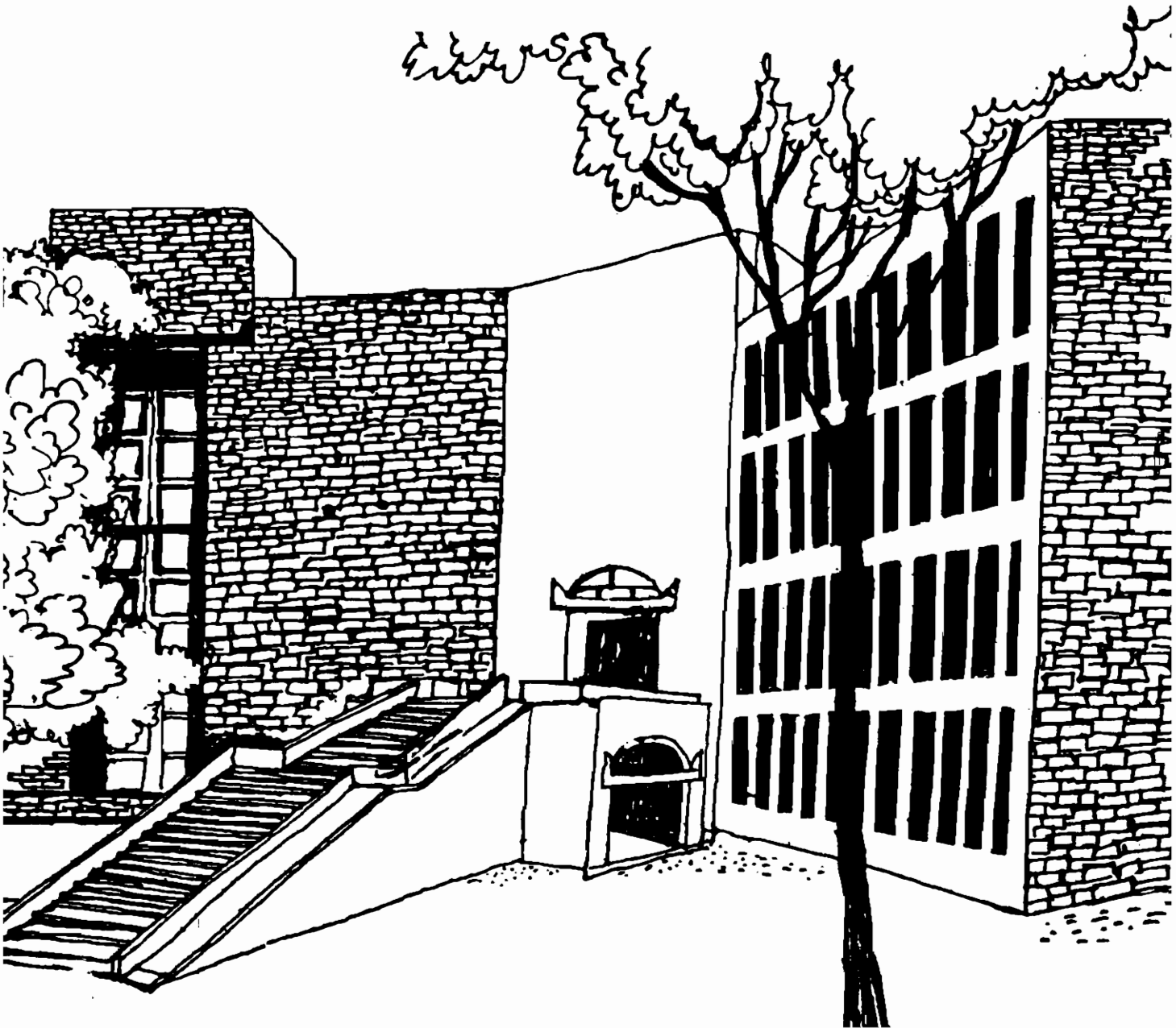


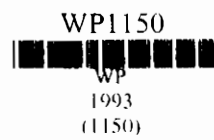


Working Paper



**The Dialectic Between Globalisation and Localisation:
Economic Restructuring, Women
and Strategies of Cultural Reproduction**

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The Dialectic Between Globalisation and Localisation: Economic Restructuring, Women and Strategies of Cultural Reproduction*

Ananta Giri

"Technological change is a factor in women's lives everywhere in the world. This holds true whether one is referring to rural women in Third World countries or women from cities of the most technologically advanced countries. In an African village, introducing a water pump may save women hours of heavy labour, but all too often it is found that new techniques and technologies such as tractors, supplied through international aid projects, benefit men as a sex and remove from women traditional sources of income-generating work."

- Cynthia Cockburn¹

"The expert/non-expert polarity [of technology] thus corresponds internationally to the core/periphery distinctions, with corollary polarisation of male/female and white/non-white. The shape of international industrialism is therefore shaped by capitalism, patriarchy, and colonialism... A predominantly young, non-white and female workforce executes production which is conceptualised thousands of miles away."

- Beverly Burrie²

"The continuing emphasis on export-led agriculture mostly ignores the resource requirements of millions of subsistence farmers whose needs are not satisfied through the mechanism of the market. Since scarce land, water, credit and technology are being prompted to the export sector, poor farmers lacking financial means and technical support, over-exploit the natural resource base, including marginal areas to eke out a living. The result has been that the capacity of the continent to feed itself has been seriously hampered."

