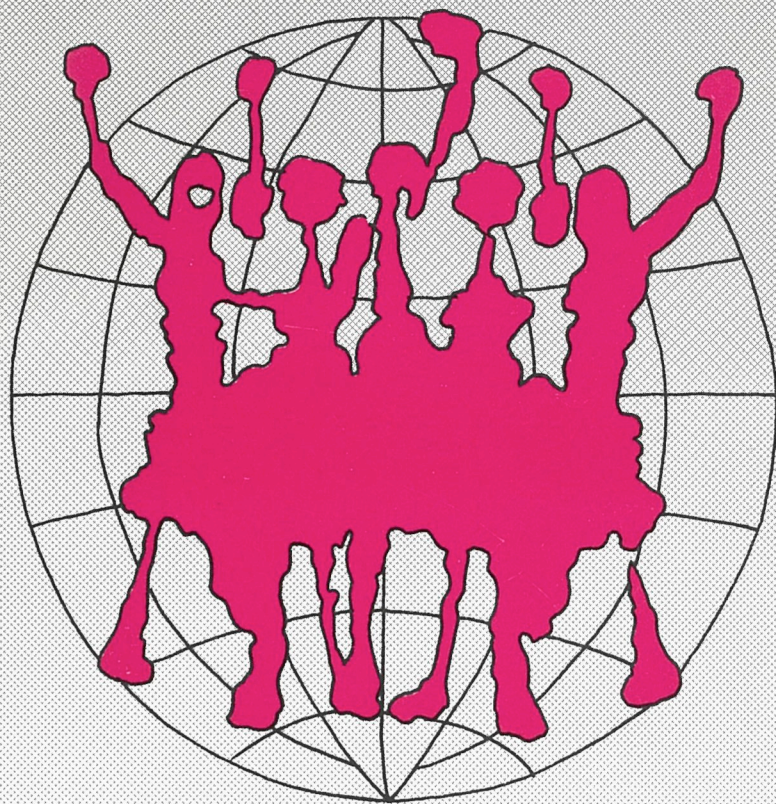


Short Circuit

Women on the global assembly line



**Women on the
global assembly line**

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“We hire girls because they are easier to control.”
Personnel officer from INTEL Malaysia

Without strikes, without unions, without collective bargaining, Malaysian women have regularly shut down factories for days at a time.

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About Us

The Participatory Research Group (PRG) is a non-profit collective of activists, educators and researchers working for radical social change. Since 1976 we have produced a range of analytical and popular materials, including booklets, bibliographies and slide shows. We also produce a bi-annual newsletter, organize workshops and conferences, and have a library and resource centre for public use. We work with labour, native, women’s and community groups in the area of popular and adult education, organizational development, research and evaluation. This is the second booklet in our Short Circuit series. The first, *Short Circuit: Women in the Automated Office* addresses the issues raised by microtechnology and its impact on Canadian women, and outlines important steps for protecting our jobs and our health.



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The *Introduction*

The alarm on your digital watch rings early in the morning. Yawning, you get up and get ready for work. While eating breakfast you listen to the ghetto blaster in the kitchen. On the subway, on the way to work, you idly watch the overhead computers, announcing the news headlines. At the office, you log in at the VDT terminal that replaces the desk and filing cabinet you used to have. By 9:10, you're ready to start inputting invoices for the insurance company you work for. Your high-tech day has begun.

Microelectronic technology has become a part of our everyday lives. Calculators, radios, watches, word processors, and electronic equipment all rely on microtechnology. We've gotten used to digital watches, computerized bank machines, high-tech radio and tape machines.

Have you ever wondered where the new equipment is produced? Why are prices constantly going down on these products? Who owns the companies making enormous profits from microtech? How the technology is affecting working people around the world?

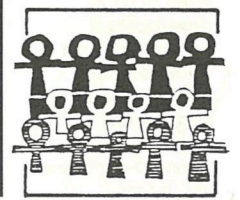
"Revolutionized" isn't too strong a word when you think about the tremendous power that the new technology has unleashed. In fact it's impact is just beginning to be felt. More changes are coming and will soon touch every corner of our lives.

Some of us probably welcome high tech; others of us don't. But we all need information that allows us to make informed decisions about how we can be a part of the microtech revolution. We need to know who is developing the technology, and to what uses it is being put.

Most of us in developed countries don't question how the cheap and remarkable products we enjoy arrive in our stores and homes. But when we look at the ways in which the microtech industry is shrinking the world, the ways in which distances of thousands of miles can disappear at the blink of an eye, knowing what is happening globally becomes more important than ever.

This booklet is about one aspect of the microtech revolution, the story-behind-the-story that is not often heard. Our media rarely reports on the steady and constant work that makes the world go round, particularly when that work is being done in countries half-way around the globe. But one of the first things we learn when we start asking questions about the microtech industry is that the Third World is where a major part of the production work is done. South-East Asia, the Philippines, Hong Kong and other Third World countries occupy a central place in the process.

This booklet is the story of how the First and the Third Worlds are connected



through a global microtech assembly line, and about the women workers who predominate at every stage.



Women in the Global Factory

Most of us in developed countries don't question how the cheap and remarkable products we enjoy arrive in our stores and homes.

The growth of microtech

The new technology on which the industry is based, developed as a result of electronic parts getting ever smaller and more efficient — hence the term *micro-electronic*.

The microelectronic industry brought together two technologies — the circuitry of electronics and the programming of computers. The first step was the “transistor”, developed by Bell laboratories in the U.S. just after the Second World War. While the development of transistors resulted in new military equipment as well as transistor radios, production processes were quite undeveloped. And most importantly, germanium, the material transistors were based on, was relatively scarce.

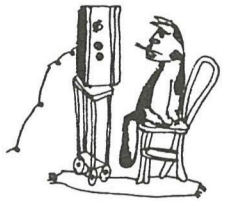
Then, in the 1950's a company called Fairchild developed a new technology (called photolithography — printing with photo negatives). This process enabled hundreds of miniaturized transistors to be placed on a 10-cm wafer of silicon — about the size of the nail on your little finger. The use of silicon, an abundant, cheap material, instead of the rare germanium transformed the whole microtech industry.

By 1971, a company called Intel in the U.S. developed the *microprocessor* chip which could be used for thousands of different applications. This “computer on a chip” had a profound effect on the daily lives of many people around world — especially women.

Microelectronic technology offers the potential for improving conditions in the workplace. Dangerous assembly-line work could be eliminated, office work made more challenging. Unfortunately this has not been the case. The harsh reality of women's work in the global assembly plants is an often overlooked dimension of microtech expansion. For female workers in many Third World countries, this new industry has created jobs for a new female working class — but these women must survive without union protection, job security, health safeguards or an opportunity for promotion. They often work under exploitive and dangerous conditions.

The microelectronic parts and equipment they produce are shipped back to North America and Europe where women factory and office workers are predominantly those who work on the end products of the microtech global assembly line.

The international assembly line begins in developed countries such as Japan, the U.S., Canada and Europe, continues along to the Third World for production and assembly tasks and then returns to North America, Europe and Japan. Women at all points of the line are connected, as microelectronic technology changes and shapes the work environment for everyone. But, thousands of miles from the factories where tiny electronic parts are first assembled under Third World microscopes, we in North America are often unaware of these connections.



Around the world on a global assembly line

1

The first step involves the researching and design of the circuit, which is done by trained scientists and usually takes place in the U.S., Western Europe or Japan. Typically these scientists are white, male and highly paid for their work.

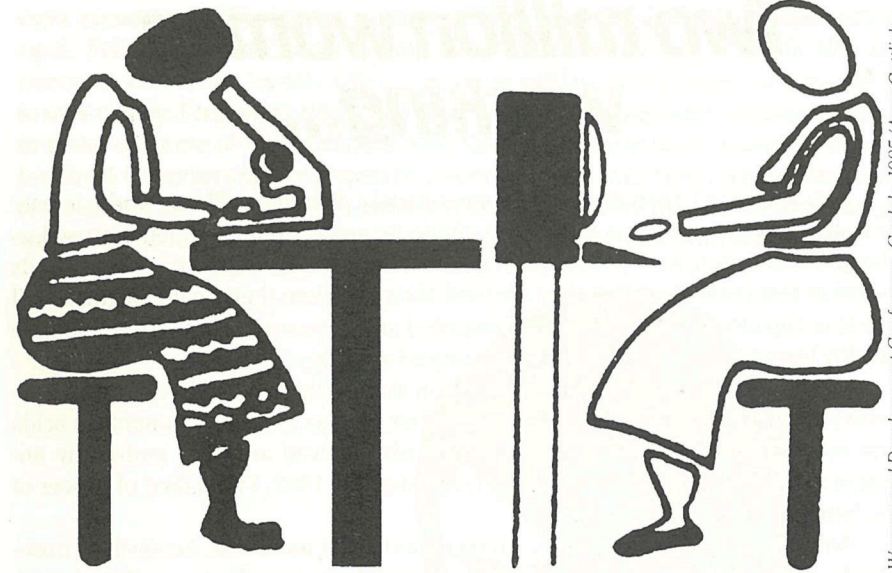
2

In the next stage circuit designs are reduced and photoengraved on silicon wafers and tested for defects. This is done by assembly-line workers, often immigrant women under the supervision of engineers. Recently the fabrication of wafers has increased in Europe where wages are cheaper, workers speak English, and companies enjoy tariff protection. Asian countries like South Korea and Taiwan are also performing this function for U.S. companies. Certain military components requiring microtech have to be built in the home country for security reasons.

