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The "un-womanly" attitudes of women in mining towards the environment

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ABSTRACT

In this paper I explore whether the employment of more women in mining will result in improved environmental management and practices in that industry. The debate about gender in mining regularly includes claims that the employment of more women will help change the industry. These claims rely on essentialist ideas about how women behave, and fail to consider the production of masculinity as the preferred gender for all mining employees. Drawing on the results of a survey which explores the attitudes of women who work in mining towards the environment, I conclude that the sex of employees is not the best indicator of possible change in environmental management and practices in the industry. Women who work in mining do not display a particularly strong or unique connection to the environment which would encourage them to drive change in their workplaces. In conclusion, I suggest that ecofeminism might offer better hope of improved environmental practices in mining; and call for more work to be done to explore how this might work in mining operations.

1. Introduction

Do women have a better ethics of care towards the environment than men? The answer to this question is an important one for the mining industry today. If the answer to the question is "yes", the employment of more women in mining could bring about changes in the management of the environment within this industry; and an outcome of these changes could be a reduction in the pollution and damage caused by the ways humans currently mine the earth's resources.

Mining[1] is an important practice which has allowed for incredible advances in technology, education, and health for human civilisations. The human hunger for what mining ultimately provides—machinery, energy, personal computers, household appliances etc.—means it is unlikely to disappear as a human practice or as an industry anytime soon; and this despite the growing movement to create post-extractive cultures. Nevertheless, a growing concern about mining is the impact it has on the environment. Because mining is a "*segregative process*" (Bridge, 2004 ; emphasis in the original), the volume of waste produced is extremely high—more than 99.5% of the mined material in the case of copper. Mining's impacts on the environment can be extreme and long-term. Polluted water and air travel, and so environmental damage caused by mining is not just localised. Mining is therefore easily read as the "perfect" example of selfish, post-industrial, neo-capitalist practice—it "turns minerals into commodities, controlled by market forced driven by a profit motive that overrules concern for the nature and the environment, and the engineering project assumes superiority over everything else" (Lahiri-Dutt, 2010, p. 331).

Gender is increasingly being promoted as a way to introduce changes to the practice of mining and within the mining industry. The role of women in particular is starting to attract significant attention. Recent research has explored the histories of women in mining (Burton 2014; Mercier and Gier, 2009), the impacts of mining operations on women in local communities (Lahiri-Dutt, 2006; OXFAM, 2009; Sharma and Rees, 2007), the status of femininity in mining (Mayes and Pini, 2010), the role of gender in the training of employees (Andersson and Abrahamsson, 2007;

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[1] In this article, I compact the act of resource extraction into one single term: "mining". Mining is a complex industry. It demands a wide range of skills from engineers, managers, safety experts, psychologists, human resources personnel, accountants, business planners, architects, and machine operators, to name but a few. A range of different resources are also extracted from the earth, including oil, gas, diamonds, iron ore, petroleum, coal and more; and the extraction methods differ. What is extracted, how much of it is extracted, how it is extracted, and what happens to it after it has been extracted—all these are important in terms of understanding the process of mining. Understandings of what is needed and how to extract it are necessary for any mining business to function in financially and commercially viable ways. For the purpose of my analysis of the relationship between gender and the human practice of extracting non-renewable resources from the earth, however, the single term "mining" will suffice.

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Somerville, 2005), the relationship between gender and safety (Albury and Laplonge, 2012, 2013; Ely and Meyerson, 2010; Laplonge, 2014), and the impacts of gender in fly-in-fly-out communities (Clifford, 2009; Lozeva and Marinova, 2010). This work sits alongside an equally emerging interest in exploring women in male-dominated industries in general (Benecke and Dodge, 1990; Corcoran-Nantes and Roberts, 1995; Denissen and Saguy, 2014; Hatmaker, 2013; O'Farrell and Harlan, 1982; Powell et al., 2009; Reskin and Padavic, 1988; Rosell et al., 1995; Smith, 2013a, 2013b). Over the past 25 years, we have also seen the release of many industry and government reports which promote the employment of more women in mining (see, for example, Australian Government Office for Women and Minerals Council of Australia, 2007; Australian Human Rights Commission, 2013; Canadian Mining Industry Human Resources Council, 2008; Colmar Brunson Social Research, 2005; International Finance Corporation, 2009; Pattenden, 1998; Queensland Resources Council, 2012; WIM Canada, 2010).

In this article, I seek to further the gendered analysis of mining by exploring the attitudes of women who work in mining towards the environment. I seek to answer an important question: Can we rely on these women to save the environment that is being mined? I draw primarily on the findings of a survey in which 49 women with experience working in mining shared their attitudes towards the environment and its management within mining. I analyse the results of this survey alongside the findings of other studies which have explored the link between gender and the environment, including the attitudes towards the environment of women working in similar male-dominated industries.

