Woodchipping and Conservation: A Case for Timber Workers

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Abstract

This paper examines the predicament of timber workers in the woodchipping industry, with particular reference to Western Australia, but existent throughout Australia. Of distinctive interest is the conflictual situation, and on occasion violent confrontation, which has arisen between timber workers and conservationists. It is concluded that continuing conflict between timber workers and conservationists will, at best, simply displace the environmental problem of logging old-growth forests by the creation of another problem of inequitably distributed resources. Resolution of the conflict requires these two main players to achieve empathetic communication and a negotiated settlement – if, given their very different world views, it is feasible.

Introduction

Ecologically, forests in Australia are viewed as assemblages of coexisting species of plants and animals. They are distinguished by the structural dominance of tree species but usually include a diverse array of other organisms. Economically, forests in Australia provide the raw material for the domestic wood products industry as well as a lucrative source of foreign exchange [Resource Assessment Commission 1991, lii]. Socio-politically, forests in Australia are sites of struggle between conservation organizations and the timber companies and their workers. Woodchipping was investi-

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gated in Western Australia (WA), primarily to focus on relevant issues ecologically, economically and socio-politically.

The loci of attention in WA are the old-growth forests (jarrah, karri and marri). The term 'old-growth' is reserved for forests that are both negligibly disturbed and ecologically mature with high conservation and intangible values [Resource Assessment Commission 1992, xxxvi]. It is not feasible to log old-growth forests while simultaneously retaining their full complement of old-growth attributes and values. Consequently, the logging of old-growth forest violates the precautionary principle[1] of sustainable development. Although the cognate ecological attributes of old-growth may be regenerated in the long term (a century or more), the values associated with the pristine qualities cannot be replaced. Thus, the Resource Assessment Commission strongly emphasized that the precautionary principle must form the basis of all future policies and practices relating to the management of forests for wood production, and for minimising the impacts of logging [*Ibid.*, xxxvii]. At the same time the Commission states that: 'to discontinue woodchip exports for any other reason than a decline in international competitiveness, particularly at short notice, would seriously disrupt industry and impose severe economic losses on forest-based industries and local communities' [*Ibid.*, xli]. This apparent contradiction is resolved by the Commission through distinguishing between woodchips obtained from native forests and those produced by plantations. The difficulty is that in the short-run, a complete transition from the former to the latter is not possible. Hence, the conservationist – worker standoff.

Next, the chronological development of Australian forestry is delineated; followed by a description of the expansion of woodchipping in Western Australia. Socio-economically, the world-views of timber workers and conservationists are then analyzed. It is determined that these main players will resolve the forestry drama through empathetic communication and a negotiated solution. In conclusion, it is argued that the continuing conflict between timber workers and conservationists will, at best, simply displace the environmental problem of logging old-growth forests to create another problem of inequity and a regressive distribution of resources.

Australian Forests and Timber

Over geologic time the Australian continent and its flora and fauna have undergone many changes. The changes have resulted from forces as diverse as continental drift and deformation, volcanic activity, evolution and natural selection, climatic change and the impact of human use. Therefore, the

notion of 'pristine' or 'old-growth' with reference to forests, are themselves relative in time and place

In the modern epoch, three main eras of timber-getting are notable [Resource Assessment Commission 1992, 115]. The first era, from 1788 to 1850, was characterised by raw human effort and beasts of burden. Red cedar and native softwoods, harvested by axe and crosscut saw, were transported by ships and wagons to provide the building materials for the expanding colonies.

The second era, from 1850 to 1945, was a period of expanding demand for timber. Harvesting became progressively more mechanised. The gold rushes of the 1880's in Victoria and New South Wales, and the growth in exports from Queensland, WA and Tasmania, all increased the demand for timber. Felling techniques changed little except for the use of better steel for axes and saws. Steam power did have a major impact because tramways, railways and steam-powered haulage allowed the harvesting of larger trees. Road transport also grew in importance. Crawler tractors, motor transport and electricity became available after the turn of the century. The making of paper from pulpwood also commenced in this period.