- Fantu Cheru³

The Problem

The economic arrangement of all social systems is now in the midst of a fundamental restructuring, necessitated by the crisis of varieties of command economies and bureaucratic regulations of production, distribution and exchange. Economic restructuring is meant to free the economy from the shackles of the State and create more opportunities for producers as well as consumers. Economic restructuring, which emerged in advanced industrial societies in the context of their economic and political crisis, is now in a phase of global diffusion. Contemporary economic restructuring, facilitated by the revolutionary manifestation of new technologies on the wake of a postindustrial transformation, is characterised by the breakdown by the standardised regime of mass production and the rise of "flexible specialisation",⁴ by a fundamental stress on increasing production and enhancing efficiency, and by globalisation of production, distribution, and exchange. Contemporary economic restructuring valorises a particular mode of production and social reproduction. It is needless to mention that this mode is the industrial and post-industrial mode, which based upon "valorisation of capital",⁵ promotes

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a culture of consumption. Architects of economic restructuring promote global integration of our societal economies but are blind to the problem of articulation i.e. how "less familiar strategies of social reproduction" articulate with "world economic and political as well as cultural processes."⁶ Economic restructuring very often leads to destruction of self-subsistent forms of livelihood. Integration with global market has meant the erasure of the less familiar strategies of what Alain Touraine calls "self-production of society."⁷

But the key question here is can the western style of life be universalised? Would our globe survive if the contemporary pattern of consumption prevalent in western Europe and North America is universalised? This provides the challenge to preserve multiple strategies of production and reproduction not only for the survival of little enclaves but also for the long-term interests of mankind and the mother Earth. The present restructuring of economic life also calls for a critical reflection on the dialectic between localisation and globalisation, anthropology and economics.⁸ The dynamics of contemporary economic restructuring also raises the unattended questions of "functioning and capabilities".⁹ The present paper describes the vulnerability of less "powerful" forms of life and sections of society in the regime of the global economy, with specific reference to the predicament of women. The paper first seeks to create a descriptive portrait of new economic restructuring and the global condition of which this is a part. It looks at the new economic mode as a global formation and describes the trajectory of its "dispersion" in multiple countries and communities--both advanced and the technologically backward and in multiple spaces and bodies. The paper specifically describes women's work and condition, their predicament and dreams, in the "emergent technocracy".¹⁰ While looking into the vulnerability of women in the globalising economy, the paper seeks to explore how we can preserve and universalise less familiar strategies of social reproduction by universalising the feminine principle of "shakti" in the face of the power of the new economy and its global onslaught.

Contemporary Economic Restructuring

Contemporary advanced industrial societies are in the midst of an all-encompassing economic restructuring what two sensitive observers of the contemporary scene have characterised as the "Great U-Turn".¹¹ This economic restructuring, facilitated by the revolutionary manifestation of new technologies, has given rise to a new regime flexible production, distribution and exchange. The economic recession of the advanced capitalist societies in the 1970s created a structural context for the deregulation of the Fordist mode of standardised production and the rise of flexible specialisation, where firms tend to specialise in types of classes of production rather than a production of large quantities of specific output as in mass production. Under this condition, the essence of the firm becomes flexible specialisation."¹² For Michael Piore and Charles Sabel new technologies make "flexible specialisation" a crucial sector of manufacturing in the advanced industrial countries.¹³ Flexible specialisation requires flexibility in organisation of production -- both its conceptualisation and execution--, and quick learning of new skills to cope with the challenge of new technologies. In the regime of flexible specialisation production workers must be so broadly skilled that they may quickly shift jobs. Moreover, "...within a system of flexible specialisation, firms depend on one another for the sharing of skills, technical knowledge, information on opportunities, and definitions of standards. Structure here shades into infrastructure, competition into co-operation, and economy into society".¹⁴ Piore and Sabel further tell us: "In mass production it is the firm that organises research, recruits labour, and guarantees the flow of supplies and credit. In flexible specialisation it is community institutions - the community itself that are responsible for these tasks".¹⁵

While Piore and Sabel are optimistic about the possibility for prosperity in this emergent regime of flexible specialisation other scholars have sensitised us to the destruction of communities and the deindustrialization of societies that has taken place as its consequence. To begin with the level of the firm, flexible specialisation and its stress on high-tech mediated work is leading to the disintegration of the "internal labour market" of industries.¹⁶ As Noyelle tells us, "The new emphasis on high-skilled work and well-trained labour is partly responsible for the recent decline in the role of the internal labour market and the increasing reliance of firms on the external labour market".¹⁷ This

decline of the significance of the "internal labour market" of firms is being accompanied by the rise of part-time work and informal economy.¹⁸ According to one commentator, "Unemployment due to structural (technological) change of economic factors undermine the 'life long' integration of the occupational careers since world war II. Thus, the individual's movement through the occupational system is gradually losing its highly standardised form. The rapidly decreasing half-life of the usability of acquired expertise gives rise to short-term work perspectives and induces a relatively low degree of calculability and predictability."¹⁹

The disorganisation of the previously standardised form in the life of both the actors and institutions that economic restructuring has brought about is also being accompanied by the decline of the manufacturing sector (for instance, in the U.S. domestic employment attributable to manufacturing fell from 27% in 1970 to 19% in 1986), the ascendancy of the service economy, and a restructuring of the location of industries, where high technology has enabled the flight of capital from the snowbelt to sunbelt and to the safe havens of the Third World villages. At home in advanced industrialized countries deindustrialization of the previously industrial centers such as Pittsburg and Detroit has become a stark reality. Deindustrialization is now being seen in the service sector as well: its victims are not solely the blue-collar workers but also the company managers and professionals who are "falling from grace" in the wave of postindustrial restructuring.²⁰ At the same time, high technology makes possible the emergence of a global assembly line and multi-nationalisation of capital, which operates through many forms of linkage: "co-production, licensing, out-sourcing, invisible partnerships to avoid arousing local anti-U.S. sentiments."²¹ For instance, American Airlines has a sweatshop in Barbados for entering computerised data, which is connected to Oklahoma by computers and satellite communications. "It is staffed by women who are paid wages that fall near the bottom of even Barbados's meagre pay scale."²² Aihwa Ong best summarises the contemporary scenario thus: "Since the 1972 world recession, new patterns of "flexible accumulation" have come into play as corporations struggle in an increasingly competitive global arena. Flexible labour regimes, based primarily on female and minority workers, are now common in the Third World, as well as in poor regions of metropolitan countries."²³

Gender and Economic Restructuring: New Technologies and Women in Advanced Capitalist Societies