Women have noticeably been involved in activism against human activities which threaten the planet like mining (Gaard, 2011; Merchant, 1980; p. 66 ; Mies & Shiva, 2014; p. 3, 246; Rocheleau et al., 1996b; p. 14). The issue of whether women are better, or even natural, protectors of the earth has been widely discussed and debated in narratives of environmentalism and ecofeminism (Brú & Cabo, 2004; p. 221; Jackson, 1993; pp. 392–397; Nightingale, 2006; p. 165–167; Stoddart and Tindall, 2011; Warren, 2000, pp. 52–54). Warren (2000) identifies nature as a specific feminist issue because an understanding of nature helps us to understand the "oppression, subordination, or domination of women"; and even promotes "Nature is a feminist issue" as the "slogan of ecofeminism" (p. 1).

I conclude, however, there is little evidence of a deep concern for environmental issues among women who work in the mining industry today. The results of the survey show no strong desire on the part of such women to change the way the environment is perceived and managed in the industry. This should not be read as a failure on the part of these women, or indeed all women who work in mining. Rather, I respond to the results in two ways. Firstly, I argue that women who work in mining are not immune to being influenced—or gendered—by the existing masculinised culture of the industry. Instead of relying on women to save the mined environment, we should further challenge and change this gendered culture such that the environment benefits from a more feminist practice of mining. I therefore argue that a turn towards a better understanding and application of ecofeminist ideas by both men and women who work in mining offers a more promising solution to improving environmental management and practices in this industry.

2. Defining "women who work in mining"

Women have a long history of working in mining. On a global scale, women continue to work in mining in large numbers. Claims that women are underrepresented in mining today is factually inaccurate if we include women who work in artisanal mining in developing contexts (Hinton et al., 2003). The women I am concerned with in this article are, however, those women who work in the mining industry in liberal democratic societies such as Canada, Australia, the United Kingdom, South Africa, and the United States. The survey carried out as part of my research was targeted at these women. The experiences of these women differ from those of women who work in artisanal mining in that they may not have the same "intimate knowledge of their ecosystems" as women who rely on such knowledge for basic survival (Nightingale, 2006). Their knowledge of the environment and its resources is arguably more closely connected to that of privileged men than women whose knowledge about such matters is "gained from their role as subsistence providers of the households" (ibid.).

To focus on such a small and specific group of women to explore attitudes towards the environment is a very (eco)feminist thing to do. This is important, because as I discuss in the conclusion of this article, a turn towards ecofeminist ideas may be a better way of ensuring changes in environmental management in mining than a reliance on simply employing more women. Elmhirst and Resurreccion (2008) observe that "Arguments have been made for more context-specific and historically nuanced understandings [in ecofeminism] of the relationship of specific groups of women with specific environmental resources [. . .]" (p. 7). My analysis takes the women who work in mining in liberal democratic societies as a specific group of women. It takes mined non-renewable resources (e.g., oil, gas, minerals) as the specific environmental resources. It considers what these women who are professionally connected to the mining of these resources think about the environment.

3. Attitudes towards the environment of women who work in mining

In 2015, I ran an online survey to ask women working in resource industries to share their attitudes towards the environment. The survey asked for details of the employment status of each respondent, including how long they had worked in the extractive industries, and their current position at work. The respondents' professional attitudes towards the environment were gauged by asking them about whether they supported the current environmental practices of their employer and if they had raised an environmental concern at work. The respondents were also asked if they had participated in environmental campaigns and to share examples of "environmentally friendly" actions they had taken in their personal lives. The purpose of this latter inquiry was to see if these women adopted different attitudes towards the environment on a personal level than they did in the workplace.

The survey was advertised on Factive's website (www.factive.com.au) and on a variety of social media platforms such as Facebook, LinkedIn, and Twitter. A link to the survey was included in a mail out Factive sent out to its database of approximately 750 people. It was also sent out to a number of women in mining networks and associated groups located in Australia, Canada, South Africa, the United Kingdom, and the United States. The survey ran for a period of approximately 2 months. In total, 51 respondents completed the survey. 1 of these identified as "male" and was therefore removed from the analysis. The survey was set up in such a way as to deny access to any of the questions unless the respondent identified as "female". A further respondent was ineligible because they indicated they were not currently employed in a resource or extractive industry; and again their ability to respond to further questions would have been blocked at this point. The total number of eligible responses was therefore 49.