The third era, from the end of World War II onward, has been one of replacing human effort by mechanical devices. Tree felling, using petrol-driven engines and circular saws has increased productivity. Bulldozers make road production easier; and more powerful crawler tractors and cable logging systems make increased ingress to the forests possible [Dargavel and Boutland 1988, 69].

In the second half of the 20th century, international trade in woodchips on a global scale was made possible with the construction, in Japan, of specialised woodchip carriers during the 1960s. In 1970, the Australian woodchip export industry began with the first shipment, to Japan, from Eden by Harris-Daishowa. Subsequently, export shipments commenced from Tasmania in 1971-72 followed by WA in 1975-76. Thus began a long-term conflictual situation between conservationists and industry representatives, yet to be resolved. While the conflict continues, the balance of trade in forest products remains in deficit. By 1993/94, Australian imports of forest products were valued at $2,465 million compared with exports of $875 million [Australian Bureau of Statistics 1995, Tables 15 and 16].

Western Australia (WA) Forests and Timber

In Western Australia (WA), native hardwood forests predominantly consist of jarrah (*Eucalyptus marginata*), karri (*Eucalyptus diversicolor*), and marri

(*Eucalyptus calophylla*). Woodchipping is based primarily on marri and karri timber.

Karri is a timber available in a large size suitable for structural work. It is used for railway sleepers, scanting on buildings, and mine guides. The stands of the tree naturally self thin, thereby occurring in even aged clusters. Because of this, clear felling is favoured as most trees reach marketable size at about the same time. Although karri are suitable for sawlogs the timber makes up much of the woodchip industry in WA [Smith 1972, 9]. Marri is widely distributed in the southwest of the State and has most of the properties of jarrah and karri [Carron 1985, 167]. Marri had not been commercially harvested until woodchipping began in WA. The marri is easy to pulp, creating less wastage, and is most suitable for kraft papers, container boards and hardboards. Jarrah is prized for high grade furniture and boat building. The low cellulose content of the jarrah makes it relatively unsuitable for paper making and therefore, woodchipping.

Mainly due to the lack of viable markets commercial woodchipping was prevented from getting under way until the 1970's. It wasn't until October, 1968, that the WA State Government granted Bunnings Timber Holdings Ltd. the right to establish a woodchip export industry near Manjimup [The West Australian 19 November 1968, 4]. Interestingly, it was also about this time (between 1969 and 1973) that the 'environment' began to emerge as a socio-political issue. One portrayal of this fact is that in the State parliamentary papers dealing with the 1969 legislation on forestry, the words 'conservation' or 'environment' were not used at all. In the 1973 Act however, the two words appeared thirty-eight times [O'Brien 1976, 7].

Very soon thereafter, by 1975, the WA Forest Department admitted that the WA forests had been overcut and that timber suitable for hardwood sawlogs would be debilitated in 25 years. During the following decade a number of parliamentary reports were generated to deal with this unsatisfactory situation. Despite this, cubic metres of karri taken from State land actually increased during the period 1975-81. By this time serious environmental concern was being expressed by a number of non-governmental organizations [Forest Department 1975, 21; Campaign to Save Native Forests (WA) and Workers Information and Research Centre 1985, 23 and 25]. The Forest Department strongly argued that their worries were exaggerated because in the long-term pine would replace native hardwood; and tourism would stabilize the local rural economies and the workforce [Forest Department 1975, 21].

As of 1990/91, there were 35 log sawmills and 1 chipmill in WA. The 35 log sawmills employed 1,032 people [Australian Bureau of Statistics 1993, 10]. The Bunnings/WACAP Diamond Chipmill employed 47 people

[CALM 1993a, 16]. Employment has been decreasing in the industry since the 1960s even though total timber production has increased. The wood-chipping sector continues to consume an ever-larger slice of the total metres^3 of harvested hardwood because more old-growth is being cut. Old-growth trees produce larger quantities of timber suited to woodchipping rather than sawlogs. In 1983, woodchipping used 38 per cent of all harvested hardwood logs; whereas in 1992/93, 53 per cent of the 1,381,500 metres^3 of hardwood harvested, was used for woodchipping [CALM 1993b, 18-19].