New technologies which continue to play a decisive role in current economic, industrial, and organisational restructuring work as double-edged swords. According to Soshana Zuboff, they simultaneously "informatize" and "automate".²⁴ New technologies require a more participatory and non-hierarchical form of work-arrangement but without parallel institutional transformation via-a-vis the invidious distinctions of class, race, and gender new technologies are being used to oppress ordinary workers and women.²⁵ Indeed new technologies work as a new 'panopticon' where the distinction between the expert and the non-expert sectors in organisations seems natural-legitimised by the technocracy itself-- and there managers rely on technology "to make behaviour transparent in the belief that people are more likely to do what they are told when they know their actions will be translated instantly and displayed as electronic text".²⁶ While the "information panopticon create the fantasy of a world that is not only transparent but also shorn of the conflict associated with subjective opinion" the electronic text "confronts the clerk with a stark sense of otherness".²⁷ At the same time, the electronic text for her is "impersonal; letters and numbers seem to appear without having been derived from an embodied process of authorship".²⁹ As Beverly Burris argues:

"In offices, for instance, machines such as the typewriter presuppose some degree of worker pacing, whereas word processing technology has the capacity to be systematised. Such systems can be used by management to undermine worker autonomy; tasks can be fragmented and assigned to different workers, and work can be technologically paced and monitored for productivity and errors.... Among the non-expert sector, whether clerical or production staff, computerised technology has typically been used to isolate and control workers. Predominantly male managers and

technical experts control the labour of workers who are disproportionately female and non-white using technology to embody and promote social differentiation and managerial control, both domestically and internationally."³⁰

In advanced industrial societies under the regime of an ascendent technocracy there is a bifurcation between the experts and non-experts but women in both the sectors have borne more brunt. "Women are to be found in great numbers operating machinery... but women continue to be rarities in those occupations that involve knowing what goes on inside the machine".³¹ In 1980, 95% of the key-punch operators in the U.S. were female but only 22% of them were systems analysts.³² In the export-processing zones of multinational corporations while young women comprise 80-90% of operators, "men predominate within the smaller administrative and technical expert sector..."³³ Even within the expert sector the work of women managers is subject to patriarchal stereotyping. As Cockburn tells us: "...when the dust settles after the technological revolution, the same old male/female pattern can be seen to have re-established itself. The general law seems to be: women may press the buttons, but they may not meddle with the works.... Always the person who knows best, who has the last say about the technology, is a man..."³⁴

Here it must be noted that although opportunities for women in advanced capitalist societies appear to have increased during the past two decades, their overall economic situation has deteriorated. "Currently in the U.S., two-thirds of all adults living in poverty are women, and more than half of all poor families are female-headed."³⁵ The reason for this in-built contradiction of poverty in the midst of unprecedented plenty is complex. Economic restructuring and the attendant process of deindustrialization has gone hand in hand with political restructuring, marked by the rise of "New Conservatism" and the accompanying retrenchment of the welfare state. The "demise of the internal labour-intensive jobs disproportionately performed by women, have adversely affected both the present and future working lives of women workers in the non-expert sector."³⁶ Burris argues that at the same time that technologies were exploring opportunities, "technocratic restructuring was undermining political victories."³⁷

Economic Restructuring, Globalisation, and Gender

The restructuring of industries and work organisation has not taken place in isolation. In fact this model of economic reform and structural adjustment is being globalised. In the 1960s developing economies, in their desperate bid to attract foreign investments, tried to improve conditions for the work of the transnational capital in their countries. With the failure of the earlier attempts at import substitutions international monitors of development including the United Nations put pressure on the developing economies to revert back to their earlier export functions. As Ong describes: "In addition to raw materials and crops, developing economies could export goods manufactured in 'Free-Trade Zones' (FTZs). To attract foreign capital, tax-free privileges in trade were combined with new incentives such as provision of building and utilities by the local government, and the ease of profit repatriation. Export-industrialisation seemed to complement the 'green revolution' sponsored by the World Bank and International Monetary Fund".³⁸

By the 1970s we saw global assembly lines at work in Southeast Asia and the U.S.-Mexican border. To achieve global dominance, Japanese and Western companies bypassed high production costs, labour militancy, and environmental concerns at home by moving to other countries in South-east Asia, Caribbean and Latin America. In the locales of offshore production companies combine varieties of production-arrangements--mass assembly and subcontracting systems, firm work and home work. "In south-east Asia and Mexico, export manufacturing is not confined to FTZs but is increasingly dispersed in subcontracting arrangements that may include part-time work by peasants."³⁹

While in Malaysia export-led industries operate mainly in FTZ, areas with 80% of the female operators on the shop floor, in Hong Kong most of such production is undertaken by subcontracting family firms. Subcontractors also predominate such scenes in Taiwan and Philippines. "In the

Philippines, where wages are among the lowest in Asia, subcontracting reduces the visibility of transnational firms, enabling them to bypass further political and economic costs. For instance, only a quarter of Filipino garment workers are based in FTZs; the bulk of garment manufacturing depends on a four-tiered subcontracting system that relies mainly on village home-sewers. Similarly, outside the Mexican Mequiladora zone, home work by housewives is part of the low-level of the segmented labour market; though, hidden behind illegalities and mixed forms of production, it is indirectly controlled by industrial capital."⁴⁰

Daughters in Factories

Young women constitute the majority of the workforce in locales of off-shore production. Companies, as ethnographies of both Maria Patricia Fernandez-Kelly Oihwa Ong -- anthropologists who have carried extensive fieldwork in the Malaysian coast and Mexican boarder -- show, prefer single women.⁴¹ In the Asian context these women come from the rural areas and they work under the moral and managerial custody of the male supervisors. These working daughters send money back to their families. But the income they earn from their hard work is meagre. Burris helps us understand this contradiction of high-tech and low-pay; "Gender and racial stereotypes combine to legitimate fast-paced and poorly paid work for Third World women. Young women are assumed to be working for supplementary income, where as increasingly, they are primary or sole breadwinners".⁴²

