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For Richer, for Poorer: Marriage and Casualized Sex in East African Artisanal Mining Settlements

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ABSTRACT

Migrants to Tanzania's artisanal gold mining sites seek mineral wealth, which is accompanied by high risks of occupational hazards, economic failure, AIDS and social censure from their home communities. Male miners in these settlements compete to attract newly arrived young women who are perceived to be diverting male material support from older women and children's economic survival. This article explores the dynamics of monogamy, polygamy and promiscuity in the context of rapid occupational change. It shows how a wide spectrum of productive and welfare outcomes is generated through sexual experimentation, which calls into question conventional concepts of prostitution, marriage and gender power relations.

INTRODUCTION

Folklore about gold-rush mine settlements has long been a source of fascination. *El dorado* narratives foreground bachelor men stampeding to remote areas of the world in search of financial gain followed by a smaller number of women seeking their bonanza through prostitution (Goldman, 1981; Gray, 2010).

This article interrogates whether present-day circumstances in Tanzanian artisanal mining settlements resemble this narrative. Using survey and qualitative interview data, we explore sexual dynamics that both enhance and undermine welfare trajectories of resident individuals and families in Tanzanian artisanal gold mining settlements. The first section of this article specifies our theory of historically contextualized and inter-related modes of production and human reproduction; this is followed by a review of

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earlier literature on sexuality in Southern African mining settings. Historical background on the patterns of marriage and sexual liaisons sanctioned in Tanzanian agrarian communities is provided, followed by an analysis of migration, work and leisure time activities in artisanal mining settlements. We explore how casualized sexual relations are arising in the interplay between polygamy, monogamy and migration. On the basis of women residents' testimonies, three phases of the female life cycle are delineated that pose a progression of welfare concerns for women and children. Women's trajectories are contrasted with the marital and career patterns of migratory artisanal miners. In the conclusion, we return to theorizing sexuality through the lens of occupational change, examining the reconfiguration of sexual bonds and the consequences for family welfare in Tanzania.

CONCEPTUALIZING MARRIAGE, SEXUALITY AND PROSTITUTION IN AFRICA

Rejecting naturalized, universalized or Africanized notions of sexuality (e.g. Caldwell et al., 1989), this article is premised on the malleability of sexuality, marriage and family structures (Bryceson, 1995a; Caplan, 1987; O'Laughlin, 1995). Tracing the historical construction of western sexuality, Foucault (1976) was concerned with the nature of relational linkages between partners, sensations and pleasures of the body and not least the economic alliances that emanate from sexual relations. His concept of 'biopower' relates to the capitalist state's attempts to regulate its citizenry physically by control of population through public health, risk regulation, etc. Dean (2012) has gone on to explore how thinking beyond the boundaries of state regulatory biopower controls facilitates the self-making or self-transformation of one's morality and identity.

Foucault's concept of biopower is insightful but is made with reference to capitalist regulatory states, whereas the Tanzanian state is weak and does not exert effective regulatory controls over the health, welfare and sexual behaviour of the country's population. In the occupational context of expanding artisanal mining, both men and women are redefining their identities in relation to new productive and sexual reproductive relationships. Rural elders' regulatory biopower, in the form of tribal rituals that dictated social norms with respect to birth, death and sex, has been supplanted. At present, the reflexive construction of social morality and self-making of sexual identity is part and parcel of the fluid dynamics of sexual attraction and experimental conjugal relations of migrant men and women in Tanzania's rapidly urbanizing mining settlements (Bryceson et al., 2012).

Specifically with respect to Tanzania, Bryceson and Vuorela (1984) theorized the interaction between modes of productive and human reproductive activities, arguing that the transformation of sexuality and gender relations interfaces with occupational shifts, each associated with radically

different regulatory agencies. Adopting their argument in this article, marriage is viewed as a historically evolved customary consensus or institutionally sanctioned form of union between conjugal couples. Social norms relating to sexual intercourse, marriage and kinship mediate emotional ties. The concept of love is part of a broader discourse on sexuality and its identification with or separation from sex, marriage, money and companionship. Female prostitution is a form of commodified sex found in many but not all societies over time. In past and current mining contexts, prostitution has tended to take the form of market-mediated sex involving a male 'purchaser consuming pleasure' while the female 'seller produces sexual pleasure', generally involving a third party market agent, notably a brothel-owning madam or soliciting pimp who manages and profits from the sale.¹

This article documents how a Tanzanian migrant population, characterized by rapid turnover of highly mobile, risk-taking men and women at the ages of peak sexual activity, working for potentially high stakes amidst the uncertainty of artisanal gold mining, veers away from rural conventions. Instead they are reflexively devising a range of experimental forms of conjugal union, some of a highly casualized nature, which cannot be fully equated with female prostitution practices. The following sub-sections examine how prostitution has been an integral part of large-scale corporate mine settings in Africa before juxtaposing it to the transformative context of artisanal mining and the self-making of men and women who are no longer subject to the biopower of rural elders.

Prostitution in Southern African Apartheid Mining Societies

Large-scale corporate mining during the apartheid period attempted to minimize labour and accommodation costs by housing miners in dormitories and obliging them to work on temporary contracts that involved periodic circular migration between their rural homes and the mines. This restricted miners' conjugal ties and families to the rural areas where chiefs and elders were largely in control of bridewealth arrangements (Harries, 1990a; Moodie, 1994).² Independent women residing in the vicinity of the mine were

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1. This definition avoids the impossibility of clearly distinguishing, or indeed morally judging, the wide range of material gains and costs that men and women experience in sexual relations related to prostitution, dating, courtship and marriage. As Swidler and Watkins (2007: 148) observe: 'in sub-Saharan Africa economic exchange is considered integral to a wide range of sexual relationships, from marriages to long-term non- or extramarital unions to brief affairs'. While the economic exchange may be especially salient in African contexts, transactional sex is found in many forms throughout the world, linked to specific interplays of modes of production and human reproduction, which are not necessarily commodified prostitution.
 2. Mine earnings gave young men an independent source of bridewealth payment, affording them a degree of autonomy from rural elders' control (Harries, 1990b: 94).

generally assumed to be prostitutes enticing miners and diverting their hard-earned income from their rural-based wives and children (Moodie, 1994).

