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Women in Mining:
A Challenge to Occupational Culture in Mines

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A dissertation submitted to the Faculty of Social Science and Humanities of the University of the Witwatersrand, Johannesburg, South Africa, in partial fulfilment of the requirements for the degree of Master of Arts (Industrial Sociology).

Johannesburg, 2009

Abstract

This study explores how women cope in response to the masculine occupational culture and physical demands of underground work in South African mines. The involvement of women underground in South African mines is a relatively new phenomenon. Increased numbers of women underground miners is the result of targets set by the Mining Charter. Nevertheless, mining companies seem to find it difficult to meet their targets due to a number of challenges related to challenging domains that are historically dominated by men. The research looks specifically at these challenges and the coping strategies employed by women in mining, taking into consideration the masculine mining work culture and the physical demands of the different mining occupations. Working underground is experienced differently by men and women, with men having more experience and having been fully integrated into the occupational culture of mines. Due to this gender difference in the workplace, challenges and coping mechanisms differ among genders. A research strategy of participant observation was used to study this new phenomenon at a platinum mine near Rustenburg. The study draws on labour market theories that link labour supply and demand through the socially embedded processes of labour incorporation, allocation, control and reproduction. These four processes are used to guide a systematic consideration of challenges and coping mechanisms of women mineworkers in each stage of the processes related to change in the labour market.

Declaration

I declare that this dissertation is my own unaided work. It is submitted for the degree of Master of Arts (Industrial Sociology) in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination in any other university, nor has it been prepared under the auspices or assistance of any body, organisation or person outside of the University of the Witwatersrand, Johannesburg.

_____

Asanda P. Benya

_____day of _____2009

Acknowledgements

My very first thank you goes out to my supervisor Andries Bezuidenhout, who has been supportive and excited about my research from day one, when it hardly made any sense. When things were hard and rough in Rustenburg, he and his wife Dr Irma Du Plessis took time out to come check up on me. Thank you so much. Thank you to Prof. Sakhela Buhlungu for your encouragement and pushing me to the edge. Prof. Webster and Khayaat Fakier, thank you for your support for the past few years.

I would like to acknowledge and thank the management at Impala Platinum Limited for opening their doors to me and for making sure that I had all the support I needed. A special thank you to Carla Radloff, Mr. Anderson, Annamarie Marx, Kevin Cherry and his team (Ryno and Oomseis), Tessa Gerber, and the management at 10 Shaft, 12 Shaft and 1 Shaft. Thank you to all the Mine overseers, shift bosses, miners and crew members I worked with while conducting this research.

Thank you to all the women in mining at Impala for their immense contribution and for agreeing to participate in this research. Without these women, my research would not have been possible. Thank you to Dyna for her contribution, she passed on several months after I left Rustenburg. I owe it to each one of these women to tell their life stories accurately. They not only opened their doors to me at work, but also outside of work. I would like to thank especially Kgomotso, Nkele, Mmabatho, Peggy and Nelly.

When I was away in Rustenburg and work got tough, the encouragement of my friends was invaluable. I thank Ntwala Mwilima, Nombulelo Beauchamp, Masa Kuguyo , Ntombi Mavuso and Bongz Mdluli for their support from the first day until the submission day.

Finally, thank you to my parents Vuyokazi and Mzwanele Benya and to my sister Lolly for all their sacrifices and love. You have walked this path with me from day one and I’m grateful for having had such reliable and always encouraging parents.

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List of Abbreviations

*ABET	Adult Basic Education and Training
Amplats/Anglo	Anglo Platinum Limited
BCEA	Basic Conditions of Employment Act, Act 75 of 1997
DoL	Department of Labour
*EEA	Employment Equity Act, Act 55 of 1998
HDSA	Historically Disadvantaged South Africans
*HR	Human Resources
*HTS	Heat Tolerance Screening
*ILO	International Labour Organisation
*Implats/Impala	Impala Platinum Limited
*LFS	Labour Force Survey
MPRDA	Mineral and Petroleum Resources Development Act, Act 28 of 2002
NUM	National Union of Mineworkers
*PPE	Personal Protective Equipment
PTV	Pipes, transport and ventilation [helpers]
RDO	Rock drill operator
*TEBA	The Employment Bureau of Africa
WIM	Women in Mining
WIMNet	Women in Mining Network

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All photographs taken by Asanda P. Benya

Chapter 1

Introduction

1.1 Background

> Mining is hard labour under conditions of extreme discomfort, deafening noise, intense heat and humidity and cramped space – exacerbated by tension stemming from the need to watch constantly for signs of potential hazard. Every miner can recount several experiences of accidents or near accidents. News of accidents spread rapidly on a mining settlement (Moodie, 1994:16).

Given the masculine, rather "macho" occupational culture on South African mines, this study seeks to address the challenges and coping strategies employed by the emerging group of women underground mineworkers. Mining has been portrayed as highly risky, suitable only for men and not for women. While there have been some progressive reforms in the mining industry to include women, this has not gone without challenges. The introduction of women in mining challenges the very male, macho gender stereotype and introduces new challenges for mineworkers, mines and unions. The greatest challenge for mines has been to introduce and ensure full incorporation of women into this traditionally male-dominated sector. The Second Annual Women in Mining Conference[1] acknowledged that there were significant hurdles to overcome in terms of commitments made during the Mining Charter process. This requires that women comprise at least 10% of mining companies' workforce by 2009. This target, which is specifically related to the Mining Charter, is taken seriously by companies because the renewal of their operating licenses is directly linked to how they score on this. In addition, the Mining Charter requires companies to

[1] Second Annual Women in Mining Conference; Recruit, Retain and Accommodate Women in Mining Pre and Post 2009. Indaba Hotel Fourways 26-28 March 2008.

publish annually their progress on employment equity more generally, including the requirement that by 2009 40% of their management cadre should be from those classified as "historically disadvantaged South Africans". In order to do this, companies have to identify talented people from the designated groups and fast-track their progress through accelerated training programmes.[2]

Women in mining is a relatively new phenomenon. This study specifically looks at women *in* mining as opposed to women *at* mining. It is generally understood that the former implies women working underground, while the latter implies women who work generally in mining companies, e.g. as cleaners or administrators. I look at women *in* mining because of the specific challenges that working underground presents to women due to their physiological and biological make-up. I do not look at women *at* mining because women have always been *at* mining as cleaners and clerks but not *in* mining as underground workers. Additionally, I am deliberately choosing women who work underground because meeting the required targets (as stipulated by the Mining Charter) for women who work on the surface is not as great a challenge (Burtenshaw, 2005).

Mines have been chosen because the sector remains one of the main drivers of the South African economy, and the inclusion of women in this crucial sector has many implications for society at large. Also, the migrant labour system of the mining industry is central to social formations during colonialism and apartheid. Indeed, scholarly work on mining in South Africa has tended to focus on how mines have provided employment and revenues, on the history of mining and how that relates to the emergence of apartheid, hostels in mines, migrant labour, union organising in mines, health and safety issues and, more recently, subcontracting and how it impacts on workers (Wilson, 1972; Van Onselen, 1976; Gordon, 1978; Callinicos, 1980; Brown, 1983; Moodie with Ndatshe and Sibuyi, 1988; Crush, Jeeves and Yudelman, 1991; Allen, 1992; Crush, 1992; Hunter, 1992; James, 1992; Jeeves and Crush, 1992; Laburn-Peart, 1992; Ramphele, 1993; Moodie with

[2] Broad-based Socio-Economic Empowerment Charter for the South African Mining Industry. http://www.dme.gov.za.

Ndatshe, 1994; Mantashe, 1995; Standing, Sender and Weeks, 1996; Bezuidenhout *et al.*, 1998; Webster *et al.*, 1999; Ulicki and Crush, 2000; Webster *et al.*, 2002; Sikakane, 2003; Bezuidenhout *et al.*, 2005; Bezuidenhout, 2006; Buhlungu and Bezuidenhout, 2007; Hamann and Bezuidenhout, 2007; Buhlungu and Bezuidenhout, 2008). Not much has been written on women who work underground, and most of what has been written is not scholarly, but policy-oriented and contained in reports to mining companies and unions.[3] This shows us that there is a gap in topics in mining literature related to gender (specifically the role of women). This study partly responds to this challenge. It is exploratory and descriptive in nature, and seeks to go beyond the rhetoric of equality between men and women to address the challenges and coping strategies employed by women as they venture into these previously male-dominated workplaces.

Rustenburg was selected as the area of study because it is the home of platinum mines. The area surrounding Rustenburg and Brits boast the largest single platinum production area in the world, where more than 60% of platinum is mined in South Africa. Indeed, 40% of the province's mining activities happen within the borders of Rustenburg.[4] This huge platinum production has eased the unemployment level to 29% (Labour Force Survey [LFS], 2007). When mines recruit women mineworkers, they look within a 60km radius from the mine, thus making the Rustenburg area the biggest supplier of female mineworkers to platinum mines.

1.2 Legislation and the history of women in mining

Bringing women into previously male-dominated jobs has been a challenge because of historical (exclusion of women in mining), cultural (work shift) and legislative restrictions. Historically, in Britain women were legally excluded from

[3] *Mining Africa Year Book*, http://www.infomine-africa.com/MAYMagazine.aspx?&Page=4. Site was visited in July 2008

[4] www.nwpg.gov.za/sde/stquo.ase, 23 July 2008.

working underground by the 1842 Mines Act.[5] Furthermore, in the early 1900s, Article 2 of the International Labour Organisation's (ILO) Convention 45 of 1935 came into play, forbidding the inclusion of women in underground mining. The article stated, "No female, whatever her age, shall be employed on underground work in any mine." It exempted:

> any other females who may occasionally have to enter the underground parts of a mine for the purpose of a non-manual occupation, females holding positions of management who do not perform manual work; females employed in health and welfare services; and females who, in the course of their studies, spend a period of training in the underground parts of a mine.[6]

Although women were excluded in Britain from working in mines, they still participated in strikes and support activities (Bradley, 1989).

This exclusion, however, was not universal. Bradley (1989) has evidence that in Germany, India and Belgium women worked underground until the twentieth century. The World Wars also led to a huge increase in the employment of women, including in mines. According to Bradley, these women did heavy work such as dragging and pushing trucks or covers of coal. They also worked as coal carriers, sieving coal, loading and unloading coal and weighting it. This changed in the 1950s, and men started taking over, to a point where in the 1970s only 0.4% of all workers in mining and quarrying were women. In the 1960s in India women worked in open-cast mines, and in the 1970s Chinese and American women took up mine work (Bradley, 1989:109).

Bringing this history closer to home, the South African Minerals Act of 1991 also banned women from working underground (Simango, 2006:15). However, this act was repealed and replaced by the Mineral and Petroleum Resources Development Act (MPRDA) of 2002.[7] Together with the Mine Health and Safety Act of 1996, these policies reversed this prohibition and opened up underground occupations to women. This was done to promote gender equality.

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[5] http://www.britannica.com/EBchecked/topic/383817/Mines-Act, 29 October 2008.
[6] http://www.ilo.org/public/english/protection/safework/cis/oshworld/ilostd/c045.htm, 29 October 2008.
[7] http://www.dme.gov.za/minerals/about_minerals.stm, 14 November 2008.

In South Africa, mining houses have not had problems attracting women who want to work underground, mostly because of the country's high unemployment rate. On a general scale in South Africa the participation rate of women in employment stands at 49.9 % compared to 63% of men, while the absorption rate is 34.5% for women and 49.7% for men. All in all, unemployment for women is at 30.8% compared to only 21.1% for men. This shows that women continue to be on the margins of the economically active population with a higher unemployment and lower absorption rate than their male counterparts. Furthermore, the Labour Force Survey (2007) reports that discouraged work seekers are predominantly women, with their rate standing at 13.8% and that of men at 9.2% (as a percentage of the working-age population).

With the above unemployment statistics, it is no surprise that mining houses have not had difficulties in *attracting*[8] women. Anglo Platinum (Amplats) reports on its website that it has managed to bring in women and thus met the 10% target set for 2009 by the Mining Charter. Impala Platinum (Implats) asserts that recruiting women has not been problematic as they target unemployed women within the Rustenburg region. "The problem is in getting them to pass the HTS[9] and thus be able to go underground," they argue. In recruiting these women, Impala Platinum consults the data on unemployed women supplied by the Rustenburg Municipality, by The Employment Bureau of Africa (TEBA),[10], and any other labour broker that can supply labour quickly stated one of the interviewees . Kate Sommerville of the Women in Mining Network (WIMNet) agrees with Impala that recruiting women is not difficult, and that the difficulty lies in retaining women.

[8] I emphasise "attracting" because that is really the easiest part of bringing women into the mine workforce. Challenges start once they have been called, with many failing tests, sometimes for reasons beyond their control or that of the mine.
[9] HTS stands for heat tolerance screening. It is a monotonous exercise done to acclimatise underground employees to high temperatures.
[10] TEBA is an agent that supplies mines with labour from South and Southern Africa.

While it is not difficult to get women to work underground, one must bear in mind that this tends to challenge a range of traditions and norms. Regardless of these challenges, women in mining remains important for mines from the point of view of policy, specifically because it features so prominently in the Mining Charter.

1.3 Responses to legislation

To realise the mining charter stipulations, Impala Platinum, like all the other mines, has implemented structured programmes in order to attract women to mining jobs. It has even gone to the extent of implementing a Woman in Mining (WIM) programme that seeks to address the gender gap by constantly checking the progress of women and monitoring their incorporation in this male-dominated industry. WIM includes career development plans, development programmes such as sending women for blasting certificates, accelerated training programmes, mentoring and coaching.

The WIM programme was started at Impala Platinum in 2004 as a response to the Mining Charter. Furthermore, in anticipation of challenges that would come with bringing women into an occupation that was previously male, Impala introduced a call centre to help familiarise men with the situation and to address their concerns. To acclimatise men and to get them to support the introduction of women in mining, the company played videos on banks – that is, those areas where workers wait for the cage to take them underground. Impala also started learnership and mentoring programmes to help bring in women. It has drawn up a pregnancy policy and a sexual harassment policy to help accommodate women once inside, built lavatories for women underground, and separate change houses on the surface to help accommodate women. Regardless of these strategies and support systems, after four years of implementation, Impala had only 5.8% women in their workforce year ending 31 May 2007, far from the 10% target for 2009 (Response to Mining Charter 2007-Impala Platinum 2007). Table 1.1 gives details of where women are employed at Impala.

Table1.1 Number of men and women at each level of Implats' South African operations

Position	Men	Women	Total	% women
Top management	4	2	6	33.3
Senior management	78	7	85	8.2
Professionally qualified and experienced specialists and mid-management	448	96	544	17.6
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	3 567	269	3 836	7.01
Semi-skilled and discretionary decision-making personnel	4 358	418	4 776	8.75
Unskilled and defined decision-making personnel	20 549	978	21 527	4.5
Total permanent employees	**29 004**	**1 770**	**30 774**	**5.8**
Non-permanent employees	20	16	36	44.4
Grand Total	**29 024**	**1 786**	**30 810**	**5.8**

Source: Response to Mining Charter 2007

In contrast, Anglo Platinum's Employment Equity (EE) report to the Department of Labour (DoL) for the 2007 reporting period ending 31 May 2008 shows that 7.4% of the workforce at Amplats are women (see Table 1.2).

Table 1.2 Number of men and women at each level at Amplat's South African operations

Position	Men	Women	Total	% women
Top management	13	0	13	0
Senior management	424	43	467	9.2
Professionally qualified and experienced specialists and mid-management	1 334	277	1 611	17.2
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	6 125	811	6 936	11.7
Semi-skilled and discretionary decision-making personnel	32 947	1 339	34 286	3.9
Unskilled and defined decision-making personnel	4 202	1 030	5 232	19.7
Total permanent employees	**4 5045**	**3 500**	**48 545**	**7.2**
Non-permanent employees	105	129	234	55
Grand Total	**45 150**	**3 629**	**48 779**	**7.4**

*Source: Anglo Platinum Website (*http://www.angloplatinum.com/ Accessed November 2008

Furthermore, on Anglo Platinum's website it is reported that at the end of 2007, 10% of their employees were women, thus meeting the Mining Charter requirement, while Impala currently stands at 7.2% (26 802 males and 2 103 females) (HR Superintendent: Transformation, 20 September 2008). The above figures raise interesting questions around the challenges companies face in recruiting and retaining women. Taking this a step further, we have to ask ourselves what challenges do women face once they are inside the mine, that may render it difficult for mining houses to retain them? These differences become our point of departure.

To help theoretically contextualise the study, I look at different scholars that have made a contribution in the mining and gender literature. I look at the labour market, and question whether it really is gender-blind like economic liberals

claim. This helps us examine how gender comes into play in the workplace and how societal norms influence gender at work. The section below also ponders issues of division of labour, unionisation of women, mining occupational culture, and how the introduction of women in mining is a direct challenge to some of these. Inequalities are at the core of the literature examined, and they help bring out the different coping strategies that have been observed by different scholars. Peck (1996) is used as the analytical framework and his processes of incorporation, allocation, control and reproduction are linked to the introduction of women in mining.

Chapter 2

A Gendered Labour Market

2.1 Is the labour market gender blind?

The introduction of a significant number of women to underground work in South African mines fundamentally challenges ways in which the mining labour market operated in the past. Economic theorists tend to see the market as ruled by economic laws that are gender-blind (Humphrey, 1987; Reskin and Padavic, 1994; Sperling and Owen, 2000). They see the market as operating purely in non-gender terms. Classical Marxists, for example, view the economy as if capitalists employ labour power with no regard for or reference to gender. They focus on women's exclusion from the production sphere and their confinement in the reproductive sphere (Stichter and Parpart, 1988). Neo-classical theory also falls into this trap of not fully addressing gender. Theorists tend to think that wage rates are purely determined by forces of supply and demand, as is the case with goods and services. They take for granted the role of gender in determining wages, yet it plays a crucial role. They accredit gender mostly in reference to the division of labour. One reason stated by Cheng (1996) as to why masculinities are rarely studied is that when males dominate an occupation, such as in mines, they are unaware of their dominance. When there is an absence of women altogether, male homosociality occurs, he argues.

Dual labour market theory does not go far enough in its account of the sexual division of labour. It mostly focuses on the divisions between the primary and secondary economic sectors, with the primary sector characterised by stable, higher-paying jobs and the secondary sector by unstable, lower-paying jobs. Theorists point out that there is limited mobility across sectors (Barron and

Norris, 1976, cited in Humphrey, 1987:147). This is what Humphrey (1987:32) calls the vertical division of labour. This analogy is similar to that used by Webster and Von Holdt (2005:28) in their description of the formal and informal labour market.

Dual labour market theory points out that women tend to be concentrated in the secondary sector, where there is lack of stability. This secondary status of women, Mainiero (1986) argues, has also been emphasised by their lack of access to information and support. This shows that gender reaches right into the centre of capitalist production, and influences the manner in which work is performed and controlled.

Thus Humphrey (1987) argues that the labour market is anything but gender-blind. Since the sphere of social reproduction – the households where children are born, nurtured and socialised – is relatively autonomous from capitalist labour markets, gender inequality in the labour market cannot merely be seen as a result of discrimination by "irrational" employers. The gendered constructions of patriarchy are at the very basis of society.

Since gender is central to capitalist production and to my study, I engage with two sets of literature that seldom intersect – the literature on mining and the literature on gender (specifically women) in the labour market. I attempt to find ways in which one could encourage conversations between the two literatures.

2.2 A historical perspective on gender norms

Pre-industrial history tells us of the confinement of women to the household, and how women were socialised to care for their families and run their homes while men went out in order to provide for their families. Reimer (1987) argues that there was a clear division of labour between men and women, with men doing agricultural work, physical work in the household kraal, woodworking, mining and hunting, and women doing the household construction, child care and

household craft and preparing food. According to history scholars, men have mostly been involved in economic activities outside the sphere of the household while women were not (Milkman, 1987; Leonard, 1991; Lee, 2000). To further support this, Zaretsky (1976) argues that there was a division of labour in society which was informed and directed by the notion of a masculine external-productive world and a feminine internal-emotional world. Some societies went further and forbade women from participating in work outside the household, while the not-so-extreme only forbade them from participating in certain sectors which they defined as male sectors. In these male sectors, Reskin and Padavic (1994) argue, there was male dominance which led to the masculanisation of the labour force.

The shift from family-oriented, small-scale production to production driven by the labour market led to men adopting or assuming identities as workers as opposed to social beings looking for food for their families. The adoption of a worker identity does not by any means imply shedding societal gender norms and expectations. In fact, these were carried to the workplace and shaped how people experienced workplace life, and they further determined what was expected of them as workers. Thus there tend to be masculine and feminine ways of being a worker, and this impacts on the sexual division of labour (Humphrey, 1987; Steinberg, 1995; Schilt and Connell, 2007). From the above history, it becomes clear that these differences do not originate in the workplace, contra certain Marxist claims, but from society. They are constructed in such a way that male dominance is preserved while female inferiority is reinforced hence the reference of feminist scholars on the labour market to the relative autonomy of the realm of social reproduction compared to the realm of social production.

Based on these gender norms, patriarchy has come to be seen as a system of power that excludes and disadvantages women while privileging men. To reinforce that, Cheng (1996) argues, organisations – be they work or social ones – use both masculine and feminine identities to organise themselves. These gender identities are linked to gender roles that are socially developed and culturally associated with each gender (Schilt and Connell, 2007). These identities attribute

certain values, status and power to one gender over another, thus creating inequalities. In Africa, Reimer (1987) argues, policy makers and missionaries protected, segregated and domesticated women in order to reinforce gender inequalities. These identities often went as far as viewing women as temporary, passive, inferior, fit for mundane tasks and uncommitted to work when compared to their male counter parts (Beechey, 1987; Sperling and Owen, 2000). Not only that, but they also treated men and women as two homogeneous groups without any internal variations. To counter these claims, Zaretsky (1976) argues that women are not homogeneous; factors like race, class and ethnicity all play a role in differentiating them. Humphrey talks about how the homogeneous supporters tend to polarise everything as if there is no middle ground. They see labour as "masculine or feminine, skilled or unskilled, dirty or clean, dangerous or less dangerous, interesting or boring and mobile or immobile… responsible or irresponsible" (Humphrey, 1987:93). Hence Webster *et al.* (1999) argue that occupational culture conceals power differences, reinforces certain ways of doing things and brings order to the workplace. All these serve to reinforce male superiority and female inferiority. The male supremacy traits, Millett argues in Zaretsky (1976), are in fact socially constructed and not natural or biological. In male-dominated jobs particularly, masculine traits such as strength, danger and dirt tend to be revered, emphasised and attributed significance.

This subordination of women, Stichter and Parpart (1988) argue, is not peculiar to pre-capitalist society but also to capitalist societies. They argue that early Marxists focused on women's exclusion from the production sphere and their confinement to the reproduction sphere. The capitalist system, according to Stichter and Parpart (1988), emphasised private property, and the commodification of wage labour was seen as the cause of this sexual division of labour. They refer to Friedrich Engels, who argues in *The Origins of the Family, Private Property and the State* that women's subordination is a form of oppression which results from and is maintained because it serves the interests of capital. Male dominance, according to Engels, is closely linked with capitalism and would disappear with "the advent

of a socialist revolution and the wholesale entry of women into the waged labour market" (Stichter and Parpart 1988:2).

Because women were not traditionally part of the public production sphere, their eventual inclusion led to them being allocated low-status jobs. Their jobs tended to differ from those of men, and they were introduced at lower levels with lower incomes compared to their male counterparts (Humphrey, 1987; Bradley, 1989; Jacobs and Steinberg, 1995; Peck, 1996). In fact, Humphrey (1987) argues that women were included in the workforce as unskilled labour at the bottom of the hierarchy. Bradley (1989) adds that, as a result of the low status accorded women, their work has consistently been viewed as less important than that done by men. Furthermore, he argues that there has been a sex-typing[11] of jobs whereby certain tasks are allocated to women and others to men; as a result men and women are seldom found doing the same job. Peck (1996) also talks about this type of allocation, arguing that allocation is based not only on skills, training and education but also on ascribed characteristics such as ethnicity, gender, age and the networks one belongs to.

2.3 Gender and racial inequalities

Another ascribed characteristic that tends to play a big role in the allocation of jobs, especially in a country such as South Africa, is race. In apartheid South Africa, the way in which gender operated in the workplace was often underplayed due to concerns about race. In fact, workplaces were dominated by men who were divided along racial lines, with whites in management positions and blacks in blue-collar jobs. In mining, the post-1994 era has witnessed another layer introduced into this hierarchy, that of women mineworkers. This brings another dynamic altogether into the mining occupational culture. Webster and Von Holdt (2005) and Webster *et al.* (1999) show how the racial hierarchy was perpetuated

[11] According to Bradley (1989), sex typing is a process by which jobs are gendered and ascribed to one sex or the other. Sex segregation, on the other hand, refers to the way in which women and men are located in different types of jobs (Bradley, 1989).

and legitimised. According to Webster *et al.* (1999:11), pseudo-science was used to portray Africans as inferior (because of their smaller physique and shorter buttock-leg length) and Europeans as superior. The record contains numerous reports that investigated racial phenotypical differences in order to legitimise the racialised work order in the mines. Webster called this approach "cultural racism". The same physical appearance that was used in the old South African mining industry to advantage white men is being used today to discredit women. They are seen- and women sometimes see themselves- as inferior to their male counterparts in terms of their physique, strength and general capability to work. This study goes deeper, and examines whether these allegations are correct.

To propagate the feminine mentality in workplaces, supervisors use their authority to sexualise the workplace, to favour men and characterise women as lacking the necessary characteristics to succeed (Eveline and Booth, 2002; Schilt and Connell, 2007). Because women have only recently been introduced to mining, the challenges have not all been overcome. They are still learning how to deal with the dangers of mining, and above that with the macho mining occupational culture.

It is then clear that industrialisation has in a way facilitated the introduction of women into wage labour, and has advanced the movement of production from the home to the public sphere; thus the two spaces became extremely different, with men taking over the public domain while women remained in the private domain (the home).

In South African mining, the migrant labour system also implied a spatial separation between work (production) and home (reproduction). This separation has been facilitated by what Buhlungu and Bezuidenhout (2008a) call spatial control. According to them, spatial control in mines was made easy during the apartheid era because of colonial land policies. Compounds and *skomplasses*[12] were tightly controlled spaces and access by visitors was closely monitored. This

[12]According to Moodie (1994) a *skomplas* is adopted from the Afrikaans word *skoonplaas*. It means mine quarters for married senior black mine staff and their wives (real or otherwise).

served to exclude women from mining, both underground and in compounds where men lived.

This has contributed to the ostracism of women from the public spheres of economic production and politics. Their exclusion from the political realm made it difficult for them to challenge their subordinate position in the labour market. Glenn (1991) argues that as a result of this subordination and differentiation, a "cult of domesticity" emerged. This subjects women to lower wages than men and assumes that women's wages are merely supplementing those of their male partners. Consequently, men tended to expect and assume that they had a right to higher wages than women.

In fact, Glenn (1991) argues that people of colour were generally given dangerous, demeaning and unstable jobs. Black women, especially, were seen as a source of cheap labour, and as a result suffered discriminatory pay scales and were paid lower salaries than their male and white co-workers. Literature shows that since the 1940s black women have earned less than men, between 57% and 65% of what men earned, and also less than what white women earned (Hakim, 1979; Bradley, 1989; Humphrey, 1987; Beechey, 1987; Glenn, 1991; Bielby, 1995; Jacobs and Steinberg; 1995; Roos, 1995; Steinberg, 1995; Tomaskovic-Devey, 1995; Clawson, 2003).

While demanding equal pay is a good trade union tactic, in male-dominated industries it has increasingly been viewed as undermining the basic belief that men and women are unequal, and has been viewed as threatening male superiority. To exacerbate this culture, men in male-dominated sectors resented and feared competition from women and attempted to secure their positions by emphasising the femininity of their female co-workers (Mainiero, 1986).