3

The third step is highly labour intensive. It is most often carried out in the Third World — Africa, Central and South America, but particularly South-East Asia. The silicon wafers are cut into tiny chips, checked for defects, connected with microscopic wires, and then sealed in ceramic, plastic or metal. This work requires the worker, typically a young Third World woman, to constantly look through a microscope.

This stage has been divided between testing and warehousing in Hong Kong and Singapore, and assembling in Indonesia, South Korea and the Philippines, where standards of living and wages are lower.



Women and Development Conference, Guelph, 1985./Amy Gottlieb

4

Finally, the assembled and enclosed microchip is exported back to the home country at a relatively low cost. Since the value added to the products is determined by the wages paid in the Third World, import duty is very low.

5

The microchip is used in products such as calculators, computers or watches, which are often put together by immigrant women in North American or European factories. It is also being used in office equipment where it is transforming the work that women do in office and service jobs.

These five steps connect all points on the global assembly line. Assembling the microelectronic chip in various stages around the world has resulted in the cheapest possible production methods.

This "computer-on-a-chip" had a profound effect on the daily lives of many people around the world — especially women.

Two million women working...

It is estimated that there are approximately 2 million Third World female industrial workers. Millions more are looking for work. Young women are used as cheap labour during their prime years. Their working lives are short by our standards — five or less years. Too often they are fired abruptly when their health begins to fail due to occupational health hazards. Exhausted and in poor health, these women are quickly becoming a class of young unemployed workers.

Freda Castellano worked for two years in the tin-dip room of Dynetics, a semiconductor firm operating in the Philippines. Her job was to dip components in acids and rub them with solvents. All the chemicals involved are toxic and many are suspected of being cancer causing. On November 22, 1982, Freda died of cancer of the lymph nodes.

After her first year at Dynetics, Freda experienced weakness, headaches, nose-bleeds, colds and sinusitis. The company denied her a transfer to another department. After another month she was hospitalized with a high fever. The doctors diagnosed her condition as skin rash, measles and hemotoma (dark spots on the skin). She soon developed nodules in her groin area. Her overall condition was diagnosed as aplastic anemia.

After release from the hospital, Freda went back to the rural area to stay with her family. Meanwhile, her sister kept trying to get Dynetics to help pay medical expenses. The Dynetics Employees Association (DEA) took up Freda's case. They concluded that Freda's illness had been caused by the working conditions in the tin-dip room. Dynetics would not contribute financial assistance because they were afraid of setting a precedent. The DEA women ended up pooling their own resources to bring Freda back to Manila for further treatment.

Freda's story is not unusual. There are thousands of women around the world working under hazardous and exploitive conditions within the multinational corporate network which the microelectronic industry is part of.

A profile of women working in Third World electronic factories shows that they are usually single and between the ages of 16 — 23 years old. They are generally from rural areas, their parents are peasants or junior civil servants. With a group so young and inexperienced, companies find it easy to influence their habits by propaganda programs. Recruiting personnel from companies often go to the rural areas promising women a taste of Western culture, good working conditions, accomodation, all kinds of benefits and eventual promotion.

When women start work they realize the pay is low, benefits non-existent and the



work monotonous. Production quotas are often imposed and competition encouraged. Failure to reach quota targets often means dismissal. There is also the insecurity of constant lay-offs. Often companies will lay off employees for a few weeks to save money. Employees then must work overtime during heavy production times to make up some of their financial loss. Companies have been known to dismiss hundreds of workers on the pretext of a work shortage, then hire a whole new group of workers a few weeks later. It costs less for them to hire new workers at starting wages than to maintain the old workers at wages that increase with experience.



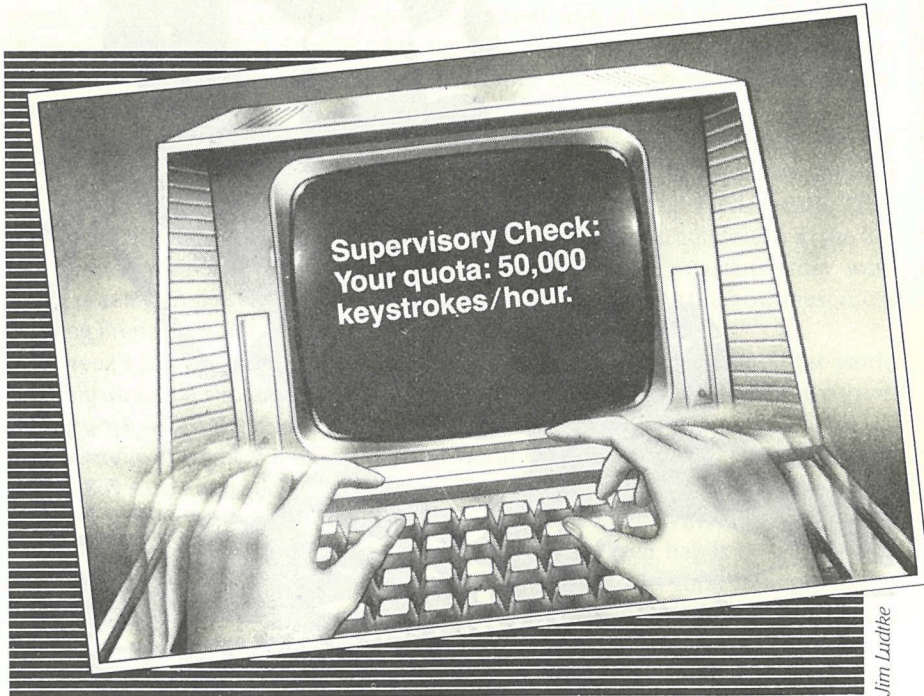
Women and the Global Assembly Line Project

Young women are used as cheap labour during their prime years.

Caution: this job is a health hazard

Julie K. is a typical microtech factory worker. She works in Malaysia for an American-owned company. She wakes at 5:00 to begin breakfast for her family before she sets off to work. Julie has been working for the company for several years, and now at the age of 21, is afraid she can't see very clearly. Her job involves peering through a microscope all day bonding hair-thin gold wires to a silicon chip.¹

Sylvia works at the Intel Philippines Manufacturing Corporation, an electronic equipment-exporting firm. The factory produces spare parts for military equipment such as war planes, micro-computers, missiles, micro-processors. After 8 years as an equipment operator, Sylvia was made a supervisor. There are very few women at this level. In the past few years, she has become involved in setting up a union. She sees



Women working at VDTs report abnormally high levels of miscarriages.

Jim Lucitke

the severe health problems caused by constant exposures to highly poisonous and cancer-causing gas fumes as the priority for union organizing.²

Around the globe women working in the microelectronic industry and on microtech products experience similar health hazards. Women working on video display terminals (VDT) for extended periods of time can seriously damage their eyes, and experience severe neck and back strain. Office workers doing data entry are often victims of high production pressures at low pay with little chance for advancement.

VDTs emit low levels of radiation, which for women who work at them 6-7 hours a day causes many serious health problems, including genetic damage and cancer. While the data isn't conclusive on how much low-level radiation is safe, women working at VDTs report abnormally high levels of miscarriages. Despite the denials of corporate and government health officials, health professionals have proven that there is a causal link between radiation emissions and miscarriages and other health problems women have experienced.

In 1981 the American National Institute for Occupational Health and Safety studied three San Francisco workplaces. They concluded that clerical VDT and data entry work, is extremely stressful. Nearly 20 percent of the women studied reported angina symptoms (extreme chest pains that often feel like heart attacks, but are a symptom of stress). This is double the incidence for other employees who do not work with VDTs. Research into Canadian workplaces would probably reveal similar results. Telephone employees or data entry workers are particularly prone to this type of stress as most of their work is at VDT monitors.

Women in offices are fighting to ensure a safe and healthy workplace by demanding contracts and legislation regulating the number of hours one can work at a video display terminal, ensuring the right of a pregnant woman to transfer to another job with no salary reduction or loss of seniority, and guaranteeing regular safety checks of their VDTs.

Although Canadian women have made gains there are great variations from union to union and in non-unionized plants and businesses where the majority of women work, there is little protection.

Cathy Hall, a directory assistance operator describes how the new system of telephone automation has affected her and her co-workers:

"It's a game — that's how they've tried to introduce it. But it is a game with some dire consequences. Blinding headaches — I don't think there's a day goes by that I don't have a migraine headache, a literally blinding migraine. I have seen them take people out of our offices in wheelchairs, because they can't see to walk. And I have seen people who have just gotten into this trap of 'faster, faster, faster' who just wipe themselves out."³

For women in Third World microtech plants the story is frighteningly similar.



Constant peering into microscopes results in deteriorating eyesight and frequent headaches. Women working in Third World plants experience more extreme health problems because of sweatshop working conditions. Other work involves toxic chemicals such as molten solder, concentrated acids and a variety of lethal solvents. Freda Castellano's story illustrates one woman's experience of working with these chemicals. Serious burns, dizziness and nausea are commonplace for many workers. Most serious of all, the effects of some carcinogens may not be felt for 10 — 15 years.

Extreme temperatures characterize many of the plant environments in Third World countries. In the ceramic section of electronic plants, temperatures are kept very low in order to protect the machines. Workers are not allowed to wear any extra clothing other than a thin uniform and cap, because supervisors do not want any contamination of the processes. As a result, the workers become more susceptible to diseases like tuberculosis and arthritis. On the other hand, the tin-dip rooms are hot and suffocating and the chemical fumes can lead to cancer — as in the case of Freda Castellano.

Finally, with high production quotas and tight employer control, stress is a constant problem. The three shift system is hard on workers' biological cycles. Times of high production pressure can bring on hysterical outbursts. These outbursts are often transmitted to nearby workers who join in the mass hysteria as a form of protest. Sometimes the whole factory floor has had to be closed down.