The working daughters in southeast Asian global assembly lines who are breadwinners of their families and who also support their brothers education are treated as "wards" in factories. As Ong tells us: "Japanese corporate policies in Malaysia defined Malay workers as "wards" under the moral custody of factory managers. By focusing on the young women's virginal status, the management capitalised on Malay fears about their daughter vulnerability. Other techniques of control closely monitored workers' bodies. In mass assembly factories from South Korea to Mexico, operators were subjected to humiliating innuendos about menstruation, and were required to request permission to use the toilet".⁴³

Not only these working daughters are subjected to "tight work discipline" that bodily constrained them they were used as replaceable instruments of labour. To maximise profit and production "quickly exhausted operators were replaced [by the company] by the next crop of school leavers".⁴⁴ Freshly recruited workers were routinely assigned work which required use of microscopes. This led to their early exhaustion and the deterioration of their eyesight. Ong tells us that industrial firms in Malaysia attempt to "limit their employment to the early stage of their adult life, a strategy that ensured fresh labour capable of sustained intensive work at low-wages".⁴⁵ Sometimes new workers are employed on six months contracts so that they could be released or rehired at the same low wage rates. Ong's sympathetic description helps us envision the situation:

"The rapid exhaustion of the operators also resulted in most of them leaving of their own accord after three to four years of factory employment, although an increasing number remained working, even after marriage. Operators leaving the factories have not acquired any skills which would equip them for any but the same dead end jobs. The lack of legislative protection for women in the labour market and their low wages discouraged them from staying on longer in industrial employment. This weak structural integration of the women in the industrial sector, a situation fostered by corporate employment strategy, has been used by male supremacists and capitalists to justify the low wages of operators in multinational corporations".⁴⁶

The Body of Power, Spirit of Resistance

If such is the text of power written on the bodies of working women in global assembly lines then this writing is not without a difference. Workers make both overt and covert protests, which include attempts to damage the components they themselves assemble. As Ong tells us in her

ethnography of such off-shore production in Malaya village: "In one transistor factory, where about five million components were assembled each month, sometimes tens of thousands of transistors had to be rejected because of defects found. Occasionally, workers deliberately stalled the machine so that production was slowed down. A Malay technician reported that he was aware of these subversive acts but said that it was impossible to trace the workers responsible for them."⁴⁷

Reactions of women workers also include overt forms of resistance such as displaying hysterical tendencies in the workplace. In Malaya villages women are considered especially vulnerable to spirit possession. Malaya women take recourse to such cultural beliefs to subvert the well-knit order that males have constructed for them. They get possessed with spirits in the work place, suddenly crying and screaming obscenities against restraining supervisors. In some cases the possessed exclaims: "I am not to be blamed" "Go away" "I will kill you, let me go", etc. Besides taking recourse to such spirit possession operators often attempt to seek relief from their dreadful work by asking permission to go to the locker room and to the prayer room, where as Muslims they could perform the obligatory worship five times a day. But managers also do not lay behind in such struggles. They dismiss women who are frequently subject to spirit possessions "for security reasons".⁴⁸ As Ong tells us of her case: "when the village elders protested, pointing out that the spirits in the factory were responsible for their daughters' seizures, the manager agreed but explained that the hysterical workers might hurt themselves in the machines, risking electrocution."⁴⁹

In her comparative account of such regimes of control and forms of resistance Ong finds that South Korean women are among the most militant in Asia, "confronting a state more repressive of labour than other industrialising countries".⁵⁰ In the late 1970s when Korean economy was beyond the "take off" stage one of the major textile companies, the Dong-II Textile company, was engaged in a major labour dispute but the women didn't give in. Realising that they have to organise themselves women rejected representatives of a puppet union led by men. In the words of Ong:

"Female workers, organised into different groups, have developed a whole repertoire of tactics and images expressing their struggles. In the Dong-II textile company strike, women protested 'miserable work conditions,' poor food, imposed silence among coworkers, and prohibitions from going to the toilets. At the climax of their struggle against the company union, women on a hunger strike faced off against police by stripping and singing union songs."⁵¹

The above description shows that women do contest the categories and practices that treat them as mere extension of machines. But here we must not be quick to read these acts of resistance as markers of class consciousness or of a global anti-systemic ideology. "Working women rarely construct their identities or organise themselves in terms of collective or global interests."⁵² However, "what we do find are attempts to escape from or live with industrial systems without losing one's sense of human dignity... In negating hegemonic definitions daily, factory women came to explore new concepts of self, female status and human worth."⁵³

The complexity of the position of women in contemporary societies is evident by their above strategies of reproduction and resistance. It is true that women find dehumanising their conditions of work in factories run by transnational corporations but their position at home is no less precarious. In her insightful essay, "Capitalism, Imperialism and Patriarchy: The Dilemma of Third-World Women Workers in Multi-national Factories" Linda Lim helps us to appreciate this complexity:

"Although women workers in these multinational factories are exploited relative to their output to male workers in the same country, and to female workers in developed countries, their position is often better than in indigenous factories and in traditional forms of employment for women. The limited economic and social liberation that women workers derive from their employment in multinational factories is predicated on their subjection to capitalist, imperialist, and patriarchal exploitation in the labour

market and the labour process. This presents dilemma for feminist policy towards such employment: because exploitation and liberation go hand in hand, it cannot be readily condemned or extolled."⁵⁴

Women's Vulnerability As a Mirror: The Sustainability of Privilege and the Challenge of Self-Subsistence

Structural adjustment of the economies of poor countries is another important aspect of the contemporary global economic restructuring. The International Monetary Fund now wants poor countries to improve their balance-of-payments position by liberalising their economies, devaluing currencies, and increasing imports in proportion to exports. It is suggested that "by devaluation of local currency and frozen wages, the country's own exports would become cheaper in the international market."⁵⁵ But in reality much structural adjustment programs bring havoc for the poor and vulnerable sections of society. Bolles' excellent study of the IMF program of structural adjustment in Jamaica shows how it devastated its manufacturing sector.⁵⁶ Bolles argues: "The IMF program has particular implications for Jamaica's manufacturing sector. The depression cut deeply into domestic sales because of higher consumer prices. Devaluation raised costs [in local currency] of imported components—the essence of the screwdriver type operation. Paying for and buying imported materials became more and more difficult and high interest rates raised bank loans beyond the reach of most manufacturers."⁵⁷