There were, however, variations on this theme in other parts of Southern Africa. Parpart (1994), analysing the transformation of marriage patterns on the Copperbelt of Northern Rhodesia (now Zambia), documents how corporate mine management and Christian churches were concerned about prostitution's spread in the face of a sex ratio of two males for every one female. The eventual reduction in the sex ratio imbalance, a growing elite of married traders and skilled workers with 'progressive wives', expanding educational opportunities for girls and rustication of divorced and 'promiscuous' women contributed to marriage stabilization. By contrast, in Southern Rhodesia (now Zimbabwe), van Onselen (1976) documents mining policies more akin to the South African male circular migration model, which manipulated miners' access to food, alcohol and sex to secure profit.

In these three cases, large-scale mining investment brought about a contentious policy arena between mine management, Christian churches and patriarchal tribal elders who vied for control of marriage norms and sanctions on sexual activity. Mine management tended to be the most liberal of the three. However, when prostitution or promiscuity was deemed to be interfering with miners' productivity, they were quick to implement measures to stabilize marriage, with the endorsement of Christian churches and rural tribal patriarchs. Religious and tribal authorities were most concerned with exerting moral sanctions. All three rule-setting authorities in one way or another worked within the dilemma that the imbalanced sex ratio, arising from restricted female migration to the mines, was likely to encourage prostitution. In such circumstances, any ensuing pregnancy did not involve men in the financial responsibilities and emotional ties of fatherhood. In those cases, a single mother/child welfare trap in the residential areas around the mines arose, at the same time as miners' marriages and family welfare in the rural areas were jeopardized.

Experimental Sexual Relations: Reconfiguration of Sexual Boundaries in East African Artisanal Mining

Artisanal mining can pose similar welfare threats, but there are two major differences evidenced in our Tanzanian case study: first, female in-migration to mining sites is very pronounced with the gap in the sex ratio starting to shrink relatively soon after a mineral strike. In our study area the sex ratio is roughly balanced, ranging between 1.01 and 1.18 men for every woman. Second, there is an absence of authoritative agencies defining or enforcing 'permissible' sexual relations between men and women. Corporate mine management, established Christian churches, rural tribal patriarchs and the state are absent. Instead both male and female migrants are engaged in a relatively unrestricted process of self-making directed at livelihood and

economic advance that embraces sexual liaisons as part of the 'ladder to success'. Women are intent on finding a successful miner to cohabit with, whereas men are aware of the value of having a female partner with a steady stream of income.

This article explores women's discourse about sex and marriage, as men and women engage in trial and error experimentation with different conjugal relations. There are analogous tendencies elsewhere in Tanzania's cities, but not as pronounced as those of artisanal mining settlements where high mobility and the uncertainty of widely fluctuating earnings prevail. The next section considers agrarian norms of conjugal relations, to provide a baseline for tracing how women's sexual identity is being reconfigured in the occupational shift towards mining.

Tanzanian Sexuality in Transition: Monogamy, Polygamy and Secret Sex

In rural areas, until relatively recently, tribal elders regulated both the timing and partnering of marriage through circumcision rituals and bridewealth payments. These practices have been ebbing away throughout the latter part of the twentieth century under the influence of urbanization and rising educational levels, but they have not disappeared (Doyle, 2010). Bridewealth serves as a socially agreed contract of exchange binding a woman in marriage to a man, in some cases not of her choosing, in which she is expected to be respectful of her husband (Hodgson, 2001).

Historically, girls frequently married in their teens. Tanzania has over 100 different tribal groups. In Mbeya region, where our study took place, the Nyakyusa are demographically dominant.³ Wilson's (1977) ethnographic work on the Nyakyusa reveals that marriage practices traditionally involved the betrothal of the girl before puberty, sometimes not much older than eight or nine years old. Girls coming of age found that renegeing on their pre-arranged marriage was difficult. Nuptial ties depended on the transfer of cattle from the husband's to the wife's lineage to create a network of obligation and reciprocity. They also implied an unbalanced power relationship between the groom and the bride in which the former commanded obedience and labour from the latter. If a husband considered that his wife was not sufficiently hard-working, he could send her back to her parents, and demand the return of the bridewealth cattle.

3. It should be noted that our informants were mostly migrants. Of the eighty-four people we randomly sampled in our two surveys in Mbeya region, there were twenty-two different Tanzanian tribal groups represented as well as three foreigners from the neighbouring countries of Kenya, Rwanda and Malawi. The Nyakyusa were the most prevalent (19 per cent: eight men and eight women).

Polygamy⁴ was common among the Nyakyusa, with a tendency for an age gap of ten or even fifteen years between the young bride and her husband, which seriously impeded younger men's ability to marry until they could muster sufficient wealth to make competitive bridewealth payments. Under these circumstances, secret sex was an outlet for frustrated youth. Wilson observes:

The characteristic sin of Nyakyusa society, in which men under 25 were usually unmarried and elderly men were polygamists, was for a son to seduce one of his father's young wives. Occasionally a man gave permission to his heir, even though a son, to cohabit with a particular wife in secret; much more often, it was said, it occurred without his permission. (Wilson, 1977: 94)

If caught, secret sex could traditionally have serious consequences. The cuckolded husband had the right to confront the seducer with his spear and cause bodily harm. The offending wife was likely to receive a beating, and her father could face a reparation claim of a cow or, in more extreme cases, the refund of the bridewealth and return of his daughter (*ibid.*: 42).