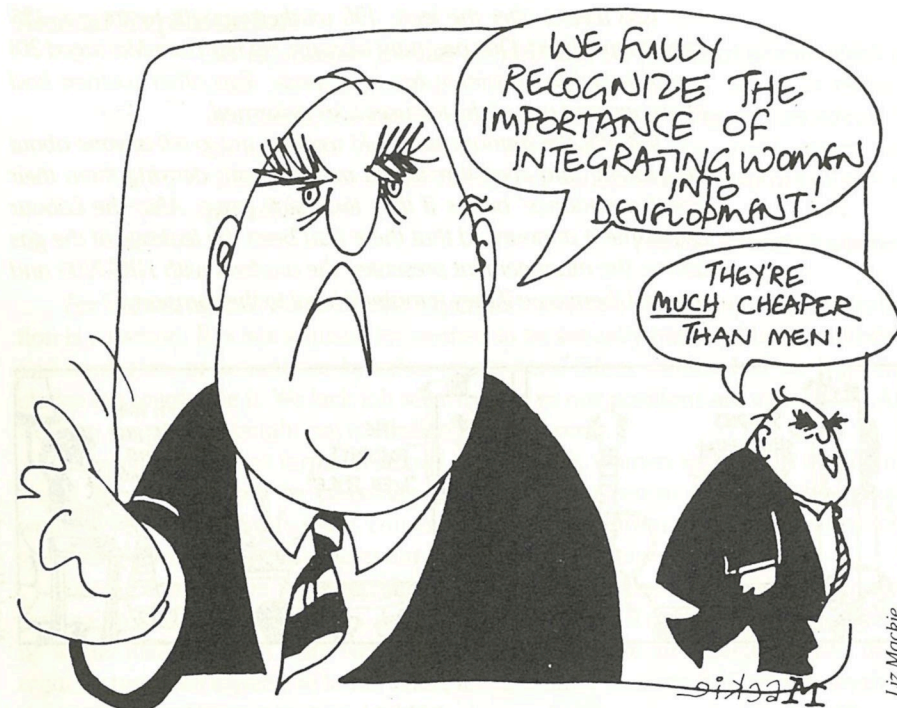
I was quite healthy and charming when I first came to work in this factory of semi-conductors. I spent four years in the patting and cleaning department, working with chemicals like chloroethylene and epoxy resins. When I developed tuberculosis, the doctor told me to take a six month vacation but since I needed the job and the pay, I was back working in the dye fab department after 3 months. For eight hours a day, six days a week, I peered through a microscope. Now I have weak lungs, poor eyesight and my health has given me headaches, dizziness, nausea — thanks to the technology of the electronics industry.⁴

Interview with Filipino microtech worker.

I work in the production line of an electronics factory. As I operate heavy machinery, my work requires great physical strength. I have been pregnant for 6 months and suffer from continuous abdominal pain. My doctor advised me to take some rest. But in this time of great economic need, how can I earn money without working?⁵

Hong Kong microtech worker.

Serious burns, dizziness and nausea are commonplace for many workers.



Liz Mackie

When I first came last year, they paid Rp 390 a day (U.S.\$0.80). After the three month training period they gave me Rp 450 a day. Now I get Rp 490. After the training period they set my quota at 15 trays a day. Now I have to test 25 trays a day. I think there are between 160-180 chips in each tray, so I test around 3500 chips a day.

I get up at 5 a.m. and take the bus to work. The shift starts at 6 a.m. and goes until 2 p.m. They don't let us talk during work ... After 6 months I became sick with red eye (conjunctivitis).⁶

Malaysian microtech worker.

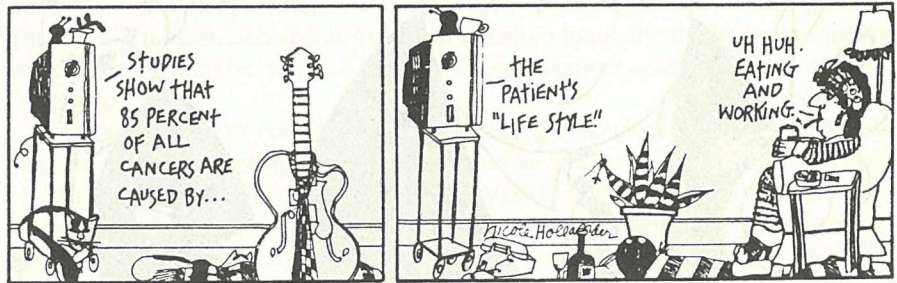
On January 21, 1983, the women in the Japanese owned Mabuchi Industry Ltd. in Hong Kong suddenly experienced violent coughing, nose bleeds and pain in the lungs after inhaling a gas from a newly installed ultra-violet light attached to the printing machine.

Four days later, 4 workers were hospitalized. One worker, Chiu Fung Lan arrived in a semi-conscious state with high fever. She was suffering from toxic poisoning and pneumonia and was in a coma for 4 days.

Most serious of all, the effects of some carcinogens may not be felt for 10-15 years.

Two weeks after the leak, 196 workers sought treatment; 125 were hospitalized. One pregnant woman, Ng Ho Yuen-Mei (aged 20) was advised to terminate her pregnancy. Two other women had abortions and one of the foetuses was deformed.

Initially, the management told workers not to tell anyone about the gassing and even threatened workers with denying them their 'good attendance' bonus if they took sick leave. After the Labour Department announced that there had been the leakage of the gas ozone, the management presented the workers with HK\$1000 and assured them care if they remained loyal to the company."⁷



Nicole Hollander

These women are struggling for survival. Health and safety regulations simply do not exist, and many multinational companies are prepared to exhaust workers' health before implementing safety standards that could cut into their profits. Workers need safe and healthy working environments, and are prepared to struggle to win them.

Unions and other collective actions can force management to implement safe standards. But in many Third World countries, unlike North America, unions are illegal and workers who try to organize are severely punished. In many countries where unions are not actually banned, governments allow corporations to repress worker organizing, effectively making it impossible for workers to act collectively.

Canadian women experience health hazards as a result of working with the products of microelectronic technology. Women working in Third World microtech plants suffer from extreme vision problems, stress, tuberculosis, cancer and arthritis. Women working on VDTs have reported eyestrain, headaches, chronic fatigue, nausea, and other possible effects of radiation. Little is known of the far reaching effects of prolonged exposure to radiation, though there have been cases of birth defects as a result of operating VDTs. Estimates suggest that about a quarter of a million video display terminals are in use across the country, with at least 100,000 Canadians, mainly women, spending up to eight hours a day in front of them.⁸

"My doctor advised me to take some rest. But in this time of great economic need, how can I earn money without working?"

Sexual Exploitation

Sex exploitation is made easy through the appraisal system which is done every 6 months. It is when promotions, salary increases, demotions, transfers to other departments or firing are carried out. If an appraiser happens to "like" you and you won't accept his "invitation" for a date, he can rate you lower than your actual rate of performance.⁹

Filipino microtech worker.

For women around the world the experience of sexual harassment and exploitation is common. It is not unusual for women to be sexually harassed by supervisors and managers, or sometimes by other co-workers. Often women feel we have no choice but to tolerate it. We lack job security and so our positions are vulnerable. As women, we've been taught not to challenge male power.

In addition to overt forms of sexual harassment, women workers in the Third World are manipulated by corporate campaigns that centre on their identity as women. Values of individualism, consumerism and a western form of femininity are specifically promoted by management in order to undermine workers.

Beauty contests are the most blatant example of management manipulation of women's identity. In the contests, a western stereotype of a desirable women is held up as the ideal. Women from various companies compete for cassette players or a night for two at an expensive hotel. There are also other contests designed to develop a sense of competition between workers.

Companies spend a great deal of time and money organizing elaborate social activities and holding traditional feminine courses such as sewing, flower arrangement and cooking. All of these activities are designed to reinforce traditional femininity and passivity.

Public relations slogans reinforce women's role and the paternalistic attitude of the plant. Plants are often represented as "one big happy family" where workers are viewed as children being protected by the father or brother figure of the boss. In the Third World, like in North America, what we learn at home about the "normal" role of women gets brought into our workplaces. As women we learn that we need male protection, and the microtech plants, which tightly control workers, can use this to their advantage.

Sexual Division of Labour

There is a clear and strict sexual division of labour within the microelectronic industry. Women perform the fragmented, repetitive and often dangerous assembly line tasks; men are technicians and supervisors. The segregated workplace is a reality in both the Third World and in North America.

Microtech companies often justify giving women boring assembly line work by



saying that women are naturally suited for these tasks. The following is an excerpt from a brochure promoting the location of multinational plants in "Malaysia: The Solid State for Electronics":

"The manual dexterity of the oriental female is famous the world over. Her hands are small and she works fast with extreme care. Who, therefore could be better qualified by nature and inheritance to contribute to the efficiency of a bench-assembly production line than the oriental girl?"¹⁰

The ad argues that women are "qualified by nature" to do delicate electronic work. Even though this type of work is skilled, as the ad suggests, it is not highly valued. Women's work is systematically de-valued, and the pay differential between men and women "justified" because of this. Wage differences in Third World microtech plants are as common as the wage gap in Canada — the only difference is the degree. In the Philippines, women workers earn the equivalent of \$0.37 for every dollar a man earns, while in Canada women earn, on average, \$0.61.

NS SENTINEL
PENANG

OUR BEAUTY QUEEN MISS MARIA SPEAKS...

Coming from Kuala Lumpur some time in mid-June, 1973, I applied work as an operator in the NS Electronics Sdn. Bhd., Penang. Luckily I was employed and was placed work as a lead bonder.

The working environment makes me feel comfortable and ceful and I am happy with my sent job because my colleagues line leaders are all very frie... understanding.