3.1. Findings

The majority of respondents (40) identified as currently working in the mining industry, while the remaining respondents were employed in the petroleum, energy, gas, or other (unidentified) extractive industries. 50% of the respondents were under the age of 35, and 95% of the total respondents had worked in the resources sector for more than 3 years. In terms of their roles, only 1 respondent identified as a director, with others indicating they were currently managers (16), supervisors or superintendents (8), or operators (9).

Only 6 respondents were currently involved in work directly related to environmental issues, but a total of 18 had held a job dealing with environmental issues in the past. Their specific roles had included working as an environmental advisor to ensure legal compliance, liaising with local communities on environmental issues and behaviours, laboratory testing and pest control management, working in rehabilitation services, and responding to environmental hazards and incidents. 14 of the women had raised concerns about an environmental issue at work. The issues they had addressed related to noise levels on operational worksites, leaking water and impacts of water flow on wildlife, the treatment of wildlife on site, attitudes towards environmental practices among the workforce, ineffective rehabilitation services, location of contaminated materials, and long-term environmental planning. 11 strongly agreed with the environmental practices of their employer, while only 2 strongly disagreed. When asked about how strongly they agreed with the environmental practices of the resources sector in general, only 2 strongly disagreed and only 4 strongly agreed.

8 of the 49 respondents indicated they had participated in an environmental campaign. Such participation included writing letters and signing petitions. 1 respondent indicated they had been involved in various Greenpeace activities. A further respondent said they had been against the dredging of a local bay due to the risk of contamination to the bay's ecosystem. This person did not elaborate on what action they took to show their opposition. Only 2 respondents said they had participated in "environmental activism" which also included writing letters. The most common environmental activities in which the women participated were recycling of household waste (92.2%) and installing energy efficient light globes in their home (94.1%). Such activities can be considered an everyday part of life for most people in urban centers in resource-heavy countries such as Canada and Australia where infrastructure and supply make these two activities particularly easy to achieve. These activities do not, therefore, suggest strong environmentalism activism.

4 of the respondents claimed to be extremely concerned about environmental issues. None of the respondents claimed to be actively concerned to the extent that they attended meetings and rallies, or spent time helping to work on environmental campaigns. In fact, none of the respondents indicated they were "very active" in their concern for the environment. The most commonly identified environmental concerns among the women were water pollution (68.6%), forest degradation (54.9%), climate change (52.9%), drought (51%), and air pollution (51%). The reasons cited for why the women are concerned about environmental issues included destruction of natural beauty (70.6%), providing a clean and safe future for their children (68.6%), food and water scarcity (66.7%), and extinction of animal and plant species (64.7%). Only 13 respondents were concerned about how environmental issues might lead to civil unrest, and only 7 were concerned about the plight of environmental refugees.

4. Discussion

The results of this survey give no indication that women who work in mining display a connection to or concern about the environment that can be read as distinctly challenging to the existing environmental practices within the industry. While there is some concern among these women about providing a secure planet for future generations and protecting food supplies and animal species, this concern is not acted on in ways that prove support for overt environmental activism; nor does it translate into significant critical engagement with their employers in regards to environmental practices in individual workplaces or throughout the resources industries in general. In fact, the extent of these women's interest in and concern for the environment might be said to be tokenistic in the sense that the women care about the environment only in so far as this involves supporting popularised environmentally friendly campaigns (e.g., turning out the lights for Earth Hour)—practices which have been described as supporting capitalist and patriarchal efforts because of their failure to address inequalities in consumption and gendered work (Alaimo, 1994). The results of the survey certainly do not support any essentialist claim that women have more in common with nature than men, and that this makes women better suited to manage environmental issues (Brú & Cabo, 2004; p. 221).

These results are, however, not surprising. Carrier (2007) summarises the findings of a number of investigations into gender's impact on attitudes towards the environment, showing that conclusions either reveal no difference or some females having more concern and interest. An earlier review of the literature linking gender to environmental attitudes concluded that women only express a greater concern than men under certain circumstances (Davidson and Freudenburg, 1996). In his assessment of whether the presence of women on boards of directors has any impact on how companies address and respond to "corporate sustainability", Galbreath (2011) includes attention to environmental issues as one of the measures. He concludes that women directors have a positive impact on an organisation's economic performance and reputation with stakeholders; however, increasing the number of female directors does not affect the level of environmental concern of an organisation (p. 26).