This shows clearly that division of labour impacts on the relative wages paid to both men and women. As a result of this wage discrimination, poverty has been exacerbated, especially among female-headed households. This offers us some

insight regarding the connections between the spheres of production and reproduction. Peck (1996) argues that what happens in the household affects what happens at work and vice-versa. Gender discrimination that happens at work, for example, affects the household. If women are paid less, for example, the household is bears the consequences; the children may not be able to go to school, and this may affect their production at work and so forth.

2.4 Women – a threat to men's superiority

Much of the literature on gender and labour markets attributes the introduction of women in employment (especially in male-defined jobs) to political (World Wars) and economic (women supplementing men's wages) reasons. Firstly, Aiken (1999) asserts that women were engaged in mining as early as the nineteenth century in Nevada and Alaska. They worked with male relatives in order to provide for their families. Since women were not allowed, they disguised themselves as boys in order to avoid legal actions. This shows the illegality of women in mines and is useful in explaining the "traditional" exclusion of women from mines, hence their current subordination.

The labour crisis during the two World Wars and the boom in the coal business also brought about changes in the labour market and promoted the use of women in mines (Aiken, 1999). This led to increased demands for labour; thus employers started looking at women as potential labour. This, we could argue, was the first real "legal" inclusion of women in mines. Despite this inclusion of women, they still faced opposition from miners' wives and male miners. They faced opposition because, Schilt and Connell (2007) argue, workplaces, especially mines, were not (and still are not) gender-neutral locations. Rather, they were (and still are) places where gender expectations are embedded and reproduced in interactions. As a result of these expectations and oppositions for women, Glenn (1991) argues, gender discrimination at work has become a unifying factor and a juncture at which the interests of all women overlap.

The literature also shows that women still experience structural disadvantages as workers, despite legislative support. This is what informs this study – that women in traditionally male-dominated workplaces continue to face challenges. How do they cope with these challenges? What mechanisms do they use to survive the male-preferring industries such as mining? The new policies of industrial employment post-1994 have had a profound impact on the sexual division of labour; they have challenged traditional stereotypes, and as a result more women have been entering the workplace, especially penetrating the previously male-dominated industries and positions.

According to Humphrey (1987), the legal incorporation of women in these industries does not in itself guarantee equality. Reich (1986) reveals that the fight for women to get hired in mines is only the tip of the iceberg. Once they are inside women still have to fight because employers are usually influenced by their gender schemas when it comes to hiring and promoting. Women have to fight the hostile job environment in order to be trained, promoted and treated the same way as men. Humphrey (1987) argues that women were hardly promoted, regardless of their length of stay in their employment. The reason for this is clearly stated by Peck (1996), who argues that women are seen as discontinuous labour – those who work at certain times. While these divisions and managers' stereotypes do not cause gender differences, they tend to reinforce them through selective training. Peck (1996:31) again is useful in that he shows how the market sometimes treats women (among other disadvantaged groups such as migrants and the youth) "as if they have a weak attachment to the labour market".

Income differences are not the only form of discrimination facing women in the labour market. Sexual harassment, bullying, humiliation, patronising superiority and physical threats have also been identified, especially in workplaces where one gender (namely men) dominates. Gruber (1998) argues that gender numerical predominance is a significant predictor of physical and sexual threats. When a workplace is dominated by men, hostility and intimidation towards women is heightened, they are more prone to be "touched, grabbed or stalked". Furthermore,

the occupations women hold often place them in situations of power disadvantage and men at an advantage. Gruber (1998) acknowledges that women in traditionally female jobs hardly experience sexual harassment, compared to those in traditionally male jobs. The reason for harassment is because these women are considered to have "infringed on men's power and threatened the production of masculinity" (Gruber, 1998:303). Williams (1992) shows a different phenomenon when it comes to men entering traditionally female jobs. Instead of being treated with scorn, they usually face a "glass escalator" which pushes them upwards to higher positions within the industry. She adds that men in these jobs are usually supervised by other men and not by women, thus adding to their advantage.

For women, even when they have the power advantage, organisational policies and procedures often impact on how discrimination and sexual harassment are dealt with. Rospenda, Richman and Nawyn (1998) argue that structural aspects of organisations promote power inequalities between genders and set the stage for discrimination and particularly sexual harassment. Gruber (1998) also argues that sexual harassment for women is influenced by organisational tolerance to harassment, perceived commitment of organisational officials to deal with harassment problems and policies implemented to address or combat such problems.

2.5 Women at work: a challenge to unionisation

Reich (1986) argues that there are different perceptions about the inclusion of women in mining. Some men are sceptical. Traditional men, especially, see the inclusion of women as going against traditional norms, which is seen as a challenge to the mine culture. There are also perceptions that, as women enter mining workplaces, mines will improve safety. According to Reich (1986), there are also negative perceptions that women are taking jobs away from men. Men's perceptions are that women are too weak and too unco-ordinated to do the work and that working underground destroys their femininity. These gender stereotypes of women are sometimes extended to unions that seek to represent workers in

general. As a result of this extension, most unions are unaccommodating or completely hostile to women.

Clawson (2003) argues that unions have neglected women and have gone to the extent of excluding them from the best jobs that are dominated by men and directed by the male culture. This exclusion has mainly been because women are seen as taking men's jobs or bringing disrepute to male occupations (Reskin and Padavic, 1994). It is therefore obvious that the inclusion of women as underground mineworkers challenges not only the workplace culture but also the union culture. Clawson asserts that it is hard for women to break into unions because they are described around masculine style, and solidarity is somehow formulated around race and gender. Women therefore do not fit in both at work and in unions. Their presence challenges issues that men (in unions) deem important for consideration during union meetings. As a result of these challenges, women are less likely to join unions.

Clawson (2003) argues that in the United States (US) only four out of ten women are union members, that union leadership all around the world is dominated by men, and as a result women's issues are still not fully addressed. This limited women representation by unions impacts on all facets of life; consequently women tend to earn less and have few or no benefits because the unions do not negotiate for them. These in turn impacts on family life because women tend to bear the brunt of labour-market disadvantage; they are paid less and have little or no union representation. Consequently parents, especially women, cannot afford or are struggling to pay for their children or to take care of their families. Peck (1996) takes this neglect by the unions further to include the state and employers in general. He notes that there is a negative connotation attached to women as workers, to a point where they are treated unfairly by employers, states and unions. While the study is not so concerned with these interplays, they are nonetheless important. The main focus of this study is on how these women fight gender stereotypes and inequalities in the workplace. What coping strategies do they employ?

2.6 Gendered coping strategies

Mining is a dangerous occupation. In South Africa, black mineworkers were taken away from their families and housed in single-sex compounds in conditions that affronted their sense of dignity. The workplace regime was based on racial despotism, and notions of ethnicity were used to divide workers. Mineworkers were nevertheless able to resist the despotism that characterised the industry, and in the long run were able to improve their wages and working conditions. In order to understand the coping strategies employed by women, it is useful to look at those employed by men.

An important point to note is that the absence of women in single-sex hostels did not imply that deeply held patriarchal views subsided. At the height of the migrant labour system, older men took younger men to be their "wives". These men did everything that women in family set-ups do. They cleaned, did laundry and cooked for older men in return for money and other financial favours. In the absence of women, they were also sexual partners. Men who took mine wives generally maintained heterosexual relations with women back home (Moodie, 1994).

Humphrey (1987) adds other coping strategies that men employed to cope with mine life. He argues that they sometimes responded to work or masculine challenges by gross insubordination, swearing, hostility or by simply not co-operating. In his classic study, Gouldner (1954) showed how men who worked in underground mines formed coalitions based on solidarity, due to the unpredictability of their working conditions. He compared a gypsum mine to a factory that refined the product, and found that mineworkers had more autonomy due to the less-predictable work environment. In order to cope with unpredictability, the men in his study were forced to improvise where work procedures failed to adequately address the problems posed by their work environment. These informal plans formed the basis of an important coping

strategy. In the South African context, Phakathi (2002) calls this "*planisa*", and in his classic study Burawoy (1979) called it "making out".

Having to *planisa* – to make a plan in the context of constant shortages of materials and other unpredictable circumstances – forms the basis of the occupational culture in South African mines (Webster *et al*., 1999; Phakathi, 2002).

In his study, Humphrey (1987) found that women had different responses, with younger women often being more docile than their mature counterparts. In the study, women coped by adopting what Humphrey calls "male-style" mechanisms – they shout, they adopt a "do not cry" attitude, and become hostile. Humphrey (1987) tackles women's militancy and trade union participation as strategies women employ in order to cope. The militancy route, Humphrey argues, could be through outright hostility and violence towards management and through workplace stoppages. Other strategies are not necessarily militant but more passive, such as low-quality production and informal collusion between workers to limit output.

Mainiero (1986) illustrates other strategies that can be employed by women in cases where they are subordinated to men. Using the socialisation perspective, Mainiero (1986) argues that another way individuals can gain power is by acting aggressively and assertively to access resources, information and support. Without any effective coping strategy, Mainiero (1986) argues women can only perpetuate their own powerlessness. He marks other strategies that can be utilised to cope in a workplace environment. First is acquiescence, whereby the "other" remains silent and does not object to any decisions made. The second strategy is persuasion. This, he argues, is usually employed by men, whereby they discuss the situation with management persuasively and persistently. Another strategy is ingratiation whereby one party tries to gain favour with the other party. Coalition formation is another coping strategy that some women employ by joining with others to put pressure on the target. Finally, Mainiero (1986) talks about finding

alternatives, such as quitting the job or moving to another section within the same factory. He concludes that because of the low positions that women usually occupy, they may succumb when faced with a challenge.

These are some of the gendered coping mechanisms that emerge from research in South Africa and abroad. However, such strategies are often context-bound. The next section tries to sketch this context by deepening the discussion of the mining occupational culture introduced above.

2.7 Mining occupational culture

Webster *et al.* (1999:21) define occupational culture as "belief and practices that workers develop as appropriate ways of life to meet the demands of their particular occupations … it is tacit knowledge learned by doing; thus there can be contradictions between theory and practice in mines." These beliefs and practices can be implicit or explicit, but mineworkers know them either way. To be sure, the mining industry has always had a hegemonic masculine occupational culture that favoured men and did not accommodate women.

The South African mining occupational culture contains a number of characteristics. It has been shaped by the industry's peculiar history. It involves a certain level of risk taking, the need for workers to rely on their tacit knowledge, high levels of solidarity among black underground workers in opposition to the theoretical knowledge and authority of white managers (Webster *et al*., 1999).

However, certain elements of this occupational culture are not peculiar to South Africa. Gouldner (1954) also refers to the underground solidarity that marks the culture of mineworkers. This is shaped by the fact that workers face danger on a daily basis. He showed how workers went to the extent of downing tools in the case of a fatality or injury. This is also true of South African mining culture, where workers do not go to work the following day if there has been a fatality. This is also shaped by the history of racial despotism in the industry. Webster *et*

al.'s (1999) study further identified a distinct occupational culture that is shaped by a combination of fear and close solidarity within the work teams, combined with the resentment of white authority and racial hierarchy.

Solidarity in the face of danger has also been marked by Gouldner (1954), who emphasises that solidarity is absolutely essential in mines, more so because workers rely on each other in cases of rock falls, cave-ins and when one needs to be dug out. But solidarity is Janus-faced. It has a more ominous flipside. One must note that the culture that exists only applies to members or insiders, and not to those who are considered deviants or outsiders. Deviants and outsiders include surface workers and workers who do not get along well with others. Gouldner (1954) gives an extreme example of workers with smelly breaths and how they were mistreated to a point where they quit. This shows that "deviant" workers are ostracised and isolated; this too is part of the occupational culture.

The implication of this is that women present a challenge to this macho mining culture, and are also seen as a threat and as deviants, hence the exclusion by male mine workers.

Traces of mining occupational culture have extended beyond the despotic mining era. Even now, women are still seen as powerless and problematic, while men are seen as strong and capable. Women, according to Lee (2000), are viewed as problematic biologically and emotionally. The biological problem is because of women's menstrual cycles, which can negatively affect their performance, and pregnancy, which can slow down their progression. Emotionally, women are viewed by men as not being capable of coping with accidents and deaths that occur in the mines. These views, Lee argues, are not only personal views that men have but also part of the organisational culture.

On a lighter note, Gouldner (1954) points to the tradition of giving each other nicknames. He argues that this is part of the culture but is also indicative of one's acceptance by other workers. Webster *et al*. (1999) take us further and show how

risk taking is also an important part of occupational mining culture. They argue that the disregard of dangers and discomforts associated with mining is also part of the occupational culture and a coping strategy used by men.

2.8 An analytical framework: linking production to reproduction

It has been argued above that much of the theoretical perspectives on how labour markets operate are gender-blind. Hence, there is a need to ground any analysis of changes in labour markets in perspectives that take gender seriously. It has been pointed out that while capitalist labour markets do not produce gender inequalities, they tend to reinforce existing patriarchal social relations. The relative autonomy of the realm of social reproduction means that any analysis of change in the labour market, such as this one, will have to consider processes that link the realms of production and reproduction. However, as has been argued above, social characteristics such as race and gender often intersect to form a nexus of exclusion and disadvantage. This has clearly been the case in the South African mining industry, where the migrant labour system produced a particular set of power relations. The fact that women now become underground mineworkers challenges these relations. As has been argued above, differential forms of exclusion produce gendered coping strategies and forms of resistance. The conditions under which South African mineworkers had to work also produced a peculiar occupational culture – one that is grounded in racialised masculinities. These concerns inform the approach taken in this study. But how do we construct a conversation between the literatures on mining and gender?

While the literature above refers to an analytical division between the spheres of production and reproduction (with women generally seen as primary players in the realm of reproduction, and men as primarily responsible for production), Peck (1996) provides for a framework that shows how the two spheres interact through processes of incorporation, allocation, control and reproduction. He draws on

feminist and geographic approaches to the labour market, and argues that labour is not a commodity and cannot be regulated by simply matching supply with demand. It is important to recognise that there are social processes that play a huge role in the regulation of the labour market (Peck, 1996). He addresses questions of how labour is constructed and regulated. His argument is that there is a need for a social element in labour regulation. Drawing on the work of Karl Polanyi, Peck argues that the market alone cannot effectively regulate labour because it is embedded in society.

Peck (1996) uses Polanyi to show why it is complicated to incorporate labour into the labour market without taking into consideration the society from which labour comes. He agrees with Polanyi that labour is not a real commodity; it is what Polanyi calls a fictitious commodity. It is fictitious because it cannot be regulated through market forces alone but also through family values, state policies and so on. This shows that labour has a social element to it, and subordinating labour to the market only serves to destroy and dis-embed it from the society in which it is embedded. Consequently, labour will rebel and form a counter-movement against this dis-embedding and seek to re-embed itself back into society (Munck, 2004). The fundamental point is that, unlike other commodities that are produced and supplied based on market demands, labour supply cannot always be synchronised with its demand. Peck (1996) argues that there are other factors that influence the demand for labour, such as education and social and economic decisions. Without taking socio-economic factors into consideration, it is hard to incorporate labour into the labour market.

But how do these processes of incorporation, allocation, control and reproduction play out in practice? The case of the migrant labour system in South Africa will be used as a case study to illustrate how labour markets are socially embedded.

I start off with incorporation, first of men in apartheid South Africa, followed by women in the democratic era. By incorporation Peck (1996) refers to the flow of workers into the market. This concept looks specifically at who gets released from

the household to go to work. Not everyone is permitted to go to work; only certain members of the household do. This is because families do not have children in order to fill openings in the market. The decision of who goes to work is largely dependent on family values, state policies, the education system, and so on (Peck, 1996:29; Castree *et al.*, 2004:37). In apartheid South Africa, men were brought in from villages across South and Southern Africa to work in South African mines (Crush and Ulicki, 1994; Moodie, 1994; Maloka, 2004). Land policies – specifically the dispossession of land, the homeland tax system, and droughts that were often experienced in homelands – all played an instrumental role in bringing men to the mines.

Incorporation started at home when parents decided to release their sons or wives their husbands. This was mostly done in dry seasons when droughts necessitated peasant families, who were dispossessed of their land by colonial governments, to earn cash in order to sustain their families. Young men were forced to enter into contracts with mining companies in order to earn money to build their homesteads, while others saw this as an opportunity to earn money for *lobola* (bridewealth). Labour incorporation was gendered in that men were released, and not women, to become migrants in mines (Moodie, 1994).

Crush (1992) argues that certain sectors demonstrated a definitive preference for male migrants, and women were relegated to sex work, domestic work and trading. This led to the dominance of men in South African mines. In these mines, men were housed in single-sex hostels where women were not allowed.

All this shows how the process of incorporation was gendered. Men were released to go to work and not women. They were housed separately from women. They were released because the culture saw men as breadwinners capable of supporting their families while women were seen as those to be supported (Yuval-Davis, 1997). Also, underground mine work was seen as being too dangerous for women, as illustrated by the ILO convention that codified this as an international norm in the early part of the previous century.

The introduction of women in mines challenges this gendered mine space. Their reasons for incorporation into mines are different from that of men during apartheid, in that South Africa now faces huge unemployment rates and rampant poverty. Most women, therefore, opt to work in mines rather than being unemployed. Mines are the main employment providers in Rustenburg; hence they become the first option for women.[13] Furthermore, most women (80%) who work in mines have families around Rustenburg; they do not want to leave their families and go work in other towns. The local mines therefore become their only viable option.[14]

While women choose mining out of desperation, not all women are absorbed into mining jobs. Castree *et al.* (2004:38) argue that "workers are hired because of their perceived performance capacity, which is their potential to do certain jobs at a certain level for a certain wage for a given period of time." This takes us to our second point, which is labour allocation. Mines look for specific traits in women in order to employ them. These women must be able to perform physically demanding work under hot and humid conditions. Peck (1996:30) and Castree *et al.* (2004:37) argue that the social characteristics of the worker play a huge role in their allocation in the labour market. Characteristics such as gender, sexual orientation and race are all important in job allocation. In classical labour market theory, the achieved status (as a result of formal qualifications and work experience) determine whether a person is suitable for a job. Reality is often different. Peck (1996) argues that often dynamics other than education levels, skills and training influence where one is slotted within the labour market. Factors such as gender, age and one's networks play a crucial role in allocation. In the old mining regime, black men were allocated hard jobs; most of them worked as general labourers while white men occupied the upper ranks of the mining hierarchy (Allen, 1992). Race, and not merit, was used to determine where one should be slotted in the labour market. This shows that allocation of jobs in the labour market is not always based on efficiency or rationality, as the neo-classical

13 www.nwpg.gov.za/sde/stquo.ase, 23 July 2008; Labour Force Survey (2007).

14 The Impala *Pre-employment Women n Mining Induction Document*.

economists would like us to believe, but can be based on social characteristics, too.

According to Peck (1996), groups such as youth, migrants, the disabled and women tend to bear the burden of labour market disadvantage when it comes to job allocation. He argues that individuals from these groups sometimes face discrimination from different labour market stakeholders, and as a result are denied jobs, or at best given contingent work. Moreover, people from these groups are sometimes given low-status jobs that do not pay well or where there is no security. The introduction of women in mining raises important questions as to where in the mining hierarchy these women are allocated. Is there perpetuation of the old discriminatory allocation procedure, or are women given the same jobs as men?

The history of mining in South Africa graphically illustrates how ascribed status – or social characteristics – took on certain meanings when it came to matching individuals to jobs. This process started when mineworkers were on their way to the mines, in buses and trains. Men took on different personalities in order to fit in at the mines. When they arrived at the mines they underwent certain routines that enabled employers to see who was fit to work in the mines and to which job they should be allocated. They were typically taken to huge eighty-room dormitories where they would strip naked for medical examinations. These were humiliating as older, often circumcised, men were forced to strip in front of younger, uncircumcised boys. This, Moodie (1994) argues, was a way of initiating and socialising the miners into the mine subculture. These men had to undergo a strenuous process of acclimatisation, where they performed monotonous exercises in a steamed room for four hours a day, for a week. In addition to that they had to learn Fanakalo, which Moodie (1994:13) describes as a "pidgin language without nuance or subtlety, which is used by supervisors to order blacks about and which ensured that relationships between bosses and workers on the mine are as limited and impersonal as possible." In addition to these tests, and the overall racial colour bar that was maintained, ethnicity was used to allocate men to jobs, with

certain job categories (such as shaft sinking, gang leaders and rock drillers) becoming the domain of specific ethnic groups. The mining industry used pseudo-science to justify these practices.

This is what allocation of men into mines entailed. It shows the importance of the social characteristics that Peck (1996) talks about. Strong men who endured the physical exercises were hired while those who could not endure the exercises were ejected from the labour market.

Currently women also face a systematic process of job allocation. Just like men, women have to undergo several stages before they get slotted into mining jobs (Simango, 2006). First they have to undergo and pass a heat tolerance screening and a medical examination. The HTS is less strenuous than that undergone by men during apartheid; it is only done for 30 minutes, but it is still strenuous. The medical examination is thorough; it can take the whole morning, but is now done in private. Failing these examinations renders one incapable of being part of the mining industry, and thus ineligible for allocation. However, those who do pass undergo training which prepares them for the real work underground.

Incorporation involves household decisions to release certain individuals to seek employment in the labour market (supply factors). Allocation is about the matching of those individuals to jobs, processes that involve certain social characteristics (demand factors). This shows that both allocation and incorporation deal with processes of labour supply and demand. This takes us to the realm of the workplace, where managers have to seek ways of controlling labour in order to ensure productivity. As Peck (1996:34) explains:

> In order to understand labour control, then, it is necessary to look over the factory gates, to consider the social production and reproduction of work forces and the values which unite and divide them. Because labour control cannot be secured simply through despotic management strategies, it comes to depend in important ways on the social context in which employment relations are embedded.

Hence, control relates to how an employer, after allocation, ensures worker co-operation and increased productivity.

The despotic nature of labour control in the South African mining industry has been well documented. Mine management attempted to establish full control over workers, and the compound system was designed to do just this. Mines and compounds were all heavily controlled by managers to ensure productivity and increase profits in the mines. Peck (1996) draws a distinction between consent and control. Control is seen as a form of managerial despotism where workers have no say in the labour process and are instead coerced into following instructions. Consent, on the other hand, involves willingness and co-operation from workers. He argues that in order for one to efficiently manage a workforce, one has to ceaselessly negotiate a balance between consent and control. Furthermore, Peck (1996) asserts that labour cannot be controlled by despotic management and contracts indefinitely, as mines sought to do with migrant labour contracts. He argues:

> Because labour control cannot be secured simply through despotic management strategies, it comes to depend in important ways on the social context in which employment relations are embedded... [there is a need to broaden the] earlier narrow focus on managerial control, exercised at the point of production, to take account of workers' struggles and the wider politics of production in which labour process struggles are situated (Peck, 1996:34).

His basic argument is that there has to be a move beyond the factory gates towards society where labour is embedded. Society is crucial, because factors that make labour compliant and productive are found in it. Family values, schooling, friends, trade unions and legal rules all play a vital role in ensuring worker productivity (Castree *et al.,* 2004). Using Burawoy (1985), Peck suggests there is a need to recognise that there can be a range of control strategies that move from despotic to hegemonic management where co-operation is achieved through persuasion and not coercion.

In the context of the South African mining industry, where historically labour control was as much about compounds as about racialised supervision, Peck's broadening of the notion of control to include the social context of the workplace is useful. Indeed, in a similar vein, Buhlungu and Bezuidenhout (2008a) take the

concept of control a step further by focusing on compounds. In their study on From Compounded to Fragmented Labour: Mineworkers and the Demise of Compounds in South Africa, they look at four types of control related to compounds in the mining industry. The first one is spatial control, which looks at the regulation and restriction of movement of people between the rural homes and the mines, and also within the mine compounds. Spatial control over workers' movements was made easy during the apartheid era because of colonial land policies and the pass system. The movement of workers was constantly closely monitored and controlled by police. Mineworkers had no power over where and for whom they worked; control over such decisions was in the hands of white officials. The Employment Bureau of Africa was responsible, and still is, for recruitment and placement of workers. Compounds, where workers lived, and *skomplasses* (for female visitors), were also tightly controlled spaces, and access by visitors was closely monitored. These forms of control were later met by resistance and defiance from workers, especially with the introduction of the National Union of Mineworkers (NUM) (Buhlungu and Bezuidenhout, 2008b).

The second type of control is associational control. Here Buhlungu and Bezuidenhout (2008a) scrutinise the regulation and restriction of workers' collective industrial action "including forms of worker self-organisation such as union activities, sport, religion, and leisure" (Buhlungu and Bezuidenhout, 2008a: 3). Associational control, they argue, played a crucial role in controlling collective association by workers. The presence of the NUM, however, helped curb this and enabled workers to join unions of their choice. Currently there is a trend away from this type of control towards more freedom, and there have also been trends of privatising representation through the use of Scorpions and Legal Wize[15]. Religion also plays an important role, especially with the increased insecurity for workers.

The third form of control is political control, by which they mean the use of mine police to maintain order in mines and compounds. The use of police and

[15] These are legal agencies that represent workers.

traditional leaders helped in controlling worker activities. This form of control has changed; currently there is a dual compound governance system which is worker- and company-based (Buhlungu and Bezuidenhout, 2008a).

The last type is reproductive control, where the compounds and people's private activities – such as personal hygiene, sexual intercourse and alcohol intake – were controlled by mine management. Reproductive control was fierce, to a point where the mines controlled and regulated the interactions between husbands and wives. This control was monitored and enforced through the single-sex compounds where women were not allowed, and in *skomplasses* where they could visit their husbands, although they could only stay for a few days. Reproductive activities such as beer consumption and what kind of food was consumed were all controlled by mines within the hostels and by the use of leisure time by mineworkers (Buhlungu and Bezuidenhout, 2008a).

From the above it is clear to what extent processes of labour control were grounded in notions of gender. These forms of control helped keep women off the mines and ensured tight regulations. The introduction of women in mining challenges and undermines, in a fundamental way, how things have always worked in mines. In fact, the inclusion of women challenges the very core of mining, the gender part of it – that it is for men and not for women.

The last theme Peck (1996) deals with is labour reproduction. He asserts that all these processes – incorporation, allocation and control – cannot be divorced from the household. Castree *et al.* (2004:38) argue:

> Employers need workers to be sufficiently happy and healthy for them to work well. They also need to possess the required skills, aptitude and attitudes to undertake their assigned jobs. All these things are influenced by what goes on in the reproductive spheres of home and community.

The migrant labour system operated on the assumption that the sphere of reproduction happens elsewhere – away from the mines, in rural areas where subsistence agriculture contributes to livelihoods.

While the migrant labour has declined, it has not disappeared from the mining labour market. Again, the introduction of a significant number of women to the mining labour market fundamentally challenges this foundational aspect of mining in South Africa.

Conceiving of the linkages between the realms of production and reproduction as a set of socially embedded processes – incorporation, allocation, control and reproduction – enables one to study and analyse labour market change. It is fundamental to recognise the gendered nature of these processes. As Peck (1996:39) argues:

> [T]he sphere of production and the sphere of social reproduction are both separate and connected. They are separate in the sense that they each have their own structures of dominance along with their own distinctive rhythms and tendencies, but they are also related in the sense that each conditions and interacts with the other.

While they are relatively autonomous, they are also linked. In order for workers to be on time, conditions at home must be enabling, and for them to get to work sober on a Monday, the household plays a crucial role. Peck (1996) asserts that the family and community are crucial in providing protection against the ruthlessness of the competitive labour market. Castree *et al.* (2004) assert that "it takes time, money and the non-paid labour of others (like family members) to produce workers day in and day out". This shows the inter-dependence between work and home. In the findings chapter, I show how the two spheres constantly communicate with each other. Table 2.1 summarises the different themes that guide this study.