These traditional practices were gradually mitigated by girls' acquisition of education, or their attempts to delay or preclude their participation in puberty rights; in some cases, these trends paradoxically increased their status and brideprice value (Mbilinyi et al., 1991; Swantz, 1985). Meanwhile, as Christian religions spread in the countryside, monogamy became more common with moral sanctions against adultery. So too, the rise in urban residence (approximately 35 per cent of the population at present) reinforced the prevalence of monogamy as well as the incidence of divorce, separation and single women. It is within this historically layered moral tangle that artisanal mining has increasingly affected conjugal relations over the last three decades. We turn now to artisanal mining practices and our study sites.

ARTISANAL GOLD MINING: A TANZANIAN CASE STUDY

Artisanal mining has taken place in Tanzania since colonial days, but it did not become a significant livelihood activity until low crop prices, structural adjustment and employment retrenchments from closure or privatization of state-owned corporations pushed large numbers of people into it in the 1980s and 1990s (Chachage, 1995). In the mid-1990s, the number of artisanal miners in Tanzania was estimated to be 550,000 (Tan Discovery, 1996) and a recent World Bank-funded assessment estimates the number to be 685,000.⁵ From the early 1980s onwards, Tanzania has experienced numerous gold and gemstone rushes to artisanal mining sites. News of a mineral discovery travels fast with the ever-present use of mobile phones, catalysing thousands

4. Wilson (1977: 115) notes that in 1934 approximately 70 per cent of Nyakyusa women were involved in polygamous relationships.

5. Personal communication Dr Crispin Kinabo, Tan Discovery, 16 June 2012.

of miners to dash to a new mineral site to gain an early foothold (Jønsson and Bryceson, 2009).

Migration and Settlement in Study Sites

Our analysis encompasses data from related field studies of two gold mining settlements, namely, Matundasi/Itumbi in Mbeya region, southwestern Tanzania, where we interviewed both women and men; and Londoni, in Singida region, central Tanzania, where our interviewees were restricted to men. Matundasi and its sub-village Itumbi⁶ are close to Lupa, an area that experienced the country's first recorded gold rush in 1922 (Roberts, 1986). The legalization of artisanal mining (since 1979) and the rise in the price of gold has transformed the area over the last two decades. From one small shop in the early 1980s, Matundasi/Itumbi grew to be an animated location with several service facilities and a population of 7,640 residents with a sex ratio of 118 at the time of our study.⁷ Approximately 1,500 artisanal miners mined alluvial or hard rock gold deposits as their sole livelihood. Moreover, nearly all capable residents engaged in seasonal alluvial gold mining in order to supplement their income from agriculture. We conducted a random sample survey of fifty-four male miners in 2008, in addition to focus group discussions and qualitative interviews with several key informants.⁸ In 2011, follow-up in-depth interviewing with thirty-two women residents, selected on an age-stratified and occupationally-differentiated basis, took place.⁹

6. At the time of our study, Itumbi was a sub-village of Matundasi located 15 km from the centre of Matundasi. More recently, separate village status was conferred on it.

7. There were 1,439 households composed of 4,142 men and 3,498 women. Personal communication, Mr Isaac Hailetha Mwandumbia, Matundasi Village Executive Officer, 3 February 2008.

8. The survey methodology at Matundasi and Londoni settlements involved interviewing 108 male miners (fifty-four at each site) at off-work locations (pubs, restaurants and pool halls). Each of the selected interview sites was divided into a 3×3 matrix of numbered squares. In a random draw, respondents occupying the twelve o'clock position in the chosen numbered 'square' were interviewed. The sampling was stratified into ten-year age cohorts with nine miners per age group interviewed at each site. Questions asked centred on the miners' migration and career history as well as background on their associational ties with women, wives and children. The inclusion of the Londoni rush site in our sample of male miners contrasts with the more sedentary Matundasi miners, providing a picture of extremely mobile male miners' work and family life patterns.

9. A total of thirty-two women were interviewed by Hannelore Verbrugge in August–September 2009 with assistance from John Wihallah, a former miner and current head of a local NGO. A snowballing technique was used to identify interviewees within a sampling grid of the area's six major economic activities — 1) alcohol sales (barmaids, restaurant bar managers, brewers); 2) trade (cloth, food); 3) mining; 4) services (pharmacists, hair stylists); 5) farming; and 6) unemployed — across a full range of economically active ages (sixteen to fifty-seven years). The interviews centred on the women's life histories, migration work, conjugal relationships and family formation.

Londoni, our second site, is a mineral rush settlement located in Singida Region. People arrived within weeks of gold being discovered in 2004 and Londoni expanded from a village of 1,600 residents involved in subsistence farming, with two small shops, into a lively settlement with an estimated population over 10,000, served by seventy-four shops, forty-seven small restaurants and twenty-three basic guest houses (in February 2008). The core settlement consisted of 1,839 residents, who were almost evenly divided between 925 males and 914 females (sex ratio: 101). Alluvial surface deposits were quickly depleted and from 2005, miners were exclusively engaged in hard rock mining. After the deposits became increasingly inaccessible for the artisanal miners, many claim owners sold out to medium-sized exploration and mining companies.