Woodchipping continues to be a significant export and revenue earner for the State of WA, providing approximately $75 million in 1993. This compares with only $15 million gained from exporting sawn and manufactured wood products. From this the State received $25 million in saw and chiplog royalties [CALM 1993b, 52 and 72; and Bunnings 1993, 15].

In 1992, the Department of Conservation and Land Management (CALM) amended their Forest Management Plan. These amendments, in particular, generated much of the ire of local conservationists, which has continued unabated down to the present. In summary, the new 1992 amended timber strategy indicated that all of the unprotected old-growth forest was to be logged during the next 40 years. Second, the State Forest is meant to be managed on a multiple use basis but outside reserves forest management focuses primarily on wood production. Third, as old-growth tends to have more wood unsuitable for sawlogs, most old-growth karri and marri is to be woodchipped [Environmental Protection Authority 1992, 36].

The Conservationists

Conservationists have through the years opposed the woodchipping of native hardwoods and have been critical of the State's management of native forest. Opposition centres around issues of water quality, soil erosion, global warming, the importance of forests to aboriginal people and loss of areas for recreation and relaxation. Furthermore, they argue that cheap exporters in Brazil and Spain make the industry a dying one in WA and plans should be made for transition out of the industry rather than attempting to make it more efficient. It is their stated belief that Australian companies are trying to intensify extraction before competition forces the export price below profitable rates [The Wilderness Society 1992a, 1-3].

The common goal of the environmental lobby is to substitute plantation timber for old-growth forests as rapidly as possible. This is why they are particularly enraged by the Federal Government's continued renewal of woodchip licenses. In the past, forest management policy has stated that when plantation timber is available for woodchipping it would replace

native hardwood consumption. However, in 1994, the Federal Government allowed an export quota of 70,000 tonnes of woodchips from plantations to be added to the already approved woodchip tonnage [The West Australian 1993, 29].

Conservationist support for plantation timber to replace the use of native forests does not adequately reconcile differences between them and community representatives. This is because plantations strip the land of farms, which will cause people to emigrate, and in turn affect the size of small towns and the quality of services which can be provided. Many of the communities in the south-west of WA exist directly as a result of dependence on the resource which old-growth forests provide to timber industry.

The conservationist bottom-line is that both the timber companies and the Department of Conservation and Land Management wish to maximize wood extraction. In doing so, reserve areas are continually overstated; and environmental impacts are hardly ever considered [WA Forest Alliance 1993, 2-6].

The Workers

The workers, primarily covered by the Forest Products, Furnishing and Allied Industries Union of Workers, are not well paid in relative terms. The Bunnings (Enterprise Bargaining) Consent Agreement (No. AG 11 of 1992) provides some indication. Level 5, or the 100% relativity level, equivalent to trade status, provides a gross income of $417.20 per week (21,694.40/annum). Since the majority of timber workers do not have a trade, they are paid at a level below this. The highest non-trade rate is $396.30 per week ($19,203.60/annum). Many timber workers are entitled to low income support and/or supplement their incomes with second jobs. Regardless, income from the timber industry is not perceived as sufficient to provide an 'average livelihood'.

Timber workers have traditionally been among the most exploited of all workers, yet in recent times, they have also been among the most reluctant to take industrial action. Mill amalgamations, which began in the 1960s, reduced the scope for employment within the industry and, accordingly, weakened the power of the workers on the shop floor [Watson 1990, 20-24]. By the mid-1960s a majority of log fallers were working as sub-contractors and by the 1970s, this figure had risen to three-fourths of the labour force. This process further cheapened the costs of labour power by reducing supervision costs and/or a problem found in the industrial relations literature identified as 'shirking'.