National Semiconductor Corporation (Malaysia)

Beauty contests are the most blatant example of management manipulation of women's identity.

The global corporation

Multinational corporations are giant corporations that span the globe. The list of subsidiaries of a multinational such as IBM might read like the membership list of the United Nations. Almost all multinational corporations have their home base in the advanced capitalist countries, particularly the United States, but also Canada, Britain, France, Germany, Japan, Italy, Holland and Sweden. The largest of the multinationals have annual sales that are greater than the annual output of all but the richest countries in the world.

There are many reasons why corporations expand internationally. With a greater share of the market, sales and therefore, profits are increased. With an international source of cheap labour and raw and semi-processed materials, multinational corporations find their profits skyrocketing! Governments of Third World countries are also more than willing to give large handouts and tax concessions in exchange for setting up a plant. Together these handouts, low wages, and access to many markets lead multinational corporations to establish operations in many different countries.

U.S. government policies have helped the multinationals spread their control around the globe. Economic and military aid to strategically important Third World countries has increased, and many countries receiving U.S. aid are those with multinational branch plants. Economic aid often comes in the form of North American microelectronics plants being built in the Third World country.

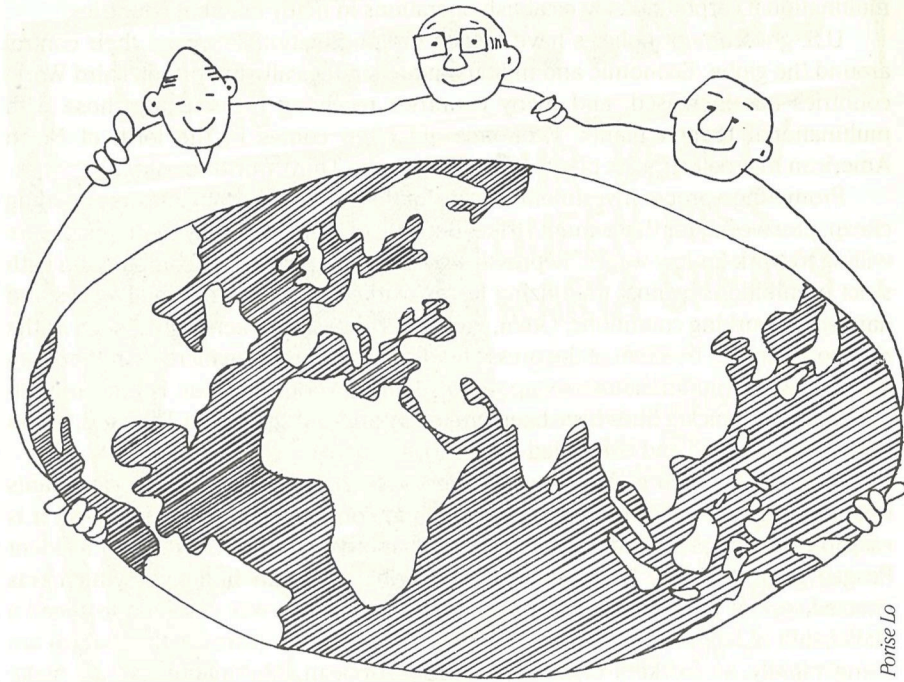
Promoting a proper investment climate for these firms basically means providing cheap, passive labour that cannot strike. Because of high unemployment, people are willing to work for low wages. Repressive government policies, in combination with strict prohibitions against unionizing forces workers to accept minimal wages and dangerous working conditions. Often, violations of basic workers rights, such as the right to assemble, freedom of the press and the right to organize increase rather than decrease when multinationals set up plants in Third World countries. For instance, in the Philippines picket lines have been broken by anti-riot squads. In Thailand, union leaders are selected and controlled by the government.

As a result of their global network, microtech firms can, and will relocate plants from one region to another if profits are falling. For the corporations involved, it is easy to close one plant and open a new one in another country. Soon after President Reagan came to office he proposed the "Caribbean Basin Initiative" which was enacted several years after it was proposed. This initiative was designed to speed a global shift of labour from Taiwan, Hong Kong, and South Korea, where wages are rising rapidly as workers organize, to the Caribbean. Multinationals can make



decisions to uproot and relocate plants without any consideration of the consequences for the workers whose lives get disrupted. Many Third World governments are reluctant or powerless to challenge this corporate disruption.

The global assembly line takes another twist when the final stage — data entry and manipulation — can be performed outside North America. Off-shore data processing facilities are mushrooming in the Caribbean, employing workers to input data for U.S. companies. These women are in front of VDT terminals 8 to 12 hours a day. The pay is poor and health hazards are high. These facilities are usually located within Free Trade Zones, close enough to the U.S. for shipping and data processing to be cheap. Because off-shore data processing has appeared so recently very little research has been done on how it is affecting workers. What does seem clear is that every cost-cutting measure that a company can get away with will be tried. While trends are hard to forecast, off-shore processing will probably grow rapidly.



Multinationals are prepared to exhaust workers' health before implementing safety standards that could cut into their profits.

Porise Lo

Free trade zones

Since 1965, many Third World governments have adopted export oriented policies, a change from earlier import substitution strategies. What this means is that instead of importing most goods from the developed countries, Third World governments now host numerous branch plants, microtech plants among them. They saw this new strategy as a way to provide jobs for the unemployed, transfer new technology and skills, and increase their foreign exchange reserves. This strategy has been highly supported and financially aided by U.S.-dominated international agencies, such as the United Nations Industrial Development Organization, World Bank and the International Monetary Fund.

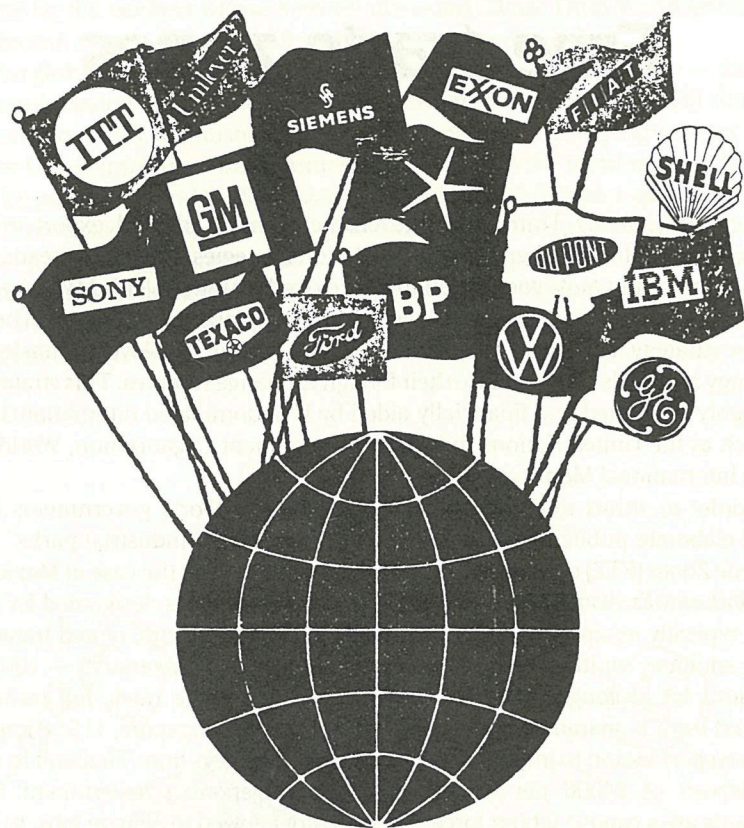
In order to attract multinational companies, Third World governments implemented elaborate public relations campaigns. They build "industrial parks" called *Free Trade Zones* (FTZ) or *Export Processing Zones* (EPZ) or in the case of Mexico, the *Border Industrialization Program* (BIP). These are special areas designated for plants and are typically equipped with modern facilities, power, electricity and transportation. In addition, multinational corporations are offered "sweeteners" — 100% tax exemptions for prolonged periods, liberal foreign exchange rules, full ownership rights and even a guarantee of a passive workforce. In Singapore, U.S. companies were given permission to import immigrant women workers from Thailand in return for a deposit of \$4000 per worker with the Singaporean government. These immigrants are a captive labour force. They are not allowed to change jobs, to settle, and are not entitled to public housing or medical services. They can be deported if they try to organize collectively. And the companies can also leave the FTZ at any time without compensation for the mass layoffs which follow.

To encourage microtech plants to locate in their countries, Third World governments play a directly manipulative role with workers and their unions in order to maintain their promise of a passive labour force. For example, the government of Sri Lanka recently banned all industrial actions such as strikes or protests. The same is true in Pakistan.

But, are the objectives of the Third World governments realized with the Free Trade Zones?

While the corporations do provide jobs to workers in the Third World, the jobs are never permanent. The work they create is soon exported, as the multinational company moves on to a less expensive country or rehires a healthy new staff to replace "older" women with poor eyesight and health. By using government revenue to provide services and tax breaks to the multinationals and by focusing economic

Violations of basic workers rights increase when multinationals set up plants in Third World countries.



Women in the Global Factory

growth away from self-sufficiency and meeting basic needs, microelectronic development reduces the possibility of overcoming chronic unemployment.

In terms of technology, the multinationals transfer only the labour intensive functions, which require minimal technology. Moreover, the technology that is taken into the Third World is often old and outdated. Workers by and large perform manual tasks and remain only semi-skilled.

If Third World governments challenge these policies, the multinational companies can simply threaten to pull out, which would create even more of an economic and social crisis. In 1977, when the Indonesian government tried to nationalize the distribution and servicing of foreign products, IBM threatened to stop operations. The government was forced to exempt IBM from these regulations.