The motivating factor for the attitudes towards the environment that women who work in mining express may not be their sex. Instead, their attitudes might be influenced or determined more so by their location as employees within a highly masculinised industry. Hamilton et al. (2010) have shown that "how people respond to questions involving the environment depends partly on who they are" (p. 327). A person's willingness and readiness to participate in a social movement has also been connected to their identity (Bell and Braun, 2010). Forestry is another masculinist industry dominated by men. It has undergone changes in the demographics of its employees with more women entering into the profession of forest management. Brown and Harris (2001) conclude, however, that while women may have elected to enter this industry because of concern for the environment—a "caring ethic"—this concern "may be modified but not totally extinguished through traditional agency socialization practices" (p. 255).

With gender being such an important marker of the human identity today, it has made sense to think about how gender impacts on attitudes towards the environment; and this relationship has indeed been widely explored (Blocker and Eckberg, 1997; Dietz et al., 2002; Hayes, 2001; McCright, 2010; Mohai, 1992; Zelezny et al., 2000). Such studies often begin with an assumption of a static sex/gender, where sex and gender are also conflated to mean the same thing. A "less studied" proposition concerns the dependency of attitudes towards the environment based on a person's location (Hamilton et al., 2010), and which can show how the gendered attitudes of both men and women can depend on who and where they are.

Bantjes and Trussler (1999) argue that humans are seen to have more of an interest in environmental issues that affect them negatively at the local level (p. 187). This argument is supported by

Geno (2002) who studied the attitudes of female farmers and concluded that (these) women do indeed demonstrate "higher levels of environmental concern" (p. 200). Like men, women who work in mining may have no further connection to the physical mine site on which they work than the fact that this is their place of work, and often a place that is distant from their usual place of residence given the high percentage of mine site employees who work on fly-in-fly-out rosters. The environmental impacts of the mining operations in which they participate often, therefore, do not impact on their home environment; and this may reduce the "care" they have for the mined environment at their place of work. These women are also working within a masculinised social and cultural environment which is also likely to impact on their attitudes and behaviours.

The involvement of men in mining is said to reduce their capacity to be involved in any activism which is anti-mining (Bell and Braun, 2010). This is not simply a matter of needing to support an industry which employs them. The mining industry also plays a role in helping them construct their gender. The mining industry has been identified as a particularly masculinised industry which preferences hyper-masculinity and rejects femininity (Laplonge, 2011; Mayes and Pini, 2010). There is, as Lahiri-Dutt (2011) explains it, "not only an overt visibility of men [in mining] but also a taken for granted conflation of men, with institutionalized authority expertise and prestige, institutions, laws and structures of governance that favor these entrenched hierarchies, and technologies that pose to be gender-neutral" (p. 329). It becomes vital, therefore, that men who work in mining support the existing culture and practices of the mining industry if they seek to attain (or come close to) what is deemed to be hegemonically masculine within the everyday workplace context of mining. Their status as "real men" relies on the status quo of mining, while any oppositional position indicates a rejection or risk of losing normative masculine status.

This same need to conform to a particular gender model through agreement with existing environmental practices is true for women who work in extractive industries. It is, however, not femininity that is the preferred gender for women who work in these industries. While femininity is aligned with women in the essentialist model of gender, femininity is actually actively and discursively rejected in the workplaces of extractive industries (Laplonge, 2014; Mayes and Pini, 2010). Instead, the women who work in these industries are often expected to think and behave exactly like the men. They are expected to show themselves to be adequately like the men—sufficiently masculine therefore—to be seen as suitable and legitimate workers. A woman's right to work in mining is determined not so much by laws or policies governing equal opportunities, or as a result of her individual skills and experiences. Rather, it is determined by her ability to be adequately masculine. Any woman who adopted a highly feminist position in regards to their work and to the environmental practices of their employer would be at risk of being considered as insufficiently masculine, as therefore too feminine, to work in industries where masculinity is seen to be the only kind of gender that can function and get the jobs done.

The woman who works in mining becomes a "good woman" not by pushing for the mining industry to take better care of the environment, but by agreeing to participate in the masculinist, neo-liberal practices of mining. Key to her inclusion is her ability to adopt the position of woman as it is already approved of by the masculinist culture of the industry into which she seeks entry. She must be "*not feminist*" (Spence, 1998; emphasis in the original), similar to men in attitudes and behaviours (towards the environment) but not as man.

5. Turn to ecofeminism

The suggestion that more women working in mining will bring about environmental change within this industry is akin to similar claims that women bring about more safety, more collaborative decision-making, or less aggressive workplace cultures in this same industry (and in workplaces in general). Such claims—now regularly heard in discussions about diversity in resource industries—aim to provide support for equality for women in regards to professional opportunities. They nevertheless rely on essentialist myths about how women behave, how they think, and the existence of natural womanly/feminine characteristics. They do not adequately account for how gender—both the genders of men and women—are produced in multiple ways in different contexts; and performed as both conformity and resistance to differing denotations of normative femininity and masculinity within those contexts. These contexts can be both macro, such as national cultures, and micro, as is the case on individual worksites. The suggestion or desire that women can change the existing masculine behaviours of a predominantly male cohort fails to appreciate the role women play in the construction of masculinities within such contexts. It also places the onus on women to do things differently to men without having to address the gender structures and demands of the contexts themselves. In many cases, it is also women who are relied on to correct men's mistakes in these contexts, such as in the example of finding a less damaging way of mining.