Despite their rough-and-ready appearance, artisanal mining sites are very cosmopolitan. Tanzania's mine-led migration is urban in character and not limited to miners (Jønsson and Bryceson, 2009). In the first instance, it is predominately male-biased as men rush to the mineral strike site but within weeks women and many more men follow, with the intention of working in trade and service sector activities. Subsequent waves of non-mining migrants are responding to the same stimulus as miners: they anticipate higher earnings due to a sharp rise in demand for service activities on the part of miners with purchasing power far in excess of the farming population in the surrounding countryside (Bryceson and Jønsson, 2010).

Patterns of female migration to Tanzanian mining camps are less well understood (Hinton et al., 2003). Like men, women may first migrate in their teens. In our sample, many arrived as teenagers from within the district, from other nearby districts and occasionally from more distant areas. Only one mentioned gold mining as a catalyst for migration. Their more indirect and contingent process involves the push of divorce, family disagreements or orphanhood, motivating them to escape home and seek their fortune elsewhere. Many are helped by a chain migration process in which a female friend or relative encourages them to come to the mining site with the lure of income-earning opportunities. In a small minority of cases they migrate to be with their husbands, but most move independently of a spouse (Verbrugge, 2010).

Overall men are more likely than women to migrate from a long distance away and in general they are more mobile throughout their adult years; women usually experience a more stationary existence in their childbearing years.¹⁰ Almost two-thirds of the women interviewed came from within the region, the rest were roughly divided between those from adjoining regions or the mining regions of northwestern Tanzania. Continual waves of incoming young female migrants have a catalytic effect on the social dynamics of the settlement and the sexual interaction of men and women generally.

10. Although many women migrants can still rely on extended family in their home areas to care for their children when they migrate to mining sites.

In the following sections, we quote extensively from the interviews with our women interviewees in order that their voices directly convey their positionality and agency in sexual relations.

Meeting the Opposite Sex: From Ritualized to Casualized Courtship

Productive and reproductive patterns in artisanal mining communities are very different to rural conventions. Almost every resident is a migrant, representing a wide spectrum of home areas, making it unlikely that ritual life, if there was time for it, would or could be agreed upon in relation to marriage. Social controls on sexual fidelity are largely restricted to gossip, taking issue with the ethical borders between polygamous and monogamous marital practices.

The most prevalent commonality that both binds and sometimes divides people in the mining settlements is their determination to make money and if possible get rich, or at least improve their economic circumstances. ‘*Ukipata tumia, ukikosa jutia*’ and ‘*ponda mali, kufa kwaja*’ are Swahili proverbs meaning ‘if you get it use it, if you don’t you’ll lose it’ and ‘use your wealth, death is coming’, which epitomizes the spendthrift attitude to money among many miners. In stark contrast to the more austere life of rural villages where cash is generally in short supply, Tanzanian artisanal miners are known locally for their culture of conspicuous consumption, fulfilling immediate desires and distributing largesse to impress, delight or repay friends. Conspicuous consumption of consumer goods, alcohol, gambling and liaisons with women are part of life in Tanzanian mining settlements (Mwaipopo et al., 2004).

Mining proceeds provide miners with the opportunity to live a life, at least temporarily, which they may only have dreamed of before. Drinking together, sometimes to excess, and enjoying the good life together is part and parcel of pleasurable shared experiences that they can draw on in times of need. Bars are also places where men go to eat, relax, talk, flirt with girls and look for sex. The barmaids they meet there are likened to ‘spring chicks’ (*dogo dogo*)¹¹ because they migrate to the settlement in successive cohorts of new young arrivals, generally in their teens or twenties. Most barmaids work as casualized labour relying on tips rather than fixed employment and a regular salary. Their work pattern is consequently erratic as described in the following observations by women residents:

People selling beer and local brew site their business where the miners and those with money like to come. They know that the young *dogo dogo* will attract male customers. The young

11. The term *dogo dogo* (spring chicks) conveys the notion of renewal, as new waves of female migrants continually supplant earlier female migrants. Kombe-Malekela and Liljeström (1994) refer to the use of the term in Dar es Salaam for teenage girls who have dating relationships with older men.

girls often call their friends who live elsewhere and say: 'you are wasting your time there, there is not enough money, come here'. It becomes like a gold rush for the young girls. You know the profit from one bottle of beer is not enough and the beer brewers depend on volume of sales, so they have to devise ways of getting lots of customers. That is why the *dogo dogo* are here . . . They come independently. They are not tied to anyone nor are people making money off them. They work for a business person without a permanent agreement. They can leave the work premises at any time and if you start asking 'why are you not attending to the work', they will say: 'I have not agreed to stay with you'. Sometimes some of the business people try to make a follow-up but they know well that they are not the parents of these girls but just their initial host in the community. (*Khanga* cloth seller, aged 51, alone, Itumbi, 6 September 2009)

I feel sorry for these young women . . . I don't chase them away because they have problems or they are related to people I know or from my home area. When they come here they normally say: 'We beg you to give us food while we search for a job'. Some of them, after getting work or a boyfriend, say: 'Thank you very much . . .', but most of them just disappear without informing us. (Bar manager, aged 26, alone, Itumbi, 25 August 2009)

The barmaids are primarily reliant on a gift economy supplemented by crafty means of creating value added:

The advantage of *dogo dogo* barmaid work is that their customers will buy a lot of food and drink and sometimes just say keep the change because they have a lot of money. And then others, once a man buys something, the barmaid will say 'Oh, no I have no change, I will find some', but because the man is after the young girl he will say 'Ah, Tsh 500,¹² just keep the change'. There are so many bars and centres selling local brew, where the *dogo dogo* are mainly found working on a temporary basis. (*Khanga* cloth seller, aged 51, alone, Itumbi, 6 September 2009)

The bars are not brothels. A man's desire to liaise with a barmaid after her work shift necessitates independent arrangements. Sometimes the man has a room of his own or borrows one from a friend who is absent working in the pit at night. Some women have their own rooms that they can use, and some lend their rooms to other girls.

