 166 Harehills Lane, Leeds 8, West Yorkshire. Leeds 499031

Women's Employment   C/o NCVO, 26 Bedford Square, London WC1V 2HU
Project Group: (Contact point only for list of local groups - not
necessarily all around new technology)

Women's Right to
Work Committee: C/o 8 Grenville House, New King Street, London SE8

BSSRS: (British Society for Social Responsibility in Science)
9 Poland Street, London W1. 01-437 2728.
Women's Caucus, Women and Health Hazards Group,
Microprocessors Group.

WRRC: 190 Upper Street, London W1. 01-359 5773.
Information service/library. Contacts for women doing
research.

The Network of   Nigel Lee, "118 Workshop", 118 Mansfield Road, Nottingham.
Socialist Resource   Contact point for addresses of local resource centres/
Centres: employment groups working on new technology.

Trades Council   For contact list - Anne Gibson, Secretary to Women's
Women's Sub-   Advisory Committee, TUC, Congress House, Great Russell St,
Committee: London WC1

CSE: (Conference of Socialist Economists)
55 Mount Pleasant, London WC1X 0AE.
Contact point for national CSE working group and local/
regional groups, e.g., Brighton CSE Microprocessor Group.

Any of these contacts may be able to direct you to local groups working around
New Technology

(1)   Trade Union and Community Resource Centre
(2)   Women's Employment/Training Project
(3)   Women's Centre
(4)   Trades Council - a few have sub-groups in Employment/New Technology &
      Regional TUC for regional sub-groups.
(5)   Alternative Bookshop
(6)   Technology Centre
(7)   Sympathetic academics/researchers hiding in universities/polytechnics.
      CSE have a directory but local organisations may have better information
      on what they are like.

48.

RANDOM READING.......

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Huws U (1980) The Impact of New Technology on the Working Lives of Women in West Yorkshire TUCRIC Publications

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Berg M (ed) (1979) Technology and Toil in 19th Century Britain CSE Books

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Green K, Coombes R, Holroyd K (1980) The Effects of Microelectronics on Employment - A Case Study of Tameside

International Division of Labour *

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Sivanandan A (1980) Imperialism in the Silicon Age Race & Class No 8

SE Asia Chronicle/Pacific Research Centre Joint Edition, The Changing Role of S E Asian Women

ISIS No 10 Women and Work 1978/79 ISIS No 13 Tourism & Prostitution (Sisterwrite, 190 Upper St, N1)

Women in Asia Minority Rights Group Report No 45, August 1980.

Free Trade Zones & Industrialisation of Asia Special issue AMPO Quarterly Review Pacific-Asia Resource Centre, PO Box 5250, Tokyo International, Japan.

* Civil Liberties *

Aubrey C, Who's Watching You, Pelican

Hewitt P, Privacy, the Information Gatherers NCCL

Campbell D, Phone Tappers and the Security State. New Statesman Report

Ackroyd C et al, The Technology of Political Control, Pluto Press

* Trade Unions *

Numerous unions have produced own publications. Worth reading your own and others.

TUC(1979) Employment and Technology

TUC Educational Material on New Technology. Gives case studies, role play and bibliog.

European Trade Union Institute (1980) The Implications of Microelectronics on Employment in W. Europe in 1980s

Bratton J, Waddington J (1981) New Technology, WEA Studies for Trade Unionists

Robbins K, Webster F, New Technology, the Trade Union Response in the UK, Oxford Poly

* New Technology in the Office *

Morgal J (1981) Typing our Way to Freedom - is it true that new office technology can liberate women? Feminist Review No 9

Barker J & Downing H (1980) Word Processing in the Office Capital and Class No 10

Women's Voice (1979) Job Massacre at the Office

Forester T, The Typist and the Smart Machine New Society, 11th September 1980

* Health and Safety *

ASTMS (1979) A Guide to Health Hazards of VDUs

Leeds TUCRIC, Special Supplement on The Hazards of VDUs

TUISU Workers' Guide to VDUs, TUISU pub. Southend, Fernwood Road, Newcastle 2.