Table 2.1 Summary of Peck's four themes

Incorporation	Allocation	Control	Reproduction
Deals with who gets released from the household to go to work, and why. Previously men were released to go to work in mines, but now women are also being released.	Looks at where in the labour market workers are slotted. It has to do with matching workers with jobs.	Addresses control of workers by employers to ensure productivity. There has been a shift from the previous despotic control towards hegemonic control.	Looks at the role of the household in the labour market. Worker productivity does not only depend on what goes on at work, but also what happens at home. This section ponders the crucial role of social reproduction.

Chapter 3

Methodology[16]

3.1 Qualitative methods: ethnography and in-depth interviews

Since women working underground is such a new phenomenon in the South African mining industry, this study required an approach that could explore and describe new social practices in detail. I employed two methods – participant observation and in-depth interviews, both methods that primarily result in the generation of qualitative data. Burton (2000) argues that it has become more acceptable in recent years to combine two or more research methods. This process is called triangulation. Triangulation means using different methods to study the same unit of analysis. I used triangulation in order to overcome weaknesses of certain techniques; this enabled me to explore the richness and diversity of emerging social settings. Lichterman (2002) sees the logic of triangulation as an approach that enriches our understanding of the world we are studying. My primary method was participant observation. I chose this approach because I was concerned with the depth of information gathered. Another motivation for using this method was that Burawoy (1972), in his study of Zambian copper mines, Phakathi (2001), in a study of South African gold mines, and Webster *et al.* (1999), in a study on the impact of ultra-deep mining on the occupational culture of miners, have all used this method successfully in order to gather in-depth information on mines.

I spent two and a half months living and working at Impala Platinum in Rustenburg. Underground, I worked as a general labourer and a *pikinini* – a shift

[16] Some parts of this section draw on my previous work on subcontracting in mining. Benya, 2007

supervisor superintendent. I also helped to fetch water for my co-workers and to transport working equipment from one area to the next. As a general labourer I helped install ventilation, water and compressed air pipes, helped mark the surface for drilling, loaded ore and worked in the panel, among many duties. All this enabled me to work closely with the women and to strike up friendships with them. Furthermore, it helped me understand the duties assigned to women and mining labourers in general.

I took an inductive approach. This type of approach is when one begins the research by looking at empirical evidence and working towards theory (Neuman, 2006). This is what Burawoy (1998) and Lichterman (2002) call the "field-driven" approach. Lichterman argues that what is happening in the field directs the course of the research. He juxtaposes this to the "theory-driven approach" where one has a theory and aims to reconstruct, refute or add on to it. Burawoy (1998) further asserts that in this approach theory guides dialogue with the subject matter, whereas in field-driven approach what is seen on the field guides theory.

Being in the field with the women enabled me to be personally exposed to most of the challenges that women in mining face. Webster *et al.* (1999:19) argue that participant observation affords researchers the opportunity to confront the circumstances and approach the hopes and fears of the respondents as if they were theirs. Sarantakos (1998) asserts that there are many different ways of doing an ethnographic survey. Researchers can choose to either be participants or non-participants, and to do direct or indirect observations. My study looked at natural settings; I observed these women in their natural surroundings – their workplaces. This has been called by Lichterman (2002) the observing of subjects at their own time and in their own settings. I became an active, direct observer since I was involved in their work practices, and this allowed me to observe the women in their own settings. I was therefore more of a participant and less of an observer, and this proved fruitful when I had to do my interviews and in establishing rapport.

Most of my data was gathered during working sessions while at the same time I was building rapport and establishing friendships with the women. As part of participant observation, I also had informal interviews (in the form of conversations) with the workers. These were not limited to a specific day or time but I used any opportunity that provided for a conducive environment to conduct them. Informal conversations helped in gathering background and general information. These took place while working, during breaks, and when going back to the surface and the residences. Conversations in the change house also proved very helpful.

The informal interviews were flexible in that they sometimes continued over a number of days. This was done in order to come as close as possible to ordinary day-to-day conversations. My interviews were like conversations with a very deliberate goal. Bloor (1997) makes it clear that an interview is not an opportunity for the respondent to talk about anything but a very specific topic; however, questions in an unstructured interview are opportunistic and are not necessarily drafted beforehand. They are mainly asked to clarify points and terms that are not clear to the interviewer.

The informal interviews were not limited to women only but at times involved men. However, I reserved sensitive information and personal questions for private settings, and respondents were informed exactly what the study was about and their rights as interviewees. While I initially thought in-depth interviews would be done over week-ends, this proved impossible once in the field, especially because some Saturdays we were expected to work and Sundays most people relaxed and caught up with their families. I therefore ended up doing most of my in-depth interviews during my last week at the mine. This also meant that I could draw on my experience as a mineworker to inform these interviews. These were all done at places where the interviewees were most comfortable. They took approximately two to two and a half hours each, and they were not structured. They all sought to address specific themes and were guided by my observations underground and my

interactions with women. When conducting in-depth interviews I took notes and did not use a recorder because it intimidated most of my respondents.

To fully benefit from my experience, I kept a research journal, which helped me in taking and recording field notes. This was mostly done in private, away from the women in order not to create suspicion. There were instances later on in the research process (when rapport was already established) where I did take notes in front of the women. I was also able to take photographs in order to present a visual picture of the context and the mining labour process. The unstructured interviews, in-depth field notes, photographs and research journals enabled me to get rich quality information, both verbal and non-verbal.

In total I conducted twenty-seven in-depth interviews, mostly with human resources personnel and key informants both underground and on surface – mostly women. I also conducted several informal interviews with the women; I slept over at their homes, went out with them and attended their sporting events. These activities enabled me to access their world outside of work and to see whether, if at all, there were any extensions of their work to the household and the communities they lived in. This was done because Peck (1996) argues that production cannot be divorced from reproduction, that the two are linked and often impact on each other, thereby shaping each other. I also held a focus group with eight learner officials in addition to working and living with the women at Siesta single quarters, where I also resided.

3.2 Access

Access to the mine shafts was granted by Impala Platinum (Impala/Implats) in Rustenburg. Implats opened their doors unreservedly to me. As a result, on a macro scale I was able to access any shaft I deemed important and on a micro scale any level or crew. I chose Implats because of the Women in Mining project Impala is running. The permission granted by Implats involved spending an uninterrupted amount of time with the women underground and where they live. I

spent two and a half months at the mines, of which the first week was for engagement[17] at Impala and the last week was to conduct in-depth interviews. The two months in between was for working underground with the women.

I worked in both the mining and development sides. The former is where the stopes are located and where the actual mining takes place, while the latter is the section that prepares and opens the way for mining. In the two months I was underground, I managed to work at three different shafts, namely 10 Shaft (10#), 1 Shaft (1#) and 12 Shaft (12#). I moved between shafts because certain occupations do not have women in some shafts while others do. I went to 12# because it has a trackless section, which is different from conventional mining and thus poses different challenges and requires different coping mechanisms. This enabled me to contrast the challenges that women face in trackless and conventional mining.

In the shafts I visited I was allowed to move between levels and crews. To get the gist of the work done by women in mining, I worked with different women, learning about their work and how they do it. I focused mostly on the challenges facing them and how they coped. I spent a considerable amount of time with women doing different occupations. These include six learner officials,[18] eleven equipping helpers,[19] one store issuer,[20] two winch drivers,[21] one panel operator,[22] one safety representative, four transport women[23] and six blasting trainees.

[17] This includes induction, registration at TEBA, medical examination, heat tolerance test and a first-aid course.
[18]Learner officials are officials-in-training; they rotate between all the departments that are involved in mining, both on surface and underground.
[19] These women are formally called PTV which means pipe, transport and ventilation helpers. They install pipes underground and ensure easy mining.
[20] Store issuers issue workers with working material such as drilling machines, paint, paint brushes. etc.
[21] A winch driver pulls the ore from the working stations to the tip where all the ore is taken and transported to the main tip, then to surface. They use winch machines connected to scrapers to pull the ore.
[22]Panel operators work where the actual mining takes place – cleaning the wall, preparing the face and helping charge up before blasting can take place. Their main duty is to load ore.
[23] They transport working materials from one section to another where it is needed.

3.3 Benefits and limitations

I chose participant observation because it goes beyond data gathering to the interviewer being incorporated into the community under study. Kassam and Mustafa (1982) assert that this approach involves active participation of the researcher and the whole community. By entire community they are referring to the community under study – for example, a women's mining community at Ten Shaft. Unlike interviews, participant observation goes beyond what is being said to what actually is (Manicom and Kassam, 1982). What makes participant observation interesting as a research tool is that subjects are studied in their natural setting without any form of control, unlike in positive science where the researcher seeks to reduce and control the context in which the research is conducted. In participant observation, the context contributes immensely to the actual subject under study. Burawoy (1998) argues that context is not noise disguising reality, but reality itself.

Ethnography is very useful in that it provides information when other methods are not effective; it can offer data when subjects are unable to do so. It approaches reality in its natural structure, allows for the collection of a wide range of information and is relatively inexpensive. It also has limitations: one cannot generalise based on it, it cannot be employed when large groups are studied, it is relatively laborious and time-consuming, and observers cannot be controlled in terms of their bias, attitudes, expressions and opinions. There is, therefore, little control when one is in the field. However, I have done everything possible to ensure appropriate representation of what I saw and took part in.

In the field, participant observation was supplemented with in-depth interviews, which also added to the richness and contextual perspective (Burawoy, 1998; Lichterman, 2002). In the case of in-depths interviews, where certain questions were not understood by the respondent, the interviewer elaborated to ensure that they were correctly understood. An advantage of this method is that the

interviewer can probe more to get better clarity and there is freedom for respondents to express their opinions about the subject at hand.

The disadvantage of in-depth personal interviews is that the respondent may not like the interviewer (because of age, education, race or gender). People may feel the need to brag when being interviewed face to face; this may lead to distorted information. Respondents may not express their true opinions for fear of being judged or reported to authorities. With my in-depth interviews, I had to be careful how I asked and phrased questions, especially because some questions invaded the privacy of the respondents; hence sensitivity was my top priority. With all the precautions taken, what also proved a tremendous help was the age of the interviewer.

Most women were more or less my age, and as a result opened up easily; there was no or less fear of being judged. Sensitive topics such as abortion and their prevalence were addressed freely without fear of judgement, and in certain instances voluntarily. My in-depth interviews took long and I prepared my respondents for that by telling them upfront how long the interview might be. Due to time constraints, an ethnographic study was conducted only at Implats. However, it would be of tremendous benefit to do a comparative study between the two mining houses, Implats and Amplats.

3.4 Selection

Sampling was mostly important as far as the interviews were concerned, and to a certain degree in participant observation. I had to be deliberate in selecting my respondents for in-depth interviews and I was also deliberate in selecting shafts. I chose shafts based on the size of the female workforce, the tasks women performed and the type of mining done on that shaft, whether it was trackless or conventional. I therefore employed purposive sampling and this helped me gather very specific, useful and relevant information. This sampling procedure,

Sarantakos (1998) argues, is more than just selection of subjects but also deals with the time, place, type of events (or type of mining done) and subjects. By time, place and events, he means that certain times might not be conducive for interviewing (and writing notes on my part), certain places might be intimidating for the respondents, and after certain events it might not be the best time to conduct interviews.

While in the field I kept these in mind and tried avoiding inappropriate timing while at the same time using every favourable opportunity to gather information. Peil, Mitchell and Rimmer (1982) point out that different research stages may require different kinds of sampling; thus at times I used snowball sampling, especially in cases where only a few people knew what I was looking for. Snowball sampling is sampling through referrals and networks. Neuman (1994) states that snowball sampling is a multi-stage technique that begins with one or a few people and spreads out on the basis of links to the initial person. The limitation of purposive and snowballing sampling is that the researcher cannot be entirely sure of whether the cases selected represent the population. It is therefore important I make it clear upfront that my concern lies very little with numbers and sample representation, but rather with in-depth information gathering.

For any research, reliability and validity are of paramount importance. Reactivity, according to Dooley (1995), is the behavioural change caused by the measuring procedures, which can threaten research validity. He argues that reliability determines whether or not the data produced is free from errors of measurement and consistency. Burawoy (1998) further touches on the effects of power and how these can be limiting in research, particularly when using participant observation. The fact that in the field there are hierarchies that one has to bow to can be a limitation. The researcher can also be a source of power, and that may alter the responses given and thus impact on reliability. For example, one may argue that my being an outsider and a woman in a mining community may have had an impact on how I was treated and what was done in my presence.

When one is conducting research it is important to ensure that not only are the measurements valid and reliable but that there is going to be little or no reactivity from the respondents, thus impacting negatively on the results. This was taken into consideration when I was doing my research, and reactivity was prevented where possible in order to yield reliable data. I must acknowledge, though, that preventing reactivity proved difficult in the first week but was later managed well. This was made easy by the fact that I stayed and worked with the women for an extended period of time, to a point where they saw me and treated me as part of the team. To further show that I was treated as a member and not an outcast, in cases where accidents occurred and cover-ups were executed, they often forgot I was there and in certain cases even expected me to help cover up accidents. Furthermore, mines are big and not everyone knows everyone else; consequently, a lot of times people acted naturally from the onset.

3.5 Ethics

Before conducting interviews I explained fully to the respondents what the study was all about and that they were free to withdraw at any stage, even after the interview. Confidentiality, privacy and anonymity were adhered to at all times. Deception was avoided as much as possible. It is pivotal to point that, despite ethical issues concerning the research, I did everything possible to protect the respondents. I have in all circumstances protected the subjects by first seeking their informed consent and guaranteed them complete anonymity, and using only pseudonyms when quoting them. The rest of this report deals with findings regarding the challenges and coping mechanisms of women in mining. The report affords the reader an opportunity to judge whether the data gathered through participant observation has answered the question at hand.

Chapter 4

Women in Mining: Challenges and Coping Strategies

4.1 Theoretical perspective

This chapter focuses on challenges associated with women in mining and their coping mechanisms. Since mainstream approaches to labour market theory create an artificial separation between the realms of production and reproduction, I attempt to overcome this by drawing on the field of labour geography. The study attempts to go beyond the challenges women face at work. It starts with those challenges the women face even before becoming part of the mining labour force, to those they face at home for choosing a career in mining. This is followed by an analysis of challenges they face at work after being hired. Finally, I reconsider challenges they face in their households and how these are influenced by their interaction with the mine.

To help structure the argument, there are four sections in this chapter (in addition to this introduction), adopted from Jamie Peck's (1996) book *Work-Place: The Social Regulation of Labour Markets*. His understanding of how labour markets operate goes some way to overcome the artificial separation between the realms of production and reproduction. As pointed out earlier, Peck (1996) refers to four problems or processes that operate in any labour market. The first process relates to the incorporation of women in mining. This refers to how women make a decision to join the formal labour market and apply for jobs as underground mineworkers. The incorporation of women is distinct from that of men, as it is driven by gender differences. The second process, allocation, moves from a focus on the household to the internal workplace sphere. Important issues here involve what kinds of women are hired and where women are slotted in the internal labour

markets. Here I dissect the process that women have to undergo in order to become part of the mining labour market. Mines look for certain qualities in women before they hire them. They must be medically fit, be able to work under hot and humid conditions, and carry out physically demanding work. Then I move on to show the kinds of jobs women do when they start working in the mines. Here I show that the matching of women to certain jobs is very gendered, that most women end up in certain jobs and not others. Peck's third process involves control over the labour process. Not only are workers controlled by their managers, but they also control themselves in order to cope with work. Control is driven by the need for productivity. Some control factors over-lap with allocation. Under control, I also discuss the mining occupational culture and its impact on women. The fourth and final process relates to the issue of reproduction. It shows that one cannot de-link or divorce production from reproduction, that there is a continuation to the household. The kinds of societies that are created depend largely on the type of production people are involved in.

In all these sections there are overlying factors – the challenges and coping strategies that women employ. The coping strategies range from formal to informal – formal being those that are put in place by the mine and informal being those that women informally teach each other in order to cope. This raises questions of how women deconstruct and construct themselves in order to fit in and cope with the demands of the mining workplace.

4.2 Incorporating women in mining

When referring to incorporation into the labour market, Peck refers to who gets released from the household to go to work. Peck (1996) and Castree *et al.* (2004) recognise that people are not born to be incorporated into the labour market. Family values, state policies, the size of the population and the nature of the education system all play a fundamental role in who gets incorporated. Previously, families released men to go work in mines. These men mostly came from the homelands and were housed in single-sex compounds. They went to the mines in

order to earn a living for their rural families, to build a homestead and to pay bridewealth (Moodie, 1994).

The introduction of women into mining brings different dynamics. While legislation has undoubtedly played a big role, the families and the women themselves have played an even bigger role in choosing mining as a career option. The households and communities these women come from have also played a role in their retention in mining.

Furthermore, the 25% unemployment rate in South Africa plays a huge role in driving women to look for employment. Rather than suffering the social stigma or political marginalisation due to unemployment, women prefer to work in mines and bear the stigma attached to women in mining. According to several women interviewees, they considered working in mining to be their last yet only resort due to massive unemployment. Many women reported that mining jobs are seen as low-status jobs, and women who work in mining are stigmatised for stealing other people's husbands and being promiscuous. These are some of the challenges they face from the communities that release them.

While there is a stigma attached to working in mining, families still release these women to avoid starvation. Not all women are released freely by their families, however. Some women reported that they faced opposition, not only from their communities but also from their families, for choosing to work in the mining industry. Some reported having been left by their partners because of the jobs they chose. Even with these difficulties associated with incorporation, people still see the need to work because of the "social marginalization and political stigma" associated with unemployment (Peck, 1996:28).

The second reason women prefer working in mines is that in the Rustenburg region mines absorb most people; they provide more employment than any other sector. Furthermore, women do not want to be detached from their families, and they therefore choose a career in mining in order to remain within the Rustenburg

vicinity says Luleka.[24] This enables them to commute between home and work on a daily basis. Some women, however, live further from the mines and they rent rooms around the mines. This shows the gendered nature of incorporation; during apartheid men came from distant homelands and resided in single-sex hostels, whereas women come from surrounding villages and stay at home. The migrant labour system is no longer the driver; in fact, mines have stipulations such as hiring women residing within a 60 kilometre radius from the mine.

From the interviews, only certain women were released to go work in the mines; most of them have finished Grade 12 and are between the ages of 18 and 45. The reason they stated as the cut-off age is that they do not know anyone older than 45 who works underground. Even the few 45-year-olds that were interviewed reported that the work is physically demanding and that they will not carry on with it for more than five years. Families therefore release women who can do the physically demanding underground work, but not those they deem weak or incapable of hard work.

This brings the question of race to the issue of women who are released to go to work in the mines. During data collection and based on all the Impala documents, there are no white underground female labourers. While women of all races are found in mining, white, coloured and Indian women do not seem to want to participate. They are not released into the mining underground jobs by their families. According to interviewee Liesel, "White and Indian women do not apply for underground jobs and the only two coloured women that applied changed their minds soon after they visited underground." The reason given by Liesel for the lack of white and Indian applicants for mining jobs was that "unemployment does not affect them the same way it does African women. Most of their families have businesses they can work in after completing school and there is therefore no need to look for a mining job". Furthermore, "the area is still traditional; white men still regard the mine underground space as men's space". According to most white male interviewees, they would not allow their female family members to work

[24] Note that pseudonyms are used for all interviewees.

underground. Anton remarked that "underground work is hard work and I wouldn't dare have my daughter, wife or sister work under such conditions". Pieter stated, "Underground work is mostly for uneducated people and I took all my daughters to school so that they wouldn't end up here, especially not underground". James said, "Underground work is physically demanding even for men; why then would I allow my daughter to come work here? I would rather get her a job on surface to make tea". When African females were asked if they had ever seen a white underground female worker, they replied negatively. Lucy stated, "How can they be underground when their fathers are on the surface?" Tiny added, "Obviously their fathers have been in mining as bosses for a long time and they know people that can give their daughters nice surface jobs, not these difficult *malayisha*[25] jobs."

In conclusion, women are released to mining for different reasons from those of men. Unemployment is the main driver; the women have to feed their families and sustain their livelihoods. In Rustenburg, mining offers the most jobs; hence it is where women end up. The stigmatisation attached to underground mining women shows that incorporation is a gendered process.

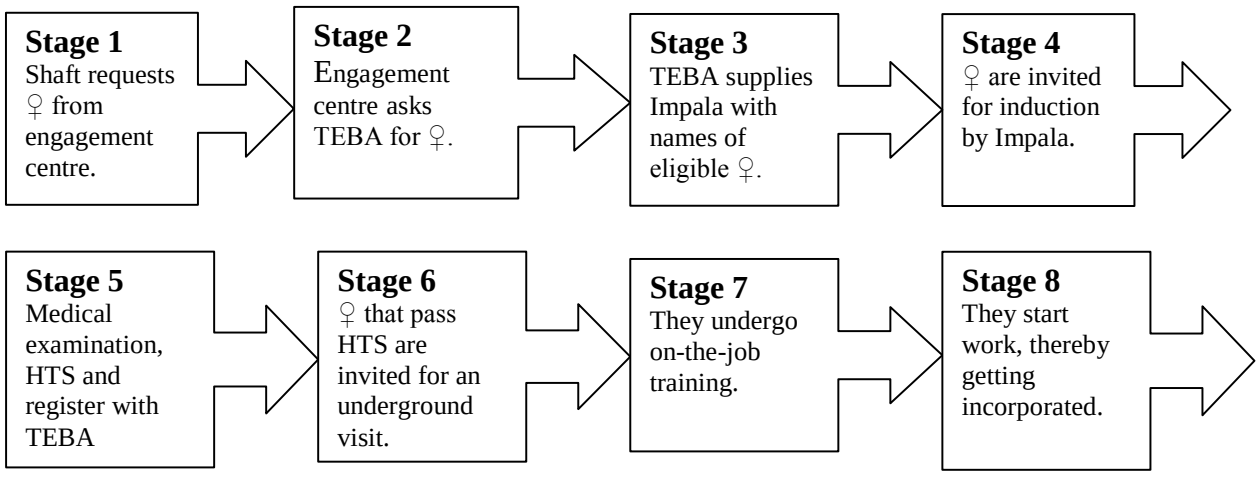
4.3 Allocating women in mining jobs

The section above shows us who gets released to go to work in the mines and why. This section takes us a step further, to the role of the mine; it deals with who gets slotted in and in which occupations. Peck (1996) argues that allocation has to do with matching the right workers to the right jobs. This is a supply and demand process whereby certain workers with certain skills or abilities are slotted into certain jobs (Castree *et al.,* 2004). Here I go through the different stages that women have to undergo. I show that in mines, since women are new, they are given what the dual theorists call the secondary-sector jobs, the low-paying and low-status jobs. As will be shown, most of them work as equipping helpers,

[25] *Malayisha* is a Fanakalo word used to describe ore loaders. It is derived from the Nguni word *layisha* which means to load. In mines it is used in a derogatory manner to refer to the lowest-paid workers.

attendants and assistants. There are informal allocations that take place underground, with women allocating themselves to other occupations when they do not like where they have been officially allocated. This is the resistance to bureaucracy that Gouldner (1954) talks about. He argues that where there is lack of predictability there tends to be a lot of informality, through which individuals evade the bureaucratic order. I show how women evade the mining bureaucratic order and find ways to cope or make their work bearable. I also show the challenges that women face after allocation, once they start working, and I show how they use femininity, ethnicity and sexuality to cope with the challenges they face.

The mining space is described by Simango (2006) as hot, humid and unforgiving, and that on its own is a challenge to the allocation of women. Below I carefully scrutinise these challenges in more depth. Before I do that, however, I first use a flow diagram (Figure 4.1) to show how women are brought into mines and what happens once they are inside.



Note: ♀ stands for females and ♂ stands for males.

Figure 4.1
Allocation of women into the mining labour market

From Figure 4.1, it is clear that allocating women in the workplace is a laborious task; there are many steps taken in order to prepare the new female workforce. Men also go through the same stages; however, what makes it more difficult for

women is their anatomical and physiological make-up. Below I show how these affect the productivity of women compared to that of men, and as a result more women than men are eliminated during the allocation process. Moreover, when women get to the mines they face what Peck (1996) calls the "problem of incorporation" into the labour market. To fully appreciate what happens during the allocation phase, I will describe all eight steps, annotating what happens in each one. Based on interviews with women mine workers and HR personnel at Impala, the above process can take from two to three months, depending on several factors that I shall touch upon below.

4.3.1 Requisition for women

Each shaft's business plan is synchronised with the Mining Charter goals and other South African legislation, and it reflects how many positions need to be filled, especially by women. To get women, shafts send out requisitions to the Impala Engagement Centre stating what positions they need filled and how many women they need. TEBA is consulted with the order for women who meet certain criteria. According to Karabo, women have to have a Grade 12 certificate to work in the mine (Mathematics and Science are a bonus). So, TEBA supplies Impala with suitable candidates. Photographs 4.1 and 4.2 show labour-supplying companies that are consulted by mines around Rustenburg.



Photograph 4.1

Unemployed people in front of AB Labour Services



Photograph 4.2

Unemployed people seeking employment at TEBA

The suitable candidates are called for an induction by Impala. According to Impala allocation records, when the Women in Mining project started, over one hundred women were called each week for induction (see Appendix 1). Very few managed to go through the first stage.

Because lack of a Grade 12 certificate signified exclusion from the process, a surge of counterfeit Grade 12 certificates emerged. This, according to Lesedi, was done out of desperation for jobs and the high poverty rate in the region. The forging of certificates was a coping strategy employed by women in order to make it past stage 3 in the selection process. The counterfeit certificates were hard to verify and the mine decided to drop the requirement from Grade 12 to Grade 8, which most people have.

According to Lebo, Impala initially emphasised the Grade 12 certificates because they wanted women to move from primary occupations (being equipping helpers and store issuers) to higher levels to become winch operators, locomotive operators, miners and so on. Furthermore, men have been in mining for longer and their experience puts them over women, hence education was seen as an advantage for women. Another criterion set by Impala when requesting women from their sources was that they must be able to commute to and from work and be within a 60 km radius from the mines.

When a woman meets the above criteria, it is then that Impala invites her for induction, which is stage 4. During the induction process women are briefed on the history of mining and are then told why mines are trying to bring them in. There is an emphasis during inductions on their responsibilities as women workers (see Appendix 2 for a copy of the induction papers). The sexual harassment policy and pregnancy policies are also highlighted. Women mineworkers, however, reported that during the induction process it was not made clear what the pregnancy policy fully entails and what the implications of pregnancy are on female underground employees. Several women reported that these policies are only properly explained to them "when we are already pregnant or when our friends are pregnant". The induction facilitators, however, had a different view; they believed that the pregnancy policy was thoroughly explained. They stressed that the main purpose for the induction is to respond to any concerns that the women have regarding mining, especially concerning pregnancies since it is a previously male-dominated industry.

4.3.2 The medical examination

In stage 5 women undergo an intensive medical examination which includes an X-ray check. According to the medical personnel, the X-ray checks their chest cavity. From the X-ray one has to go for an eye test, then an ear test. All these tests are crucial for people working underground. An eye test is especially crucial because if one's vision is somehow impaired, it is harder to see underground since it is dark and one sees mostly through the help of a head lamp. An ear test is also important because a lot of machines give out siren signals when they are approaching. Drilling machines and winches also make loud signals before they are operated. If one cannot hear, that poses danger and can lead to accidents that, had they been able to hear, could have easily been prevented. After the ear test, one has to go for a urine test where they check for traces of blood, sugar and proteins present. They then check the weight, height and blood pressure. From there they check one's breathing, and the internal ear organs. Since there is a lot of dust underground people must be able to breathe unaided. (See Appendix 3 for a medical examination form.)