Microelectronic development reduces the possibility of overcoming chronic unemployment.

The Canadian connection

In Canada, women play two major roles in the microelectronic industry. We assemble the products of the global assembly-line — T.V's, computers, military equipment, and consumer items — and we are office workers working on word processors and computers.

The Ottawa-Carlton area is called Silicon Valley North, a reference to the giant sprawl of microtech factories in California's original "Silicon Valley". The tiny components made by Third World women are shipped to multinational plants in Canada for assembly into larger appliances, computers, etc.

The conditions of women employed in the microelectronic factories in Canada are remarkably similar to women working in Third World plants. Employees tend to be immigrant and low-income women who are desperate for work — a large percentage are Asian and South Asian. As in the Third World, these women tend to be young. A minimum wage is paid, and the women receive few, if any, benefits. The plants they work in can be relocated within the space of a few weeks. Between 1970-1978, 15,000 Canadian workers in consumer electronics and telecommunications lost their jobs when plants relocated to cheaper Third World locations. For women who manage to keep their jobs, unionization is extremely difficult.

Very few of the 16,000 microtech workers in the Ottawa-Carlton Silicon Valley are unionized. 11 Companies do everything in their power to stop workers from organizing. As in the Third World, attempting to organize means risking their job. That is a big risk, particularly for women who are the sole family wage earner.

Probably the most visible effect of the microtech industry can be seen in the office. Canadian office workers have experienced tremendous changes in the past few years. As office automation grows, so too does job loss, job deskilling and health problems.

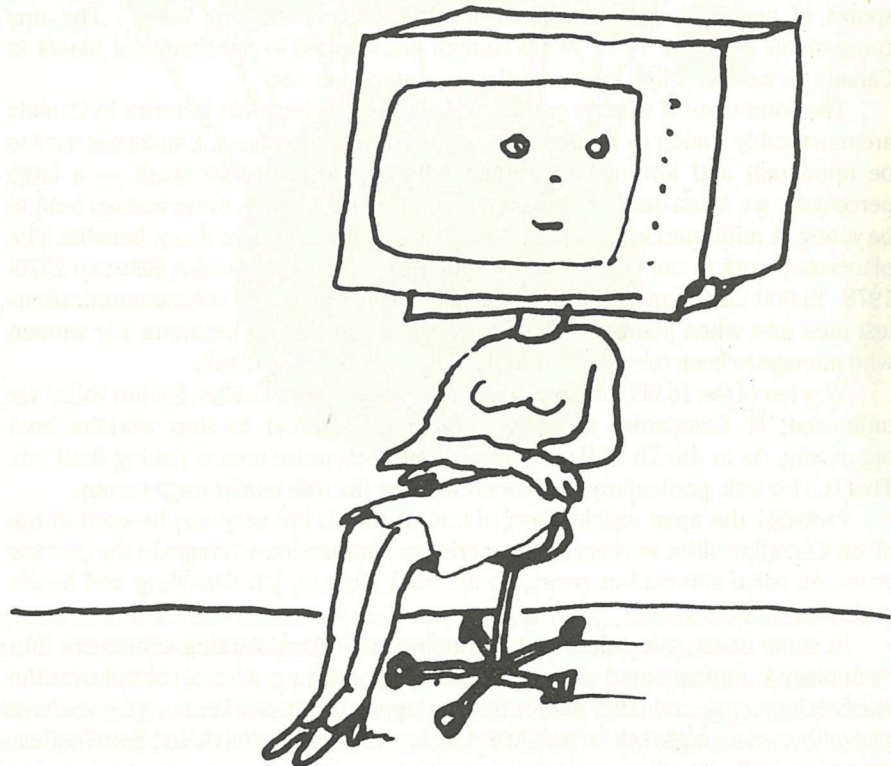
In some cases, microelectronic technology improves working conditions. But technology is implemented unevenly — some people have a lot of control over the microtech process, and other people have it imposed on them. Most employees have a lot to lose when high tech is introduced, unless they can negotiate implementation, retraining, skill upgrading, and other protections.

With microtech in the office, many women office workers have found that their daily routines have been reduced to one or two procedures performed over and over again. This is known as "deskilling". For others, jobs have been totally eliminated, leaving women to look for work in a shrinking, competitive job market, where their former skills are outdated and in low demand. Heather Menzies, author of *Women*



and the Chip, calculates that nearly a million Canadian female clerical workers will be unemployed in 1990.

The number of women working on computers at home is likely to increase as computer network communications becomes less costly. The decentralized office is cheap to operate, because companies don't have to pay rent, equip offices, or maintain a work environment. For women, home working will likely mean lower wages, no benefits and no job protection at all. Perhaps one of the greatest advantages from a company's point of view is that women doing home work, have no possibility of collective action or organizing. A woman could work for years for a company and never meet another co-worker.



Isis, Women and Technology

Very few of the 16,000 microtech workers in the Ottawa-Carlton Silicon Valley are unionized.

Whether we work at an assembly plant, in an office or at home, we are women who are effected by the introduction of microelectronic technology. As we deal with improving our working conditions we also need to think about the women who are at other end of the production line, half-way around the world, some of whom may even work for the same multinational.

Women fight back

Women are struggling to gain control over the microtech process all around the world — despite repressive governments, coercive propaganda techniques and anti-union policies. The forms of women's resistance vary from country to country and from situation to situation. Some fight back informally in an environment where women are not expected to express strong reactions, especially anger or aggressiveness. In other situations women are organizing and giving support to each other. The common thread that ties women microtech workers together is a desire for more control over their worklives.

Women in different parts of the world have many ways of ensuring that the stress of their workplaces doesn't build too high. From cultures with different traditions, women can draw on different ways to cope with stress. For example, Muslim women in Malaysia and Indonesia say prayers five times a day. Their prayer breaks are a legitimate way to take a break from stressful work, and to exhibit religious piety.

In Malaysia, where there is a strong cultural belief in spirit possession, outbreaks can shut down factories for hours or days. These incidents usually begin with one or more women suddenly crying and screaming, running around and struggling fiercely with anyone coming to her aid. The seizure is soon transmitted to nearby workers who join in a mass hysteria. Despite the threat of dismissal, workers can't be punished too severely, since spirit possession is integral to Malaysian culture. These seizures have the effect of slowing down production and relieving stress.



Nicole Hollander

The common thread that ties women microtech workers together is a desire for more control over their worklives.

In an example more familiar to North Americans, a series of strikes took place in Malaysia in 1980. A slow-down and spontaneous strike occurred in September to protest the fact that an increase of \$60 was given to those earning over \$200 monthly while only \$5 was given to those earning below \$200. The strikes were supported by the bus drivers who transport workers to the plant. Management gave in to an increase of \$40 for the workers. The workers in the German owned company RUF, 90% of whom are women, struck for an increase of \$2-3 per day, free transport, subsidized food and reduced working hours. Riot police were called in, groups of more than 5 were prohibited and the union activists were fired. In November, the management gave in to the demands for free transport, although the demand for the pay increase was still unresolved.

On Oct. 21, 1983, some 18,000 workers in the Philippines - 85% of whom were women, went on strike in order to support 355 workers of the Astec Electronics Co. who were demanding an end to union-busting and the reinstatement of laid off workers. Government orders to return to work within 48 hours were defied by the workers, and management gave in the following day.

Similarly, workers in Indonesia, Korea and Mexico have struck to protest wrongful dismissals of union activists, and to demand wage increases. For example, women assembly workers at Control Data Korea were locked in and their leaders beaten by male supervisors on July 16, 1982. The union reports:

"Miss Han (the union president) was knocked down, thrown against the gate and dragged away. They then kicked her, yelling things like, 'Let's burn this bitch with gasoline'... Suk Sook-ja was punched in her chest, while two other men held her and her hair was pulled by a fourth man. She fell to the ground unconscious."²

In Third World countries where governments support multinational corporations at the expense of workers, and where repressive policies make unionizing dangerous, there are few opportunities for workers to organize. It's hard for us in North America to imagine the full extent of the repression that can come down on workers who try to organize. We have choices that we often take for granted. While it is hard enough to try to organize a union in Canada, workers are not usually imprisoned or tortured because of union work.

Union traditions, especially among women workers, have a short history in many Third World countries. The traditional roles of women within various Third World countries have kept them at home or in the fields. And many women who have children find it hard to balance their home, work and childcare responsibilities. Yeyet, a union activist in the Philippines, discusses the demands on her time:



CASA Newsletter

"I experienced and realized how difficult it was to be a worker and at the same time be a wife and a mother. Everyday, I would start to wake up at 4:30 to prepare the breakfast and prepare for the whole day's meals and food for the baby. After work, I would rush home before my mother leaves, to cook, wash, and clean the house. On weekend union meetings, I leave my baby with my mother. I believe that unions should start looking into child-care needs of our women workers. I am a bit lucky to have my mother attending to my child. Not all workers can have their mothers do it for them".

Filipino microtech worker.¹³

Despite all the difficulties that women microelectronic workers are up against, they are attempting to organize. In Third World countries attempting to organize takes an incredible amount of courage. There are many more recent examples of strike actions, protesting and organizing in Third World countries.

All around the world, women are organizing for change; to take control of our working lives, to ensure that we participate fully. From the spirit possession in Malaysia to organized action in North America, we are fighting together to control the global assembly line.