The IMF packages of structural reform "depressed the standard of living of the majority of the nation."⁵⁸ It specifically made Jamaica's female production workers "vulnerable to events of international trade and finance."⁵⁹ Above all, structural adjustment program hard hit their kitchen. As Bolles says: "Food showed the most dramatic increment in price. For example,... the price of margarine rose from J\$.50 per tub to J\$ 1.29; corned beef rose from J\$.79 per ton to J\$ 2.00' and a large loaf of bread increased from 80 cents to more than dollar."⁶⁰ But the way women workers coped with such dislocations shows the resilience of their strategy of cultural reproduction. Economic crisis led to more reciprocal exchange of goods and services among the poor. Women revitalised their domestic network and widened its radius. "For example, one women in a visiting-union household supplied her neighbours and friends with cheese that she had bought at the commissary [of the multinational which employed her]. In return her neighbour often provided child care on short notice, and her boy friend's sister performed small personal errands during the day while the woman was at work."⁶¹ In this context what Bolles has written below helps us to understand the dialectic between globalisation and localisation and the creative power of existent forms of social reproduction to withstand the assault on people's standard of living:

"Thus the reciprocal exchanges that take place in the domestic network of these urban working-class households provide mechanisms to compensate for the shortcomings of the wider economic system. The women industrial workers in these households take advantage of benefits available at their places of work to make their contribution to the exchange network. These household members not employed in the formal economic sector focus even more energy on exchange network activities to obtain for their households goods and services that would not be otherwise available to them, due to the lack of cash [caused by lack of employment] to obtain them. These informal patterns of distribution and consumption have evolved in greater complexity as a response to provide increased access to the society's limited resources".⁶²

What Bolles discusses in the context of the Caribbean region with reference to the manufacturing sector finds a striking parallel in Cheru's description of the devastation of African agriculture as a consequence of the IMF program of export-oriented capitalist agriculture.⁶³ For Cheru structural adjustment programs have led governments to "prefer large-scale mechanised farming to the detriment of the politically powerless small farmers".⁶⁴ Such mechanised agricultural mega-projects push monocropping instead of intercropping which devastates the fragile ecosystem. It also prefers cash crops to food crops. For instance, cotton or coffee production is accorded more governmental

support than sorghum or cassava. The reason behind such discrimination is not hard to find. Cotton brings foreign exchange to finance the building of sky-scrapers of carnival for the pleasure of the local elite and their metropolitan mentors. Thus, it is no wonder that while agricultural production stagnated in Africa during 1990, having grown by 2.8% on 1989, the food import increased. ⁶⁵ "Africa sent \$ 8 billion on food imports in 1986, a figure far greater than the total amount spent on oil import during the same year". ⁶⁶ What is more food import "threatens to create a new and dangerous structural dependence on cereals such as wheat and rice that cannot be easily grown in many part of Africa." ⁶⁷ As a result, scarce land is being used to grow such crops which the poor usually cannot afford.

Cheru argues that "by putting valuable agricultural resources at the service of export markets in countries that are not self-sufficient in food, enormous pressures are created for local people to over-exploit marginal lands." ⁶⁸ At the same time, liberalisation policy and international trade conventions such as GATT makes the pursuit of *ecologically sustainable food security more difficult*. Because of GATT poor countries "will be required to withdraw all trade restrictions - including quotas and tariffs designed to protect local food markets from cheap imports." ⁶⁹ "The proposal would also deny the right of countries to restrict or inhibit export of agricultural food products to relieve food shortages, as now permitted under Article XI of the GATT treaty... On the other hand, the provision will do little to outlaw US and EEC food dumping." ⁷⁰

The implication of export-led capitalist agriculture for women cannot be ignored. According to Cheru, "women are responsible for 60-90% of food productions, processing, and marketing in African countries, yet women have the least access to improved technology, credit, extension service and land." ⁷¹ Indeed such projects of development displace women "from productive activity" by appropriating or destroying "the natural resource base for the production of sustenance and survival." ⁷² The logic of market is now being applied to the use and the maintenance of even the commons, which in fact robs them. Indeed, wastelands development is an "euphemism for the privatisation of commons." ⁷³ The privatisation of the commons along with the shift to capitalist agriculture brings havoc to ecology, which is evidenced by the increasing scarcity of water in all countries. According to Vandana Shiva, "Ground water is drying up because it has been over-exploited to feed cash crops. Village after village is being robbed of its life line. Since women are the new water providers, disappearing water sources have meant new burdens and new drudgery for them." ⁷⁴ Similarly, fodder collection takes longer with the destruction of the village commons. As a woman in the hills of Uttar Pradesh puts it:

"Since we were young, we used to go the forest early in the morning without eating anything. There we would eat plenty of berries and wild fruits, drink the cold sweet water of the Banj [Oak] roots. In a short while we would gather all the fodder and firewood we needed, rest under the shade of some huge tree and then go home. Now, with the going of the trees, everything else has gone too." ⁷⁵

At the same time, the substantial increase in firewood collection time due to deforestation leaves women with little time for cultivation. Bina Agarwal draws our attention to the situation in Nepal where "substantial increase in firewood collection time due to deforestation has significantly reduced women's crop cultivation time, leading to an associated fall in the production of maize, wheat, and mustard which are primarily dependent on female labour in the region." ⁷⁶

The above examples show how contemporary economic restructuring with its logic of globalisation systematically erodes locales of self-subsistence and modes of livelihood based upon principles of autonomy and "self-production" in the name of integration with a global market. Subsistence economies everywhere -- whose primary example is peasant cultivation -- serves basic needs through self-provisioning, and are very little dependent on the organisation of market. Such modes of livelihood might look poor from an external point of view but for the participants in such a form of life it might not be so perceived. Vandana Shiva helps us to understand this:

"Culturally perceived poverty need not be real material poverty: subsistence economics which serve basic needs through self-provisioning are not poor in the sense of being deprived. Yet the ideology of development declares them so because they don't participate overwhelmingly in the market economy, and do not consume commodities provided for and distributed through the market..."⁷⁷