The girls are apt to encounter mishaps and intimidation, especially as many drink alcohol without eating, while the men are drinking heavily. Issues of sexual competition arise in these settings:

Yesterday, two girls escaped men at the Vatican bar and came to this bar and started drinking with other men. The men from the Vatican guessed where the girls had gone and when they arrived here, they started beating the girls accusing the youngest: 'Why are you getting beers from another man here, I have bought you beers and given you TSh 10,000 pocket money and you are getting beers here, why?'. The man who was buying beers for her here said: 'OK, you may take this girl if you pay back the money which I have been spending on her'. He paid back the money, the cost of three beers, and took her away. The girl was only 13 years old. Early the next morning she came here and we asked her: 'How do you feel?'. Her reply: 'I'm all right, it's just life'. (Beer brewer, aged 32, widow, Itumbi, 24 August 2009)

Many of the barmaids come from troubled backgrounds of family dispute, break-up or orphanhood or they are simply seeking a better life

12. US\$ 1 is equivalent to approximately Tanzanian shillings (Tsh) 1,500.

beyond their village. Most are influenced by the rumoured opportunities of mining settlements, and discount the threat of AIDS. The local HIV seroprevalence rate was estimated at 22 per cent,¹³ not helped by many men's reluctance to use condoms, which are seen as interfering with male sexual pleasure.

The barmaids form the pivot of the catering trade. Female bar owners' relationship to them is ambiguous, complaining about them but nonetheless relying on them to attract business. And indeed many of the business-owning matrons started their work lives in the settlement as barmaids.

We have nicknames for these young girls. They are called the 'voucher dealers' because they don't like working. I joke with them saying: 'Please, daughter can you come and assist me at the bar?'. They answer: 'No, our job is just washing our bodies. We don't like to be dirty like you'. The young girls are here just to pass time and enjoy the chance of each day. They are not planning anything for the future. Most of them come to Itumbi during the dry season because they know well that the miners are earning then. During the rainy season, they disappear. They go to places where they hear that alluvial mining is taking place. They are not used to work. (Bar manager, aged 39, widow with boyfriend, Itumbi, 24 August 2009)

WOMEN'S LIFECYCLE TRANSITIONS IN MINING SETTLEMENTS

Historically, Tanzanians, particularly youth and rural women, had very little scope for choosing their economic and social destiny in life. They grew up in agrarian tribal societies in which the division of labour by age and sex was ascribed (Bryceson, 1995b). Lifecycle rituals celebrated changes in their social status. In the case of a girl, puberty rites marked the dawn of her status as a nubile woman of childbearing age. Soon after, she would be married to a man in exchange for bridewealth that her family may have negotiated years before. Her designated role as a wife and mother within the structure of a patrilineal or matrilineal agrarian community was largely pre-ordained.

The following section considers three life stages of women resident in the mining sites, drawing attention to the choices they make in the face of the opportunities and risks of mining settlements.

13. This was recorded in Matundasi during a national health campaign in 2007 in which 760 residents were tested. Of these, 168 were positive (52 males and 116 females). Worldwide, women are known to be physiologically, biologically and socially more vulnerable to HIV infection than men (Navarro et al., 2008). While higher prevalence for women (especially younger women) than men has been reported in several parts of Africa (USAID, 2012), there is little evidence to suggest this is due to gender differences in sexual behaviour. Evidence suggests that the transmission of HIV from men to women is more likely than that from women to men. Women's generally higher prevalence of Herpes simplex virus type 2 may predispose them to HIV infection (Glynn et al., 2001).

Young Migrant Women

Most young women migrants, arriving on the basis of chain migration, have some member of their family or friends already resident in the settlement. The bars are the place where they usually obtain their first chance to earn money and find a man. They have three possibilities. First, they may eke out an existence as a barmaid, depending on men for food and gifts. Given the waves of ‘fresher’ girl migrants continually arriving and the risks of STDs, alcoholism and violence, this is a generally short-lived existence and many leave.¹⁴ Second, those that find boyfriends obtain some reprieve. In a co-habitation relationship, they have someone to lean on financially, but meanwhile those with acumen look for ways and means to start their own *miradi* (‘economic projects’) notably running hotels, bars or hair salons, or selling cloth and fresh produce. Such women distinguish themselves from the rest as ‘good planners’ exercising foresight to build up capital for business investment. This is illustrated in the following quote by a girl, newly arrived in the settlement two weeks before, who had already evaluated her prospects:

Actually, because I am still new here and I don’t know the real situation yet, many girls are trying to lobby me. They are used to going with boyfriends during the night and coming back early in the morning. They return with money and show me, but I am afraid of disease and think it is better to find the capital so that I can establish my own business running a bar. My new friends are motivated to earn money. They can earn Tsh 10,000 to 20,000 per day so that they can drink beers and have new fashions. . . . The way boys convince girls is that they show girls big bundles of money and buy the girls chips or drinks then they say ‘have some more to drink’. But I am avoiding this situation because I know that once I drink, I will have to pay in a different way. All different kinds of men, young and even the older ones, are approaching me these days, once they have some money. (Barmaid, aged 19, unmarried single, Itumbi, 8 September 2009)