Mumtaz Kiani Defence Committee, c/o 4th Idea Bookshop, 14 Southgate, Bradford 1,
Tel: Bradford 661352
Shirley Graham Defence Committee, c/o 285, Romford Road, London E.7.
Tel: 01-555-3331
Friends of Aziz Malik, c/o 104 Commercial Street, Batley, West Yorkshire
Tel: Batley 477500
Migrant Action Group & Resident Domestics Campaign (support for Filipino
women), c/o 68 Chalto Street, London NW1. Tel:01-388-0241
Bradford 12 Support Groups: 4th Idea Bookshop (see above for address)
also c/o 54 High Street, Southall, London. Tel:01571-4920

NAWAL EL SADAWI
Author of 'THE HIDDEN FACE OF
EVE', EGYPTIAN FEMINIST has
been imprisoned without trail
in Egypt. We cannot let her
detention go unprotested -
WRITE TO THE EGYPTIAN GOVERN-
MENT DEMANDING HER RELEASE.
Contact Marian 01-223-0408 for
further details.

The Women and El Salvador Group
has been formed with the purpose of
providing information to women in
Britain about the situation in El
Salvador particularly for women.
We are also working to raise dir-
ect aid. For details, speakers
etc. write to: THE WOMEN AND EL
SALVADOR GROUP, c/o CARILA, 29
Islington Part Street, London N1.

Revolutionary and Radical Feminist
Newsletter
Subs: 3 issues £1.50 (inc post)
        Overseas £4.00 (inc post)
Cheques/POs payable to:
RRF Newsletter (just initials)
and send to 17 Kensington Tce.,
Leeds 6.

New Women's Group
Women for Communism
Box 33
164-166 Corn Exchange
Hanging Ditch M4 3BD

Irish Women's Support Group,
c/o 1 Elgin Avenue
London W9

Dear Sisters,
We are a group of Irish women who came together in response to an urgent need
for a support service for Irish women who come to England to have an abortion.
Under the Offences Against the Person Act 1891, abortion is considered murder
in Ireland. It is an offence to give information and advice to procure an
abortion. This has been upheld under the new Family Planning Act '79 in
Southern Ireland.
Over 10,000 women come to England every year looking for abortions. They are
often extremely distressed and have no-one to share their crisis with. It is
a lonely and harrowing experience. As Irish women who have had a similar
cultural and religious background, we feel that we are in the best position
to offer support. On a practical level weWould wish to be able to help women
with their daily expenses; e.g. food, transport, telephone calls. We would
also like to make our service known to women who may not know where to look
for help.
Therefore we urgently need money.
In sisterhood,
Peggy Keane, for Irish Women Support Group

Oh for a computerised office

SCARLET WOMEN 14
Women & new Technology
LAY OUT WEEKEND·

Annie Smith 12.12.'81.

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Cynthia Cockburn

Peace activist who argued that gender played an important part in war

Known for her research and activism in the field of gender, war and peace-making, Cynthia Cockburn, who has died aged 85, worked closely with female peace activists in countries experiencing acute conflict.

Her publications included The Space Between Us: Negotiating Gender and National Identities in Conflict (1999), based on research of women's organisations working across ethno-national lines in Northern Ireland, Bosnia-Herzegovina and Israel/Palestine; The Line: Women, Partition and the Gender Order in Cyprus (2004); From Where We Stand: War, Women's Activism and Feminist Analysis (2007); and Antimilitarism: The Political and Gender Dynamics of Peace Movements (2012), mainly featuring peace movements in South Korea, Japan, Spain, and the UK.

Cynthia involved the women she was studying, consulting them on the questions she asked and her interpretation of her findings. She sought to translate her theories about war, violence and peace into concrete campaigning.

Her argument that gender-as-we-know-it plays an important part in perpetuating war has practical implications for movements for demilitarisation, disarmament and peace. She argued that we need to make the shaping and reshaping of much of masculine culture a policy issue, since prevailing masculine traits and types of behaviour often result in domestic, criminal and military violence.