These test are the first challenging stages for women because they cannot be done when one is pregnant or during their monthly periods. Again this shows that allocating women into previously male-dominated jobs is not an easy task. That is because X-rays are dangerous to the unborn baby. Impala made it clear that the tests do not serve to discriminate against pregnant women but to protect them, especially from the electromagnetic radiation that can be harmful to an unborn baby. If something wrong is discovered during the medical examination, one is sent to a specialist on site to have another test done and to get a clearance to proceed. Without this clearance (RED card), one is not allowed underground.

4.3.3 TEBA registration

After the medical examination, ex-leave[26] employees and new recruits go to TEBA to be registered on the database. TEBA acts as a placement agency for mining houses in South Africa. It recruits employees for mines from within South Africa and sometimes from the Southern African region. For every hundred males who register with TEBA daily, there are less than twenty women (Interview, HR Administrator, 23 July 2008). TEBA, like the occupational health bureau, is located inside the mine premises. Inside TEBA offices, there is a different culture from the one men display outside the premises. Workers are very respectful and obedient to the TEBA administrators. The staff also addresses these men as children, mocking them and shouting at them. This is part of the incorporation phase; women face the same kind of treatment, where they have to be subservient to TEBA administrators. Photograph 4.3 shows the TEBA recruitment centre where new and old employees go to register before going to work underground. (See Appendix 4 for TEBA forms that employees have to fill and what they get after they have been registered with TEBA.)

[26] Ex-leave employees are those returning from leave.



Photograph 4.3

TEBA office

4.3.4 The heat tolerance screening

After undergoing the medical examination and TEBA registration, it is mandatory that new recruits and those returning from a leave longer than fourteen days undergo a heat tolerance screening – *mtshongolo* in *fanakalo*. The screening is done to assess whether an individual can withstand high temperatures (heat tolerance) while doing physically demanding work. This is meant to protect individuals, as they can die from heat stroke and other heat-related diseases if they work underground if their bodies cannot withstand high temperatures.

The chamber where HTS is conducted is carefully monitored thirty minutes before and during the test to ensure temperature stability. It is kept at 28˚C (wet bulb) with a margin of 0.3˚C, and 29.5˚C (dry bulb) with a margin of 0.5˚C. The wet bulb measures humidity while the dry bulb measures heat. According to the Centre supervisor, humidity is the more dangerous of the two and can cause heat

stroke. The acceptable gap between dry and wet bulb is 1.5˚C, and staff members constantly monitor it during the test and are only given five minutes to rectify any problems or end the test. Photograph 4.4 shows the HTS centre where tests are conducted.



Photograph 4.4

HTS Centre

During the screening, a siren sound is used to guide participants. When it is loud one is supposed to climb up some stairs, and when the bell is soft participants go down the stairs. This happens twenty-four times in a minute for thirty minutes non-stop (24 steps by 60 seconds by 30 minutes). Stopping is seen as heat intolerance and inability to do manual labour under hot and humid conditions. Participants who pass the HTS are deemed able to tolerate up to 32˚C. While the screening is only done for 30 minutes now, in the past it used to be over four hours for four days. After that workers were expected to work underground for fourteen days straight to acclimatise their bodies to underground hot conditions (Moodie, 1994; Interview, HTS Supervisor, 24 July 2008).

Participants sit in a temperature-controlled room for twenty minutes where pre-tests are conducted to ensure that none of them are in danger of heat stroke or have high temperatures. The tests are conducted barefoot but wearing a sports bra and a gym skirt supplied by the Centre. Showers with soap are available for use after the screening. During the twenty minutes, several measurements such as temperature and body weight are taken. The initial body temperature should not exceed 37˚C, and if it does one is not allowed to undergo HTS. A high initial body temperature can be caused by stress, underlying flu, sitting in the sun prior to the test or hormonal fluctuations in the case of women, depending on their cycle. It is advisable that participants (especially women) wear cotton underwear as it allows easy air flow while nylon tends to prevent sweating which is bad when at the screening. Men and women are not tested together, however they wear the same skirts.

4.3.5 Reasons for failing HTS

Lack of exercise prior to the test can negatively affect the participant's resilience in the chamber. This shows that control by mines over labour is not only practised once one has been hired as a worker; even before being hired, the mine already has some control over what one does in order to be a worker. One has to eat properly and exercise regularly to increase chances of passing HTS. It then becomes clear that what is done in the household affects one's performance in these tests.

Ill health is another reason participants fail HTS. "Illnesses are always detected during the test as bodies generally give in when subjected to the high temperatures inside the chambers" (Interview, HTS Supervisor, 23 July 2008). Diseases such as epilepsy, high blood pressure and heart conditions are dangerous, and many workers hide them so that they can be screened and possibly get jobs. According to the HTS supervisor (Interview, 23 July 2008), high poverty rates in the area lead many people to lie about their health status.

One's emotional state also affects HTS. When angry or stressed, body temperature generally goes up and can result in increased initial temperature and failure of HTS. Dressing warmly before the test can also affect the initial body temperature and result in the participant being refused participation in the test.

Women get eliminated for several reasons such as breast feeding, being on their menstrual periods and being overweight or underweight. During menstruation, body temperature increases and is usually more than the acceptable initial body temperature. When breast feeding, one is not advised to undergo HTS or to go underground, but some women defy this and go in order to support their families. Furthermore, women are not allowed to go for HTS when they are pregnant because when one is pregnant the fat deposits increase and they sweat less because their bodies want to insulate the baby; by virtue of that, when undergoing HTS your body temperature rises higher than is acceptable.

The Centre is open to test women on Mondays, Wednesdays and Fridays, unless there are no women to test. On average, about one hundred women per month do HTS compared to close to a thousand men, including new recruits, contractors and those returning from leave. To accommodate these numbers the Centre has two to three sessions a day with thirty to forty men in each, and one session for women with about ten women on average. For men, the Centre can easily have more than five sessions a day depending on how many there are for HTS. However, numbers for women are generally low and while some complete the test, not all of them pass it. When testing, 37.6˚C and below is a pass while 37.7˚C is a fail (see Appendix 5 for a sample HTS form). Additionally, 40˚C is indicative of heat stroke and "women generally fail with temperatures that are above 40˚C", reported the Centre supervisor (Interview, 23 July 2008). Women who have worked in the mine find it relatively easy to pass HTS when they return from leave. However, this is not always the case, as an extract from my research journal shows:

> Yesterday I went for my HTS test. There were ten women including myself waiting to be screened. Out of the ten of us, only two of us were

new recruits, I was doing it for the first time and the other lady doing it for the third time; the rest of the ladies were returning from leave and had been at Impala for an average of two years. Before doing HTS, we were all expected to give a letter from the Occupational Health Bureau stating that we were physically fit to undergo HTS. Without this letter no one is allowed to do HTS.

Before the test began we were all taken to a temperature-controlled room. Inside the room was only a table, two chairs, a scale, and there were also benches attached to the walls of the room, above which there were numbers from one to thirty, written on a small whiteboard in red. We were all told under which number to sit and there we also hung our clothes and bags. As soon as we walked in, we were told to take off all our clothes and put on a skirt and a bra. The skirts are one size fits all but can be adjusted using a rope that is attached to the waist area, it is short, navy in colour and made up of crimplene. Sports bras of all sizes were brought in by a female assistant. We were then asked to take off our own bras and put on these ones. The changing of clothes in not done in private; everything is done in front of all the participants.

After changing we all sat down and waited for further instructions from the staff. The first question that was asked by the female assistant was whether or not any of us was breastfeeding, on her periods or sick. To these questions two ladies replied yes; one was breastfeeding and another was on her period, but no one was sick. These ladies were eliminated. It was sad to see them pack their bags and leave, knowing that they won't be able to return to work or be paid until they are no longer breastfeeding or on their periods.

Us who had none of the above were called sequentially to the front to have their body weights taken. After our group was weighed, several ladies were eliminated. One was above 100 kg and two more were also eliminated because they were below 50 kg. When one is above 100 kg they are not allowed to partake in the test and also when they are below 50 kg. Before the test began, already half the ladies were eliminated because they did not meet the criteria for partaking in HTS. This was a sad moment.

After the weighing, the staff personnel took our initial body temperatures and recorded them. They told us that anyone whose initial body temperature is above 37˚C is not allowed to continue with the test as chances of it increasing to levels that can jeopardise one's health and safety are higher. These tests were done while participants were inside the temperature-controlled room and body temperature was the last to be taken so that the body can adjust itself, especially for those that were warmly dressed or sitting in the sun prior to the screening. After all the pre-tests, half the group was eliminated. This was sad, considering that when we were waiting for the men to start and finish their test none of them were eliminated for menstruating, pregnancy or breastfeeding. These are problems that affect only women; that sucks!

After the tests, an assistant called each of us to bring our valuable possessions for safekeeping. To get to the chamber we had to walk

> through two very cold water dips where we had to immense our feet and continue on to the real testing room. Before entering the chamber, we each had to take a plastic mug in with us. This was later used to drink water to replace the water lost during screening. During the screening, there are beeping sounds, two loud and two soft sounds which served as our guides as we climbed up and down the stairs. The step is 30.5 cm high and you are expected to climb it following the beeping sounds. Before the test resumed, the lady taught us how to climb, and said that if at any stage we feel dizzy, cannot see properly or any unusual feeling we must stop immediately and you will be taken out because those are signs of heat stroke.
>
> Five to eight minutes after our test started one lady started feeling dizzy and was struggling to breathe. She then sat down and was later taken out. We continued for thirty minutes non-stop. Sweat was dripping and our bras and underwear were soaking wet. As the test proceeded the facilitators constantly checked the room temperature levels using the hygrometer with both the wet and dry bulbs. With only four of us remaining, I could feel my anxiety going up, also because I was told prior to the test that merely completing the test is not a pass. What is considered a pass is a body temperature below 37.6˚C post screening.
>
> Subsequent to the test we were told to sit in a specific manner with our bodies twisted facing the front. They then brought in thermometers and took our body temperatures. It turned out that all four of us had passed. After taking our temperatures they gave us water to drink to replace the salts and fluids lost during the test. After all the anxiety, we were sent off to go take a shower. Our victory was a bittersweet one because while we went in as ten ladies, only four passed and the rest were sent back to their homes (Benya Research Journal, 24 July 2008).

The above extract shows the difficulties women have to undergo to pass HTS; some of them are eliminated before they even try. Body weight can work against them; being on one's menstrual period or breastfeeding can also count against the women. The reproductive abilities of women serve as a hindrance to their allocation to mines. Men do not face the same problems because of their physiological make-up; they sweat more than women and that helps them pass HTS. Men do not fall pregnant or have monthly menstrual periods, and this renders them free of exclusion because of these reasons.

Based on interviews, observations and Simango (2006), women are most likely to pass HTS if they exercise regularly and eat a proper balanced diet. The fear of not knowing what to expect inside the heat screening chamber adds to the stress these women experience. Being shown the room in advance may also possibly help by

decreasing the anxiety which leads to increased body temperature. According to the HTS Centre supervisor, "Amongst men, whites mostly fail the test because they get upset before the test when they are told they have to do it with blacks." The supervisor reported that during apartheid white men did not have to do HTS. However, "with the new law, not only do they have to do HTS, but they have to strip in front of and do it with black men". Their getting angry leads to increased body temperature and a possible fail, the supervisor added.

With generally increased body temperature for women, HTS becomes another stage of elimination for most of them. According to the HTS supervisor, only 6% of women pass HTS the first time. Most of them pass on their second or third attempt, when they have followed the eating and exercise programme recommended by the Centre. Women are also advised to undergo the HTS during certain periods in their cycles, the follicular phase (Simango, 2006). There are several reasons for this, and they are based on the anatomical and physiological make-up of women. During mid-cycle, for example, the body temperature of women is higher compared to other times, and this has a negative effect during HTS. The fat deposits around thighs and breasts also contribute negatively during HTS. While these help during pregnancy to insulate and feed the baby, during HTS their effect is negative.

The HTS Centre supervisor also reported that women do not sweat as much as men; "while men release body heat, women tend to retain it," he argued. Inside the testing chamber one has to perspire in order to maintain the "acceptable" body temperature. Factors that are beyond women's control play a role in how the women perform in HTS, and they determine who gets a job and who does not. It becomes very hard, therefore, for women to be brought into the mining labour market.

These challenges lead to fierce competition among women for jobs. Tshoalana mentioned that because of desperation for jobs and high failure of HTS among

women, a fraudulent HTS stamp[27] surfaced and some women went to get it because they wanted to get jobs. This fraudulent stamp was, however, discovered shortly after it surfaced. The fraudulent stamp was another way women tried to *planisa* (make a plan) in order to get jobs in the mines. The stamp is not the only *planisa* women engage in. According to several interviews, there are HTS pills (*mtshongolo* pills) that some women take to decrease body temperature. Women receive these from their peers. One woman reported:

> It is six pills in total and you have to take them at exact times, three the evening before HTS and three a couple of hours before the test. They only last for a certain time, so taking them too early will result in their effect wearing off too early, while taking them late might also result in them kicking in late and not helping with HTS. It's really important to take them at the correct time, and that means you have to know the exact time of your test to better your chances of passing. On top of the pills, there is also a purple powder that you dissolve in water and take before the test.

With all these *planisa* methods, it shows that women's incorporation is harder than that of men. There are formal methods in place to help ready their bodies for underground work, such as exercise and proper eating; there are also informal methods such as a fraudulent stamp and *mtshongolo* pills.

4.3.6 Women engagement

Engagement refers to when workers are formally registered with the company and given their personal protective equipment (PPE).

The HTS is the biggest hurdle in the allocation of women to the mining labour markets. However, it marks only the tip of the iceberg in comparison to the challenges women face once inside the mine. To become fully a part of the mining industry one has to go to the engagement centre to be registered so that an access card can be issued. The access card allows one to be issued with personal protective equipment, and gives one access to a specified shaft. Without the access card, it is almost impossible to access anything in the mine.

[27] When a candidate has passed HTS, there is a form they get from the HTS Centre with the HTS stamp on it showing that the candidate has passed.

The PPE package given contains a white overall, gumboots, a reflector vest, a belt and a hard hat. Merely having an access card does not guarantee getting PPE. The staff of the stores where you are issued with PPE have to determine which department or company (in the case of contractors) to bill. There are many departments in the mine and a lot of companies that the mine deals with. Each department or company carries its own PPE costs, so hence it is crucial that the stores know whom to bill. Photograph 4.5 shows women mineworkers wearing their full PPE.



Photograph 4.5
Women mineworkers wearing PPE

4.3.7 Underground visit

According to several interviewees who had passed HTS, the mine organises a mandatory underground visit for them (stage 6). This is to familiarise them with the underground environment and underground work. The underground visits tend to take a long time to organise, thus holding back shafts which are short-staffed and desperately needing people to work immediately. They also take long because few women pass HTS, and for any visit to be conducted there has to be a

minimum of twenty people. Additionally, to get a tour date takes time as there are other outside companies and schools that want to visit underground. Organising an underground tour, according to Tshidi, sometimes takes up to a month, and it takes another month or so before the actual visit takes place.

The high failure rate of HTS and the long time it takes for women to undergo an underground visit makes the process of hiring women much longer than hiring men. During the interviews, one respondent said:

> "One hundred women can be called in February to undergo the medical examination and HTS. It's quite possible that only twelve of them pass. Since the visits were planned to cater for more than twenty people, it could take having to wait for one or two more months to meet that number. This can easily take up to two months, and at that time there are no guaranteed jobs available at the shafts as the men could have filled the vacancies .

The underground visit that the mine organises is only for women. This shows that mining is a gendered market and that allocation is also a gendered process. Men, more than women, succeed in the allocation process. Women face many hurdles by virtue of being women while men cruise through the processes.

Currently, the mine has stopped underground visits because of many logistical problems. Lungile reported that the number of women underground has increased substantially, to a point where people know what to expect when they go underground. There is no more culture shock, as these women live together in communities and share what happens underground and what the working environment is like. Additionally, Impala has only had two women change their minds about working underground after the visit; most women still continue to pursue employment underground.

4.3.8 First Aid workshop

There is also a First Aid workshop that employees have to undergo, especially new recruits. This, it is believed, enables workers to help their colleagues

underground in case of accidents. The First Aid workshop is conducted in three languages – English, Fanakalo and Setswana. All attendees are given a workbook to read at home in preparation for the test on the last day (see Appendix 6). A First Aid facilitator (Interview, 29 July 2008) reported that the number of men always far exceeds that of women. This means women sometimes pair up with men to do the practical part of first aid. Some sections on the workshop are rather intimate and uncomfortable when doing them with a man. Women (and elderly men in some cases) often feel uncomfortable when they are to be touched on their pelvis, groin and breasts by people of the opposite sex. One woman who was teamed up with a man remarked during break that "my first aid partner was so excited when he realised that he's going to do practical with a woman" (Interview, A female mineworker 30 July 2008).

Older men also feel uncomfortable doing First Aid practicals with younger women. This gender dilemma has even led to the course being slightly changed. One facilitator remarked that they cannot show the attendees how to take rectal and armpit temperatures because of the gender mix.

Photographs 4.6 and 4.7 depict some aspects of the First Aid sessions. Photograph 4.6 (on the left) shows participants working on the upper body where sensitive areas like the breasts and underarms are touched to put the necessary bandages. Photograph 4.7 (on the right) shows another bandage application, where both lower and upper sensitive regions are touched and moved around to properly apply the bandages. The sensitive regions are between the legs, where cotton wool is placed and a bandage applied, the stomach and close to the groin region where bandages are applied.




Photographs 4.6 and 4.7
Workers bandaging each other during a First Aid session

4.3.9 Mining occupations

After the tests and screenings that women undergo, in the end only a few of them make it. Once they have been employed by the mine, the struggles continue, especially with regard to being accepted by male mineworkers. Due to lack of mining experience, most women generally start at the low levels of either side of mining. Mining is divided into two parts – the stoping side and development side; the latter includes the transport section. The development side is where miners develop working places and open the way for mining. The development section also installs pipes for water and compressed air, among other duties. How the working way is opened is determined by where the minerals are most concentrated. The actual development section is shown in Photograph 4.8. In the picture, workers are installing a ventilation pipe on the roof. Most women mineworkers are concentrated in these kinds of jobs. I start this sub-section by giving a breakdown of the three different sections in mining where workers are allocated, namely development, its sub-section transport, and stoping. I briefly describe what is done in each section, showing photographs. (Refer to Appendix 7 for photographs depicting the different occupations that women are allocated into).



Photograph 4.8
A female worker assisting a male co-worker install a ventilation pipe

Transport is a sub-section of development; this is the section where people transport material to working places to enable the smooth running of production. Transport workers clean the drains for smooth running of water, and transport material such as pipes and explosives to working places. Photograph 4.9 shows a woman cleaning a drain, and Photograph 4.10 shows women transporting ventilation pipes from one section to another.



Photograph 4.9
A transport female worker removing ore from the drain



Photograph 4.10
Transport women carrying ventilation pipes from one section to another

These women not only transport material but also clean the travelling way and take the ore from different sections underground to the surface. Most women tend to be concentrated in the development and transport section, and very few are in the stoping section where the actual mining takes place. This means they are limited in their exposure to mining, and this serves to support Peck's (1996) assertion that women tend to be seen as supplementary and not core labour.

The second section is the core stoping section. This is where the mining of minerals takes place. Photograph 4.11 shows a stope in a mine. The woman in the picture is preparing the face for blasting by removing the ore from the face.



Photograph 4.11
A woman working in a stoping section

Within these two sections are hierarchies, with most female workers at the bottom. In descending order, mining occupations start from mine overseer (mine captain), shift supervisor (shift boss), miner, gang leader, development or stoping rock drill operator (RDO), scraper winch operator, panel operator, equipping helper and store issuer (see Figure 4.2).

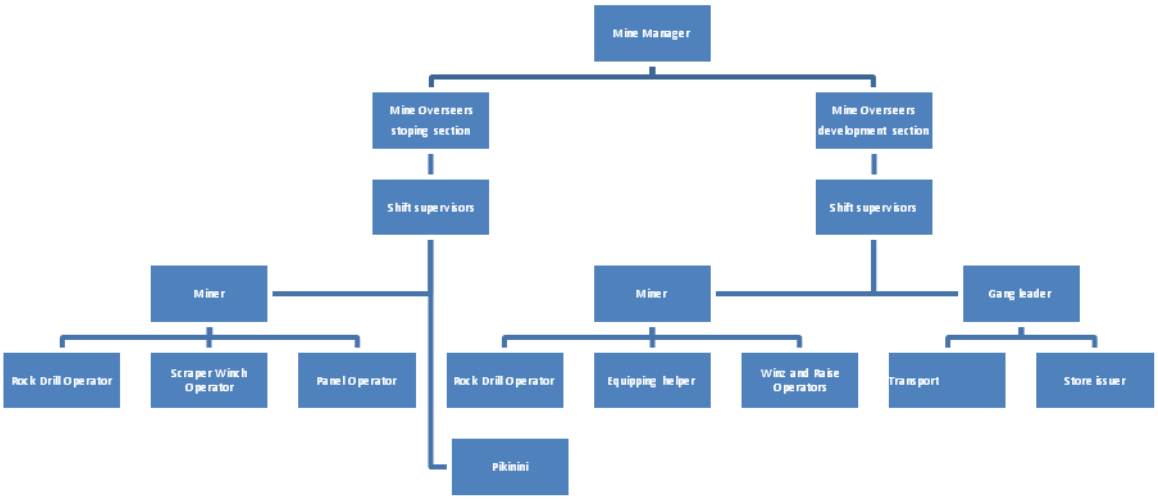


Figure 4.2
Mine hierarchy: underground occupations

When women have been allocated to either of these sections, they face workplace challenges. These can be attributed to two things – the mining occupational culture that is not very welcoming to women, and the working conditions that are physically demanding.

4.3.10 Job allocation for women

Gender and occupational literature tends to emphasise where women get slotted in the labour market. Gender scholars and the dual labour market theory emphasise the presence of women in second-sector jobs where there is no need for skills and pay is minimal (Humphrey, 1987; Barron and Norris, 1976, in Humphrey, 1987; Glenn, 1994). While this literature supports the truthfulness of this, at Impala the majority of workers were concentrated in the second sector regardless of gender. It is tricky to tell whether the second sector has more men than women since mining in general tends to have more men. What has been prominent, however, is that out of all the occupations underground, most women work as equipping

helpers on the development side of mining. Equipping helpers are at the lowest level of the underground hierarchy.

Women at Impala are mostly concentrated in low-status jobs, those that pay less and have fewer if any benefits. According to most interviewees, this is partly because women are new in the mining industry and have to start from the bottom of the chain. The macho mining culture also sees women as weak and fit for household work; as a result they are given what is called "easy" work. Table 4.1 shows where women are slotted in the mining occupational chain. From the statistics given by Impala, most women are concentrated in the first phase. The plan, however, is to have them move up the chain to phases II and III.

Table 4.1 Underground occupations by phase

Phase I	Phase II	Phase III
Battery Attendant •Sanitation Attendant •Pump Attendant •Belt Attendant •Chair Lift Attendant •Mechanical Assistant •Electrical Assistant •Fitter Helper •Survey Helper •Cage Helper •Engineering Helper •Environmental Helper •Equipping Helper •Production Official Helper •Official Helper •Shaft Helper •Sampling Helper • Lamp Repairer •Compressor Operator •Change-house Cleaner •Store Issuer •Conveyor Operator	•Loco Operator •Scraper Winch Operator •Panel Operator •Hoist Operator •Change-house Supervisor •Lamp-house Gang Leader •Shaft Gang leader •Sectional Gang Leader •Artisan Aide Fitter •Grade Control Observer •Salvage Clerk EMTS Driver •Onsetter /Banksman •Grade Control Observer •Lampsman •Fuse Issuer	•Environmental Gang Leader •Assistant Surveyor •Boilermaker Serviceman •Electrical Serviceman • Serviceman Mechanical •Valuator Assistant •Rock Engineering Observer •Ventilation Observer •Shaft Timberman •Valuators •Chief Draughtperson •Miners •Surveyors •Boiler makers •Electrician •Rigger Ropesman •Fitter and Turner •Instrument Mechanician •Winding Engine Driver •PMA Officer •TM3 Mechanician •Engineer in Training •Ventilation Officer •Section Valuator •Operations Geologist •Foreman Electrician •Foreman Mechanical •General Foreman •Plant Foreman •Shift Supervisor •Geologist •Mining Engineer in Training (Diplomat) •Mining Engineer in Training (Graduate)

When women start working in the mine, they start off as various types of helpers, issuers and operators, said an HR officer. Equipping helpers (women and men)

install ventilation, water and compressed air pipes, railway lines and charge up the drilled holes. Their duties involve installing and uninstalling parts of the railway lines, cleaning the drain to enable water to flow smoothly. Cleaning the drain and drive-way means removing all the ore that is on the floor and loading it onto a hopper.

Store issuing is another occupation that consists mostly of women. They do not do physically demanding work; they simply issue workers with working material. When the women want the storeroom packed, they normally call on male co-workers to do that for them.

Among many jobs done by women, being a *pikinini*[28] has been deemed the easiest because it enables one to work with different teams, thus becoming acquainted with many men who are likely to assist one when in need of help. There are not many women *pikininis*; this is an occupation mostly dominated by men. However, women are increasingly becoming *pikininis* informally. While HR recognises some of these women as equipping helpers or winch operators and so on, because of the informal allocations that take place, some of these women do not work in these occupations but instead work as *pikininis* to shift supervisors. This is another coping strategy women employ when it comes to allocation.

Other jobs, especially in the stoping section, are considered very difficult for women. As a result they are hardly allocated to them. These are occupations such as panel operator, scraper winch operator and rock drill operator. Because they are deemed difficult, Impala does not have women doing some of them. There are, however, women panel and women winch operators on Impala's books. On the ground, however, these posts are hardly ever filled by women. What that means, for example, is that while Impala may have ten women winch operators on its books, in reality none or very few of those women actually work as winch operators. To help women cope with the physically demanding mining jobs, there are informal job allocations that take place underground. The informal allocations

[28] Being a *pikinini* is not difficult. All one does is measure working stations and carry the shift supervisor's bag.

are not the only strategy used to cope with the physical demands of mining. More strategies will be explored below when I examine the control measures that are employed by management in order to improve productivity.

In conclusion, the process of allocating women in mining is laborious, and women often get eliminated because of their anatomical and physiological make-up. The process itself is gendered and women are at a disadvantage compared to men. Women fall pregnant, they breast feed, they have monthly menstrual periods, their body fat is more than that of men, and so on. All these place them at a disadvantage when it comes to the medical examination and HTS. Furthermore, most women in rural areas are not well-educated; many do not have a Grade 12 qualification, and so they improvise by getting fake certificates.

In terms of job allocation, what is seen is what Fletcher (2000) calls horizontal segregation, whereby women are overrepresented in certain occupations and underrepresented in others. At Impala this is certainly the case, with most women working in the development section as equipping helpers and very few working on the stoping side. From the evidence above, those who are working in stopes have evaded their formal occupations and are informally working in other sections that they consider doable. There is also what Fletcher calls vertical segregation, with women occupying the bottom end while men are found in all occupations, especially the top positions (refer to Table 1.1 and Table 1.2 in Chapter 1).

This section has shown where women are allocated in the mining labour market. Women face discrimination at work and are given contingent work. Their allocation confirms Peck's (1996) assertion that certain workers with certain traits are allocated jobs and absorbed into the labour market. In mining, women who are physically and medically fit, have a certain body weight and can withstand high temperatures are the chosen ones. Gender is taken into consideration when allocating women to jobs. At Impala most women are concentrated in first-phase jobs and very few are in other phases, as the dual labour market theorists argue. Once they are allocated to jobs, women face workplace challenges that are linked to the mining occupational culture.