The error is therefore in looking at the sex of the players, rather than the genders of these players. Changing the sex of the labour force in mining is not the answer to better environmental management or practices. Changing the gendered behaviours of these players—regardless of whether they are sexed as men or women—is. Ecofeminism, as one example of a feminist response to the dominance of masculinity in our societies, is a much better place to look for such possibilities of change. Ecofeminism is an important voice in the debate about how we, as humans, live and treat the earth. Its focus on the position of women in an otherwise male-dominated geographical, political, and industrial space is particularly challenging to dominant neo-liberal, post-industrialisation, capitalist modes of thinking and doing (Salleh, 2014).

Ecofeminism exists both as a diverse academic discourse (Carlassare, 1994; Phillips, 2014) and as a "practical movement for social change arising from the struggles of women to sustain themselves, their families, and their communities in the face of maldevelopment[2] and environmental degradation" (Murphy, 1997). Since its emergence in the 1970s, or even earlier (Diamond and Orenstein, 1990; Gaard, 2011), ecofeminism (*ecofeminisme*), has also sought to offer a feminist response to the destruction of the environment as this destruction is seen to represent and impact on the continuing oppression of women (Carlassare, 1994; Collard, 1989; Warren, 2000). Ecofeminism has been described as "the marriage of feminism and the radical ecology movement" (Hamad, 2013, p. 11). It is seen to offer us a framework for building "new gender relations between women and men and between humans and nature" (Merchant, 1990). For more than four decades now, the discourse of ecofeminism has sought to offer a feminist response to the destruction of the environment as this destruction is seen to represent and impact on the continuing oppression of women (Carlassare, 1994; Collard, 1989; Warren, 2000).

[2] Shiva (1990) defines "maldevelopment" as "a new source of male/female inequality" (p. 192) and "the violation of the integrity of a living, interconnected world" which is "simultaneously at the root of injustice, exploitation, inequality, and violence" (p. 193).

Ecofeminism has explored the making of the problem of environmental destruction "personal and familial instead of political and systemic" (Alaimo, 1994, p. 137); the marginalization of the poor and (therefore) the majority of the world's women in pro-environment politics and practices (Leach, 2007); the contradictory insistence that it is the poor, the indigenous, and women who must save the environment (Bauhardt, 2013; Buckingham-Hatfield, 2000; Thomas-Slater et al., 1996; Twine, 2001); the othering of woman as environmental victim (Jackson, 1993); glorifying non-Western and/or indigenous cultures (Banerjee and Bell, 2007; Eisler, 1990; Jackson, 1995; Kao, 2010; Leach, 2007; Mies and Shiva, 2014); adopting a Eurocentric and Western view of the relationship between gender and the environment (Kao, 2010); and engaging in mysticism or un-scientific spirituality (Banerjee and Bell, 2007; Biehl, 1991; Jackson, 1995; Warren, 2000). There is, therefore, much within ecofeminist thought that deserves attention by mining professionals if changes in environmental management and practices are truly desired.

Conceptual thinking about an ecofeminist practice of mining in liberal democratic societies specifically is not well advanced. The extensive portfolio of work by the Australian-based researcher Kuntala Lahiri-Dutt offers a good starting point for thinking about how ecofeminism can or does influence mining activities more broadly. In a previous article, I explained the difficulties in bringing together ecofeminist ideas and the aims of the Women in Mining movement which often speaks on behalf of women who work in (or who want to work in) mining (Laplonge, 2016). The lack of respect for femininity and feminism within the mining industry may further ensure a barrier to any new ideas about a relationship with the environment which specifically identify ecofeminism as their knowledge base. This does not mean we should avoid speaking about ecofeminism or feminism in general in this future work. There is a need to challenge existing assumptions and ideas about anything "fem" if the mining industry is to survive and thrive in an increasingly environmentally conscious world. What is needed most, however, are practical outcomes for mining professionals such that they—both men and women—are able to see how ecofeminist ideas about the environment could be applied in their workplaces easily and with measureable results. Learned practical skills and systems that are informed by ecofeminism offer more hope for improved environmental work in the mining industry than relying on the capacity and willingness of female employees to do all this transformative work naturally.