Over the years the timber industry has gained an infamous reputation of being one of the most unsafe working environments [Driscoll, et.al. 1995]. The fatality incidence per 100,000 person-years for loggers (396), and forestry workers in general (179) for the period 1982-1984 is among the highest of any occupation group in Australia. Comparatively, other occupation groups with high incidences include commercial fishing (143), mining and quarrying (70), and agriculture (19) [Harrison, J.E., et. al. 1989]. The average incidence for all workers in Australia during the same period was 8.1 per 100,000 person-years.

Severe injuries suffered are largely from exposed machinery, flying pieces of timber, falling trees, 'widow-makers' (the trees or tree-limbs that are unpredictably knocked down by the tree being felled) [Crowe, M.P. 1986; and Slappendel, C., et.al. 1993]. As well, timber workers are simultaneously plagued by chronic back pain [Karhu, et.al. 1977], 'white-finger disease' (loss of circulation in the fingers caused by the vibrations in equipment) [Hutton, et.al. 1993], and reduced hearing. Ironically, the other side of this is that danger to both safety and health assists in reinforcing an image of masculinity, in a manner similar to that in the construction or mining industries, which leads to excessive risk-taking behaviour.

Workers vs the Conservationists

Recognizing the heterogeneity of both the working class and the conservationist movement, remarks are confined to those groups within the context of the battle over forests. Timber getters used to be seen as the 'pioneers of civilization'[Hudson and Henningham 1986, 61]. This would suggest an era with a much different world view than that which now prevails. Today, timber workers have been demonized by a large component of the conservationist movement, with battle lines drawn between the two groups. Not only have the jobs of timber workers been threatened by labour-saving mill modernizations, technologically advanced and increasingly efficient machinery, and mass production management methods; they are now confronted by people from another 'world-view' who treat them as the 'enemy' rather than 'pioneers of civilization'.

The point is that the argument is not a straight-forward technical one of sustainability, trade, or hectares of required heritage. The argument is class constructed. '[The problem involves] the selection of the less appropriate of two or more worldviews, ideologies, frames of references, or problem definitions' [Boggs 1992, 41]. Arguably, it is senseless to try to devise a methodology to test which of two world views is more 'scientifically correct'; they can both be seen as correct. Each world view (that of the

timber worker or that of the conservationist) frames different research problems. It is not that they are disagreeing, but that they are not capable of communicating.

Communication itself, were it possible, is affected by problems of source credibility and persuasive impact. How attitudinally similar or dissimilar to oneself the receiver perceives the communicator as being can influence persuasive impact [Eagly and Chaiken 1993; and O'Keefe, 1990]. Moreover the degree of involvement on an issue may affect the role of credibility in persuasion. People are ordinarily open to a wide latitude of information on issues, but highly involved people have a narrower latitude of acceptance [Peters, 1992; Petty and Cacioppo 1986; and Gunther 1988].

Consequently, timber workers tend to see conservationists as 'outsiders' with no understanding of the industry and little understanding of the forests. When confronted by the conservationists, a politics of sharp, social dichotomy is spawned: working class vs. middle class; breadwinners vs. jobless stirrers; destroyers vs. preservers; besieged communities vs. outside invaders; market forces vs. government intervention; country vs. the city; and practical knowledge vs. theoretical knowledge [Watson 1990, 50-51]. These dichotomies are represented vividly by the rhetorical epithets flung by the groups at one another. On the one hand the 'forest butchers' are told that they have no right to earn a living based upon destroying the wilderness that belongs to everyone; and on the other, the 'greenies' are portrayed as the dole-bludging invaders of communities filled with decent hard-working people doing what they and their forebears have done for decades.

Watson makes it clear [56-57] that, economically, the working class existence of timber workers is largely filled with insecurity and fear. There is no career structure or guarantee of increased earning power with age. Their bodies continually grow frail, and alternative or outside job prospects are very bleak. Many have no notion of personal fulfilment in their work (except for that based on the perception of 'an honest days work' and/or masculinity enhancement), and are well-aware of the physical danger being faced. And yet, 'for the male wage-labourer, the threat of redundancy is a humiliation, for over and above its sheer economic necessity, the experience of working is at the centre of their social and community life ... The wage symbolizes their social presence' [Tolson 1977, 78-79].