Market-oriented models of development perceive subsistent forms of livelihood as a danger and systematically try to destroy them. Indeed, the story of modernity is a story of the erosion of autonomous models of livelihood by the forces of industrialisation and the accompanying mechanical world-view. It is a tragic story of the replacement of a "subsistence economy in which resources, goods, money, or labour were exchanged for commodities by the open-ended accumulation of profit in an international market."⁷⁸ As Carolyn Merchant tells us:

"Living animate nature died, while dead inanimate money was endowed with life. Increasingly capital and market would assumed the organic attributes of growth, strength, activity, pregnancy, weakness, decay, and collapse obscuring and production and reproduction that make economic growth and progress possible. Nature, women, blacks, and wage labourers were set on a path toward a new status as "natural" and human resources for the modern world system."⁷⁹

The reduction of human beings to raw materials for production is an integral part of the logic of industrialism. The current heightened effort to subdue agriculture to the logic of industrialism has to be understood by the fact that the industrial mode is incapable of autonomous reproduction and cannot survive unless "low entropy is pumped from the environment into the economic process."⁸⁰ Industries have a thermodynamic need for extraction of resources from mining and agriculture -- a point made clear by Georgescu Roegen's Seminal study, The Entropy Law and the Economic Process,⁸¹ in which Roegen argues that industry is "completely tributary to agriculture and mining."⁸² We are familiar with the second law of thermodynamics in which the law of entropy operates to creates an eventual loss of energy. This creates a perennial thermodynamic constraint which compels the industrial mode to subject other self-subsistent modes of livelihood -- which do not suffer from the same thermodynamic constraint--to its own logic of production and reproduction. While for the subsistent modes of livelihood useful things are encapsulations of the "strength of the Earth" and "earth-and only the earth-provides the 'strength' or 'force' for life,"⁸³ for the industrial mode use value is the product of the machine. But in reality the only "usefulness" which is at the heart of such a mode of production and reproduction is the sustenance of the technomass of industries. As Hornborg argues: "viewed as in some respects to living biomass, the super human "technomass" of industrial society must be fed specific kind of substances in order to grow. In industrial system, the structure in relation to which significant 'use values' can be ascertained is that of industrial, not human reproductions."⁸⁴ Hornborg further helps us to understand this invisible logic: "Whereas hunter-gatherers, even in areas such as Kalahari desert, may retrieve 9.6 times the energy they spend on hunting and gathering. Industrial agriculture often yields only a fraction of the total, human-orchestrated energy input. Such a wasteful form of production can only continue so long as it is "subsidized" by an asymmetric world trade in energy."⁸⁵

Indian philosopher and scientist C.V. Sheshadri helps us to see this link as well. For Sheshadri, the second law of thermodynamics works as an energy-quality marker and provides a guide to the utilisation of resources to the grave detriment of the poor and generally all those who are outside the structure of opportunities in a country like India. Sheshadri and Balaji argue: "By its very definition, energy becomes available only through a conversion process and according to the most supreme law of entropy, a proportion of energy is always lost in such a process. Further, under restricted conditions, the loss can be minimised and realisation of such condition is, therefore, essential for operating a process efficiently. At this level, the concept, viz. energy cannot be viewed separate from its use and itself becomes a criterion for deciding the value of resources for utilisation processes at hand. Energy becomes a quality marker in resource utilisation in the same way that money become a marker in

exchange".⁸⁶ But energy as value does not simply decide the nature of utilisation of resources, it also determines the direction of flow of resources. As Sahashrabudhey interprets: "Modern energetic is only a tool to allocate resources so as to promote modern industry and modern life style at enormous costs to those outside the modern structures."⁸⁷

The Dialectic Between Globalisation and Localisation: Towards a Recovery of the Principle of Shakti

Industrialism has an in-built need for "thermodynamics of imperialism" and its globalisation has eroded autonomous modes of livelihood both within the West and East. The result has been devastating and we have seen this with specific reference to women. The predicament of women in contemporary global restructuring is not confined to them; it is a mirror of the all-pervasive process of dislocation and disruption that both woman and men are subject to. In meditating upon contemporary predicament the last the feminists should do is to put a purdah around the so-called women's issues. It is the dialectic between identity and difference which constitutes both our dislocation and dream today. The multiple-level transformation that is taking place in the contemporary world can hardly be captured by any form of essentialism. It is perhaps for this reason that Beverly Burris writes:

"However, despite the polarisation and the persistence of political issues, the technocratic system is a unified system, and one which unites, even as it divides, experts and non-experts, men and women, whites and non-whites core and periphery. Although expert sector and non-expert sector women may face different specific issues, the more fundamental political questions which they confront are similar, and concern the structuring of technocratic organisations and the world-wide technocratic system. These concerns center around confronting polarisation, centralisation, and gender bias of technocratic organisations, none of which is inevitable."⁸⁸

But in confronting this common task Burris nonetheless argues that women can bring their vantage point to bear upon in this task of epochal reconstruction. Burris thinks that "marginality within technocracy can be an advantage for women, well situating them to challenge technocratic norms, substituting feminist values and organisational forms."⁸⁹ For Burris, "Women's enhanced sense of connectedness, socially and ecologically, provides the basis for a moral vision which can serve as an important corrective to the limitations of scientific rationality."⁹⁰

Burris' arguments and hopes are shared by many feminists. One of the most creative among them is Vandana Shiva. Shiva argues that the mechanical world view of modernity, which has spelt the "Death of Nature", has also involved a radical conceptual shift away from the traditional Indian cosmological view of [animate and inanimate] "nature as prakriti", as "activity and diversity" and as an "expression of shakti, the feminine and creative principle of cosmos," which "in conjunction with the masculine principle [purusha]... creates the world."⁹¹ Shiva pleads for a recovery of the feminine principle of *Shakti* in order to reintegrate the division caused by science and technology.