References

Alaimo, S., 1994. Cyborg and ecofeminist interventions: challenges for an environmental feminism. Fem. Stud. 20 (1), 133–152.

Albury, K., Laplonge, D., 2012. Practice of gender in mining. Aust. Inst. Miner. Met. Bull. 80–84.

Albury, K., Laplonge, D., 2013. Doing safer masculinities: addressing at-risk gendered behaviours on mine sitesM/C Journal 16 (12) . . Retrieved from http://journal.media-culture.org.au.

Andersson, E., Abrahamsson, L., 2007. Deep down, a change of attitude makes a difference! Experiences from a project on work safety and masculinity at LKAB. Paper Presented at Swedish Production Symposium, Göteburg, Sweden.

Australian Government Office for Women and Minerals Council of Australia, 2007. Unearthing New Resources: Attracting and Retaining Women in the Australian Minerals Industry. Minerals Council of Australia, Canberra.

Australian Human Rights Commission, 2013. Women in Male-dominated Industries: A Toolkit for Strategies. Australian Human Rights Commission, Canberra.

Laplonge, D., 2016. Exploring the distance between ecofeminism and women in mining. Extract. Ind. Soc. J. 3 (3), 843–849.

Laplonge, D., 2014. So You Think You're Tough: Getting Serious About Gender in Mining. Factive, Perth.

Laplonge, D., 2011. Toughness in the Workplace. The Department of Mines and Petroleum, Perth.

Banerjee, D., Bell, M., 2007. Ecogender: locating gender in environmental social sciences. Soc. Nat. Res. Int. J. 20 (1), 3–19.

Bantjes, R., Trussler, T., 1999. Feminism and the grass roots: women and environmentalism in Nova Scotia. Can. Rev. Sociol. Anthropol. 36 (2), 179–197.

Bauhardt, C., 2013. Rethinking gender and nature from a material(ist) perspective: feminist economics, queer ecologies, and resource politics. Eur. J. Women's Studi. 20 (4), 361–375.

Bell, S., Braun, Y., 2010. Coal, identity, and the gendering of environmental justice activism in Central Appalachia. Gend. Soc. 24 (6), 794–813.

Benecke, M., Dodge, K., 1990. Military women in nontraditional job fields: casualties of the armed forces' war on homosexuals. Harv. Women's Law J. 13, 215–250.

Biehl, J., 1991. Rethinking Eco-feminist Politics. South End Books, Boston.

Blocker, T., Eckberg, D., 1997. Gender and environmentalism: results from the 1993 general social survey. Soc. Sci. Q. 78 (4), 841–858.

Brú, J.B., Cabo, M.A., 2004. A gendered politics of the environment. In: Staeheli, L., Kofman, E., Peake, L. (Eds.), Mapping Women, Making Politics: Feminist Perspectives on Political Geography. Routledge, New York and London, pp. 209–226.

Bridge, G., 2004. Contested terrain: mining and the environment. Ann. Rev. Environ. Res. 29, 205–259.

Brown, G., Harris, C., 2001. A longitudinal study of environmental attitudes of women and gender diversification in the U.S. forest service 1990–1996. For. Sci. 47 (2), 246–257.

Buckingham-Hatfield, S., 2000. Gender and Environment. Routledge, London.

Burton, W.D., 2014. Coal-mining Women in Japan: Heavy Burdens. Routledge, New York.

Canadian Mining Industry Human Resources Council, 2008. Mining for Diversity. MiHR, Ontario.

Carlassare, E., 1994. Destabilizing the criticism of essentialism in ecofeminist discourse. Capital. Nat. Social. 5 (3), 50–66.

Carrier, S., 2007. Gender differences in attitudes toward environmental science. Sch. Sci. Math. 107 (7), 271–278.

Clifford, S., 2009. The Effects of Fly-in/fly-out Commute Arrangements and Extended Working Hours on the Stress, Lifestyle, Relationship and Health Characteristics of Western Australian Mining Employees and Their Partners: Preliminary Report of the Research Findings. University of Western Australia, Perth (Unpublished doctoral dissertation).

Collard, A., 1989. Rape of the Wild: Man's Violence Against Animals and the Earth. Indiana University Press, Indiana.

Colmar Brunson Social Research, 2005. Study into the Retention of Women in the Minerals and Energy Resources Sector. Queensland Resources Council, Brisbane.

Corcoran-Nantes, Y., Roberts, K., 1995. 'We've got one of those': The peripheral status of women in male dominated industries. Gend. Work Organ. 2, 21–33.

Davidson, D., Freudenburg, W., 1996. Gender and environmental risk concerns: a review and analysis of available research. Environ. Behav. 28 (3), 302–339.