In the following section, I deal with labour control, how employers ensure that productivity remains high, especially with the inclusion of women in mining, a sector that was previously exclusively male. The inclusion of women presents challenges, and I will examine in more depth the challenges that women face once allocated to mining jobs. Once inside the mine, women face more problems directly related to their work and their work crews.

4.4 Controlling women

4.4.1 Labour control

When talking about labour control, Peck (1996) argues that labour cannot be controlled only by contracts, the market and management. In mines previously, control was very despotic – white managers shouted at black workers in order to control them. There was hostility and coercion in the old control order. The macho occupational culture in mines also played a crucial role in controlling workers, and control was mainly at the point of production. Moodie (1994:78) states that there were native controllers to handle underground complaints and supervision. This does not mean there was no control at the point of social reproduction. In fact, mines controlled the social reproduction space, the hostels, and the movement of workers and their living conditions. Mines, according to Moodie (1994:78), appointed compound managers, white assistants, their black *indunas*[29] and police boys to run and control the compound. However, employers saw little connection between the mines and the rural homes from where these workers originated. Peck (1996) therefore argues that to properly manage labour there has to be a social element to the control measures taken; the households that provide workers to mines have to be included in labour control. According to Peck (1996), control should not only be at the point of production; society should be at the very core of it. The answer lies not in control but in persuasion of workers by

[29] Moodie (1994) describes an *induna* as a head black official in the compound. One *induna* would be appointed for each tribal group.

management, what he calls consent. He calls for a move away from the despotic type of control towards hegemonic control, where workers and their communities play a vital role.

Taking the control strategy from Buhlungu and Bezuidenhout (2008a), previously mines had a very despotic culture; this was encouraged by the apartheid workplace regime. Race was used legitimately to control workers – white men were given authority over black workers. Control in the mines was by means of force, and workers were not only controlled at the point of production but also at the point of reproduction. Mines controlled where workers lived, what they ate, and how much of it they ate. Their sexual relations were monitored and controlled in compounds. Sexual relations with wives were controlled through the use of the *skomplas*, what Moodie (1994) calls mine villages.

The worker control practiced by mines was put in place to ensure good productivity. Control measures, as will be shown, have changed from despotic to hegemonic. There are traces of continuity in some factors, but most have been challenged and changed. The fear of authority culture still exists and workers are still controlled this way. The presence of worker representatives has played a vital role in challenging the despotic management style. Workers now are mostly controlled through bonus schemes. The bonus paid to a team is directly proportional to their productivity.

4.4.2 Production control

As mentioned above, the fear of authority has continued into this new era. Mines have always had a culture that fears authority, and previously this was instilled to help control and increase production. Women use this authority-fearing culture to their advantage when men are malicious towards them. Those women who have been given higher-status jobs such as learner officials tap into this culture that fears and obeys authority to get work done. To ensure that workers are working up to standard and to control their productivity, women learner officials use the

charging strategy, whereby they charge workers money for any substandard work done.

The bonus schemes – referred to in Fanakalo as *maching-ching* – are another way of controlling workers and ensuring productivity. They are used to encourage hard work; the more a team produces the more bonus money they get at the end of the month. This serves to encourage workers to produce more, and the most money is received by workers in the stoping sections. The absence or limited number of women in stopes means they do not receive much bonus money. When they do receive it, it is minimal. Secondly, women in their teams (on the development sections) do not produce as much as men; this again puts them at a disadvantage. In fact, most women-only teams reported that their teams hardly reach the production targets that enable teams to get bonuses. This is not discrimination by the mine, but women teams generally tend to produce less than what is required in order to receive the bonus. This shows how production in the mines is a gendered process. Women cannot produce as much as men, and they are therefore disadvantaged in terms of bonuses.

While the bonus system serves to improve productivity, it has also been used by male workers to discriminate against women. Women are not wanted in work teams because men see them as slowing down the team and thus impacting on the team's bonus. Some women interviewees reported having been chased off by male co-workers because of the bonus scheme. Sarah reported:

> The first team I worked with did not want me, and a man from another team within the same section came and told me to move to his team because work was easier there and as a woman I would cope better. I moved. After months of working with his team, I was told that he moved me because he wanted to work with my team and get the bonus money.

There are other reward systems put in place by the mine besides the bonus scheme, and women do tend to benefit more from these. When one has worked according to good mining standard, the mine captain gives that worker a gift voucher. This voucher system serves to encourage good work. The vouchers serve to motivate employees to work hard and exceed what is expected of them. Women

tend to get vouchers more than they do bonuses. This is another form of production control; it encourage workers to deliver good-quality work. Furthermore, such a scheme can help to increase production.

Some miners reported that while *maching-ching* has helped increase production, it has also led to an increase in sub-standard work. Tokolo, who is a miner, remarked:

> Because workers want to get *maching-ching* month-end, they disregard good working standards and they work sub-standard and this often results in accidents, most times minor accidents but sometimes people have even died.

The accidents that happen in these highly producing teams are another reason men do not want women in them. Sello stated:

> Women are weak and they can't function after an accident, especially death. They continuously talk about the possibilities of rock falls and death. In mining, accidents cannot be prevented all the time and men understand that and it's easier to work with people that understand that.

Lulama remarked:

> Women are always very careful, very slow and they don't want to take chances. In mines, not taking chances means no bonus end of the month. Being slow means you take home a small salary. Never, never!!! Not when the white man wants to give us more money, if we only work harder.

These quotes show how men are driven strategically to work harder in order to get bonuses at the end of the month.

The bonuses sometimes far exceed the monthly wages. Workers reported that in a very good month they could get more than R10 000 bonus. Several HR managers also admitted to these sums. With such huge sums awaiting workers if they reach certain targets, no wonder they do not want any hindrances (such as slow-working women). These bonuses make it harder for women to be accepted by male teams. All men interviewed both formally and informally, shared the view that women are very slow and they do not want to take chances when it comes to safety. Davie, a shift supervisor remarked:

> For a team to take on a woman it means forgoing a man, which means less production and compromising bonus. Workers and myself, I do not want my teams to not get bonus because they all have slow-working women that are always complaining and arguing with other team members.

The above statements show the macho male culture that exists in mines and that women have to deal with on a daily basis.

4.4.3 Gender and control

Once inside the mine women have to face gender stereotypes that they are lazy and not capable of mine work. Furthermore, they have to work with men who do not want them in their teams. Male interviewees reported that it is hard for them to accept women into their work teams. This is because women are seen as disturbing the male macho mining occupational culture. Moreover, men often reported that women are lazy and incompetent. Thapelo remarked:

> The only thing they are good at is eating and talking. They can't even do the work we do on a daily basis. They are used to men working for them.

This is contrary to what Ngai (2005) noted in Chinese factories, where men were seen and painted as lazy and urban women as hard-working and productive. The men in the mine sometimes feel that women are slowing them down, hence they end up doing the work for them so that they can finish on time and meet their production targets in order to get bonuses. Some men reported that women in mining do one of two jobs that can be found underground:

> They either sleep with men and make money from that and get those same men to do the job for them, or they really learn the actual job and do it.

This is similar to what Ngai discovered in China, where women used sexual relations with men as a form of advancing and getting promotion.

With the introduction of women in mining, there seems to be some form of alliance between men against women. Previously, it was white men versus black men. Now the "enemy" has become the woman. Hospital staff reported that some

men have even complained about using the same towels as women. One of the interviewees (Hospital Nursing Sister 22 July 2008) reported:

> Some men, especially 'traditional Sotho and Xhosa', do not want to use the same towels as women, even when these have been washed".

This shows that while racial lines still exist, gender lines are becoming more prominent.

Other men find it hard to work in teams where there are women because of traditional beliefs that a woman's place is in the kitchen and at home. Some traditional men go as far as believing that a woman underground brings misfortune and should be avoided as far as possible. This further perpetuates the exclusion of women by teams and their alienation in underground teams. Other men reported that they are used to urinating anywhere, everywhere and any time.

> Now that there are women, we have to go to designated areas or ask the women to leave.

Another added:

> When we want to change our clothes before or after work, we have to ask female team members to hide away or we have to move to areas away from the women and change. Things were easier before they came; now we have to make all these unnecessary changes.

In a nutshell, one male miner summarised it as follows:

> These women are a nuisance; they waste our time; they can't even do their jobs and they just sleep around with shift bosses to get ahead.

Some men reported:

> All women that work in the mine have slept with someone to get a job underground.

These are some of the views that men hold about women in mining. Because of these views, they obviously act in certain ways towards women co-workers. It is therefore under these attitudes and conditions that women have to work. They have to deal with the very macho mine culture and with traditional men who battle with having to work with women.

4.4.4 Can women mine?

The mining environment is seen as belonging to men because they are strong and can tolerate the physically demanding work under hot and humid underground conditions. Women, on the other hand, are seen as unable to perform underground duties. A prevailing view is that women are weak and cannot do work outside the household sphere. This view of women contradicts that seen by Ngai (2005) in China. She argues that femininity was linked to performance and being a good worker. In fact, according to Ngai women were continuously reminded not to act like men who were seen as lazy, troublesome, careless and rough. "Maleness was thus articulated as an oppositional and inferior sexual attribute that a woman should not have if she wanted to become a good female and thus a good worker" (Ngai, 2005:144).

What is prevalent in the mine, however, is the opposite: women are seen as lazy and unable to produce what is required of them. As noted above, even though some women are hired as winch operators they have hardly used the winch. Additionally, when visits to the working stations were carried out, most of the women winch operators seemed clueless as to how to operate the winch or what to do when something goes wrong with the winch, winch scrapers or winch ropes. On my first day with one of the teams, one man voluntarily reported:

> The reason they cannot fix the rope when it is torn is because they do not normally do it. But today they want to do it for you to see. Stick around for a couple of days and you are going to see what they really do, because it's not winch operation, it's everything else, but the winch.

This man was correct. After being with the team long enough, I saw for myself that women do not operate the winch; instead they fetch water for their team members and do other small tasks.

In all the teams visited, most women winch operators could not operate the winch and were not even allowed to touch it by their male co-workers. When asked the reason for not letting women operate the winch, men replied by saying:

> We feel sorry for them. Winch driving is not easy and watching them operate it makes you feel sad. There is no way they can have babies after a

> year or two of operating the winch. We don't mind older women that have had children using it, because they have had children already. But younger ones…. Aya ya!.

Men therefore end up operating the winch on behalf of women and only allowing them to do what they call "small easy tasks".

Feminists scholars disagree with the notion that operating machinery and equipment in male-dominated sectors is heavy for women. Cockburn (1981) sees the physical argument as a way of perpetuating stereotypes that women are not physically strong, thus barricading their entry into certain jobs. She states that equipment is politically designed and assembled in such a way that it becomes heavy for an average woman to carry.

Although these women are not operating the winch, the mine still pays them as though they are winch operators. Furthermore, some of the women winch operators have even left the stoping section altogether and have gone to the development section where the job is less demanding. Others have left because they are running away from night shifts. There are only a certain number of winch operators and they are rotated between day and night shifts regardless of gender, and most women do not want to do night shift, partly because of transport challenges and also because of fears of being intimidated by their male co-workers at night.

HR staff are in charge of allocating workers to different occupations. What has been reported by women is that HR in their allocation help women by not placing them in physically demanding sections such as stoping. Several women stated:

> You hardly find women in stoping; most of them are on the development side. Those that are at the stopes work as panel operators and winch drivers, not as RDOs. From what we know, they don't even work as winch drivers because it's really difficult; they just work as panel operators or do other little tasks to help their teams.

This is the informal *planisa* that happens underground. On the trackless side there are no winch operators, and a lot of women who are hired as winch operators end

up working as equipping helpers. According to what these women shared, “HR prefers not to put them in stoping because they know it is hard work”. This, however, has negative effects on their career paths. Several women reported, “When one does not have the stoping experience it is hard to be promoted to be a miner”. Therefore, while HR is helping them by shielding them from hard work, it is also hindering their growth and advancement.

Since being a winch operator, store issuer or an equipping helper is not where the women would like to end up, most of them strive to move up to Phase II and Phase III jobs or out of mining. Those women who have aspirations of moving up the ladder envisage the career path above, moving from Phase I all the way to Phase III. Furthermore, the higher the phase the more the money and better the working conditions. This is possible for some because of their educational background, they can be easily promoted to posts on the surface; some are currently undergoing training or studying in order to fast-track their progress in the occupational chain. For others who want to be miners, it is difficult, especially without the stoping section experience.

Men wanting to perform duties for women shows the continuation of the gender dichotomy wherein women are seen as the protected and men as the protectors (Yuval-Davis, 1997).

4.4.5 Wage differentials

An allocation problem that women face is not only with regard to where they are slotted in, but it also has to do with how much they are paid in those occupations compared to men. Based on the literature consulted, the overriding factor about women in previously male-dominated jobs is that women are allocated into low-status jobs which pay less (Humphrey, 1987; Williams, 1992; Glenn, 1994; Rospenda, Richman and Nawyn, 1998; Aiken, 1999). When Impala was approached about the wages and asked if there are differences in wages between

employees doing the same job, their response was positive. According to Lerato who works in the Finance Department:

> We do not discriminate based on gender or race. Wages are determined by years of service, skills and experience. We have what is called positive discrimination.

The interviewees remarked:

> Because men have been in mining longer than women, their salaries may possibly be higher, not because they are men and Impala favours them over women, but because they have been in mining longer.

They added that performance bonuses are another way of motivating and rewarding hard work, and "it is worked as a percentage of one's package. While it may not be the same amount, it works out around the same percentage". They argued that women suffer this labour market disadvantage "because they lack the experience men have as they have recently started in mining".

The income questions to the Finance Department were prompted by constant complaints by women about unequal wages and bonuses. Women reported that the money they earned was less than that earned by men, and was not enough to take care of them and their extended families. To supplement their monthly wages, these women strike up relationships and sleep with men in mining. The only criterion used is that the man must earn more than the woman. This "extra partner" is referred to as a *nyatsi*. This helps them to access resources or luxuries that their salaries would not otherwise afford them. Women are known to sleep with men in exchange for money, little luxuries (e.g going out for dinner, weekends at Sun City), promotions and transport to work, especially given the early working hours in the mines. Ngai (2005:141) also noted a similar use of sexuality in China. She calls the women "sexualized bodies" to denote the way in which women's bodies are looked at. She argues that where "capital goes, there is a proliferation of sex trade and sex discourses". In mining towns, too, there is a proliferation of the sex trade. This was more the case in the old South African regime because women were forbidden from entering the mine space. The sexualised way of looking at women still exists with their inclusion in mining;

men still see women as sexual objects, and as a result transactional sex is on the rise. Women sleep with men as a strategy to cope with the macho mining culture.

In the mines, having a *nyatsi* enables these women to use up all or the major part of their salaries on their families while they are taken care of by their *nyatsi*. It is normal to have a *nyatsi* in the mine, and it is not a secret or something to be shy about. In fact, some girls even boast about how many *nyatsis* they have and what the *nyatsis* do for them. Both male and female *nyatsis* know their position in the relationship – that they are extra partners and should not do anything to jeopardise the steady relationship of the other partner.

Most *nyatsis* are married; therefore, the relationships are only "valid" at work and very weak outside work, to the point where a woman is not allowed to have the man's contact details lest she calls when the man is at home with his family. Not all women have *nyatsis* to do things for them. There were some pronounced differences with regard to age groups. The older women tended not to have *nyatsis*, and they work harder than the younger women. They work hard because they "[we] have families to feed and bills to pay" while the younger ones can rely on *nyatsis* to meet their financial obligations.

Due to the allocation and financial challenges mentioned above, most women have expressed the intention of seeking other job avenues. While men did not generally express a desire to leave their jobs, most women expressed these feelings. Their main reason is that "mining is not for women, it is physically challenging and feminine hostile". As a result of the difficulties experienced by women in mining, most of them have started taking courses or are contemplating studying further so that they can get better jobs within the mining industry but on surface or in other industries altogether. Women expressed more desire than men to further their studies in order to be learner officials or artisans, thus enabling them to leave the physically demanding underground occupations.

4.4.6 Career-path for women in mining

To ensure workers' development Impala has put in place Adult Basic Education and Training (ABET) classes to help with literacy, numeracy and skills development for all employees. The company also offers training in core mining, safety and health, engineering, metallurgy, management and a range of other skills (Response to the Mining Charter 2007). This shows that there is a somewhat defined career path, empowerment programmes and skills development at Impala even though the majority of the women do not have the desire to progress within the mining career path. Fewer women in the development section, however, want to move to other departments such as survey or safety, and they are taking advantage of the courses offered by Impala. While most want to leave the mining industry altogether or be clerks on the surface if they are still in mining. Those who worked in the stoping section had different views in terms of their career path. They envisage possibilities of moving up the mining ladder and becoming miners because of their experience in both development and stoping. From both the formal and informal interviews, there were different views in terms of growth avenues. Older women recognised avenues for growth. Some even reported that some women they know started off as store issuers and equipping helpers, and have gone on to become winch operators and mine clerks while others were sent off to train for blasting training, and thereby have become miners. For these women, this indicates the availability of career development avenues within Impala.

This can be linked to promotions that are available for women underground workers. To fully grasp what exactly happens, one has to look at it in two ways. It is both hard and easy for women to be promoted. While the mine only requires the women to have passed Grade 12, due to massive unemployment some women who work underground have certificates, diplomas and degrees. Since they have these qualifications they sometimes assume that getting promoted will be easier for them compared to other workers. When such expectations are not met, they grow despondent to a point where some sleep with supervisors and other men who they believe can help them get ahead. These are what one HR officer referred to

as “panty-down” promotions or “carpet promotions” (Interviews, 27 August 2008, 17 September 2008).

According to Lethabo:

> Women have to realise that it is hard to be promoted because women are competing with men that have ten to twenty years’ experience in mining. This lack of experience disadvantages them when vacancies open up underground. However, when there are vacancies on the surface, men are disadvantaged because, unlike women, they do not have formal education.

This shows that because of the educational qualifications women in mining stand a relatively better chance of getting surface jobs than do men.

One cannot look at promotions only in relation to skills that women possess or their educational level, but also in relation to whom they mix with. According to the women, those who have befriended management stand a better chance of being promoted than those who have not. This chance was even greater in cases where one was dating someone in management. The same strategy is noted by Ngai (2005). She remarks that sexual relationships between male managers and female line workers were popular although frowned on heavily by those not involved. She argues that becoming sexually involved with someone in management was another way of getting promoted (Ngai, 2005:156). This was also the case in the mine: women found themselves sexual partners in management positions in order to fast-track their promotions.

4.4.7 Workplace challenges

While some challenges are not exclusively experienced by women, their impact tends to be felt more by women. Women’s very first challenging encounter is with transport to work. It is necessary to make it clear that men have the option of staying in hostels, and most men take it. This means, unlike women, men do not have to worry about transport to work because the mine provides them with transport to the shafts and back to the hostels. Women face this problem because there are no hostels or centralised housing where the mine can organise transport

to pick them up and drop them off after work. The reason for the absence of women's hostels is that the mine does not want to replicate the apartheid single-sex hostels where people were separated from their families for a long time. To prevent separating families, Impala recruits women from the surrounding areas, at most a distance of sixty kilometres from the mine. Any woman who lives outside this distance cannot be employed by the mine.

While Impala does not have a hostel system for women, they have other alternative housing – houses, single quarters and flats for all their workers in various areas around Rustenburg. However, they do not have a running bus system to pick up and drop off workers. In addition to that, Impala has put in place many other housing strategies to help accommodate all its employees. Currently Impala is running a housing project that will see hostels being refurbished to single rooms and others changed to family units. This project will help enable many if not all of Impala's employees to be housed in company accommodation. What was intriguing about the renovations was the increased inclusion of females in the construction of the new units. Meeting employment equity (EE) targets is not something the mine is concerned with only when it comes to its own production but also to the tenders they give out to other companies. Photograph 4.12 shows workers renovating one of the hostels into family units. As can be seen from the photograph, some of the workers are women and they perform tasks such as painting, cleaning windows and the houses in general.



Photograph 4.12
Construction workers, including women, installing and cleaning windows

Accommodation is being improved tremendously by Impala, but in the meantime women still stay far away from their places of work. In certain cases, distance is not even the problem; the problem is transport to work. Most villages are far from town. To make sure that they are on time for work, these women have to wake up in the early hours of the morning (between 2:00 a.m. and 4:00 a.m.) to catch taxis or municipal buses to town and then to work. This is more challenging for women because they are more prone to rape and other violent crimes than men. Many women reported that the working times are a challenge but they need the jobs and have no other alternatives. Interviewee C reported:

> I get up at 2:00 a.m. every morning and boil water to bath. While boiling water I prepare my lunch box and those for my kids. After that I take a bath and leave immediately for work. I must make sure that I'm at the bus stop at least by 3:30 a.m.; that means I have to leave the house at 2:45 a.m. and walk to the bus stop which is far. I wait for the bus or a taxi if it's not already there. It's hard to find taxis but buses are available, you just have to know the time and be willing to get up early.

> The bus takes me to town and I then catch a taxi to the mine hostel. When I get to the hostel I wait for the mine bus to take me to work. When I get to work it's already about 5:00 or 5:15 a.m. I then change to my overall and go underground. I must make sure that I have clocked in at least by 5:40 a.m. or I will miss the cage to my level and I can't afford that. I catch a cage and get off on my level. In order to get to my working place I have to walk for twenty to thirty minutes. I normally get there around 6:30 and when I get there I first eat. Soon after that I start work, at about 7:00 a.m., and I only finish around 1:00 or 2:00 p.m.
>
> I then walk to the cage and I wait for the cage again. I only come up to the surface around 2:30 p.m. on a good day or 3:30 p.m. on a bad one. I then take a shower when I get on surface and change and head home. I again have to wait for the mine bus to the hostel where I can get a taxi to town and another one to my village. I only get home around 5:00 or 6:00 p.m. I still have to cook for my family, and make sure I'm in bed at least around 9:00 p.m.
>
> Since I started in the mine my family life has been negatively affected. My husband is always complaining that I don't give him attention because I go to bed early and I'm up way before everyone else and come back tired. It's hard to be a mother, a wife and a mineworker at the same time (Asanda Benya, Research Journal, 5 September 2008).

This woman spends an average of four hours a day travelling to and from work. At work she spends on average an hour and a half travelling to her working station from the cage, seven hours at work, three to four hours awake at home. The rest of her time she spends sleeping. When I went to sleep at another woman's home, we got up around 3:00 a.m. and went to work. It took us a long time to get to work. The homes are far from the bus stops, and one has to walk a long distance in the dark early-morning hours to catch a bus. The working day is similar for all of them. They spend more or less the same amount of time travelling. Some women, however, only have to be at work at 6:00 a.m. so they get up a bit later than others, say around 4:00 a.m. There is a trade-off with starting late. When one starts late, one is also expected to finish late. Photograph 4.13 shows some of the time schedules that shafts follow and that workers have to abide by. As can be seen, they range from 4:00 a.m. to 13:40.



Photograph 4.13
Cage schedule

Once at work, after the laborious transport problem, other challenges confront the women.

4.4.8 "Hayi khona bafazi, zonke fanana lapha kalo miyini"[30]

Once inside the mine, transport to underground is by means of a cage which is small and often filled to the brim. Photograph 4.14 shows workers waiting for a cage. All of them have to fit inside the cage which has three decks. Photograph 4.15 depicts workers tightly squeezed against each other inside the cage. It has been reported (also observed and experienced by myself) that in order to get inside a cage men often push women harder than they do other men. They do this in order to rub against the women's bodies and to touch them. The cage pushing is a daily encounter for these women and getting used to it is one way of dealing with it. Inside the cage there is so much pushing that at times one floats in the air,

[30] "There is no woman or man; we are all the same here; we are workers." This is what men usually tell women when they complain about pushing in the cage.

and the only form of balancing one has is that of the people around. One woman reported, “You get so tightly squeezed that you feel it when the next person draws in air and breathes out”. Since there is a tight squeeze inside the cage, it is much easier to breath when there is synchronisation of breathing with that of the person closest to you; in that way it does not become uncomfortable when you are breathing in and out.



Photograph 4.14
Mineworkers waiting for a cage



Photograph 4.15
Mineworkers tightly squeezed inside a cage

Women cope better in the cage if they get to the waiting station first and take the best spots inside the cage. These spots include one right behind the door and all around the cage walls. It is difficult, if not impossible, to push people when they are in these spots. Standing close to taller men also helps; they shield you when the pushing starts. One is never guaranteed protection, especially if you get inside the cage late when a lot of people are already inside. Pushing does not only happen inside the cage but also when waiting for the chairlifts that take workers to different decline levels. Women generally move to the side and only move back to the queue when most men are gone and pushing is less. This is how women cope with the pushing when going underground.

Humidity and hot temperatures form part of the working conditions that women find challenging. Some reported that when they are on their menstrual periods it becomes harder to bear the hot temperatures, and they often feel dizzy and tired.

The heat slows them down at times and makes them want to rest; this is when men see them as lazy and not wanting to work. Heat is a mining problem and not exclusive to women. However, when it is hot, men easily take off their clothes and work bare-chested while women cannot. Photograph 4.16 shows a male worker working without any upper clothing on.



Photograph 4.16
Men can work without any upper clothing

In addition to the heat and humidity, workers have to carry heavy head-lamp batteries with them at all times, even while working. The head-lamp battery and rescue packs[31] are heavy and do not make it easy for women to move around and do their duties, especially when they are still new in the mine. Women often have to walk long distances carrying heavy materials and do physically demanding work with the battery and rescue pack tied around their waists.

[31] Only 12# uses rescue packs because of the trackless section they have on twenty level.

Transport women often have to carry material from station to station. They regularly have to decide whether to make several trips to collect the material or to make one trip and carry all the heavy materials at once. Due to time constraints, they often have to carry all of them at once. Even with this decision, a lot of time is spent travelling from one place to another. This shortens their working day and increases their work load. When these women are not carrying the materials, they are pushing a cart that is carrying them; this too is heavy work. One woman, for example, has to carry three 23.5 kg packets of explosive material from one section, going up with a rope, to another where they are developing a panel. Photographs 4.17 and 4.18 show the material workers often have to carry on their backs or using a cart.



Photograph 4.17
Workers about to take roof bolts and pipes to their working stations



Photograph 4.18
Bags of Expanfo, waiting to be carried 150 metres to a working station

When they clean the drains that are often muddy, women also experience difficulties. While trying to load the mud onto a hopper, their feet sometimes get stuck in the drain, making it difficult to move around when they have to hand-load rocks onto a hopper.

Heavy material is not the only problem when it comes to work. Sometimes they work under dangerous conditions. When they have to install pipes they often use ladders; these cannot be completely stabilised as the floor has rocks and is not level.

The protective gear is sometimes a challenge for women, especially when they want to use the ablution facilities. Most shafts have one-piece overalls, so if a woman wants to use a toilet she has to take off everything. Some shafts, however, have two-piece overalls which work very well for women when they want to go to the toilet. These shafts, however, do not have all sizes and this also leads back to

most women taking up the one-piece overalls. Photograph 4.19 shows the difficulties women have to undergo in order to use a toilet.



Photograph 4.19
A female worker putting back her clothes after using the toilet

Allocation does not end with the job one is slotted into, but goes further to include which crew (work teams) one has been allocated to. In crews there is usually one woman, and in very rare cases there are two. Especially for women who are starting out in the mine, this makes it harder to adjust. Being the only woman in a crew is gruesome; as one lady reported:

> They treat you badly if you are lucky, and if unlucky they don't even interact with you. At first they saw me as just a girl that was here to slow them down and get money at their cost.

While experiences differ for these women, the lack of welcome by men has been most common and most reported. Having a second woman in a crew helps, an older equipping helper remarked:

> Since Mamoya joined this crew things have been better. At least I have someone who shares the same struggles as me. We talk, joke around and encourage each other.