Third, some young women marry, a move often precipitated by giving birth to a child. In many cases, they marry philandering or polygamous men who do not give them a full sense of economic security; at best they can expect only partial support from their spouses. This is hinted at in the following quotes, which describe the casual nature of what is considered marital status in the settlement:

When people marry they may celebrate by buying drinks at the Vatican [bar] and then you take each other home. . . . Marriage here depends on the agreement of the two people. Once they decide to be married they live together and once they decide to divorce, it is the decision of the same people. It is not uncommon to see such married couples breaking up. Early in the morning one of them leaves the room with his or her luggage, which means that during the night, they decided to separate from each other. Things have fallen apart. The conclusive

14. By way of historical comparison, White (1990: 71) cites a colonial government memo which stated that the working lives of streetwalker prostitutes in the 1920s lasted about five months before their residence in Nairobi became financially untenable.

sign of separation is for one party, usually the man, to rent another room. (Employed in pharmacy, aged 30, alone after breaking up with boyfriend, Itumbi, 23 August 2009)

Some of the men around this area are not drinking beer or local brew and do not smoke but they pride themselves on having several girlfriends. This is not OK. There are many diseases so it is dangerous. But if you have children with such a man, leaving him means that the children will be suffering. (Beauty salon operator, aged 38, married to first husband for twenty years, Itumbi, 6 September 2009)

I am the first wife. The other wives are staying in a non-mining environment. My husband is not a Muslim but the life of mining allows any man to have many wives even up to ten wives. You know, women in a mining town are getting married because of the income of the men. People here are after money. Polygamy is not normal for all men but just for those who can afford it. My husband used to earn a lot of money but he doesn't like to spend money on building a house or other household expenses here. He just wants to relax and enjoy the life of mining. He enjoys life by spending time with older and sometimes younger women than me. So I am almost entirely economically independent . . . I'm feeling very bad about this situation because I understand well that his life in mining has changed his mindset. I am tolerating all this because of my child who is now in primary school. (Brewer, aged 40, first wife of polygamous husband, Itumbi, 19 September 2009)

However, others are fortunate either in finding a husband willing to be monogamous, at least for the time being, or compatible with them, which enhances the chances of the marriage enduring. Our interview data suggest that young girls' hope of finding a man to marry for financial security happens in enough cases to continue to fuel such expectations.

Intermediate Aged, Residentially Settled Women

Twenty-five to forty-five years of age represents the prime of women's economically active years and the period when they are most heavily involved in childbearing and rearing or shouldering the financial costs associated with educating older children. Mindful of the demographic dynamics of the settlement, women know that even if they are happily married with a reliably-earning husband, those circumstances could easily change. Except for a couple of younger women who are dependent on boyfriends, all our female interviewees in this age group reported being actively engaged in income-earning activities, running a bar/restaurant, beer brewing, selling used clothes, staple food trading, mining or farming. Many of the married women are in partnership with their husbands and either plan and execute most of their work in consultation with them, or specialize in income-generating activities which are complementary to those of their husbands, as exemplified in the following quote:

I met my husband when he was buying beers wholesale in Matundasi. He was running a small shop then. He is now running the biggest bar in Itumbi . . . We started living together in 2001. I have been assisting him up to this time. We are working together. My husband is dealing with mining also. And at present, I am the one who is supervising all the home

projects because my husband is dealing with mining, ball mills and washing places. We have divided our workload duties. My husband owns a primary mining licence and a washing place. We earn around Tsh 1 million per month from the bar and the washing place. . . . Sometimes we have an argument but very few times and it doesn't take a long time before we agree again. We are afraid of disturbing our plan but in general, it is going well. Together we have planned our future. We will eventually retreat to Mbeya town because we have already bought a house. . . . In Mbeya, we are planning to open a big shop, as well as keeping the smaller shop here. (Business woman, aged 28, monogamously married for eight years, Matundasi, 8 September 2009)

Table 1, which lists the age, marital status and income status of the thirty-two women interviewees from Matundasi/Itumbi, indicates that the intensity of commitment men offer women has considerable influence on their income standing. Those who are alone have the lowest annual income increment while married women have the highest. Women with boyfriends and polygamously married women are wedged between the two. Women on their own or polygamously married can and do achieve high income status on the basis of hard work, but our qualitative interviews suggest that it is more difficult for them to achieve this position relative to married women who have husbands pooling their savings with their wives. The successful entrepreneurs with diversified businesses pride themselves on their planning skills and innovative investment strategies. Several of the regularly or higher earning women have formed credit group schemes. Most are driven by a quest to send their children to good schools. This often entails paying relatively high levels of primary and secondary school fees and residential costs for their children who are schooled in the regional capital or other areas of superior educational facilities. They voice the hope of giving their children a future free from what they describe as the coarseness of the mining settlement. Ultimately they have set their sights on earning enough to retire in comfort elsewhere, usually the regional capital. Some have already purchased housing elsewhere with that objective in mind. Meanwhile the poor are evenly divided amongst those 'living alone' or in less stable relationships with boyfriends or polygamous marriages.

Older Security-seeking Women

Older women are far less numerous in the village. It is likely that women migrate out or have passed away before reaching their late forties. All the older women in our sample were poor. The oldest is married to a polygamist who provides some support for her and her grandchild, but she too engages in marginal mining work and worries about her future. One of the others was a widow whose husband had mined in the settlement for decades. Her circumstances did not suggest that she currently benefited from his career. The third was eking out an existence as a cloth seller. Older women in mining settlements tend to be those left behind by life circumstances.