Denissen, A., Saguy, A., 2014. Gendered homophobia and the contradictions of workplace discrimination for women in the building trades. Gend. Soc. 28 (3), 381–403.

Diamond, I., Orenstein, G., 1990. Introduction. In: Diamond, I., Feman Orenstein, G. (Eds.), Reweaving the World: The Emergence of Ecofeminism. Sierra Club Books, San Francisco, pp. 9–15.

Dietz, T., Kalof, L., Stern, P., 2002. Gender, values, and environmentalism. Soc. Sci. Q. 83 (1), 353–364.

Eisler, R., 1990. The Gaia tradition and the partnership future: an ecofeminist manifesto. In: Diamond, I., Feman Orenstein, G. (Eds.), Reweaving the World: The Emergence of Ecofeminism. Sierra Club Books, San Francisco, pp. 23–34.

Elmhirst, R., Resurreccion, B., 2008. Gender, environment and natural resource management: new dimensions, new debates. In: Resurreccion, B., Elmhirst, R. (Eds.), Gender and Natural Resource Management: Livelihoods, Mobility and Interventions. Earthscan, London, pp. 3–20.

Ely, R., Meyerson, D., 2010. An organizational approach to undoing gender: the unlikely case of offshore oil platforms. Res. Organ. Behav. 30, 3–34.

Gaard, G., 2011. Ecofeminism revisited: rejecting essentialism and re-placing species in a material feminist environmentalism. Femin. Form. 23 (2), 26–53.

Galbreath, J., 2011. Are there gender-related influences on corporate sustainability? A study of women on boards of directors. J. Manage. Organ. 17, 17–38.

Geno, B., 2002. Reconsidering the focus of business and natural resource training: gender issues in Australian farm management. Agric. Hum. Values 19, 189–203.

Hamad, R., 2013. Ecofeminism. Redress 22 (2), 11–15.

Hamilton, L., Colocousis, C., Duncan, C., 2010. Place effects on environmental views. Rural Sociol. 75 (2), 326–347.

Hatmaker, D., 2013. Engineering identity: gender and professional identity negotiation among women engineers. Gend. Work Organ. 20 (4), 382–396.

Hayes, B., 2001. Gender, scientific knowledge, and attitudes toward the environment: a cross-national analysis. Political Res. Q. 54 (3), 657–671.

Hinton, J., Veiga, M., Beinhoff, C., 2003. Women and artisanal mining: gender roles and the road ahead. In: Hilson, G. (Ed.), Socio-economic Impacts of Artisanal and Small-scale Mining in Developing Countries. Taylor & Francis, Rotterdam, The Netherlands.

International Finance Corporation, 2009. Women in Mining: A Guide to Integrating Women into the Workforce. IFC, Johannesburg.

Jackson, C., 1993. Women/nature or gender/history? A critique of eco-feminist 'development'. J. Peasant Stud. 20 (3), 389–419.

Jackson, C., 1995. Radical environmental myths: a gender perspective. New Left Rev. 210, 124–140.

Kao, G., 2010. The universal versus the particular in ecofeminist ethics. J. Relig. Ethics 38 (4), 616–637.

Lahiri-Dutt, K., 2006. Gendered Livelihoods in Small Mines and Quarries in India: Living on the Edge. Rajiv Gandhi Institute for Contemporary Studies, New Delhi.