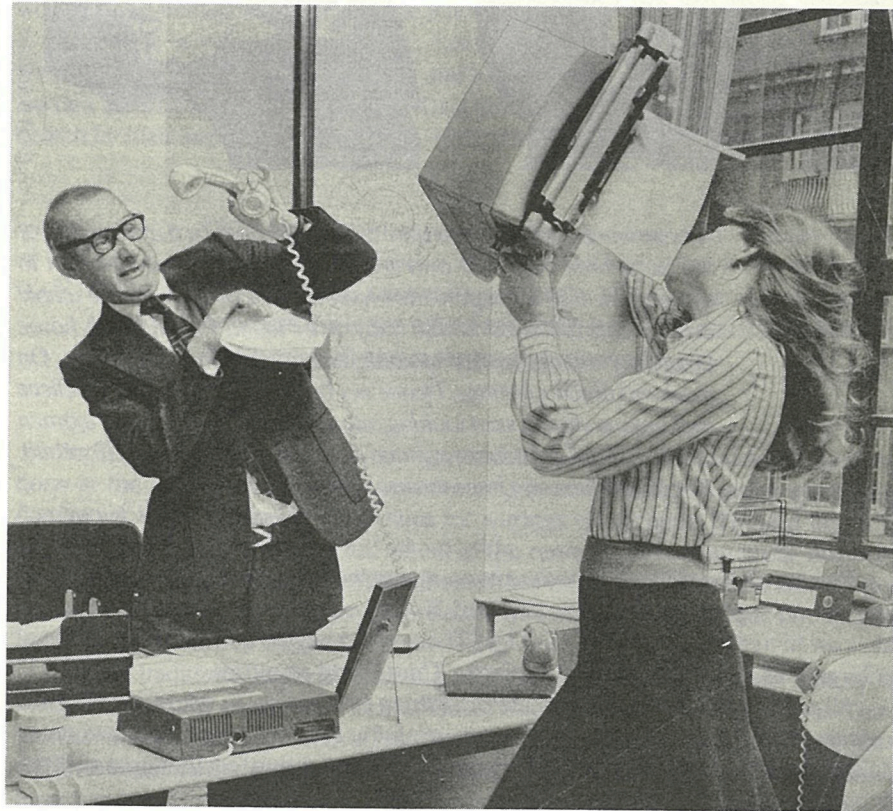
In Malaysia, where there is a strong cultural belief in spirit possession, outbreaks can shut down factories for hours or days.

Canadian Struggles

In Canada and the U.S. women working at VDT terminals have begun to question their working conditions. Sometimes the response is organized, but just as often it is a spontaneous outburst of rage:

"Finished with her day's work at a large corporation in Silicon Valley, the fertile crescent of computer technology, a young woman in a suit and sensible heels poured her last cup of coffee directly into her video display terminal.

"I just wanted to get back", she explained. "During my whole three-week stint as a word processor, they treated me as a dispensable part. Each day I'd work until my eyes felt like embossed roadmaps, but no one cared.



Metro Toronto Library Picture Collection

In Third World countries attempting to organize takes an incredible amount of courage.

"When they were done with me, they just tossed me out". Underneath the smooth operation of the computerized and automated office are rumblings of discontent. Like this temporary employee, word processors, clerks and even computer programmers say the advertised benefits of the Information Age are not being delivered to lower-level office workers."

Even though this incident happened in California's Silicon Valley, it reflects the growing insecurity and anxiety of women working on VDT terminals.

Some Canadian unions have been able to win decent protection for their workers against the harmful effects of technological change; others are still struggling at the bargaining table. But as more and more unions include these demands, they will become more common and easier to win.

In late 1984, library workers in Toronto won some important gains through their 8 week strike: the right to transfer off a VDT not just because of pregnancy, but also for other medical reasons; regular breaks from the terminals (10 minutes every hour and a maximum of 5 hours terminal work per day); and regular safety checks on the terminals. They already had provisions for no layoffs due to technological change, and retraining for other jobs with no loss in pay. In addition management must now give the union detailed information as well as considerable advance notice of technological change, and the union will have input into that change. And their contract also specifies that machine monitoring will not be used as a major factor in evaluating their work. That is quite a victory!

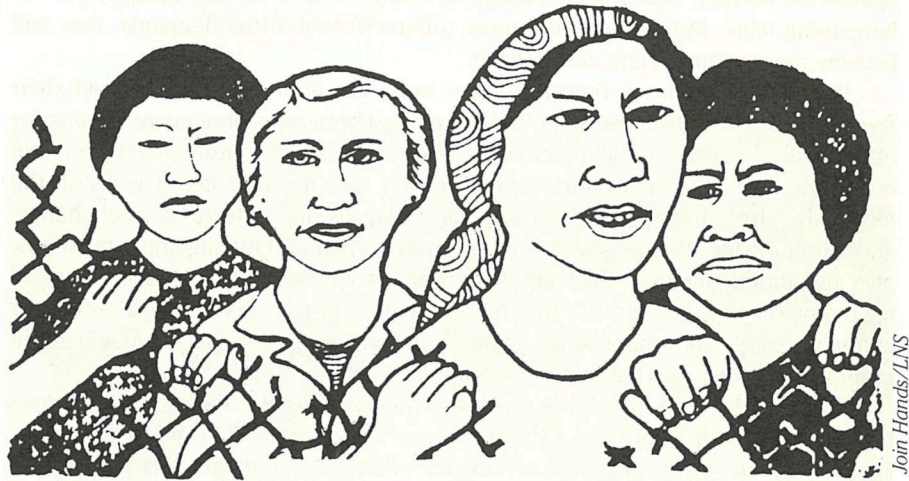
Postal workers, air-line clerks, and many other groups of mainly women workers have made a high priority of fighting for protections from technological change. Despite important gains, we need to remember that the majority of Canadian women are not unionized. Whole sectors where women predominate — in banks, insurance offices, small scale assembly, restaurants, etc — have no organized protection. Important new initiatives are currently underway in the bank and retail trades. These organizing drives need to be continued and extended. Women's involvement in unions is nowhere near their participation in the workforce. Canadian women, just like their sisters in Third World countries, are burdened with heavy responsibilities at home and work, and this limits their involvement. Male domination of unions affects the policies and structures and also limits women's involvement.

But with the hard work of many women in the union movement, the degree and force of women's participation has improved. Women's conferences within different unions and union federations occur with more frequency. Women's issues, from affirmative action to reproductive rights are debated in the unions. And some unions have made a concerted effort to struggle for these demands. Women's voice is being heard more and more.



Strategies for change

"It is in women's interest to unite across national boundaries, to exchange information. Equipped with information women will be in a stronger position to organise a struggle."¹⁵



One of the aims of this booklet is to help us to think internationally. Women microtech workers around the globe have a lot in common — we are all part of the global assembly line and often work for the same bosses. This assembly-line can also be used as a global solidarity network to unite against mass unemployment, health hazards and the oppressive conditions. As Louisa Maria Rivera, a Mexican organizer in the BIP area, said in a meeting about “runaway shops” in Los Angeles, U.S.A:

"Many think all those Mexicans are robbing their jobs. We didn't rob them. Owners of factories decided to come here. Second thing I want to tell you is about the working conditions these companies are giving us. Third, coming to Mexico means hurting communities, disrupting community life. Fourth, I hope you start thinking of

"It is in women's interests to unite across national boundaries."



contacting Mexican workers because we, Mexican workers, are thinking of contacting workers in Dominican Republic, Brazil, Philippines, Hong Kong because we know if we can't organize workers in Mexico, the company will run away to those countries. We need the workers in El Salvador, Brazil, Dominican Republic. You need us too even if we're a poor country... They say knowledge is power, information is power. We can give each other support".

Giving each other support is the bottom line in a strategy for change. We must create a network among the different groups working for and with workers in North America and in the Third World to share information and support each others struggles. Struggle in any part of the world affects all of us. Those in which workers win will encourage us and those in which they lose will hurt us. We cannot directly fight each other's battles, but we must find ways of learning from and supporting one another.



Getting organized

People can become active in the issue of microtechnology in many different ways. Some of us have a lot of interest and time, and some of us have fewer resources with which to get active. It is important to recognize that even the smallest acts of organizing help build a movement for change. There is a role and way to be active for everyone who wants to be.

For people who have become *interested* in the issue of micro-electronic technology and the global assembly line, there are ways to show your support:

Get informed! Read pamphlets, books, articles and leaflets like this one. Discuss the issues with your friends and co-workers. The sharing of knowledge is an important activity.

Establish contact with with organizations/resource groups who can provide you with more information about the global microtech assembly line. Many women's groups are producing newsletters about microtech and labour issues. Third World women's groups can bring a special perspective to discussions of the global assembly line. Many resources and groups are listed at the end of this pamphlet.

For example, you could subscribe to, and reprint articles from:

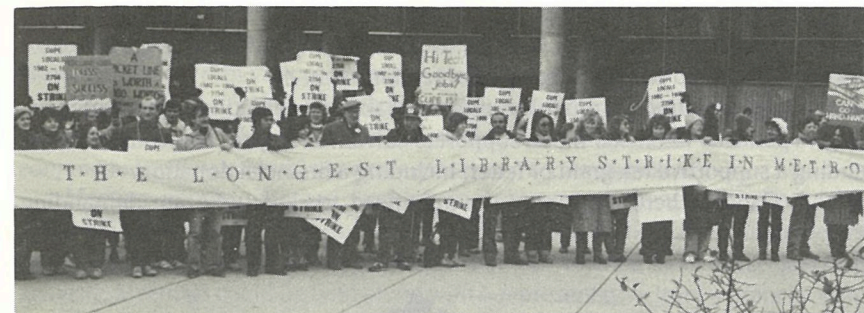
Asian Women Workers Newsletter, CAW
Newsletter
57 Peking Rd., 5/F Kowloon,
Hong Kong

Send letters of support to groups you read about in newsletters. Many times receiving letters of support and encouragement can give a striking or struggling group a shot in the arm. Targetting letters of support to multinational corporations is one way of bringing home corporate responsibility. If workers are striking at a branch plant of a multinational, send them, the corporation, and the state government a letter supporting the workers struggle.