The elements of masculinity and social existence are meshed in the way their work is personally experienced. The physical effort, the community recognition and the practical knowledge which comes out of their labour gives them their place in the world. It is this sense, of earning an honest living, that gives practicality to their world; and denies the relevance of a theoretical world encapsulated by conceptions of biodiversity, climate

change and intergenerational equity mouthed as slogans by 'book-learners', 'university-students' and 'feral greenies'. There is also the real, but unstated fear of those who possess educationally certified learning because this is seen to provide the power to dominate discourse and undermine a 'practical' understanding of life [Willis 1979, 194-195; Watson 1990, 41]. For timber workers, nature represents their sole source of material betterment.

Alternatively, the conservationists see their role as existing above class politics and economic instrumentalism. In one sense they re-echo the anti-industrial romantic movements of the early 19th century by opposing the positive value of economic growth, a view strongly entrenched in the working class and practical Labor politics. They endeavour to replace this materialism with bioethical moral philosophy and 'post-materialist' values [Inglehart 1977]. Their intrinsic valuation of forests suggests higher moral values than can be found in economic progress and permits judgements about how economic venality must be sacrificed for the 'higher good' [Partridge 1987]. They are self-described as progressives, selflessly pre-serving the supra-economic capacity of nature as an inheritance which must be passed on unsullied.

The image of a rainforest to the conservationist is that of rare, pristine lushness where sun-lit ferns and creepers become part of nature's womb for endangered species, gene-pools and potential pharmaceutical wonders. For the conservationists, whose distance of their own working lives from the forests can be considerable, 'conservation' means 'preservation'. This is most unlike the timber workers, because for them history is constructed out of photographs and the written word. Rather than family memories and material artefacts, conservationists emphasize future generations and spiri-tual/ethical connection. Most importantly, the workers are normally repre-sented as puppets of logging companies, without sophisticated understanding or minds of their own. As Gouldner evinced [Gouldner 1979, 19; Also see Watson 1990, 98-100 and 108], the professional middle class construct an ideology of pure altruism and moral superiority. This sets them apart from crass materialists such as workers, whose first concern is job security and income enhancement.

The major impediment preventing workers from recognizing the eco-logical argument is the high discount rate they place on forests, given the necessity of job security. The low discount rate (zero in most instances) placed on old-growth forests by conservationists is processed by their self-perception of moral superiority. The continual allusion to 'future generations' fails the test of identification, but assists the promotion of their image as preservers of nature, nurturers of wilderness, and protectors of a fragile ecology against unthinking and indifferent puppets of greed.

Finally, there exists the hostility between those who construct the world through manual labour and those who construct the world with mental labour. Mental labour is most often better paid, safer and more prestigious than manual labour, and is often aspired to by members of the working class for their own children (future generations!). Simultaneously, mental labour is often dismissed by manual workers as disconnected from 'reality', from the 'shop floor', from 'life', and from 'real work'. There is a concomitant respect, fear, and loathing of both mental labour and intellectuals amongst workers, depending upon whether the issue respectively, involves their children, their jobs, or their self-identity. Reality for them is constructed from community folklore, family history, social interaction with fellow workers, company propaganda and work experience. This means that conservationists threaten not only the jobs of timber workers but their sense of reality [Watson 1990, 139-40].

Alternatively, the reality of mental labour largely comes from books, research, university halls and libraries, seminars, discussion groups within non-governmental organizations and networks. It is a reality which is city-based, information saturated, global in perspective and eloquent in rhetoric and persuasive capacity. Their work is normally safer, more thoughtful, less supervised; and their skills more generalized so that the loss of employment does not in itself mean the loss of employability. In most cases their 'job' has little, if anything, to do with their socio-political position on the forests. Their options, both in life-style and labour, are more open than that of timber workers. This assists in promoting their lack of empathy for those who, in their opinion, would rather destroy nature than lose a job.