Lahiri-Dutt, K., 2010. The megaproject of mining: A feminist critique. In: Brunn, S. (Ed.), Engineering Earth: The Impacts of Megaengineering Projects. Springer, London, pp. 329–352.
Lahiri-Dutt, K., 2011. The megaproject of mining: a feminist critique. In: Brunn, S. (Ed.), Engineering Earth: The Impacts of Megaengineering Projects. Springer, London, pp. 329–352.
Leach, M., 2007. Earth mother myths and other ecofeminist fables: how a strategic nation rose and fell. Dev. Change 38 (1), 67–85.
Lozeva, S., Marinova, D., 2010. Negotiating gender: experience from western australian mining industry. J. Econ. Soc. Policy 13 (2) (Article 7).
Mayes, R., Pini, B., 2010. The 'Feminine revolution in mining': a critique. Aust. Geogr. 41 (2), 233–245.
McCright, A., 2010. The effects of gender on climate change knowledge and concern in the American public. Popul. Environ. 32 (1), 66–87.
Merchant, C., 1980. The Death of Nature: Women, Ecology, and the Scientific Revolution. Harper & Row, New York.
Merchant, C., 1990. Ecofeminism and feminist theory. In: Diamond, I., Feman Orenstein, G. (Eds.), Reweaving the World: The Emergence of Ecofeminism. Sierra Club Books, San Francisco, pp. 100–105.
Mining Women: Gender in the Development of a Global Industry, 1670 to the Present. In: Mercier, L., Gier, J. (Eds.), Macmillan, New York, Palgrave.
Mies, M., Shiva, V., 2014. Ecofeminism. Zed Books, London.
Mohai, P., 1992. Men, women, and the environment: an examination of the gender gap in environmental concern and activism. Soc. Nat. Res. Int. J. 5 (1), 1–19.
Murphy, P., 1997. Ecofeminism and postmodernism: agency, transformation, and future possibilities. Women Ecol. Environ. 9 (3), 41–59.
Nightingale, A., 2006. The nature of gender: work, gender: and environment. Environ. Plann. D Soc. Space 24, 165–185.
O'Farrell, B., Harlan, S., 1982. Craftworkers and clerks: the effects of male co-worker hostility on women's satisfaction with non-traditional jobs. Soc. Probl. 29 (3), 252–265.
OXFAM, 2009. Women, Communities and Mining: The Gender Impacts of Mining and the Role of Gender Impact Assessment. OXFAM, Carlton, Victoria, Australia.
Pattenden, C., 1998. Women in Mining: A Report to the Women in Mining Taskforce. Victoria, The Australasian Institute of Mining and Metallurgy.
Phillips, M., 2014. Re-writing corporate environmentalism: ecofeminism, corporeality and the language of feeling. Gend. Work Organ. 21 (5), 443–458.
Powell, A., Bagilhole, B., Dainty, A., 2009. How women engineers do and undo gender: consequences for gender equality. Gend. Work Organ. 16 (4), 411–428.
Queensland Resources Council, 2012. Winn-ing Women: Our 20% by 2020 Mission. Queensland Resources Council, Brisbane.
Reskin, B., Padavic, I., 1988. Supervisors as gatekeepers: male supervisors' response to women's integration in plant jobs. Soc. Probl. 35 (5), 536–550.
Feminist Political Ecology: Global Issues and Local Experiences. In: Rocheleau, D., Thomas-Slayer, B., Wangari, E. (Eds.), Routledge, London.
Rosell, E., Miller, K., Barber, K., 1995. Firefighting women and sexual harassment. Public Pers. Manage. 24 (3), 339–350.
Salleh, A., 2014. Foreword. In M. mies & V. shiva. Ecofeminism. Zed Books, London, pp. 9–12.
Sharma, S., Rees, S., 2007. Consideration of the determinants of women's mental health in remote Australian mining towns. J. Compil. 15, 1–7.
Shiva, V., 1990. Development and western patriarchy. In: Diamond, I., Feman, G., Orenstein (Eds.), Reweaving the World: The Emergence of Ecofeminism (189–200). Sierra Club Books, San Francisco.
Smith, L., 2013a. Trading in gender for women in trades: embodying hegemonic masculinity, femininity and being a gender hotrod. Equal. Divers. Inclusion Int. J. 31 (8), 861–873.
Smith, L., 2013b. Working hard with gender: gendered labour for women in male dominated occupations of manual trades and information technology (IT). Equal. Divers. Inclusion Int. J. 32 (6), 592–603.
Somerville, M., 2005. 'Working' culture: exploring notions of workplace culture and learning at work Pedagogy. Culture Soc. 13 (1), 5–26.
Spence, J., 1998. Women: wives and the campaign against pit closures in County Durham: understanding the vane tempest vigil. Fem. Rev. 60, 33–60.
Stoddart, M., Tindall, D., 2011. Ecofeminism, hegemonic masculinity, and environmental movement participation in British Columbia, Canada, 1998–2007: 'women always clean up the mess'. Sociol. Spectr. 31 (3), 342–368.
Thomas-Slater, B., Wangari, E., Rocheleau, D., 1996. Feminist political ecology Constructing themes, theoretical insights, policy implications. In: Rocheleau, D., Thomas-Slayer, B., Wangari, E. (Eds.), Feminist Political Ecology: Global Issues and Local Experiences. Routledge, London, pp. 287–307.
Twine, R., 2001. Ma(r)king essence: ecofeminism and embodiment. Ethics Environ. 6 (2), 31–58.
Women in Mining Canada, 2010. Ramp Up: A Study on the Status of Women in Canada's Mining and Exploration Sector. Women in Mining Canada, Toronto.
Warren, K., 2000. Ecofeminist Philosophy. Rowman and Littlefield Publishers, Boston.
Zelezny, L., Chua, P., Aldrich, C., 2000. Elaborating on gender differences in environmentalism. J. Soc. Issues 56 (3), 443–457.