From another perspective C.V. Sheshadri also pleads for a revitalisation of the principle of *shakti* to find a way out of the entropic model of development. Sheshadri finds problems with the second law of thermodynamics which is at the centre of modern industrial and technological development. Sheshadri seeks to develop a new energy-quality marker which he calls *shakti*. Sheshadri develops his concept of "shakti" with the postulate of mass-energy:

"All forms of energy has mass equivalents [with suitable dimensionalising factors]. Thus the internal energy or energy combustion of a material can be considered to have equivalents in terms of mass. This enables us to redefine a new class of property functions, shakti, that combines mass and energy in such a way that the quality markers can be assigned to various materials for comparison on a common basis,

Shakti is a property that combines the energy of combustion and, say, the food value of the material. It should be noted that combustion is a highly irreversible reaction that oxidises the material rapidly and edibility is akin to combustion [especially of carbohydrates] but goes through a series of slower steps with conditions closer to reversibility, and leading to the same end products. Hence in defining one kind of shakti, we have really used the same oxidizing property of the materials. It should also be noticed that shakti is defined as a class of property functions that can combine various kinds of energy and their mass equivalents."⁹²

Sheshadri's model of shakti as a new energy-quality marker proposes a transformative view of the human condition with a motion of time which is not only unidirectional and reversible, but also reversible and cyclical. It might seem an anachronism to juxtapose Shiva's idea of shakti and Sheshadri's but there are connections between them which are not difficult to identify. As a technologist Sheshadri provides us an alternative to the dominant industrial paradigm. Sheshadri's transformational model of *Shakti* can enable us to transform even the "waste" produced from energy generation to something useful. As Sheshadri argues:

"It is possible to conceive of interconnection or processes which would convert what is 'rejected' to environment, the 'waste' from energy use, into food. For example, the off gas, the waste from combustion of fossil fuels [to generate useful energy] may be used in food production. Thus, we arrive at an important concept, namely that in a country like ours, 'waste' is a free good, a resource. The whole science, or knowledge system, will have to be modified to suit this view which enables use of waste as resource."⁹³

From a cosmological point of view shakti is primarily concerned with the "capacity to bring forth life".⁹⁴ After all the debates in feminism about essentialism and universalism it is this "capacity to bring forth life" that still works as the differentiating attribute of women. Even though it is true that we are all hermaphrodites in some degree the revitalisation of this principle of *shakti* within all of us, including the males, requires an appreciation of this distinctive feminine principle of *shakti*. It is the culture of *shakti* -- its creativity and urge for synthesis -- that we badly need today in our current phase of globalisation which is bent upon making money and power the hegemonic language of the human condition. It only can introduce the much needed reflexivity to the dialectic between globalisation and localisation and can enable us to preserve our own cultural frame of production and reproduction in the face of the global onslaught of the new economy.⁹⁵ Universalisation of this principle of *shakti* would provide us a creative alternative to the "flawed universalism"⁹⁶ of technocracy. This is a daunting task and at present can be best looked on as an utopia, given the actual asymmetries of the contemporary world. But we need high ideals before us and as we revitalise our own principles of *shakti* to take a step towards this creative realisation it would be helpful to realise that:

"General-purpose money was the universal solvent which gave Western industry access to energy resources of the Third World.... As the ancient 'loop' by which living-time was exchanged for food came to be mediated by industry, life had to be redefined as 'labour'. Perhaps, in the long run, the only way to liberate human bodies and soul from the grip of this parasitic, synthetic [industrial] biomass is to refuse to define nature as 'raw materials' and 'life as labour'. Such a cosmological shift might make us stop rewarding 'production' [i.e. destruction] for its own sake."⁹⁷

1. Cynthia Cockburn, "Technological Change in a Changing Europe: Does It Mean the Same for Women as for Men?" *Women's Studies International Forum* 15(3), 339-350, 1992, p.85.
2. Beverly Burris, "Technocratic Organisation and Gender." *Women's Studies International Forum* 12(4), 447-462, 1989 p.449.
3. Fantu Cheru, "Structural Adjustment, Primary Resource Trade and Sustainable Development in Sub-Saharan Africa." *World Development* 20(4), 497-512, 1992, p.498.
4. Please see, Michael Piore & Charles Sabel, *The Second Industrial Divide: Possibilities for Prosperity* (NY: Basic Books, 1984); and David Harvey, "Flexible Accumulation Through Urbanisation: Reflection on Postmodernism in American City," *Antipode* 19(3):260-286.
5. Ernest Mandel, *Late Capitalism* (London: New Left Books, 1975).
6. Please see, Scott Lash and Jonathan Friedman, "Introduction: Subjectivity and Modernity's Others" in Scott Lash and Jonathan Friedman, (eds.), *Modernity and Identity* (Basil Blackwell, 1992, p.29.
7. Alain Touraine, *The Self-Production of Society* (Chicago, 1977).
8. Please see, Stanley J. Tambiah, *Culture, Thought and Action: An Anthropological Perspective* (Harvard, 1985).
9. Please See, Amartya Sen, "The Standard of Living", in S.M. McCurrin (eds.), *Tanner Lecture on Human Values* (Cambridge and Utah Universities Press, 1986); and Ananta Giri, "Quality of Life and the Method of Science: A Contemporary Critique", *Gandhi Marg*, 1993.
10. Burris (*op. cit.*, 1989).
11. Bennet Harrison and Barry Bluestone, *The Great U-Turn: Capitalist Restructuring and the Polarisation of America* (NY: Basic Books, 1988).
12. Thierry Noyelle, *Beyond Industrial Dualism: Market and Job Segmentation in the New Economy* (Boulder et al: Westview Press, 1987). p. 101.
13. Piore and Sabel (*op. cit.*, 1984).
14. *Ibid.*, p. 298.
15. *Ibid.*, p.293.
16. Noyelle (*op. cit.*, 1987)
17. *Ibid.*, p.2.
18. Please see A. Fortes, et. al, (eds.). *The Informal Economy* (Baltimore: The Johns Hopkins University Press, 1989).
19. Marlis Buchman, *The Script of Life in Modern Society: Entry into Adulthood in a Changing World* (Chicago,1989), pp.48-50.
20. Katherine Newman, *Falling From Grace: The Experience of Downward Mobility in American Middle Class* (NY: Free Press, 1988).
21. Harrison and Blustone (*op. cit.*, 1988), p. 32.
22. *Ibid.*, p. 31.
23. Aithwa Ong, "The Gender and Labour Politics of Postmodernity", *Annual Review of Anthropology*, 20: 279-309, 1991, pp. 279-80.
24. Soshana Zuboff, *In the Age of Smart Machine: The Future of Work and Power* (NY: Basic Books, 1988).
25. Please see, Harry Shaiken, *Work Transformed* (NY: Holt Rinehart & Winston, 1984); and Faye Ginsburg and Rayna Rapp, "The Politics of Reproduction", *Annual Review of Anthropology*. 20: 311-42, 1991.
26. Zuboff (*op. cit.*, 1988), p. 337.
27. *Ibid.*, p. 349, p. 131.
28. *Ibid.*, p. 132.
29. *Ibid.*, p. 131.
30. Burris (*op. cit.*, 1989), p. 449.
31. Cynthia Cockburn quoted in Burris (*op. cit.*, 1989), p.450.
32. *Ibid.*
33. *Ibid.*, p. 455.
34. Cynthia Cockburn quoted in Burris (*op. cit.*, 1989), p.457.
35. *Ibid.*, p. 456.
36. *Ibid.*
37. *Ibid.*
38. Ong (*op. cit.*, 1991), p. 281.
39. *Ibid.*, p. 283.
40. *Ibid.*, pp. 283-84.