Table 1. Qualitative Survey of Women Residents in Mining Settlements by Marital Status, Age and Monthly Income Group

	Marital Status:				Mean age
	Alone	With boyfriend	Polygamous marriage	Monogamous marriage	
Total					
Mean age:	36 years	28 years	36 years	37 years	
Mean income:	Tsh 140,000	Tsh 89,000	Tsh 224,000	Tsh 549,000	
Annual income increment*:	Tsh 7,000	Tsh 7,381	Tsh 10,646	Tsh 26,143	
Low Income Group: Tsh 0–49,999 (8 cases, mean age 28 years)					
Tsh 0		2 cases			
Mean age:		17 years			17
Mean income:		Tsh 0			
Tsh 1–29,999	2 cases				
Mean age:	29 years				29
Mean income:	Tsh 25,000				
Tsh 30,000–49,999		2 cases	1 case	1 case	
Mean age:		38 years	23 years	33 years	33
Mean income:		Tsh 40,000	Tsh 30,000	Tsh 45,000	
Middle Income Group: Tsh 50,000–499,999 (18 cases, mean age 37 years)					
Tsh 50,000–99,999	3 cases	1 case	2 cases		
Mean age:	44 years	35 years	32 years		39
Mean income:	Tsh 60,000	Tsh 90,000	Tsh 63,000		
Tsh 100,000–199,999	3 cases	1 case	3 cases		
Mean age:	34 years	26 years	46 years		38
Mean income:	Tsh 117,000	Tsh 150,000	Tsh 137,000		
Tsh 200,000–499,999	1 case	1 case		3 cases	
Average age:	33 years	25 years		35 years	33
Average income:	Tsh 225,000	Tsh 300,000		Tsh 317,000	
High Income Group: Tsh 500,000–1,000,000 (6 cases, mean age 37 years)					
Tsh 500,000–999,999	1 case			2 cases	
Average age:	38 years			42 years	41
Average income:	Tsh 600,000			Tsh 700,000	
Tsh 1 million			1 case	2 cases	
Average age:			28 years	36 years	33
Average income:			Tsh 1 million	Tsh 1 million	

Note.: *Annual income increment: for the purpose of comparing categories of different average ages, this measure is calculated by dividing average monthly income by the number of years women have been economically active (assuming 16 years of age as their starting age).

Source: Matundasi/Itumbi survey data, 2009

MINERS' CAREER PATHS AND CONJUGAL BONDS

To contrast men's marital and income circumstances with women's accounts of their experiences, we turn to our sample survey of 108 miners from Matundasi/Itumbi and Londoni. Our data suggest that pursuing a mining career at an early age may facilitate early family formation. Miners below twenty-five years of age who enter mining early are more likely to be married compared

to those with little mining experience. This may be explained by experienced youth earning sufficient money to both secure accommodation and pay brideprice to elders in their home areas. These young but experienced men also have relatively more children than their comparatively inexperienced peers.

On the other hand, the data do not indicate that over the longer term, a mining career correlates with the trappings of a family man. The percentage of married men in Tanzania between thirty-five and forty-nine years hovered around 84 per cent (Tanzania NBS, 2005: 97), whereas in our sample of men aged above thirty-five, only 71 per cent were currently married. Moreover, some of the respondents held a peripatetic approach towards women. The girlfriends they lived with in the settlement were often referred to as 'wives' but that informally-conferred status could rapidly alter with men moving on to new mineral sites.

A quarter of respondents reported a formal divorce at least once in their lives. Abandonment of wives without any divorce formalities would be expected to be more the norm. The transient life of many artisanal miners plays a large part in this instability. Miners accept prolonged separation from their families as part of their work. While they move between mining sites, their 'anchor wives' and children commonly remain *in situ* taking care of the family homestead.

Miners expand their families by establishing 'new family branches' at subsequent mining sites. Typically, these female partners are left behind when the miners return home or move on to the next mineral discovery. In this way, some miners end up with wives, girlfriends and children spread over several mining sites. Thus, mining can disrupt stable circumscribed family life through the mobility demands placed on miners and the sexual temptations arising in the mining sites. Of the 108 male survey respondents, 57 per cent stated that they were married. These married miners had chalked up a total of 153 site visits, where they had a 'married' status. They reported living without their wives at 74 per cent of these site visits. Of the sixty-two married miners, 56 per cent had had explicit relationships with one or more women, suggestive of the extent of marital instability and the risks of contracting STDs along miners' career paths. The migration history below, far from being unique, exemplifies the family separations and sexual relations of many artisanal miners:

Geogratias S., a 45-year-old miner, had worked at six sites. At his first mining site he lived together with his first wife, but also had several sexual relationships with other women. His wife gave birth to three children there. She also accompanied him to his second site, but here they divorced, as she could no longer tolerate his many relationships with other women. After the divorce he brought his children home to his parents. At site two he had a child with one girlfriend, who subsequently married another man and took their child with her. He rarely sees the child. At his third site he had lots of girlfriends, but to his knowledge did not impregnate any women there. At site four he lived with one girlfriend by whom he had a child. When he moved on, the girlfriend and child stayed behind and he has not seen them since. At site five the same thing happened. He left that girlfriend and child behind when

moving to site six. However, he does see the child occasionally, as the woman lives close to his home village. At site six, Londoni, he was living with a girlfriend at the time of interview. (Londoni, 19 January 2007)

Not all men involved with artisanal mining have multiple partners, as the case study below illustrates:

Peter M., 39-year-old pit holder and gold buyer with eight site visits, has been with his wife since he started mining at the age of 22. His wife and three children stay in Kahama town, 120 km away, because he does not want his children growing up in a mining camp. He travels home to see them twice a month and otherwise lives at the mining site without a woman, a living arrangement that he is proud of. (Ikuzi, 5 July 2011)

Overall, the number of sexual partners that miners had, increased with mining experience, age and number of site visits. Survey respondents with one site visit on average reported having a serial total of 0.8 wives or serious girlfriends, miners with two to three sites had 2.0, those with four to five sites had 2.2, and miners with six to eight sites had 4.4 wives and girlfriends. Those aged between thirty and fifty-nine years all had more than two partners, whereas those aged forty to forty-four were the most active with 2.7 partners. At the same time, however, there is no indication that the divorce rate increases with miners' number of sites or degree of mobility.