Always eager to learn about the complexities of a situation, she wanted to find out what a feminist anti-militarist and peace position would look like in any given context. For example, in a time of anti-sanctions and antiwar activism in relation to Iraq in the 1990s, Cynthia and the wider Women in Black (WiB) network in London were among the few British-based activists who pointed not only to the terrible effects of economic sanctions on Iraqi society, particularly on women, but also to the effects of Saddam Hussein's atrocities.

Cynthia's feminist peace activism started at the Greenham Common women's peace camp, which she visited between 1981 and 2000. In 1993, she was key to

establishing WiB in London and was instrumental in sustaining it over decades as an organiser and participant in weekly vigils at the statue of Edith Cavell in Trafalgar Square. The political choir Raised Voices was another important part of Cynthia's local political engagement. As well as singing in the choir, she wrote the lyrics to several of the songs in its repertoire.

She was also closely connected to international peace activism through the Women's International League for Peace and Freedom (WILPF) and the global network of WiB, and had recently started to write a history of WiB.

Born in Leicester, Cynthia was the daughter of Constance (nee King), a milliner's assistant before her marriage, and Shirley Ellis, a sewing thread manufacturer. On leaving Malvern girls' college (now Malvern St James school), where she was a boarder, Cynthia found work as a typist at the Home Office and moved in 1953 to London. Her last published book, Looking to London: Stories of War, Migration and Asylum (2017) was a tribute to the city she loved. It tells the story of female refugees who have sought a haven among the capital's Kurdish, Somali, Tamil, Sudanese and Syrian communities.

Her early research interests ranged from local governance

Cockburn pointed out that prevailing masculine traits and types of behaviour often result in domestic, criminal and military violence

to the sexual division of labour. Her publications from this period included The Local State: Management of Cities and People (1977); Machinery of Dominance: Women, Men and Technical Know-How (1990); Brothers: Male Dominance and Technological Change (1991); In the Way of Women: Men's Resistance to Sex Equality in Organizations (1991) and Gender and Technology in the Making (1993).

Cynthia's joint work with Susan Omrod on the microwave oven contributed to the development of gender and technology studies. Designed by men and marketed initially as a state-of-the-art technology for men without wives, the microwave attracted little interest when placed in the "brown goods" – TVs and hi-fis – leisure sections of shops, aimed at men. It flourished only once moved to the "white goods" – washing machines, ovens and fridges – catering for what were seen as women's needs.

Cynthia held several honorary degrees, including a doctorate from the University of Lund (Sweden), a visiting chair in the department of sociology at City, University London, and an honorary chair at the Centre for the Study of Women and Gender at the University of Warwick.

She contributed to the Guardian, Red Pepper, Feminist Review, Open Democracy and Peace News. Photography became an important aspect of her work, and her pictures appear in all her recent books.

By sheer coincidence, I ended up renting a room in Cynthia's house in Kentish Town, north London, in 1994 when starting a PhD on the Egyptian women's rights movement at Soas. Her home, buzzing with a constant flow of visitors from across the globe, was also a venue for organising local vigils and protests. Yet what impressed and inspired me most over the years, as we became close friends, was her profound commitment to social justice and her desire to put her feminist theory and politics into everyday practice.

She did much of the house maintenance herself and was good at carpentry; she built a pigeon loft on the roof. Cynthia loved nature and birdwatching and knew more than 100 birds by song.

When she learned that her cancer was no longer treatable, she sought an assisted death at Dignitas in Switzerland.

She cared deeply about those around her, whether her many friends, or her family. In 1959 she married Charles Cockburn, an architect, and, even after they separated in the 70s and later divorced, they maintained a close friendship.

Cynthia is survived by their daughters, Claudia and Jess, and her granddaughters, Elsa Maria, Josie and Deniel.

Nadje Al-Ali

Cynthia Kay Cockburn, sociologist and peace activist, born 24 July 1934; died 12 September 2019

> **❝ Her work on the microwave oven contributed to the development of gender and technology studies**