41. Maria Patricia Fernandez-Kelly, *For We Are Sold. I and My People* (Albany: State University of New York Press, 1983); and Aihwa Ong, *Spirit of Resistance and Capitalist Discipline: Factory Women in Malaysia* (Albany: State University of New York Press, 1987).
42. Burris (*op. cit.*, 1989), p. 456.
43. Ong (*op. cit.*, 1991), p. 291.
44. Aihwa Ong, "Global Industries and Malay Peasants in Peninsular Malaysia," in June Nash & Maria Patricia Fernandez - Kelly (eds.), *Women, men and the International Division of Labour* (Albany: State University of New York Press, 1983), p. 40.
45. *Ibid.*, p. 431.
46. *Ibid.*
47. *Ibid.*, p. 436.
48. *Ibid.*
49. *Ibid.*, p. 435.
50. Ong (*op. cit.*, 1991), p. 302.
51. *Ibid.*, p. 303.
52. *Ibid.*, p. 296.
53. *Ibid.*, p. 296, p. 305.
54. Linda Lim, "Capitalism, Imperialism, and Patriarchy: The Dilemma of Third-World Women Workers in Multinational Factories", in June Nash and Maria Fernandez-Kelly (*op. cit.*, 1983), pp. 70-91.
55. Lynn Bolles, "Kitchens Hit by Priorities: Employed Working-class Jamaican Women Confront the IMF," in June Nash and Maria Patricia Fernandez-Kelly (*op. cit.*, 1983), pp. 138-150, pp. 142-43.
56. *Ibid.*
57. *Ibid.*, p. 143.
58. *Ibid.*, p. 150.
59. *Ibid.*, pp. 156-157.
60. *Ibid.*, p. 153.
61. *Ibid.*, p. 150.
62. *Ibid.*, p. 151.
63. Cheru (*op. cit.*, 1992).
64. *Ibid.*, p. 504.
65. *Ibid.*, p. 499.
66. *Ibid.*
67. *Ibid.*
68. *Ibid.*, p. 503.
69. *Ibid.*
70. *Ibid.*, p. 502.
71. *Ibid.*, p. 508.
72. Vandana Shiva, *Staying Alive: Women, Ecology, and Survival* (New Delhi: Kali for Women, 1989), p.3.
73. *Ibid.*, p.86.
74. *Ibid.*, p. 179.
75. Cited in Bina Agarwal, "The Gender and Environment Debate: Lessons from India," *Feminist Studies* 18(1): 119-158, 1992, p. 138.
76. *Ibid.*, p. 140.
77. Shiva (*op. cit.*, 1989), p. 10.
78. Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (London: Wildwood House, 1980), p. 288.
79. *Ibid.*
80. Alf Hornborg, "Machine Fetishism, Value and the Image of the Unlimited Good: Towards a Thermodynamics of Imperialism", *Man* (n.s.) 27 (1), 1-18, 1992, pp.7
81. Georgescu Roegen, *The Entropy Law and Economic Process* (Harvard, 1971).
82. Hornborg (*op. cit.*, 1992), p.7.
83. Stephan Gudeman and Albert Rivera, "Colombian Conversations: The Strength of the Earth," *Current Anthropology* 30(3): 267-281, 1989, p.267.
84. Hornborg (*op. cit.*, 1992), p. 6.
85. *Ibid.*, p. 10.
86. C.V. Sheshadri quoted in Sunil Sahashrabudhey, *Freedom From Degrading Laws of a Degrading Order* (Varanasi: Gandhian Institute of Studies, 1988), p.20.
87. *Ibid.*, p. 26.
88. Borris (*op. cit.*, 1989), p. 458.
89. *Ibid.*, p. 459.
90. *Ibid.*
91. Quoted in Agarwal (*op. cit.*, 1992), p. 124.
92. C.V. Sheshadri, *Energy in the Indian Context and DNA-Model of Development* (Sri AMM Murugappa Chautiar Research Center, Madras: Monograph Series on Engineering and Photosynthetic Systems, Volume 7, 1980).

93. Interview with C.V. Sheshadri, "C.V. Sheshadri: Scientist as Innovator - Epistemologist" *PPST Bulletin* Nos 19 & 20: 87-87, June 1990, Madras, p. 92.
94. Frederick Marglin quoted in Harvey Cox, *Many Mansions* (Boston: Beacon Press, 1988), p. 57.
95. Please see, Ananta Giri, "Social Development as a Global Challenge". *Social Action*, July-September, 1992.
96. Please see, Alvin Gouldner, *The Dialectic of Ideology and Technology* (London: Macmillan, 1976).
97. Hornborg (*op. cit.*, 1992), p. 11.

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