Analysis: A Negotiated Solution

Given an apparent aversion to market solutions, conservationists are inevitably drawn to an aggrandisement of the coercive regulatory role of government. The state is the only agent which has the power to exclude industry from certain areas and to lock those wilderness areas up against any change of heart by future electorates. To capture the political agenda conservationists identify with the public interest-collective future to display morality and to justify their activism [Smith 1985]. This morality and activism is aimed at capturing the powers of enforcement held by the state.

A dilemma for the state is that any decision to lock up the wilderness, (i.e., the forests), will involve a redistribution of resources. Either way there will be winners and losers which will in turn produce antagonism and conflict. Surveys identify wilderness users as a group with incomes/assets

well above average, a factor directly correlated with their credentialed educational status. Yet the costs of recreational consumption of wilderness are low in comparison with most recreational activities. Therefore, to lock up forests is to distribute resources away from groups with lower income and educational status. It also suggests a redistribution of the social allocation of leisure infrastructure from the very young and the old to the most physically-active segment of the population; and a distribution of wealth and income away from timber workers to those who protest. Therefore, what appears superficially to be a non-economic, selfless exercise of public morality embodies a utilitarian exercise in taking from the poor and less educated to cheapen the recreational possibilities of the better educated, higher income middle-class [Gerritsen 1989, 4 and 14]. Arguments in favour of pristine wilderness are conventionally couched in 'non-economic' terms. Yet, it turns out that 'tourism' which is continually put forth as an alternative to logging, reflects a subliminal recommendation to redistribute leisure resources in favour of higher income/educationally credentialed members of civil society.

There may also, of course, be a redistribution of income from timber companies to the state or back to the taxpayer since the industry is directly or indirectly subsidized at the Federal or State level [The Wilderness Society 1992b, 1; and Kohl and Graham 1991, 2]. However, if the funds retrieved from the companies are either spent on recreation infrastructure or remitted back to the taxpayer, the above logic continues to hold, i.e., a redistribution away from the poorer and less educationally credentialled to the obverse.

The question of whether tourism could eventually provide more employment than that lost in the timber industry remains moot. In any case, there is little likelihood that those displaced from jobs in the timber industry will be those who take up positions in tourism. The conception of transforming a middle-aged log feller into a wine waiter requires some suspension of disbelief. The timber industry employs adult males, whereas tourism employs mainly young and preponderantly female workers. This gender and generational redistribution of income will also be taken account of by the state decision-makers. Also, where the timber industry in rural Australia has been staffed by long-term local residents, tourism is characterised by seasonal and non-local employment patterns [Gerritson 1989, 18].

The point is that if there is to be a resolution to the conflict over the utilization of old-growth forest resources, then the player with the most to lose must be at the centre of negotiation. Timber workers through the years have proven that they do not posses a 'Luddite' consciousness. They have accepted technological change and the rapid transformation of the wood products industry. This change has been built into their family planning

schemes from one generation to another and there is an understanding by most timber workers that their children will most likely not follow them into the work. They strongly desire, and put money away, for the credentialed education of their children. The additional threat brought by conservationists to timber communities is that the workers and their families even lose control of their plans for change. Long run fatalism is transformed into short run panic. Having rationally planned for the movement of the young out of the sector, they are now faced with the humiliation of losing their jobs 'tomorrow', having their self-respect remade by the experience of long-run unemployment, and seeing plans for their children gone awry.

Very few Australians would refuse to sign a petition which argued for the preservation of the earth's genetic heritage, the reduction of CO_2 gases, the protection of earth's flora and fauna or even the reduction of our use of paper by x per cent. But the special character of these moral pronouncements is revealed when one examines the economic side of the ledger and asks the question, 'at the expense of what'. The fact is that even for the most rationalist in economic terms, there is something intuitively niggling (as un-Popperian as that may be) by any policy which inflates the welfare of higher income/more educationally credentialled individuals or groups at the expense of the lower income/less educationally credentialled individuals or groups.