You might want to become more *involved*. For those people with a little more time and energy to spare, there are a variety of ways to be supportive and active.

For example, a woman who worked in a Women's Resource Centre could: post reprints of articles, include notices in the centre's publication; support local actions; offer information and resources to Third World groups.

A union activist could: urge her union to send telegrams of support; make financial donations to workers struggles; distribute information (like this booklet), or other leaflets about microtech; include information in the union newspaper, set up a section on microtech at union book tables or conferences.



Danny Thompson

Metro Toronto Library workers, on strike for eight weeks in 1984, won important tech change protections.

A cultural worker or teacher could: incorporate and integrate information about the global assembly line in her work; use materials and information about the global assembly line in her curriculum.

VDT, word processor, or office workers could: be in touch with groups which are being formed around microtech and support their campaigns; could put her name on mailing lists of groups who produce newsletters; could write an article for her local group about what it's like to work at the end stage of the global microtech assembly line.

A church activist could contact her regional or national organization. Many churches and synagogues have committees that witness their faith through social action. For example, the United Church has a Task Force on Corporate Responsibility. Women can join or write the Task Force, urging them to look at the issue of how multinationals and microtechnology are affecting women around the world.

If your church or synagogue doesn't have a local social justice group, you could approach other members to begin one.

We can use the mainstream media to help make people more aware. For example, by reading the local newspapers we can sometimes find sympathetic journalists who cover issues on women workers. We can write to these journalists to let them know about publications or materials that they can use for their columns, and to encourage them to cover issues that may have been overlooked.

We can also challenge inaccuracies and biases in the media by writing letters to the editor, and to columnists who are insupportive.

Some people have more time and energy and are willing to become *active*. Most people who are actively supporting microtechnology organizing will work with a group, and will be thinking up their own projects and support actions. Some of the activities can include:

Providing information to Third World women, for example, on hazardous products being sold in their countries, or on workplace hazards they face. People in

**"They say
knowledge is
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is power. We can
give each other
support."**

North America have the advantage of access to information which is unavailable in many Third World countries. You could write to Third World women's groups to let them know you would be willing to do research for them.

Encourage your union, women's committee, labour federation or other organization to give political/financial/moral support to current struggles. This could be done by sending a supportive telegram or letter, including a financial donation.

Within Canada there are many non-unionized workers who are demanding



American Friends Service Committee

All of us can be part of a grass roots movement to organize for change; we all have a voice that needs to be heard.

workplace rights and protections. The 1985 Commerce Visa (division of bank workers) strike in Toronto is a recent example. You can learn about current Third World examples from various women's global newsletters.

Organize information on women and microelectronic technology and prepare pamphlets or fact sheets on issues as they come up. This could be done in conjunction with your local women's group or microtech group.

Meeting people who are working in, and struggling against, the microtech assembly line is a powerful way to inspire people to get active. A small but persistent group can search out funding programs that can finance face-to-face meetings of activists. Meetings could be held along with a representative from a branch company in the Third World.

For example, in September 1985 a tour was planned by a small church-based group in Ottawa to bring two microtech workers, one from the Philippines, and one from Mexico to Canada to speak to interested groups.

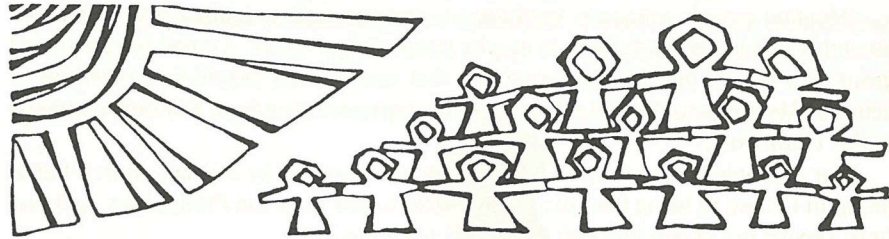
Develop creative and imaginative actions to make your point. We have much to learn from the organizing efforts of activists in other countries. For example, in the Philippines, workers often make papier mache figures for lively and exciting street theatre. Street theatre, participatory actions, and other creative protests are not common in Canada. Even a small group of street actors can create a lot of attention, and draw a good media response. Think creatively! We don't always have to use the same old techniques.

Organize educationals with women workers in your workplace/union/region to start a group that can begin to carry out campaigns and do support work for women in the Third World.

If your workplace is not unionized, you could talk to co-workers about organizing one. The collective power of unions is often the best way for workers to make changes in their own lives. As much as we need to support each other on the global assembly line, we need to organize to ensure that our own working lives are in our control.



A Canadian network of microtech activists



American Friends Service Committee

The Participatory Research Group is involved in the growing Canadian and international network of microtech activists. We believe that an activist network can be an important tool in helping us organize efficiently.

From small study groups organized in different workplaces to activists in large organizations, all of us can be part of a grass roots movement to organize for change. Those of us who work on the final end products of the global assembly line at microcomputers, VDTs and word processors; workers in Canadian branch plants who do final assembly work of the technology; and those of us who, in an uneven way, benefit and suffer from, the effects of microtech have a voice that needs to be heard.

Microtechnology is new, and the ways in which it will affect the lives of Canadian workers is mostly unknown. We've got to start now to build the links, and put in place the structures to help us in the work that lies ahead. This means that we need to start communicating, sharing, and informing each other about the work we're doing, whether it is research, education or organizing.

Please contact us if you are interested and/or active in issues affecting women and the global assembly line. We need to know what you or your group is doing. Through this network, we will be able to help people find contacts and information. This way we can build contacts for people within their own regions, as part of a long-term plan to build a Canadian network of microtech activists.

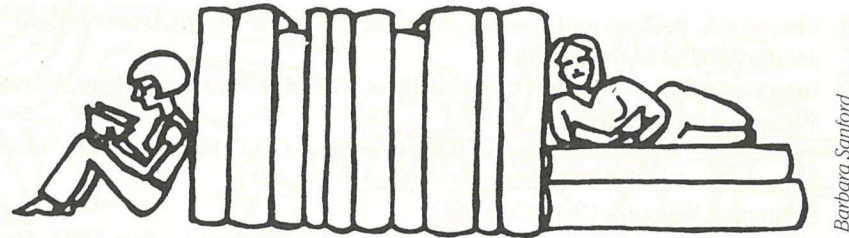


FOOTNOTES

1. Ehrenriech, Barbara and Fuentes, Annette. *Life on the Global Assembly Line*. in January 1981 Ms. magazine.
2. Interviews with women microtech workers, Philippine Women's Center, Manilla, Philippines (unpublished)
3. Siemiatycki, Myer. *The Microchic Battleground* — C.B.C. Radio Program "Ideas", March 25 — April 7 1983. p. 6.
4. Philippine Women's Center, Op. cit.
5. Women Workers in Asia, *Straggling to Survive*, published by CCA-URM, Hong Kon 1981, p. 134.
6. Pacific Research, *Women's Place in the Integrated Circuit* in South-East Asia Chronicle, Vol. 9, No. 5-6 July-October 1978, p. 12.
7. Asian Women Workers Newsletter, 57 Peking Rd. S/F Kowloon-Hong Kong, Vol. 2, No. 1 March 1983, p. 5.
8. Chenier, Nancy Miller. *Reproductive Hazards at Work — Men, Women and the Fertility Gamble*. Ottawa: Canadian Advisory Council on the Status of Women, 1982 p. 27.
9. Philippine Women's Center, Op. cit.
10. Lim, Linda Y.C. *Women Workers in Multinational Corporations: The Case of the Electronics Industry in Malaysia and Singapore*, Michigan Occasional Papers, No. IX, Fall 1978 p. 7 — in Pacific Research Op. cit p. 8
11. Bélanger, Paul. *The New Electronic Canada*, CUPE The Facts, Vol. 5, No. 7, September 1983, p. 36.
12. Rothschild, Mathew. *Women Beat Up at Control Data, Korea*. in Multinational Monitor, September 1982. p. 14.
13. Philippine Women's Center. Op. cit.
14. Fraser, Laura, *Anti-Computer Rebels 'byte' Back*. Globe and Mail, Saturday December 8, 1984.
15. Mitter, Swasti, *Women Working Worldwide*. published by War on Want. London 1983, p. 10.



Resources



Barbara Sanford

Belanger, Mark *The Facts — The New Electronic Canada*, CUPE, Vol. 5, No. 7, September 1983.

An excellent resource booklet for those wanting to research the microtech industry in Canada. This issue takes a critical look at the emerging technologies of microelectronics, computers and videotex and the effects that these new technologies are having on our economic, social and political lives.

Canada Asia Currents, Special Issue, February 1981.

This issue is called *The Electronics Industry: In Canada, Southeast Asia*. The major focus is the Canadian electronics industry, what we produce here and Canada's relationship to Southeast Asian countries. The Korean electronics industry is specifically profiled, but Taiwan, Malaysia and the Philippines are also included.

CCA-URM, *Struggling To Survive Women Workers in Asia*. 1981. CCAURM, 57 Peking Road, 5/F Kowloon, Hong Kong.

This book is divided into sections about different Asian countries and their struggles with multinational corporations. A lot of quotes from women workers are used, making it a more personal study.

Chenier, Nancy Miller, *Reproductive Hazards at Work — Men, Women and the Fertility Gamble*. Ottawa, Canadian Advisory Council on the Status of Women 1982.

This book covers reproductive health hazards in many different types of occupations. For microtech workers this book outlines health hazards from VDT terminals and the electronic industry generally.