4.4.9 Women: a heterogeneous group

While one may think having women-only teams might help in curbing the challenges, this is not so. In teams that comprise women only, there are also challenges as some tasks are beyond their physical abilities. These women cannot do certain tasks and have to ask men who are not part of their team to come help them. In addition to asking external men to help, women-only teams tend to be riddled with infighting. Most women that were in women-only teams disliked them, because of the internal factions that tended to arise. Furthermore, having women-only teams sometimes has negative consequences, more so in cases where several team members fall pregnant at more or less the same time.

It is important to note the dynamics that exist within female-only groups. To cope with work and its challenges, women sometimes form coalitions and defend each other. Older women especially believe that there is safety in numbers and the bigger their social groups are, the lower are their chances of being ill-treated by men. When ill treatment does occur, these women stick together and defend each other. From observing them, age seemed to be important. The mature women worked very well with each other and became a source of strength for each other. In certain cases they even did favours for each other to shield other members from management. However, the younger women took a different stand. In most cases they tended not to get along and actually added to the work stress and further exacerbated work challenges. These women tended to compete, fight over men and bad mouth each other, which did not help in forming cohesion among them.

While most women enter in Phase I, others, especially those with Grade 12 with Mathematics and Science, enter as learner officials. Learner officials are trainee officials; after completing their training they can work as shift supervisors and move up to become mine overseers. Since they are trainee officials, they do not necessarily face the physical challenges of mining, but the unaccommodating mine culture where by men are not willing to take orders from women. Most men

find it hard to take instructions from women and they often do not carry out or comply with such instructions. This is more common with new and younger women learner officials. According to Jole, black men find it particularly hard to take instructions from young African female learner officials. This presents problems for the officials as they have to try to get these men to submit to their authority.

Gender literature argues that to cope with the culture and job demands and be a part of the work force, women employ different strategies (Mainiero,1986; Humphrey, 1987; Gruber, 1998). These strategies could include getting men to be on your side, adopting the behaviour of male mine workers (take- it-like-a-man attitude), or completely submitting to male authority. While the literature suggests many coping strategies used by women in male occupations, what has tended to dominate in my encounters with women revolves around their use of men.

To cope, learner officials use different strategies to try to win over their crew members. One of the strategies is having a respectful and close relationship with the shift-supervisor assistants (*pikininis*). Some women reported that the *pikininis* are helpful in clarifying misunderstandings, in getting the shift supervisor to listen and help where they can. They act as a bridge between the miners and the shift supervisors and aid in smoothing the relationship. The role of the shift supervisor is also very crucial in getting women, especially learner officials, accepted and integrated into teams. One of the shift supervisors reported, "I ensure that the men make it their responsibility to look after the women".

Women mine workers do not only strike up relationships with shift supervisors in order to cope, but they also befriend HR personnel. This is because their grievances are dealt with by HR, and when they are pregnant the HR Department decides who gets alternative employment and where. Some women reported, "You are taken seriously when you are friends with HR people". Another added:

> You see, for me things are not so difficult any more, and that's all because I'm friends with most *masizas;*[32] they know me and they try to help me when I'm in trouble, and it's nice like that.

Another said:

> "When your co-workers complain about you to a *masiza*, he can just forewarn you about the complaint before it gets serious. Plus, your case does not get treated harshly if you are friends with a *masiza*. If I were to fall pregnant I don't think getting a job on surface would be very difficult for me because I'm their friend and friends help each other, right?

Miners also play a big role, especially because they are underground all the time, unlike the shift supervisors. Unlike in other jobs where teams are not important, in mines nothing can be done without team co-operation; it is therefore crucial that all members co-operate. The miner then needs the co-operation of all the workers; hence it is crucial to get every member to co-operate and deliver efficiently, including women.

Miners are the ones who help women get accepted into teams. They lead the way and can also break the way. The more the miner involves the woman in team activities, the easier it becomes for team members to see the woman as part of the team. Miners are also always on the lookout lest they be accused of favouritism, which can lead to further alienation of the women by male co-workers. The women in return help miners when they need assistance. This enables women to be in the "good books" of the miners as well as crew members. Women capitalise on that and become the connectors between the miner and crew members. When the crew members want a favour from the miner they send the woman, or when they have made a mistake or have not done their job to standard they ask the female team member to go speak and soften the miner. This type of relationship becomes a win-win relationship, where the woman helps the men and they help her.

Another strategy that has been employed is that of putting women learner officials, especially when they are new, close to experienced male miners. This helps them forge close working relationships with the old male miners who in turn

[32] *Masiza* is a Fanakalo word that means HR personnel.

assist them to discipline their crews, complete tasks and so on. The teaming up with mature males is a strategy that Milkman (1987) touches on and argues is used by women in male-dominated sectors.

Age is another crucial strategy and plays a role in helping women get accepted. Some women remarked:

> Getting the older team members to be on your side helps. The way to do that is by being very respectful and calling them *Ntate*[33] and making sure that they feel respected. In response they take your side and help you in getting workers to do their duties.

While older men sometimes play a positive facilitating role in terms of fostering co-operation, they can also play a negative role as mentioned above. Several women reported that older men find it hard to take instructions from younger women. What was surprising was that when a woman is married and has a bigger body or fuller figure, taking instructions from her was not as difficult. However, smaller women and unmarried women experienced more problems. These women had to work extra hard to get the support of older men.

Another strategy used by women in mining is what they call "professional bribing", whereby the female learner official brings crew members cold drinks or meat when the crew has performed well. It must be emphasised that this is not standard practice; the learner officials only do it in exceptional cases. This is done to gain respect and facilitate co-operation between the learner official and her crew members. Some women reported that bringing drinks or cold water for men helps with the incorporation and acceptance of women, and others disagreed. Some reported that when the one that brings drinks leaves the team and a new woman is brought in, "the men expect the same treatment. They expect us to also bring drinks and cold water for them and when we do not, the men get upset and become very unpleasant to us".

[33] *Ntate* is a Setswana word for father. It is used to any elderly male figure to denote respect.

What has also been deemed to be efficient in helping male mine workers accept and submit to the authority of women miners has been outstanding knowledge on the women's side. One female learner official asserted:

> Being at work on time, providing the team with material and having more knowledge than them makes it easier for them to accept you as their superior. Helping fix their stuff such as clock history (for them to be paid properly at month end) helps you gain loyalty.

Another added:

> If you demonstrate that you know your work very well and are also willing to learn from them, it becomes easier for them to accept you.

This shows that the more knowledgeable a female is, the more respect she gets.

Another factor that contributes to being accepted by male workers is supplying them with all the material they need on time, at all the times as stated by workers. According to Reitumetsi:

> This helps them trust you more and they become more willing to work with you because they see you as helping them achieve their targets by providing material.

When a woman does not know her way around the job, the male workers tend to be disrespectful.

Other women have indicated that respecting men, calling them *Ntate* and fetching them water helps one gain respect. A learners official said:

> If you call them *Ntate*, they're more likely and willing to help you, and they co-operate if you are the one giving orders. The more respect you give the older men, the more they tend to side with you and help you accomplish tasks.

Giving men attention is another strategy that is commonly adopted and used by women to make men help with their incorporation. Fikile reported:

> If they want to play with you, you must play along. If you do not, they are less likely to help you when in need of assistance.

With younger men, the women use their charm to win them over, either by chatting with them on the way to the cage or bringing them water when they are thirsty.

It became evident in the field that to cope in the industry, both men and women tend to emphasise and exaggerate traits associated with their gender. Women use femininity to cope with their work and obtain favours from men. Occasionally, women do sexual favours for men in exchange for help. What generally happens, according to interviewees, is that shift bosses and miners sleep with women and in return lessen their workload. This is similar to what men do to cope – they use their masculinity to cope with physically demanding jobs. To further show the use and exaggeration of femininity to cope with work, sometimes when the women have had a hard week or day at work, they sometimes lie to their shift supervisors and say they have period pains and need to go to the dressing station (mine clinic) to see a doctor or a nurse. Some shift supervisors and HR assistants remarked:

> Women lie about having period pains and there's no way we can say, 'no you are lying'. If they say they have period pains, then they have period pains. What do we (as men) know about period pains or how painful they can get? So we can't say they're lying. What if they're telling the truth and they collapse underground? It's a tricky one, I tell you!

Women reported that they sometimes have to bribe to get favours from men. The bribing differs. Sometimes it is sexual and at other times it is food-related, but either way it is linked to how women are socialised. Sexual favours are very common underground. According to Fletcher (2000), it is common for women in male-dominated sectors to use sexuality to obtain favours. Several men reported that "women are getting paid double at work". One male worker proclaimed:

> They get paid for sitting around and watching us work, and they get paid for having sex with some of our co-workers.

Mine management argues that having strict sex rules does not help because workers are adults and are free to do what they want, especially outside of work. Women therefore use sex and sexuality as another coping mechanism in the workplace.

Sexuality and femininity are not the only mechanisms employed by women. They also tap into culture and ethnicity to get men to help them with their duties. The societal belief that women are soft, are child bearers and that their place is in the kitchen is often used to appeal to men to do work for women. Some African cultures, most female workers stated, "do not allow men to watch women doing physically demanding jobs without helping them". Sotho men, for example are well known for being helpful and this, according to one of my interviewees, is what they are taught in the Sotho culture – to do the physical work for women.

Ethnicity is also used by women mineworkers to get favours from men. For both genders, but more so for women, being placed in the same team as people who are from the same area as you and that speak your home language helps. Ngai (2005) noticed a similar coping strategy in factory workers in China. Ethnic and kin ties helped women cope; they drew strength from these ties. This coping mechanism, Ngai says, was attributed to the village way of living, whereby people helped each other. It went further than simply helping each other, to a point where ethnic and kin groups were responsible for each others' performance.

In the mine most women reported that men "tend to accept you much quicker and are more willing to assist you if you are of the same ethnic group as them". Most women in mining are Tswana-speaking and as a result Xhosa men are known for not being accommodating to them. The few Xhosa women I spoke to have a different view about Xhosa men. They find them helpful and very accommodating, and the only explanation that was given was that Xhosa men help Xhosa women just like Tswana men help Tswana women. When I started working with the different teams, Xhosa-speaking men were always volunteering to either do the job for me or invited me to work in their teams.

When it comes to ethnicity, while it can be employed as a coping strategy it has another twist to it – it can also be seen as a hindrance to coping. On the coping

side: when a woman asks her home boys[34] to help, help is rendered easily. This, however, creates tensions between the men who are asked to help and those who are not. Consequently, those who are not home boys end up not wanting to help. Some Xhosa-speaking men remarked, "She has her Tswana brothers here; she doesn't need us to help her". Women learner officials specifically have to be more vigilant when it comes to succumbing to the ethnic clique lest they be accused of favouring their "people" over other workers. If the official is always asking her home boys for help, others sometimes view it as favouring home boys over the rest of the team members. Women learner officials, therefore, have to be very tactful when tapping into ethnicity. Some officials reported that they use it to gain loyalty from certain crew members. When workers are not co-operative, these women ask their Tswana "brothers" to help them. In certain instances, women have reported that "such can result in other men not being helpful or co-operative".

Foreign workers (Mozambicans especially) tended to report that "Tswana-speaking women tend to befriend Tswana-speaking men in order to get help from them". It is a norm that Tswana-speaking workers side with each other and Xhosas together, and they help women from their ethnic groups. In certain cases one sees friends going against each other for the sake of ethnic unity. Mozambicans also side together in cases where they have to choose sides. Women, too, follow this trend and use it to their advantage. It goes without saying that ethnicity and culture are often used to cope in the workplace, especially where one or fewer groups dominate. This is what Ngai (2005) calls cultural capital, whereby workers capitalise on their culture to gain access to resources or to get help from each other.

Other women have adopted different coping strategies. They put on a very intimidating façade to keep men at bay, especially in the cage. "Adopting a masculine attitude helps", some women remarked. This is similar to what Humphrey (1987) refers to as a "male style" mechanism. Some women reported

[34] Home boy (girl) is a men (or woman) from the same village or from the same district as you. In most cases they also happens to speak the same language and are of the same ethnic group.

that the masculine attitudes they adopt include putting up a face to protect them from being treated badly because they are women. It was observed that in private settings, they let go of the intimidating faces and showed softer, gentler sides. These women stated:

> If you present a polite, friendly face, men tend to see you as a sex symbol and as someone they can take advantage of. But presenting a hard, cold face steers them away because your feminine qualities are not prominent.

With this hard face, though, there are penalties, they argued: "When you act like a man, there is also an expectation to deliver like a man." One woman reported, "They don't feel sorry for you when you've been given hard tasks and they are not very helpful because in you they see a man". Not all women adopt an intimidating façade. On the contrary, others become very friendly while working hard to gain the respect of men. One woman said, "When they see you working hard and still maintaining feminine qualities such as being polite, they tend to want to help you". This shows that women change their identities in order to cope. A similar scenario was identified by Pun Ngai (2005) in her study of factory workers in China. In her study she noted that women changed themselves in order to avoid discrimination, what Foucault called self-technologising. Self-technologising is when one cuts the umbilical cord of one's past life in order to create a new self (Ngai 2005:117).

Women safety representatives (safety reps) are another group that experiences difficulties because of their sex. At the shafts visited, there were very few women safety reps. By virtue of their responsibilities as safety reps, more so because they were women, problems arose. In some cases safety reps in general reported that miners did not listen to them and there were often conflicts between the two. They reported that when they wanted to abide by the legal, safe working standards miners wanted to do the opposite and worked sub-standard in order to increase production, thus getting bigger bonuses. These conflicts escalate when a safety rep is a woman. Women safety reps stated that male miners most times ask them:

> What do you know about mine standards? You have only just started working in the mines recently. You're a woman – what do you know about mine safety? My job is to make sure workers are producing enough

> and yours is to work according to my instructions, not me according to yours.

This is another work challenge facing women mineworkers: men do not want to listen to them.

Lavatories underground are shared by both men and women; that presents a challenge for women, especially when they are having their menstrual periods. Based on my observations the lavatories are often dirty and have no privacy. Men and women use the same toilets and each level, consisting of over a hundred workers per shift, has only two toilets. Most of them are located on the walkway where everyone can see. Photographs 4.20 and 4.21 show where the lavatories are located and their condition. Most women often have to take off their clothes and the lamp before going inside because of the one-piece overall they use. With the lavatory floor so dirty, it is hard for them to even take off these items of clothing and be able to use the facility. Inside the toilets, no toilet paper or sanitary towel disposal units are provided. The toilets are not flushable, and as a result the smell is intense along the passageway and inside the toilet itself. The state of lavatories does not only affect women; men have also resorted to using the drains along the walkway to relieve themselves.



Photograph 4.20

An underground toilet



Photograph 4.21

Toilets situated in the walkway

Due to the state of the toilets underground, most women reported that when they had their periods it was very hard to change sanitary wear underground. Most women spoken to say they always wear double sanitary towels in order to prevent accidents.

The state of the lavatories is not the only challenge these women face when they have their periods. "Traditional" men often do not understand the emotional roller coaster they experience. These men also perceive such women as unclean, and they do not want to associate with them. Women also face challenges from traditional women who do not want to work with them if them have had a miscarriage.

Despite all these challenges, it must be borne in mind that the mine does everything it can to help integrate women in these male-dominated teams. Laws and regulations (sexual harassment policy and pregnancy policy) have been put in place, and there are people (union representatives) who deal directly with women and their issues.

According to some interviewees, each shaft has a woman union representative to help facilitate integration. When women workers were asked if they knew their female representative, none of those interviewed knew the representatives. In addition to these structures, women can report ill-treatment to their superiors. Most women, however, choose not to report any ill-treatment for fear of escalating the problem. They reported that it is hard to just go up and report a case because the male HR personnel sometimes side with male workers and accuse women of not working hard enough. In some cases, however, they have helped women who were being treated badly. Phuthi reported:

> This other lady did not want to go report that her miner was treating her badly; male crew members went to report on her behalf and the matter was taken up and the miner was changed to another shaft. ... Male crew members went to report the case because HR staff tends to believe men more than it does women. They have heard from men mineworkers that we are lazy and they believe them; in fact they believe everything they say.

As can be seen, most of the challenges facing women in mining are mostly structural with traces of agency. Unemployment and poverty are what mainly drives these women to

work in mines. Their lack of or limited education is what narrows their career options to underground mining. The inclusion of women in mining is obviously presenting problems for both men and women. The conditions of work and the work environment are all problems beyond the women and even the mine. There are instances where the mine can intervene but most problems are beyond them. For women these are not merely challenges, these are a matter of food for their families and education for their children, hence they go to the extent of sacrificing themselves for the long-term good of the family. The women get multiple sexual partners in order to make ends meet; they bribe their male co-workers so that their children can go to school and have food to eat.

These are real challenges. Women face them from the moment they wake up to the minute they go sleep. One woman described her life as a challenge; she stated:

> My whole life is a challenge. The moment I wake up I worry if I'm going to make it back home alive with all the mine accidents. Before I leave my house I worry about meeting a *tsotsi* who'll rape me on my way to the bus stop. When I get to work I worry about the harassment I face daily inside the cage. When I get to my work station I have to face men that do not want to work with me. On my way back home I worry about my children that had no one to care for them because I cannot afford to pay someone to look after them. When I get home I worry about my husband who is always complaining that since I started working in the mine with men I do not give him attention because I have found a new lover. When I go to sleep I worry about the following day, if I will survive another day underground is those harsh conditions. My whole life is full of worries. I think I have more problems now than before.

There are structural problems that need to be addressed by all stakeholders involved to help ease the introduction of women in mining. The mine has made some changes in order to fully bring in women and make them feel like part of the mining team. The toilet issue still needs to be sorted out; it may be necessary to have different toilets for men and women in all shafts. These need to be kept up to useable standard. With the job allocation there needs to be a move up of women from Phase I occupations to other occupations that are in higher phases.

Coping strategies that were observed had mainly to do with ethnicity, femininity and sexuality. Women use their bodies to get men to help them; they use their sexuality to get favours and help. It is clear that they *planisa* with their bodies in order to sustain

themselves in the "macho" mining environment. Women employ a lot of informal coping strategies to cope with their work. They get *nyatsis* in order to have a lift to and from work, they put on intimidating façades, they become informal *pikininis* in order to avoid the physical demands of other occupations, they leave winch operation and go back to being equipping helpers just so they can run away from the physical demands of being a winch operator. There is a lot of informal bodily *planisa* that happens with the women. All these point to one direction – that bringing women into a previously male-dominated environment is hard both for the mining houses and the workers and requires a different control strategy. The mining occupational culture cannot be ignored in successfully bringing women to mining; after all, it is what makes mining.

4.4.10 Control of movement

In apartheid South Africa, the movement and settlement of black workers was tightly controlled and there was no freedom. With the introduction of women, most of the apartheid control measures have been challenged and eroded. Women who were once forbidden from entering the mining space are now fast becoming an integral part of it. I use the word integral because the renewal of operational licences is linked to mines meeting the 10% women Mining Charter challenge.

Mines can no longer control where male workers stay and their interactions with women. In fact, work teams are made up of both men and women; the two groups are constantly engaging with each other. The control of sexual relations is no longer practised, partly because it has been made difficult by the introduction of women in mining and it has also been long disappearing with the new workplace order and with the help of NUM. Mines are in fact struggling to control these relations within their very own premises. Shift supervisors and miners have reported seeing workers engaging in sexual intercourse at work in the *madala*[35] sites. Superiors have also been seen doing the same with female underground workers. Ngai (2005) saw a similar set-up in Chinese factories, Chinese

[35] A *madala* site is an abandoned stoping section. This area is usually covered by ventilation curtains and one cannot see what is happening on the other side. The *madala* sites are hardly visited and almost never used by workers, hence those that engage in sexual activities use them to hide.

migrant factory workers engaged in sexual relations with their superiors in order to get promotions. With the same thing happening in mining, it shows that the old type of sexual control has been undermined by the inclusion of women. From the above, it is clear that there is no more reproductive control; the regulation of sexual activities cannot even be done within the production sphere.

Spatial control as described by Buhlungu and Bezuidenhout (2008a) has also been challenged and eroded with the new laws and the new workplace order. They argue that workers now have a choice to settle outside the hostels in nearby villages, informal settlements and townships. Access to the mines is not as tightly controlled as before; women can enter the mine hostels without any problems but they cannot sleep in them. Women are challenging the old order of having confined spaces to house workers; most of them are staying at home with their families. There are no hostels to house them.

The movement of workers is no longer monitored. Most women are from surrounding villages and townships and live with their families. They commute between work and home every day. After work these women go back home to their families. This does not mean there is no continuation between the spaces of production and reproduction. In fact, there is more continuation with the inclusion of women, especially because women are seen as the main figures in the reproduction spheres.

During the apartheid era, mines and TEBA controlled the allocation of labour and it was a criminal offense to defy this allocation or to quit work (Buhlungu and Bezuidenhout, 2008a). Currently, with increased competition for skilled women in mining, mining houses can no longer control where workers work; this entirely depends on the women, and their families influence them. This competition for skilled women is well-known to employees. Some of the women interviewed indicated that the competition between mining houses sometimes benefits them. As a result of the competition, it becomes difficult to retain skilled women employees, especially underground. The competition for women is a challenge to the old spatial control measures. Currently, women have freedom to choose which mining house to work for, based on employment packages

offered and not on where TEBA allocates them like previously. On several occasions during the data collection period, several women were approached by different mining houses with impressive and better deals. This competition is mostly for skilled workers. Unskilled workers are also constantly looking at avenues to move out to better-paying mines or to mines where their partners are employed. Some women had a different view regarding moving to competing mines. They claimed that "Impala is behind Mine A[36] in meeting EE requirements and they want to catch up. So now they are trying to push as many of us women as possible so that they can meet the requirements".

4.4.11 Control of self

While a lot of macro control has been eroded and certainly challenged by the presence of women, on a micro level there are several forms of bodily control that women practice. These range from women having abortions when pregnant in order to preserve their jobs or preventing pregnancy altogether in order to continue working. This shows the impact work has on the reproduction sphere. The Impala pregnancy policy states that if no alternative employment can be found for a pregnant underground worker; she must go home until after the birth of the child. This means that when a woman reports she is pregnant, if no alternative employment is available she can stay at home for as long as eight months; for women who breastfeed this is even longer and can take up to a year and a half. In fact, a breastfeeding woman cannot undergo HTS, a prerequisite for going underground. Women, therefore, control their bodies and prevent themselves from conceiving in order to keep their jobs.

It was interesting to see how the behaviour of most women changed with the change of clothes. When the women had their overalls on, they exuded boldness and talked and even walked like men. After work when they had taken off their overalls and had put back their normal clothes, they adopted a softer, more feminine behaviour. An HR staff member conceded:

> These overalls hide our women. Last week we were going to a funeral and they were all looking very smart, like real ladies, you know! I could not even recognise some of them; they looked absolutely beautiful and behaved like women.

[36] Not the real name

The adoption of a different persona at work links up with the dual persona that Moodie (1994) talks about – that black mine workers have two sides to them, the very obedient side at work and a strong macho side at home. The difference with the women is that they have a strong macho side in change-houses and underground, while they have another side when you meet them outside the change-houses on their way home.

It was interesting to see the racial change in ranks. While previously mines had only white superiors, currently there is a racial mix, even though whites are still the majority of superiors. There are now black men in charge and black women, too. These superiors are the ones who now practice control over workers. There is therefore a racial and gender change as to who controls workers, a gross change to how it was previously done. To control workers, women learners officials charge[37] them when they have disobeyed orders or worked substandard. The charging of workers also helps to make crew members listen and take instructions from women.

4.4.12 Control and traditions

The mine previously tightly controlled the consumption of alcohol and drugs. However, most women use snuff, which is a form of a tobacco, to cope with work demands. Moreover, the use of snuff has traditional linkages to it. Several women stated that snuff was used by grandparents to cope with household pressures. This traditional coping mechanism has now been transferred to the workplace. The use of snuff was popular when I was conducting my field work. According to most women, there are traditional beliefs (taken from the reproduction sphere) that snuff heals and protects one against evil spirits. At work (the production sphere), women use the snuff in several ways. Some women smoke it, others chew on it while others put it under their tongue. They assert it helps in de-stressing after a long day and it is another way of appeasing *amadlozi* (ancestors) in "order for them to protect you against mine accidents". Moodie (1994) explains the use of *muti* (traditional medicine) by African male mineworkers as

[37] Charging means to make workers pay a penalty fee.

complementary to God's help. He asserts that African mineworkers believed that God mostly helps whites, hence they turned to their ancestors for extra help.

There is a strong traditional belief system that is part of the mining life. These beliefs are adopted from the household and are brought into the mine space with the hope that they will achieve the same results. Workers (both men and women) use ropes, what the local women call *mogala wa letteka (rope for the waist)* to protect themselves against rock falls. They consider rock falls to be caused by "evil spirits" present in the mine and by jealousy, which can come in the form of a *nyatsi*. The ropes are tied around the waist area in most cases and sometimes on the arms or the whole upper body, with a rope going across from one arm to the other in a zigzag fashion. Some women also use Vaseline that has some form of medication inside. This too is believed to protect one against jealous people inside and outside the mine. The above strategies show the role of culture and traditional beliefs in the workplace, specifically in protecting jobs. From the interviews it was discovered that these strategies are not only employed by women but also by men. These beliefs are again taken from the household, the reproduction sphere, and brought into the production sphere, thus showing the interaction between production and reproduction, as Peck (1996) asserts.

4.4.13 Union control

Finally, another form of worker control is political control as noted by Buhlungu and Bezuidenhout (2008b). Previously in mines, mine police played a big role in controlling labour. With the introduction of a strong, vibrant union, the National Union of Mineworkers, that control was challenged. Currently mines, and compounds especially, have a dual form of governance – a worker-based structure and a company-based structure (Buhlungu and Bezuidenhout, 2008b). While unions are pivotal in controlling workers, their power is being eroded by the increase in subcontracting. With the introduction of women, unions are also presented with a challenge of including women's concerns in their agenda. When women were interviewed about the role unions play in solving their workplace problems, most women did not even know who their union

representatives were and thus did not see the unions playing much of a role. The lack of women representation in unions or their struggles as women during union meetings are the reasons women are less likely to join unions (Elson and Pearson, 1981; Reskin and Padavic, 1994; Clawson, 2003).

Women complained that unions are most times not helpful. Lizzy remarked, "Union officials are friends with HR and they sometimes gang up against us and disregard our complaints, labelling us lazy". Thuli asserted that the "union does not push much for women's struggles; they just think we are here to look pretty. They do not take our complaints seriously". These were views held by many of the female interviewees. When women were asked if they had any female representatives in their shafts, none of the women knew whether there was a female representative who could address women's grievances. During one of the interviews with the legal department, however, they asserted that all shafts at Impala have women representatives who address women grievances at shaft level and who take care of women.

4.4.14 Resisting control

To resist control measures put in place by the mine, workers, including women, do not report accidents they have been involved in. This is linked to the bonus system mentioned above. When a team has had an accident, the bonus money they get is compromised or cancelled altogether. With each and every accident that happens, workers lose shifts. The mine has strict rules on reporting accidents, whether minimal or major. However, workers bridge these rules by not reporting accidents. Several women reported:

> When you are injured at work, shift bosses ask you to lie and say you were injured at home so that the team does not loose shifts and bonuses. They pamper you and even clock in and out for you while you recover at home. In that way no one will know you have been missing work. Come month-end, you get your full salary and *maching-ching* if your team has received any. If you report an accident, the whole team can really get cross with you and hate you even more because they lose shifts.

Women risk their well-being by not reporting accidents in order to be accepted by male co-workers. This does not happen with every injury, but it has been reported several times by both men and women workers.