Further, to call upon the state to assist in carrying out this antithetical exercise in reverse 'Robin Hood' behaviour, denotes thoughtless arrogance. Even should one assume that the state is capable of carrying out this instrumentalist process to create unemployment (at least in the short term), destroy timber communities, take resources from the poor to hand over to the more advantaged, and negatively impact the balance of trade, can one assume that it will be done without a whimper from those affected, even if that whimper symbolizes venality of the most base economic variety.

Necessary changes will involve substantial social and economic dislocation. That should be admitted openly by all concerned. Whatever inequality and resource depletion there is, the fact remains that it is conjunctural with certain kinds of work, standards of living, habitual uses of resources, etc., which many have now come to expect. If one is to prevent resource depletion without augmenting existing inequality then careful negotiation, rather than moral rhetoric is required. Timber workers and those dependent on timber communities will not be argued out of or converted from their position of fear and loathing. They can only be carefully negotiated out of it. To paraphrase Raymond Williams, it is no use simply saying to WA timber workers that all around them is an ecological disaster. They already know. They live in it. Their families may have lived in it for generations.

But it does not answer the question as to why it is them who must pay the bill [Williams 1995: 50].

> You cannot just say to people who have committed their lives and their communities to certain kinds of production that this has all got to be changed. You can't just say: 'come out of the harmful industries, come out of the dangerous industries, let us do something better.' Everything will have to be done by negotiation, by equitable negotiation, and it will have to be taken steadily along the way. Otherwise you will find, as in all too many environmental cases that there is a middle-class environmental group protesting against the damage and there's a trade union group supporting the coming of the work.

Conclusion

An ecological movement that stands for preservation and ignores class and other social inequalities will succeed at best in simply displacing the environmental problems to a different level of inequity. While it is not environmentalists who are responsible for social inequality, their gross insensitivity is at issue. One of the most radical of environmentalist publications in the United States has recently argued that [Cited in Foster 1993: 28-29]:

> the problems of workers threatened by displacement can be left to the condign sanctions of the market. A market economy does not maintain an industry simply for the sake of employing workers. When a product becomes obsolete or a resource runs dry, the economy adapts ... it's a natural, necessary component of capitalism. Chopping down forests for the sake of jobs is nothing more than social welfare.

The hypocrisy of the quote is portrayed by the fact that they would not argue for a market solution to the utilization of the old-growth forests. When faced with statements such as this it becomes a simple matter to redirect the anger cultivated by insecurity towards environmentalists. In the absence of a militant trade union response, the 'Forestry Industry' becomes the 'voice' of timber workers. This is why they appear to be, and are accused of being 'puppets' of timber companies. The *locus in quo* their long-term future is threatened, their pay is reduced, and their working conditions are made unsafe, becomes the protector and ally against the short term threat of forest lockout.

There is a distinction here between the classic battles symbolic of capitalism fought between capital and labour during the production of wealth; and the conflict between those who deplete nature's resources and

those who wish to preserve nature for it's own sake. The consequence of the latter in Australia is a capital-labour symbiosis within the industry which engages those who challenge the premises of economic growth under a banner of ecologically politicization. The result, based within sites of the state (e.g., the Department of Conservation and Land Management), is a 'scientific battle' waged over the heads of the workers, and fought out by intellectual strategies in an intellectual milieux. Should the forests be locked away, the workers lose the last vestige of security and livelihood. Should the state act in the interests of the industry, the workers remain in a low-paying, unsafe, and labour-replacing industry [Beck 1992: 112-113]. They deserve better in either case. It is the timber workers who stand between Scylla and Charybdis. They have neither a moral high ground on which they may clamber to safety; nor the monetary savings and educational credentials to endure the forces of irrevocable change. If empathetic communication with timber workers is not possible then we are simply forced to choose sides and construct a scenario of 'winners' and 'losers'.

Notes

1. The pioneering paper of Arrow and Fisher [1974] considered the problem of developing wilderness when the future benefits from conservation and development are uncertain. They show that since development is irreversible while conservation is not, there is a value, which they called the 'quasi-option value', associated with the reversible decision to conserve. Simply put, with uncertainty present there is some value associated with keeping one's options open. This is popularly known as the 'precautionary principle'.

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