Committee for Asian Women, *The Plight of Asian Workers in Electronics*. 1982. CCA — URM, 57 Peking Road, 5/F Kowloon, Hong Kong.

This is a simple, straightforward look at the situation of Asian electronic workers. Many cartoon-type illustrations are used.

Fuentes, Annette and Barbra Ehrenreich *Women in Global Factory*. Institute for New Communications, South-End Press, New York, 1983.

This is an invaluable resource for anyone interested in women working in global microelectronic factories. Quotes from women working in these factories are used throughout. Case studies of many Third World situations are used, giving one a sense of how far reaching the microelectronic industry is.

I.S.I.S. *Women and New Technology*, Via S. Maria dell'Anima 30, Rome or C.P. 50 (Cornavin), 1211 Geneva 2.

This booklet is both theoretical and practical in approach. It consists of articles generally about women and electronics and more specifically about women workers in Malaysia and Mexico. The last section is called Women Taking Control of New Technology. It offers useful information and a resource list.

Nash, June and Maria Patricia Fernandez-Kelly, eds. *Women, Men and the International Division of Labour*. Albany: State University of New York Press, 1983.

This book is made up of a collection of articles — several of which focus on the global microtech industry.

Pacific Research, *Delicate Bonds: The Global Semiconductor Industry*, First Quarter, 1980 — Vol.XI Number 1, Pacific Studies Center, 867 West Dana St. #204, Mountain View, CA. 94041 U.S.A.

This is quite a thorough publication. It contains a detailed history of the semiconductor industry and the multinationals involved.

Philippine Labour Monitor, *European Multinationals in the Philippines*. CBS-803, MCPO, Makati — Metro Manila, Philippines.

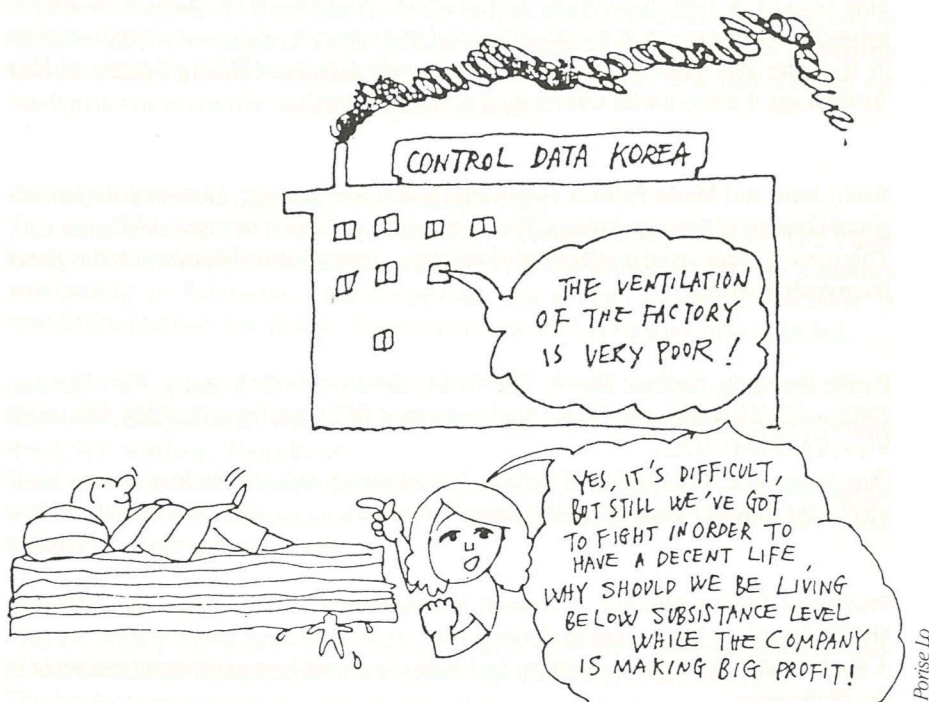
A booklet with specific information and statistics about European multinationals in the Philippines.

Siemiatycki, Myer. *The Microchip Battleground* — C.B.C. Radio Program "Ideas", March 25 — April 7 1983.

This is an excellent series full of interviews with people who have been affected by microelectronic technology. The transcripts are available from C.B.C. Transcripts, P.O. Box 500, Station "A", Toronto, Ontario M5W 1E6

South East Asia Chronicle and Pacific Research, *Changing Role of S.E. Asian Women — The Global Assembly Line and the social manipulation of women on the job*. Special joint issue, vol. 9, no. 5-6. July — October 1978. Southeast Asia Resource Center, P.O. 4000D, Berkeley, California 94704.

Even though this is one of the older publications, it is still an excellent report on the women in Southeast Asia who produce integrated circuits. It covers multinational corporate recruitment and management techniques, a history of the microelectronic industry, wages and working conditions, and health and safety issues.



Union organizing at Control Data Korea: a cartoon from *The Plight of Asian Workers in Electronics*, published by Committee for Asian Women.

War on Want, Women Working Worldwide — the International Division of Labour in the Electronics, Clothing and Textiles Industries. 1983, 467 Caledonian Road, London N7. This booklet is comprised of conference proceedings of eight workshops. The conference was entitled "Women Working Worldwide" — a one day conference on the international division of labour in the clothing, textiles and electronics industries held in London in 1983.

Newsletters and Magazines

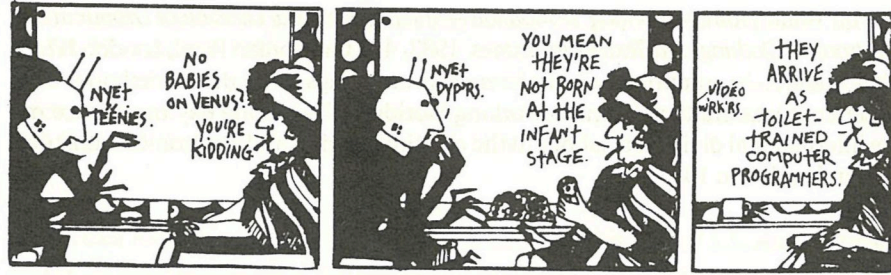
American Friends Service Committee — Women's Newsletter. 1501 Cherry St. Philadelphia, Pennsylvania 19102. This newsletter was created to promote communication among regional, national, and overseas staff of AFSC. It is also a vehicle for outreach to individuals and groups in the women's movement and other movements that we share common goals with. (Women and Global Corporations appears as a regular feature of the AFSC Women's Newsletter.)

Asian Labour Monitor, Asian Labour Monitor Resource Center, 444 Nathan Road, 8/B, Kowloon, Hong Kong. *Asian Labour Monitor* is a bimonthly compilation of news about labour actions, events and conditions in Asia, with related economic news.

Asian Women Workers Newsletter. CAW Newsletter, 57 Peking Rd, 5/F Kowloon, Hong Kong. The *Asian Women Workers* newsletter is made up of reports on the living and working conditions of Asian working women and their struggles for equality and liberation.

Canada-Asia Currents. Canada Asia Working Group, 11 Madison Ave. Toronto, Ontario. M5R 2S2. The Canada Asia Working Group is a volunteer collective of Canadian churches, Asian community groups and interested individuals working for human rights and social justice in Asia and Canada.

Global Electronics Newsletter. Pacific Studies Center, 222B View St, Mountain View, California 94041, U.S.A. (phone 415-969-1545) The *Global Electronics* newsletter is published monthly. It publishes current and up to date information on electronic products and the global electronics industry.



Nicole Hollander

International Labour Reports. 300 Oxford Road, Manchester M13 9NS England. International Labour Reports is published bi-monthly by a workers' cooperative. This report concentrates on the working conditions of people worldwide. Many issues have articles specifically on women workers.

ISIS. P.O.Box, 1211 Geneva 2, Switzerland. The general objectives of ISIS is to contribute to information exchange to improve womens situation; to promote ideas and actions which contribute to the eradication of injustice based on sex discrimination; to promote international information and communication networks designed to help women. The 1986 theme is Women and Technology.

Multinational Monitor, P.O. Box 19312, Washington, D.C. 20036 Multinational Monitor is published monthly by the Corporate Accountability Research Group. Articles concentrate on critical assessment of multinational involvement around the globe.

Voice of Women. 18/9 Chitra Lane, Columbo-5, Sri Lanka. The Voice of Women is published quarterly in three languages: Sinhala, Tamil and English. It highlights the rights of women in Sri Lanka. They have produced a special issue on Women in Free Trade Zones. (No.4, July, 1982)

Resource Centres and Projects

Development Education Center (DEC), 229 College St. Toronto, Ontario M5T 1R4.

Mexico-U.S. Border and Women Program of Service, Development and Peace, A.C. SEDEPAC — Apdo.Postal 61-024 06600 Mexico, D.F. Mexico.

NACLA-East Electronic Project, Box 57, Cathedral Station, New York, N.Y. 10025.

Ottawa Micro-Technology Working Group, 151 Slater St. Ottawa, Ontario. K1S 3A2.

Participatory Research Group, 229 College St. Toronto M5T 1R4. Ontario, Canada.

Women's Resource Center, Room 406, R and G Tirol Bldg., 831 EDSA, corner Scout/Albano St. Quezon City, Philippines.

World Interaction, P.O. Box 2484, St. D, Ottawa, Ontario K1P 5W6.

Audio-Visual Resources

After the Difficulties: Women Workers in South East Asia — 1982. Souad Sharibani and Helene Klodawsky, DEC, 229 College St. Toronto Ontario, M5T 1R4.

The Global Assembly-Line. Lorraine Gray, Educational TV and Film Center, 1747 Connecticut Ave, N.W., Washington, DC 20009. (phone 202-387-2213).



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