The bonus and voucher systems push workers harder. Most women reported that some team leaders "take it (production) too far". Mary stated "Eulrico, our team leader, pushes us too much sometimes, especially when he is going home to Mozambique and wants more money". In defiance of this production control practiced by superiors, women reported that standing still helps. Zama reported that "we just stand and not do anything if our gang leader gives us too much work. We stand and start singing and he always asks: are you ladies on strike now?" This is interpreted and perceived by workers as a form of resistance to management control. Other women, especially older women, reported that what keeps them going when they are being controlled and pushed harder by superiors is imagining what they can get for their children with the money they earn. One remarked:

> I just imagine money and that imagination helps keep them going for a while. I can get my kids nice clothes, they can come stay with me and go to school here in Phokeng.[38]

To resist control on working time, workers (both men and women) generally go to the dressing station (mine hospital) and pretend to be sick. In that way they are booked off work but are still paid as if at work. These are informal coping strategies and means of defeating the system. Shift supervisors remarked that women often take advantage of the structures put in place by the mine. Johann stated, "Women are always sick and they always want to go to the dressing station and miss work". From my observations when I was working with the women, taking a day off and lying using period pains was a norm; most women used that excuse and got away with it. This was their other defiance strategy to management control. They were using the structures put in place to help them cheat the system.

From the above findings, it is clear that even with all the structures the mine has put in place, control presents challenges for women and it is still hard to integrate them in the

[38] Phokeng is a village in Rustenburg under the Bafokeng tribe. The Bafokeng have built schools and are investing in the area.

macho mining teams precisely because the process is gendered. To cope with this, the women *planisa* with their bodies, they buy HTS (*mtshongolo*) pills in order to manipulate their body temperatures and pass the HTS. The counterfeit stamp for HTS and the fake Grade 12 certificates are all means of manipulating the system in order to be a part of it. They *planisa* with the production process itself by moving informally from the jobs they have been allocated, to what they call "bearable" jobs. They also *planisa* when it come to finances by having *nyatsis* that provide for them financially.

In such a gendered market, one cannot help but wonder how mines are going to bring in more women to meet the 10% target. Underground women not only have to deal with the physical work challenges but also the macho mining occupational culture which their presence challenges. These women still have to fight to be a part of the macho mining teams; they have to fight to be promoted, sometimes to the point of "selling" their bodies in order to be allocated better occupations or to be promoted. The system is gendered and that is what women have to break through. It is not only the work process itself that is most challenging, but the macho mining occupational culture that they have to endure and learn to work around on a daily basis.

In conclusion, labour control once practiced by mines has been eroded in the new era, more so with the introduction of women in underground occupations. The control that led to the exclusion of women in mine spaces is fast disappearing, with women having easier access to mines as working spaces and compounds as spaces where their partners live. The role of unions is still important. However, it is undermined by the introduction of subcontracted labour and the lack of representation of women's issues. The bonus and voucher schemes that serve to control and improve productivity have had unintended consequences of workers disregarding good standard working conditions for sub-standard work in order to get bonuses. Women are controlling pregnancies and aborting their babies in order to not be excluded from the work process and penalised by being sent home. Men's sexual relations with women are no longer tightly controlled by mine superiors. In fact, these are increasingly being undermined by women and men who engage in sexual intercourse while at work. The sexual engagement that takes place

between men and women at work marks the interconnection between the sphere of production and reproduction. The incorporation of women in mines has further proven that there is no divide between the two spheres; they are connected and depend on each other. Below I explore how exactly the two spheres are connected and the role of women in this connection.

4.5 Reproducing labour in mines

As shown above, through the control measures put in place by mines women had no place in mining. When mines started out, women were not even considered to be part of the workforce. This shows that women's role in production continued to be marginalised and their reproductive role hidden and thus not acknowledged. Ngai (2005) agrees that society has tended to give women a subordinate role. She argues that male power and female subordination have been seen as driving the production process. The unpaid wife who cleans and prepares food for the working husband indirectly plays a role in the market through producing a workplace-ready husband. Peck (1996) asserts that labour is actually produced in the household and wage labour is exchanged in the market. The role of the household, therefore, is important in labour production. Peck (1996:37) asserts:

> ... the gendered constitution of domestic labour is reflected in men's waged work as well as women's.... Thus, analyses of work done by men should always pose the question, 'who does the laundry?' ... the way in which these jobs are constructed requires that the people who fill them have someone else to look after them.

By this Peck shows the linkages between the household and work. He argues that the household should not be viewed as a "mere appendage to the labour market" but as an important part of it (Peck, 1996:37).

4.5.1 Household linkages

Mines saw the connection between themselves and the household only in so far as rural homes provided labour to the mines. During times of draught and increased poverty, rural

households sent men to the mines to work and sustain the homestead (Moodie, 1994). Beyond their role of providing labour, households were ignored. In fact, mines sought to divide the realm of production from that of reproduction by tightly controlling and monitoring the two. As a result, what was happening in the household was hidden. It was perceived as if there were no linkages between the two. To show the link between these realms, Peck notes that there is no clear Chinese wall between production and reproduction. He argues, "The boundary between the spheres of production and reproduction is porous ... skills are produced in each of the two spheres and they shape the ways in which domestic and waged work are organised and distributed" (Peck, 1996:38). When one tries separating one sphere from the other, labour, which is attached to people, will rebel and seek to re-embed itself in society.

4.5.2 Production-reproduction interplay

The impact work has on the lives of people goes further than simply providing livelihood to families. Work creates communities, and the money workers earn at work is used to build families and communities. The majority of women at Impala saw their work as meeting the immediate needs of their families. Most of the women were the sole breadwinners or secondary breadwinners, helping men who also work in mines. Their wages support not only their immediate families but are stretched to support extended family members as well. Consequently, most women saw their wages as only meeting their basic needs and nothing beyond. These women did not envisage a brighter future for their children because of their wages. Maria, who works as an equipping helper, stated:

> The money I get here is only enough for transport and food; the rest my boyfriend has to pay.

Anna remarked:

> I only get so much money here; if I want more money I have to work on Sundays and that means not spending time with my children and not washing their school clothes. If I want to get more money, I have to forgo a lot of other important things.

Kgomotso added:

> I can only buy food with the money I get here and I use my mother's pension money for the rest, and my husband also helps when he gets a piece job.

According to Lumka and many other women interviewees:

> Most women get *nyatsis* to survive here. The money is little and we have to make ends meet. Most of us have *nyatsis*, not because we love men but circumstances back home are forcing us to get *nyatsis*.

Women therefore view their work as a survivalist strategy and not as a long-term strategy that can help improve the lives of their children in the long run. Mary noted:

> I do not see a future in this job. First of all, it is hard labour and women can only do it for so long because we get sick from it.

Another worker added:

> I do not think I'll still be here in the next three years. My body is slowly giving in and I have no savings. I can't afford to save. If I save my family will starve. When I leave this job, my whole family will be back to square one – no money, no food, nothing.

Nkanyi and other workers confirmed that "this is not a long-term strategy; it's just for us to survive now". Working in mines is seen as means for immediate survival, yet some of its impact is long term. Pregnancy, for example, has been postponed by some while others have terminated it in order to keep jobs.

While pregnancy is a private affair whose control is in the household, for women mineworkers this is increasingly changing. Since the pregnancy of an underground mineworker tends to affect the production sphere, mine policies often play a role in how the household is affected. First of all, pregnancy is a big challenge for both the mining houses and women mineworkers. Most women employed are of child-bearing age and are therefore having children. To further show that it is a challenge, while conducting this research, one full day was spent at the mine hospital observing women who came in. From the observations, almost three out of five women that came in were either pregnant or carrying a baby. Pregnancy is therefore a challenge. According to the figures given by Impala, pregnancy fluctuates between 6-7% of underground women workers at any given

time. This, however, poses financial problems for women because underground work is considered to be a risky occupation and pregnant women are not allowed underground (according to the conditions of the BCEA). When women realise they are pregnant, the mine guidelines say they are supposed to report to the shaft HR who will then look for alternative employment for them within fourteen. Alternative employment has to be on the surface where working conditions are not risky (Impala Pregnancy Policy). This, however, is not always possible as the number of women who fall pregnant sometimes exceeds the number of available alternative jobs.

In cases where there is no alternative employment, the pregnant women are sent home until they give birth. At times they can be home for close to a year and a half – if they report their pregnancy in the first month and there is no alternative employment, they stay at home until they give birth (eight months); after that they breastfeed for another two to three months, and they cannot start working underground until they have stopped breastfeeding. This shows how the production sphere links up with the reproduction sphere. In cases where there is alternative employment, the women are slotted accordingly and they continue working until shortly before they give birth. When they have alternative employment the women can come back to work while breastfeeding but can only start underground once they stop breastfeeding. According to an HR officer, women sometimes fall pregnant in order to get jobs on the surface. However, some interviewees disagreed with that statement, arguing that instead of pregnancy helping in career advancement it affects the progression of female employees because they lag behind everyone if they take over a year off work (for those who do not get alternative employment on the surface) to give birth and raise the child. They have, therefore, refuted such an argument saying that there is never any guarantee that one is going to get a job on the surface, and therefore falling pregnant with the hope of getting a job does not make any economic sense, especially because these women are from poor families.

Regarding the pregnancy rate, there are contradicting views. Some believe that it can be controlled as it is “not yet out of hand”. Those, however, who are directly involved in production, such as shift bosses and mine overseers, have a different view. They

confessed that “the impact of pregnancy can be seen and felt in the workplace and it negatively impacts on production one way or the other”. Pregnancy poses problems for shafts as shafts have to look for new employees to replace the pregnant ones. Pregnancy becomes an issue in the workplace, especially if women that belong to the same crew fall pregnant at the same time. According to Luyanda:

> One mine manager was really eager to get women to work in his shaft. He went on and hired many women and placed most of them in female-only teams and a few with the guys. They started falling pregnant and the whole thing backfired on him because production was affected badly.

Furthermore, women face breastfeeding challenges once they give birth. By this I mean women after returning from maternity leave cannot breastfeed and still work underground. In fact, they are not even allowed to do the HTS (which gives them clearance to work underground) when they are breastfeeding, and that means they cannot go back to work. Those who want to go back to work soon have to stop breastfeeding. It then becomes a choice between breastfeeding one’s child or going back to work. This again shows the interplay between production and reproduction. Women are often faced with deciding whether to work or take care of their families.

With the strict pregnancy policy, workers are again making informal *planisa* with their bodies. As indicated above, control of workers is not only done by employers, but also by workers themselves. With the increase in pregnancies, there is also an increase in abortions. This is done in order to control and discipline the body and enable the female employee to continue working. This is common to a point where abortions are considered normal, especially among younger women. Most *nyatsis* even recommend abortion when a woman is pregnant, more so because most of them are married and some have steady partners and would not want to lose their steady partners or wives because of *nyatsis*. When women were asked about abortions, most of them reported that they at least knew someone who had done it. Photograph 4.22 depicts a wall poster advertising abortions. When there were soccer games at one of the hostels, around many hostel walls there were numerous posters advertising abortion (amongst other things) at “cheap rates with male or female specialists”. The prevalence of these posters could be linked to the increase in abortions.



Photograph 4.22
A poster advertising abortion

Pregnancy is not the only way to link production and reproduction. Some women reported having waist pains, back pains and also menstruating heavily before time. These claims cannot be substantiated with medical evidence, but they cannot be refuted either, because they have been experienced by many women. What can be contested, however, is whether they are caused by working in the mine or whether other factors are also involved. It can be argued that the women's physical well-being is affected by their work, and this is obviously treated in the reproduction sphere – women take their pains home and are cared for at home, even though the pains are linked to their work. For children to be fed and go to school, the women have to work; when they are ill because of work, the household has to take care of them. This shows the interdependence of production and reproduction.

The production-reproduction interplay has also been marked in other areas. During fieldwork it was observed that there is a continuation and replication of the household division of labour in the workplace. In teams that have traditional men especially, men tended to do the manual mining labour, while women were expected to do housekeeping and make sure the working place was clean at all times and that there is water for the men to drink when taking a break from work. This reproduction of how things work in the household has now been taken to the mining space.

Other ways of linking the two, concerns the impact working in a mine has on a household, specifically for women. Working in the mine affects every area of one's life, one woman conceded. Many women reported:

> You leave home early and get back late and your family life gets disturbed. I know two women, one at *** shaft and another here who was divorced by her husband because of work.

Some wives agreed with this and reported having been left by their husbands because of work, and others have had to choose either their work or their marriages. All the women who had to make such decisions remarked:

> Poverty forced us to go look for work, and husbands or boyfriends are not going to stop us from making life bearable for our children.

These women asserted that going to work in the early hours of the morning and coming back late and tired led to their partners cheating on them, and in some cases even leaving them for women who do not work in the mines. Additionally, husbands find it hard to adapt to their wives working in the mines. Two interviewees had to end their marriages because their jobs were "taking all their time and energy". Most women mineworkers reported not staying or spending enough time with their families because of working times. Those who had children reported sending their children to their parents to be taken care of and only seeing them on week-ends. Sending one's children to parents is a common practice, and it also means sending a lot more money home at the end of the month. The involvement of grandparents in taking care of the grandchildren whose mothers are working in the mines shows the production-reproduction linkage. Without the support from parents, female mine employees would struggle to take care of their

children. Because of what is happening at work, support is needed from the household – not just the immediate household, but the extended family is also a part of the support structure that women mineworkers tap into.

From the above evidence it is clear there is a link between production and reproduction. While scholars tend to separate the two, Peck (1996) helps us to bring them close together and look at the interplay between the two. The introduction of women in mining, an occupation that was previously reserved only for men, has made these linkages come out very strongly and clearly. With women having been previously confined to the reproduction sphere, their presence in the production realm forces us to look at the linkages. It is then clear that the two realms depend on each other and impact greatly on each other; there is co-dependence and no Chinese wall.

From the four sections above, we see how the processes of incorporation, allocation, control and reproduction impact on production and reproduction.

Chapter 5

Conclusion

This study has shown the different challenges that women face in mining. It has also touched on the different coping strategies that they employ. It started by exploring the challenges women face from the very first step they take when they decide to go to work in the mines to when they are actually working inside the mine. It has looked at why women choose mining jobs and what challenges they face from their communities and families because of patriarchal norms that shape their lives. From the heat tolerance screening it can be noted that the difficulties women face start even before they become mine employees. The biggest hurdles that face women in the mines are HTS, menstrual periods and pregnancy.

Some of the challenges that women in mining face relate to men not taking them seriously, respecting them or seeing them as equals. The findings show that men in mining tend to see women as trophies, lazy and slowing down the work process. This type of attitude towards women in previously male-dominated jobs has been marked by Gruber (1998), who asserts that women are seen as inferior in such workplaces. He argues that male hostility towards females is heightened because of male dominance. Zaretsky (1976) adds that this reinforces male supremacy and female subordination. As a result of these views and the macho mining culture, men do not want women in their work teams. Women therefore have to fight these gender stereotypes while trying to make it in the mining men's world.

The gender stereotypes are a part of the occupational culture in mining and they help men to cope with its demands. As Reimer (1987) shows, these gender stereotypes originate from society and are brought into the workplace. While they portray women as deviants in mining, they are also used to divide up work. The findings above show that as a coping strategy some teams divide up work according to gender – women clean up the working station and fetch water for men, while men go to the stopes to do the actual mining and

drilling. This clear division of labour, the theorists above show, originates from the household. This indicates that production and reproduction cannot be completely delinked and proves that Peck (1996) is correct in arguing that the two spheres are relatively autonomous but linked.

To help women "make it" underground, the study has shown that there is informalisation of tasks underground. The informalisation results from the unpredictability of work (Gouldner 1954). Women *planisa* in order to cope with the physical demands of work. Women who are allocated to be winch operators end up doing other tasks that they deem less difficult. This informalisation has also led to some men seeing women as too weak to do mine work. Reich (1986) states that men, when they dominate an industry, see women as fragile and unco-ordinated. This is useful in understanding why men do not insist on women sticking to their allocated duties such as winching. Furthermore, Reich (1986) argues that the inclusion of women goes against traditional norms in these industries, hence men try relegate them to other jobs within mining. This links up with Peck's assertion that women are treated as if they have a weak attachment to the labour market. In the mine, women are treated not as equal workers to men, as the chapter above shows. Instead they are treated as inferior partners and are given "easy" tasks to do. Adding to that, Bradley (1989) states that jobs done by women in previously male-dominated jobs are usually less important than those done by men. Women are given tasks that are not related to the core focus of the company. This has been shown above, whereby women are not concentrated on the stoping side of underground mining but rather on the development side.

I have also shown how women use sexuality, femininity, traditions and ethnicity to cope with the demands and challenges they face in mining. Similarly, Ngai (2005) points to comparable strategies being used by Chinese factory workers to cope with the demands of the capitalist labour market. To be accepted, they constantly have to tap into the gender roles prescribed by society. In mining I show how women have to call elderly men *Ntate*, clean the working areas for their male team members and bring men cold water and food

in order to be accepted as part of work teams. They basically have to continue with their household roles in order for men to accept them.

Sexuality, in mines, is used to cope. Women strike up relationships that are purely based on sex in order to better their working lives and improve life at home. The men help women with transport to and from work, extra money for food to feed their families and entertainment for themselves. When sexuality cannot be used or has failed, women use ethnicity to get favours. They approach their "ethnic brothers" to do the job for them. While these "ethnic brothers" are not sexually paid, they are paid in other ways. I have shown that women have to smile more to those that help them, they must walk back to catch the cage with these men and fetch water for them, among other things.

Women underground *planisa* to survive; they make a plan and invade the loose bureaucratic mining structures. They *planisa* with their bodies by taking *mtshongolo* pills in order to pass HTS. They produce counterfeit Grade 12 certificates in order to be accepted into the pool of women to undergo HTS. Once inside the mine, women have to call older men *Ntate,* fetch men water and bring them food and cold drinks from home in order to be accepted in teams. Women informally change their occupations to cope with the physical demands of work. All these strategies and more that have been explored above show that women have to play the system in order to cope and be integrated into mining.

The role of unions in helping to integrate women into mines, according to our findings, has so far been very minimal. The data above shows that women in mining are finding it hard to break into unions. The reason Clawson (2003) gives is that unions are described around masculinity, the same way solidarity is linked to gender and race. Consequently, women do not fit in both at work and in unions. In mining this is further exacerbated by close friendships that exist between union representatives and HR staff. The lack of union assistance to women confirms the assertion made by Clawson (2003) that unions tend to neglect women and sometimes go to the extent of excluding them. The neglect of women

by unions has contributed to their concerns not being fully addressed, as the findings above show.

To help put the findings in perspective, Tables 5.1 and 5.2 summarise the challenges women and men face underground and how they cope with them; a link is also made to Peck's processes of incorporation, allocation, control and reproduction.

Table 5.1 Challenges faced by women and men in mining

	Women	Men
Incorporation	High unemployment rate forces them to choose a career in mining. They face stigma from their families and communities. People see them as promiscuous and stealing other people's men. Some women have been left by their husbands because they accuse them of having affairs with their male co-workers.	High unemployment rate forces them to choose a career in mining. Long tradition of migrant labour, some decline in the compound system and labour drawn from local communities. Subcontracting reintroduces dynamics of the old migrant labour system. They are seen as uneducated and having multiple sexual partners.
Allocation	They are allocated Phase 1 jobs, those that are considered low-status jobs. Those that fail HTS or do not have a Grade 12 certificate are not hired. Pregnant women are not hired because they cannot undergo the medical examination. Women with a body weight over 100kg and under 50kg are not allowed to undergo HTS. Underground visits that are done with women take long and prolong the job allocation process. Women cannot undergo HTS when having their menstrual periods. Mining jobs are physically demanding.	Many of them have relatively low levels of formal education; as a result they are allocated to low-status jobs. The difference with women is that men have been in mining for a longer period than women and that is an advantage in where they are allocated. Men do not face the same anatomical and physiological challenges women face.
Control	Importance of the shift from racial despotism to a system where semi-autonomous work teams perform work linked to a bonus system. Some men do not want to work with women; they see them as lazy and incapable of mining work. Women do not produce as much as men; as a result they get lower bonuses. Women are moved informally by men to teams that get fewer bonuses. Women are seen to be less willing to take risks and as stifling the work process because they are always cautious and do not want to work sub-standard; that sometimes impacts on the bonus received by the teams. Women do not have the option of staying in hostels; they have to commute between work and their villages early in the morning every day. Transport to work is a daily challenge. They have to face cage pushing every time they go underground. It is hard for women to be promoted because they have no mining experience. They earn less than men because they produce less and get fewer bonuses. They are more prone to stroke and have to work under humid and hot temperatures even when having their monthly periods. PPE overalls are mostly one-piece and they have difficulties taking them off when about to use the lavatories. Lavatories are shared by both men and women and they are unhygienic, which makes them very unappealing when one is	There is a macho occupational culture that values masculinity, risk, and the ability to 'planisa' – to make plans under difficult conditions. They have to work with women who some men see as lazy or incapable of mining. They sometimes work under dangerous conditions in order to get bonuses at the end of the month. It is hard for men to get surface jobs because of their lack of education. Very few men ever get promoted; it is possible for one to work as a winch operator for five years or as a panel operator for twenty years.

	having a menstrual period.	
Reproduction	Pregnancy has to be tightly regulated because they may lose thirteen months' salary if they do not get alternative employment on the surface. Pregnancy can slow down their progression and interfere with their promotions. Waist and back pains and severe menstrual pains are attributed to their jobs. Some have been divorced because of the careers they have chosen. Wages are low and they are usually shared with many extended family members. Working hours usually mean they cannot stay with their children; as a result they send them to their parents or extended family members to care for them. Sending one's children to extended family members means one's salary has to be divided among those family members.	For ordinary workers wages are small; they mostly feed their families, and anything beyond food is hardly realised. The majority of men are still migrants and do not stay with their families.

Table 5.2 Coping strategies employed by women and men in mining

	Women	**Men**
Incorporation	They choose to work in mines where their husbands work.	No strategy observed.
Allocation	Counterfeit Grade 12 certificates and counterfeit HTS stamps have been discovered. Follicular phase is the best time to undergo HTS and one's chances of passing are better at follicular phase. *Mutshongolo* pills have also surfaced and women believe these decrease one's body temperature. Some women have transactional sex with men in the belief that this can help them.	Tradition of mining and tacit knowledge. The fact that men have been in mining longer than women advantages them. Men do not fall pregnant, have periods and do not breastfeed; this means they do not have to worry about the allocation problems that women face.
Control	High levels of informality force them to *planisa* – to play the system. Some women strike up sexual relationships with men in order to move up the mining ladder. Some women get *nyatsis* to take them out, pay their bills and give them more money. Some women adopt a dual persona and have intimidating faces to scare men away. Some women informally slot themselves in jobs that are less demanding physically. They form coalitions with other women, as well as close relationships with miners, shift supervisors and *pikininis*. They 'bribe' men by bringing them cold water from home or fetching them water during working hours. They conform to the patriarchal sensibilities of male miners and call older men *Ntate*.. They adjust to the lavatory problem by wearing double sanitary protection. Women use sexuality, femininity and ethnicity to cope.	*Maching-ching* helps men cope better and work harder. Unlike women, men have a choice of staying in hostels.. Ethnic teams are crucial in coping.
Reproduction	Sending children to family members is a coping strategy.	To supplement their meagre wages they get extra money from cash loans. To cope with their separation from their wives, they strike up relationships with town women.

From the above summary, the study has accomplished what it set out to do – to uncover challenges and coping strategies of women in mining. However, more questions regarding women in mining remain unanswered. This is because some of those questions were beyond the scope of this research; however, they remain crucial. This study can be

seen as opening the way to a better understanding of women in mining: their challenges and coping mechanisms. One of the many questions that it raises is a need for a comparative study on women in mining between Anglo Platinum and Impala Platinum.

Another concern that remains to be addressed relates to differences among women in mining. In this study I have treated women as a homogeneous group. In reality women are not the same and their differences come into play when one looks into their challenges and coping strategies. The area where one comes from (rural women or town women) and one's age (young or old) all play a role in what one considers a challenge and what does not constitute a challenge. Research is needed that can address these differences when studying women in mining. Questions regarding the sustainability of women in mining and what kinds of communities are being created by bringing women into mining have not been fully answered. If mines are hoping to bring women into mining, what sustainability measures do they need to put in place to achieve this and thus retaining women in mining?

While unemployment is the main driver for seeking employment in mining, what can mines do to attract more women into the sector, especially in the high-end jobs? A follow-up study would also be of great value to assess the retention of women. After meeting the 2009 Mining Charter requirements, are mines still going to be rigorous in bringing women to mining, or is this merely done to meet the 2009 goal and there is no plan beyond that? With the current economic crunch that is being experienced by all sectors including mining, are mines going to retrench mostly women or men, and what impact is that going to have on their production levels and meeting the 2009 Mining Charter requirements?

This study has only focused on underground women in mining. However, there are women on the surface, too. Looking at the challenges these women face and comparing them with those faced underground would be of scholarly value.

In my study I have also touched on the absence of white women in underground occupations. Since I have not dwelled much on this subject, it opens up room for more research around race and women in mining. The study also shows that most women who are in mining are in low-grade jobs, and very few are in managerial positions. While this is a challenge for the Women in Mining Project, it also points us to more questions. How are mines going to push women up the mining ladder given that they are new in mining and do not have as much experience as men?

It is obvious that the inclusion of women in mining is challenging the mining occupational culture. The work process is still gendered, with more men feeling at home than do women. According to Darnbrought (2008), for mines to succeed in bringing and retaining women, they have to be more family-friendly. Darnbrought (2008) asserts that the Ernest Henry mine opened a newborn production support programme to accommodate women and to ensure that pregnancy and maternity leave do not become barriers to women working in the mining industry.

The culture in the mines has to be changed to accommodate women, and men's attitudes should be addressed. Failing to do this will result in the continuation of the challenges that face women at work. Men need to accept women as their equal co-workers, and mining material has to become women-friendly.

Glossary

Development: where a working place is developed.

Face: the area that is drilled and blasted during mining.

Heat tolerance screening (HTS): the physical test that mineworkers have to undergo to assess whether or not their bodies are fit to work underground in hot and humid conditions.

Learner officials: officials-in-training; they rotate between all the departments that are involved in mining, both on the surface and underground.

***Maching-ching*:** bonus system.

***Masiza*:** a Fanakalo word referring to a human resource person.

Miner: the worker that oversees that workers are working under standard conditions and are meeting the targets.

***Ntate*:** Setswana word used to refer to older men.

***Nyatsi*:** A secret, second sexual partner.

Panel operator: A worker, who loads ore, cleans the working face and blasts the face.

***Pikinini*:** a shift supervisor assistant; carries the supervisor's bag and takes measurements for him.

Pipe, transport and ventilation (PTV) helper: installs pipes underground to ensure easy mining. Also known as **equipping helper.**

***Planisa*:** to make a plan with the material one has in order to reach production targets.

Rock drill operator (RDO): the drill machine operator.

Stope: where the actual mining takes place.

Store issuers: issue workers with working material such as drilling machines, paint, paint brushes, etc.

Transport women: women who transport working material from one section to another.

Winch operator: pulls the ore from the working stations to the tip, from where it is transported to the main tip and then to surface. They use winch machines connected to scrapers to pull the ore.

Working place or **working station:** where workers load, drill and blast.

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South African Minerals Act, Act 50 of 1991.

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Impala Pregnancy Policy

Impala First Aid Book

Impala Fanakalo Book

Impala Sexual Harassment Policy

Impala Pre-employment Women in Mining Induction document

Impala SA Operations: Response to Mining Charter 2007

Interviews

To protect all the interviewees I have used pseudonyms throughout the text. Below is a list of interviews conducted over the two and a half months (July-September) spent at Impala Platinum. Some people were interviewed more than once and others more than twice. All of these were formal interviews.

Administrators Interviewed: Interview 23 July 2008, 2 Interviews 29 July 2008
Interview 12 August 2008, Interview 22 August 2008
3 Interviews18 September 2008

Learner Officials Interviewed: 8 Interview 29 July 2008 and focus group discussion

Shift supervisors interviewed: Interview 8 August 2008, Interview 3 September 2008
2 Interviews 11 September 2008,
1 Interview 3 September 2008

HR Personnel: 2 Interviews 16 September, Interview 17 September 2008
2 Interviews 18 September 2008, Interview 30 July 2008

Legal Officer: Interview 17 September 2008

Housing Officials: 5 Interviews 19 September 2008

Hospital and HTS: Interview 23 July 2008, 2 Interviews 24 July 2008
Interview 18 September 2008

Women in mining: 17 Interviews were conducted between 21 July and 19 September 2008

Appendices

Appendix

1. Number of women called for HTS

WIM Potential Pool weekly update:

Date **06-Feb-06**

	Progress flow		Comments
	No of outstanding req	8	To be engaged on Tuesday the 07 February 2006 for (6#)
1	**Current ready in pool for placement:**	13	
2	**Underground visit:**		
2.1	Visited this week & date	0	
2.2	No ready for UG visit	11	
2.3	Date/no planned for next week	11	Awaiting for Ronnel to give us the date
3	**HTS**		
3.1	Number Screened this week	117	
3.2	Number Passed this week	8	
3.3	Reasons fail:		
3.3.1	Int. High Temp	17	
3.3.2	Fall out at steps	47	
3.3.3	High Tempt - post screening	37	
3.3.4	Other: Under weight	8	
4	**Induction**		
4.1	No completed induction this week	80	
4.2	No & dates planned for next week	100	Wednesday,08 Feb 06
4.3	Number contacted and confirmed	0	To phone 06-07th Feb 06
4.3	Date & Number requested from Teba	0	
4.4	Date & Number requested from RRC	1000	04-Jan-06

WIM Potential Pool weekly update:

Date **24-Mar-06**

	Progress flow		Comments
	No of outstanding req	7	3(6#),4(7#)
1	**Current ready in pool for placement:**	0	
2	**Underground visit:**		
2.1	Visited this week & date	0	
2.2	No ready for UG visit	13	
2.3	Date/no planned for next week	13	Tuesady,28 March 2006
3	**HTS**		
3.1	Number Screened this week	111	
3.2	Number Passed this week	6	
3.3	Reasons fail:		
3.3.1	Int. High Temp	8	
3.3.2	Fall out at steps	45	
3.3.3	High Tempt - post screening	46	
3.3.4	Other: Under weight	6	
	: Over weight		
4	**Induction**		
4.1	No completed induction this week	60	Thursday,.23 March 2006
4.2	No & dates planned for next week	100	Wednesday,29 March 06
4.3	Number contacted and confirmed	0	To be phoned on 27-28th
4.3	Date & Number requested from Teba	0	
4.4	Date & Number requested from RRC	500	24-Mar-06

2. Induction papers

IMPALA

PRE-EMPLOYMENT INDUCTION FOR WOMEN IN MINING

1. **The History on the employment of females in the Mining Industries of South Africa**

As we all know, the Mining Industry in South Africa, has traditionally and historically been an industry in which only males were employed. These males were also mostly foreigners from countries like Lesotho, Mozambique, Botswana and Swaziland. Local and South African males saw mining as those lowly place jobs that were not meant for them. These jobs and the environment were regarded as suitable for foreigners. Locals were therefore not eager and enthusiastic to take up jobs in the Mining Industry.

It is for this reason that a majority of employees in the mining industry are still foreigners. Because these foreigners were non South African citizens, they could not access housing and hence the hostel system was introduced.

2. **Present Situation**

With the advent of the Homeland system, Impala became part of the then Bophuthatswana Republic. This Government emphasized that, due to the high unemployment in the Region, the Industries in Bophuthatswana should only employ people from the Region. It is for this reason that at Impala today, about 80% of the workforce is sourced from the North West Province. Currently ±600 of the 80% are females, who are mainly local residents and about 3000 are local males.

3. **The Way Forward**

The big question is: "Why are you here today?"

- The South African Government wants females to participate in jobs and industries that were reserved for males, as females are about 55% of the total population.
- Females have the necessary ability, skill and also in some instance the qualification to do these jobs.
- Where females lack the necessary skill, they need to be capacitated to do these jobs.

It is for this reason that the Minerals and Petroleum Resources Development Act was promulgated on 01 May 2004 by the South African Government. This Act requires, amongst other issues, that the Mining Industry, employ 10% Women within the next five years, that is by 01 May 2009.

1

This Act has created a lot of opportunities for females to access those careers that have always evaded them. Impala, as a Mining Company is passionate about this initiative and that is why you are here today.

4. Expectations

As you are given this huge opportunity by the Government and Impala we expect you to:

- Grab at this opportunity and take this challenge with both hands, so that you can achieve Mining careers.
- Start underground with those jobs that were "seen" as jobs that were meant for foreigners. (Not office jobs)
- Show Impala that you can contribute to its bottom line, that you can do it.
- Show that you are not sex symbols, but that you are here to learn from the males and acquire the necessary skills from them.
- Respect yourselves and respect the males that you will be working with.
- Not allow yourselves to be used and abused, but to be focused on your jobs and earn your own money.
- Not to expect favours and preferential treatment from the males. You must work hard to earn your place in the Impala Team. You must work hard as you are the pilot group. You will make it or break it for the females.

5. Requirements

Before you are employed at Impala Platinum, you will have to meet the following requirements:

- Have passed Grade 12 or Matric Certificate
- That these are underground positions and that's were you will work.
- You must undergo a pregnancy test because the medical screening is risky and can cause complications for your pregnancy that may even lead to a miscarriage.
- Underground jobs are seen as risk jobs, therefore you can't work underground when pregnant you need to proceed on maternity leave. (explain maternity leave)
- Must be medically fit, this is established through our medical screening.

- Must undergo HTS and should pass it.
    - Dress Code:
        - PT Shorts and T-Shirt
        - Climb steps at underground heat and high temperature

Once this process is completed and you are found to be fit you will:

- Undergo an underground visit to acquaint you with the working environment.
- You will then be place on the database. As we require female employees, we will access you from the database.
- No accommodation available as we will only employ local females in these occupations.
    - Doing away with hostels
    - Need own transport from home to area of work
    - May be required to work Shifts.

6. Conclusion

Any questions, comments or concerns?

We will then see you on (Date, Time and Venue) for the screening process.

Thank you and good luck!

c:/mydocs/jt/Pre Employment Induction.wp

RISK OCCUPATION – Pregnant Females: When to return to normal duties

BCEA

Section 26(2) states that during an employee's pregnancy and for a **period of six months after the birth of her child,** her employer must offer her suitable, alternative employment on terms and conditions that are no less favourable than her ordinary terms and conditions of employment **if:**

- The employee is required to **perform** night work (between 18:00 and 6:00) or **work that poses a danger** to her health or safety or that of her child; and
- If it is **practicable for the employer to do so**

Pregnancy procedure - Unpaid period

Point 9.1.1.1 (If made use of alternative employment prior to birth)
Employee will be entitled to 2 months unpaid maternity leave.

Point 9. 2.1.2 (when not making use of alternative employment)
Unpaid maternity leave may only be taken up to 3 months after the birth of the child, if the employee did not make use of alternative employment, prior birth

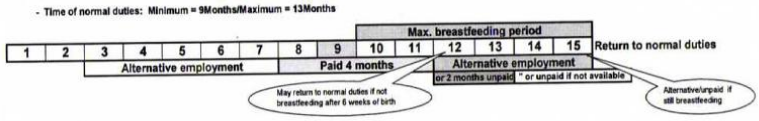
Point 9.2.2

Failure to resume normal duties as stipulated will be dealt with as being absent without permission and could result in termination of the employee's services.

Employees may not return to work from six weeks after the birth of her child, unless a medical practitioner or midwife certifies that she it fit to do so.

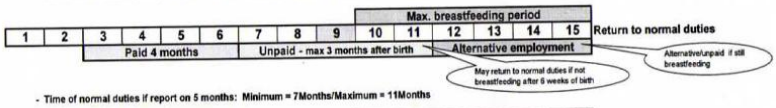
A) Making use of alternative employment prior birth (Same as non-risk)

- **Time of normal duties: Minimum = 9Months/Maximum = 13Months**

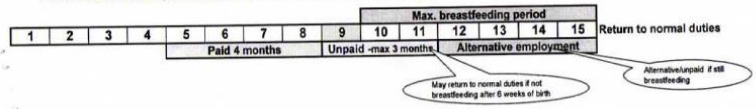


B) Proceding on maternity leave direct after disclosure

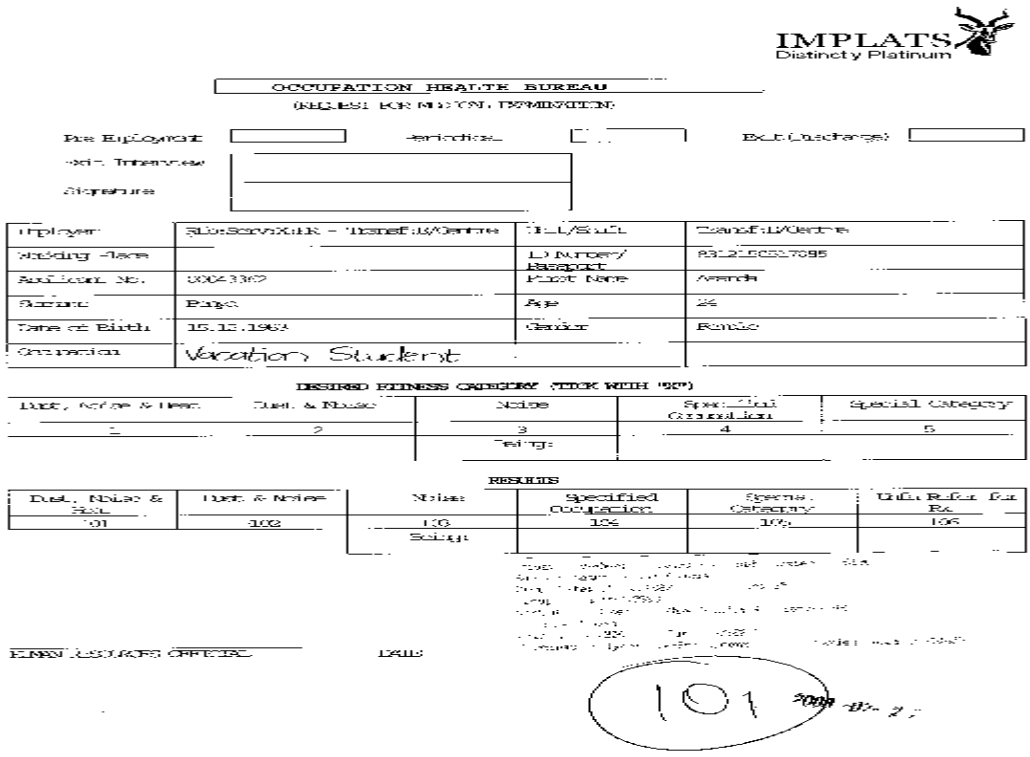
- **Time of normal duties if report on 3 months: Minimum = 9Months/Maximum = 13Months**



- **Time of normal duties if report on 5 months: Minimum = 7Months/Maximum = 11Months**



3. Medical examination form



IMPLATS
Distinctly Platinum

OCCUPATION HEALTH BUREAU

Employer	BloSerVcES – Benefit/Centre	Title/Status	Candidate
Medical Area		ID Number/ Passport	8312150517085
Applicant No.	0004382	First Name	Amanda
Surname	Benya	Age	24
Date of Birth	15.12.1983	Gender	Female
Occupation	Vacation Student		

DESIRED FITNESS CATEGORY (TICK WITH "X")

Dust, Noise & Heat	Dust & Noise	Noise	Specified Occupation	Special Category
1	2	3	4	5
		Testing:		

RESULTS

Dust, Noise & Heat	Dust & Noise	Noise	Specified Occupation	Special Category	Unfit Refer for RA
101	102	130	104	105	106
		Scope:			

HUMAN RESOURCES OFFICER DATE

101 2008 07 22

4. TEBA forms



TEBA Limited
RSA Reg. No 1902/00580/06
General Agreement of Service
Registration Date: 2008/07/22

Surname:	BENYA
Other Names:	ASANDA PERSEVERANCE
Gender:	FEMALE
Father's Name:	MICHAEL BENYA
Mother's Name:	VUYOKAZI BENYA
Spouse's Name:	
Chief / Headman:	
Country:	SOUTH AFRICA
District:	BUTTERWORTH
Language:	XHOSA
Religion:	UNKNOWN
Home Address:	NEAR GARAGE HOUSE NO 11 ORPIMENT ROAD DERSLEY PARK SPRINGS 1559
Living out / Mine Accommodation:	HOUSE NO 36 WATSONIA STREET SIESTA SINGLE QUARTERS RUSTENBURG 0300
Emergency Contact:	VUYOKAZI BENYA 0839290403
Death Beneficiary:	VUYOKAZI BENYA
Beneficiary Relation:	MOTHER
Beneficiary Address:	NEAR GARAGE HOUSE NO 47 AMATOLA TOWN HOUSE BISHO CENTRAL BISHO 5605
BeneficiaryContactNo:	0839290403

Previous Agreement
Office:
Serial Number: Year: No. of Weeks on last agreement:
Date of last discharge:
Last Employer:

Endorsements, Vaccinations etc.

TEBA LIMITED
IMPALA
2008 -07- 22
P.O. BOX 111
RUSTENBURG 0300

Capturer: JACOBETH MMAKGOSI MOGALE
Date Printed: 2008/07/22 11:16:20 AM

Employer:	
IMPALA PLATINUM LIMITED	580
Site:	
IMPALA PLATINUM LIMITED	580
Industry No:	Z3286103
Office: TOM IMPALA	0580
Serial Number: 12695	Year: 2008
Company No:	43362
Occupation:	IMPALA - VACATION STUDENT
Passport No.	
Passport Expiry Date	
Identity No:	8312150517085
Date of Birth:	1983/12/15
Marital Status:	SINGLE
Dependents:	0
Education Std Attained:	
GRADE 12 OR N2 WITH CERTIFICATE	
Qualification	
SECONDARY LEVEL (E.G. HIGH SCHOOL)	
Agreement Period (Weeks) :	52
Agreement Expiry Date:	2009/07/21
Experience Description:	NOVICE
Experience Code:	111
Industry Certificate No:	
Type of Employment:	Underground

Employee's Signature or Mark

SAP Input Document
Contractors

Impala Platinum Limited

TEBA REGISTRATION

| | | |

5. Heat Tolerance Screening

IMPALA PLATINUM

H.T.S Employee Record

HEAT TOLERANCE TESTING **28.0°C ± 0,3°C W.B.** **29.5°C ± 0,5°C D.B.**

PATIENT NO.:

DATE	FOLIO NO.	SHAFT	AGE	OCCUPATION	WEIGHT	STEPPING HEIGHT	
					66 09	30.5CM	30.5CM
23 JUL 2008			24	Student	BODY TEMP DEG. C	INITIAL TEMP	30 MIN STEPPING TEMP
COMMENTS			HTS	PASSED	36,5		
			HTS	PASSED	36,6		
8312150			HTS	PASSED	36,7	360	
			HTS	PASSED	36,8		
Benja Asanda			HTS	PASSED	36,9		
			HTS	PASSED	37,0		
			HTS	PASSED	37,1		
			HTS	PASSED	37,2		
			HTS	PASSED	37,3		
			HTS	PASSED	37,4		
			HTS	PASSED	37,5		
			HTS	PASSED	37,6		
			HTS	FAIL	37,7		
			HTS	FAIL	37,8		
			HTS	FAIL	37,9		
			HTS	FAIL	38,0		
			HTS	FAIL	38,1		

HTS PASSED

Rustenburg Divisional Tel : (014) 592-2231

jcf8743 Rel. 10/03/2006

H.T.S Superintendant Signature

Supervisor's Signature

6. First Aid forms

THE SOUTH AFRICAN RED CROSS SOCIETY
SOUTH AFRICAN RED CROSS ACADEMY
Incorporated Association not for gain (Reg. No. 05/06639/08)
Fund Raising No. 01 100170 0016
P O BOX 28857, SUNNYSIDE 0132
TEL NO 012-3258364 FAX NO 012-3190314

TO: THE INSPECTOR OF MINES.

DATE: 21/08/2005

FIRST AID IN MINING.

- THIS IS TO CERTIFY THAT THE FOLLOWING EMPLOYEE PASSED THE EXAMINATION IN FIRST AID IN MINING
- WE ARE AWAITING THE CERTIFICATE FROM THE S.A. RED CROSS IN PRETORIA.

NAME &SURNAME: Asanda Banga

INDUSTRY NUMBER: 7305105

FIRST AID EXPIRYDATE: 21/08/2005

CERTIFICATE NUMBER: 2105/05 (ORIGINAL CERTIFICATE LOST)

SURNAME (PRINT) FIRST NAMES: (PRINT)

THE SOUTH AFRICAN RED CROSS
(Incorporated Association not for gain)

EXAMINATION
FIRST AID IN MINING

Class No
Class Attended: Impala Hospital
Exam Date:
Name of Examiner:
Merit
Pass
Fail
Signature of Examiner:
Sample

Details of current certificate:
Cert No Level Issued by
Date Issued

IMPALA MEDICAL SERVICES

FEST – EYID KA LO

MAYIN



FEST EYID

LO MBUZO NA LO MPHENDOLO KA LO FEST EYID

MBUZO NUMBI

HINI LO MASTEPISI KA LO SIZA LO SGULAN?

MPHENDOLO

1. SETSHA LO NDAWO, YENZA LO NDAWO MUHLE, HAMBISA LO SGULAN LAPA MUHLE NDAWO.
2. A-VULA LO NDLELA KA LO MOYA.
3. B-PEFUMULISA LO SGULAN LO SKATI LO SGULAN AYIKONA PEFUMULA.
4. C-POMPA LO NHLIZIYO LO SKAT LO NHLIZIYO YENA IMA.
5. VALA LO GAZI LO SKAT LO GAZI YENA PUMA.

MBUZO NUMBER 2

HINI LO SIZO KA LO MAKAZA KA LO LIMALA?

MPHENDOLO

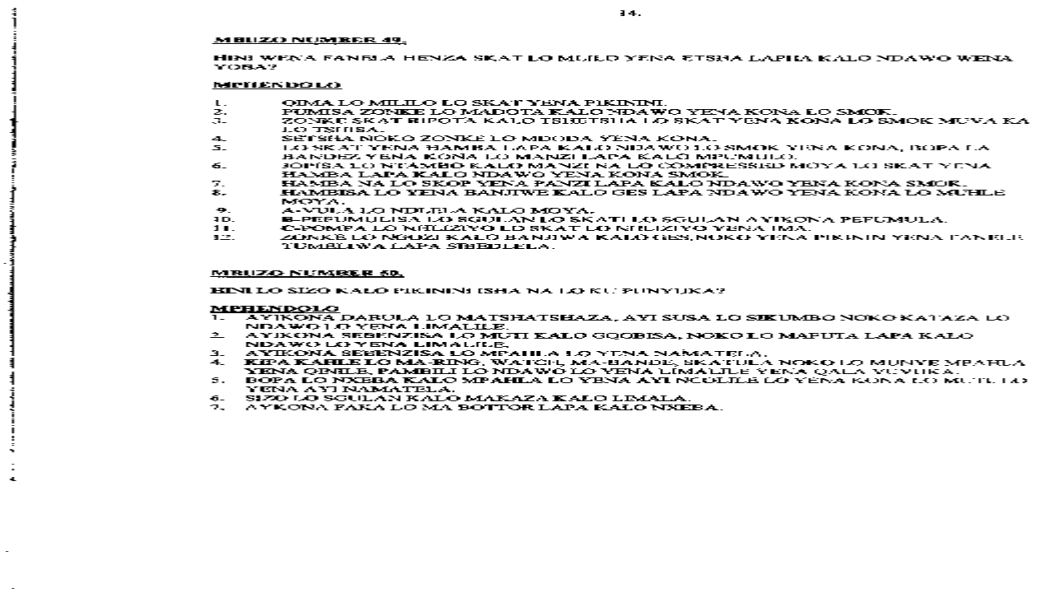
1. SETSHA LO NDAWO, YENZA LO NDAWO MUHLE, HAMBISA LO SGULAN LAPA MUHLE NDAWO.
2. A-VULA LO NDLELA KA LO MOYA.
3. B-PEFUMULISA LO SGULAN LO SKATI LO NDLELA KA LO MOYA YENA VALEKA.
4. C-POMPA LO NHLIZIYO LO SKAT LO NHLIZIYO YENA IMA.
5. VALA LO GAZI LO SKAT LO GAZI YENA PUMA.
6. BOPA LO MANXEBA.
7. BOPA LO MAPLANK KA LO PHUKA.
8. LALISA LO SIGULAN PANSI.
9. LUSA LO MPHALA LO YENA QINILE
10. VALA LO SGULAN KA LO NGUBO.
11. KULUMISA KAHLE LO SGULAN
12. HAMBISA LO SGULAN SPETLELA KA LO MA STRETCH.

MBUZO NUMBER 3

KANJAN WENA TSHEKA LO SGULAN?

MPHENDOLO

1. LINGANISA WAN SAYID KA LO MZIMBA NA LO MUNYE.
2. QALA LAPA KA LO SKOP, HAMBA PANSI TOT LAPA KA LO NYAWO.
3. KUMBULA LO (1) KU BUKA (2) KU IZWA, NA LO (3) KU LALELA.



14.

MBUZO NUMBER 49.

HINI WENA FANELA HENZA SKAT LO MULO YENA ETSHA LAPHA KALO NDAWO WENA YONA?

MPHENDOLO

1. QIMA LO MILILO LO SKAT YENA PIKININI.
2. PUMISA ZONKE LO MADOTA KALO NDAWO YENA KONA LO SMOK.
3. ZONKE SKAT RIPOTA KALO TBIIUTSHA LO SKAT YENA KONA LO SMOK MUVA KA LO TSHIBA.
4. SETSHA NOKO ZONKE LO MDODA YENA KONA.
5. LO SKATI YENA HAMBA LAPA KALO NDAWO LO SMOK YENA KONA, BOPA LA BANDEZ YENA KONA LO MANZI LAPA KALO MPUMULO.
6. JOPISA LO NTAMBO KALO MANZI NA LO COMPRESSED MOYA LO SKAT YENA HAMBA LAPA KALO NDAWO YENA KONA SMOK.
7. HAMBA NA LO SKOP YENA PANZI LAPA KALO NDAWO YENA KONA SMOK.
8. HAMBISA LO YENA BANJIWE KALO GES LAPA NDAWO YENA KONA LO MUHLE MOYA.
9. A-VULA LO NDLELA KALO MOYA.
10. B-PEFUMULISA LO SGULAN LO SKATI LO SGULAN AYIKONA PEFUMULA.
11. C-POMPA LO NHLIZIYO LO SKAT LO NHLIZIYO YENA IMA.
12. ZONKE LO NGUZI KALO BANJIWA KALO GES,NOKO YENA PIKININ YENA FANELE TUMBULWA LAPA SHEDLELA.

MBUZO NUMBER 50.

HINI LO SIZO KALO PIKININI ISHA NA LO KU PUNYUKA?

MPHENDOLO

1. AYIKONA DABULA LO MATSHATSHAZA, AYI SUSA LO SIKUMBO NOKO KATAZA LO NDAWO LO YENA LIMALILE.
2. AYIKONA SEBENZINA LO MUTI KALO GQOBISA, NOKO LO MAFUTA LAPA KALO NDAWO LO YENA LIMALILE.
3. AYIKONA SEBENZISA LO MPAHLA LO YENA NAMATELA.
4. KEPA KAHLE LO MA-RING, WATCH, MA-BANDE, BKATULA NOKO LO MUNYE MPAHLA YENA QINILE, PAMBILI LO NDAWO LO YENA LIMALILE YENA QALA YUYUKA.
5. BOPA LO NXEBA KALO MPAHLA LO YENA AYI NCULILE LO YENA KONA LO MUTI LO YENA AYI NAMATELA.
6. SUPO LO SGULASI KALO MAKAZA KALO LIMALA.
7. AYIKONA PAKA LO MA BOTTOR LAPA KALO NXEBA.

7. Below is an album of women doing different occupations underground.



Picture: A female worker carrying a ventilation pipe



Picture: A female worker assisting a miner connect blasting cables



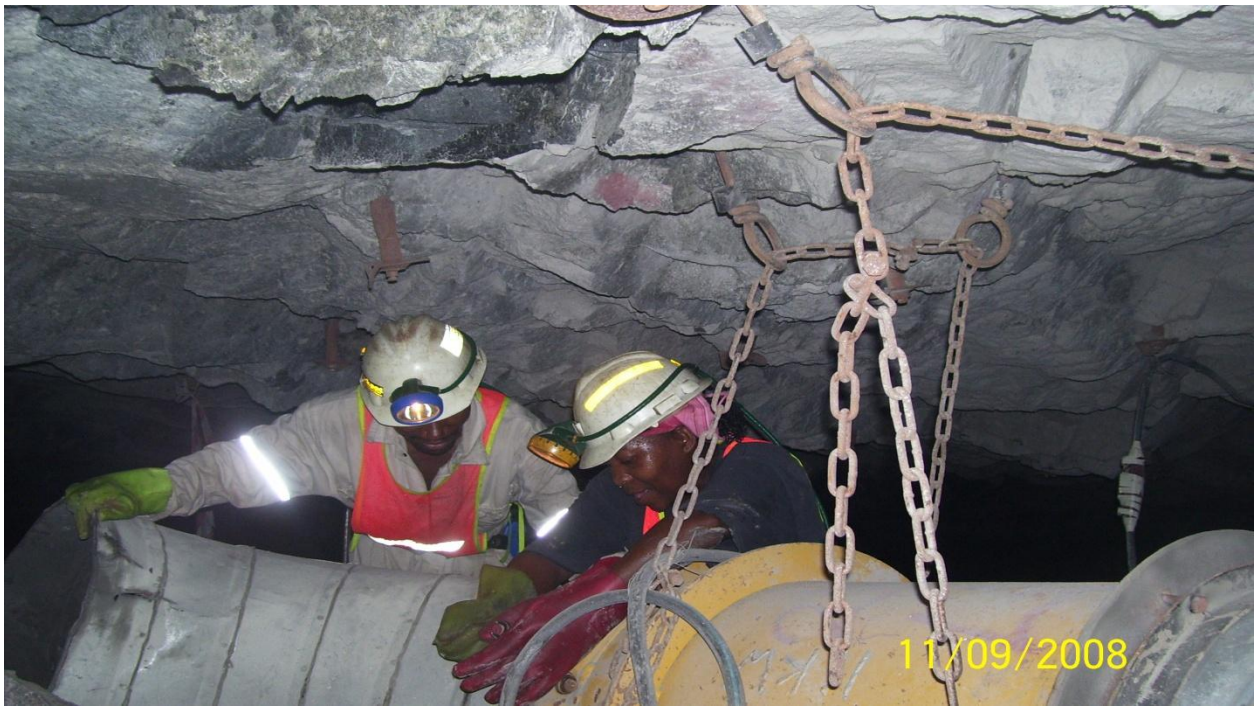
Picture: A female worker preparing a water pump inside a stope



Picture: A female worker assisting her colleagues push a scorch cart



Picture: A female workers installing a ventilation pipe



Picture xxx: A female worker extending a ventilation pipe



Picture: A female worker cleaning the drain and installing a railway line


14/08/2008


04/09/2008

Picture: Left to Right; A workers getting water for her team members and another workers painting lines on the walls close to a sub-station



Picture: Female workers removing ore from the drain and loading it onto a hopper



Picture: A Pikinini female worker with her miner.



Picture: A female worker removing ore from the drain