To trace the material outcome of miners' careers, we have divided our sample of 108 miners into four cohort groups based on mining entry age and years of experience (Bryceson and Jönsson, 2010) (Table 2). Focusing on the two most successful cohorts, the *early starters*, the most experienced cohort who started mining in their teens (column 1) contrasts with the *delayed starters*, roughly ten years older on average, who started at a later age and were a less experienced cohort (column 3) but nonetheless made up for lost time with more movement between mining sites. The latter were in fact twice as successful as the former in terms of earnings and savings. The two cohorts' marital patterns were different. The *early starters* recorded a higher number of presently married men (75 per cent), and tended to consider home to be where they were currently located (64 per cent). Only 58 per cent of the *delayed starters* were presently married and only 42 per cent of them saw their home to be in their current locality. This tallies with the fact that most of them (84 per cent) were from Tanzania's major mining regions around Lake Victoria; 10 per cent had non-resident wives, mostly anchor wives back in their home area (Bryceson et al., 2014).

Polygamy combined with high mobility is more likely to be associated with tenuous conjugal bonds. For their age, a relatively high percentage of *delayed starters* reported being single (37 per cent). Interestingly, they also had the lowest number of children, which hints at the possibility that despite relative financial success, highly mobile miners may not be diligently supporting their wives or girlfriends and the children they father during their travels. Their identification with their home area and anchor wives in those localities would be the most important reason for the casualness with which they regard family

Table 2. Male Miners' Marital and Income Outcomes by Career Entry Age and Experience Cohorts

	Teen start/ most experienced	Early adult start/ average experience	Delayed adult start/below average experience	Late adult start/least experienced	Mean
Total number in sample	28	47	19	14	108
Work and mobility characteristics					
Mean entry age @ 1 st site	17	22	27	40	24
Mean years of mine experience	13.7	9.2	6.8	4.6	9.3
No. of mine sites worked	3.4	2.5	2.9	1.6	2.0
Mean months stay/site	48.1	43.4	28.0	33.6	41.3
Marital status					
Single status	14%	43%	37%	21%	32%
Married	75%	40%	58%	71%	57%
Divorced	7%	17%	5%	7%	11%
Widowed	4%	0%	0%	0%	1%
Wives (number)	2.3	1.8	1.4	1.5	1.8
Children (number)	3.3	3.3	2.0	4.0	3.1
Notion of home					
Current location alone or with miners	17.9	23.4	10.5	7.1	16.6
Current location with family or girlfriend	46.4	42.6	31.6	50.0	42.6
Elsewhere built house or family location	25.0	19.1	26.3	21.4	22.2
Elsewhere where parents stay	10.7	4.3	21.1	7.1	9.3
Elsewhere where wife stays	0.0	2.1	10.5	0.0	2.8
Don't know	0.0	8.5	0.0	14.3	5.6
Traditional mining area origin	46%	66%	84%	36%	60%
Income standing					
Mean savings (Tsh million)	0.812	0.268	1.76	0.218	0.567
Mean monthly earnings (Tsh million)	0.152	0.125	0.277	0.114	0.018
Houses owned	0.79	0.125	0.79	0.71	0.71
Economic rating	***	**	****	*	

Methodology: Randomly sampled survey of 108 miners in Matundasi and Londoni. To analyse miners' career progression over widely varying ages, miners were grouped by years of mining experience relative to mining entry age. Those in the modal group were *average starters*, compared with *early starters*, later *delayed starters* and very *late starters* (see Bryceson and Jönsson, 2010).

Source: Matundasi and Londoni survey data, 2006–2008

relationships along the way. Our qualitative interviews with girlfriends and polygamously married women certainly provided corroborating evidence for this:

If the man has two wives, he is responsible for supporting the two wives but sometimes, he favours one or the other wife and her children. If that happens, it means that he loves one more than the other and that is favouritism. I managed to have four children with that husband but he didn't support me and the children so I decided to leave him so that I was free to seek work, which could cover the costs of care of the four children. (Woman mining process worker, aged 39, single, previously polygamously married, 24 August 2009)

My husband is polygamous and has a first wife who stays in Mwanza, where his relatives and grown-up children also live. I am his second wife . . . Once he earns something here, he goes

to Mwanza or sends money. He has a house in Mwanza and considers it his home. Itumbi is simply a place for earning money. This kind of marriage is not very helpful or secure for me especially in the future since my husband is getting older and he has already stopped doing heavy-duty work. We have our own house but it is not improved or modern. I am just thinking that maybe, as the days are going on, there will be a time when my husband will stop working and maybe his children from Mwanza will come and take him back and then I will be here alone with my grandchild. (Woman mine processing worker, aged 57, married twice, 20 August 2009)

CASUALIZED SEX: PARADOXES OF THE MERGER OF OLD AND NEW FORMS OF CONJUGAL BONDS

In summary, the form and content of both productive and human reproductive activities reflect social transformation from lineage-centred, peasant agriculture to artisanal gold mining linked to the global market. Tanzania's artisanal mining settlements constitute an intricate amalgam of old and new associational ties. The dominance of migrants, their fixation on 'striking gold' and the opportunities and hazards of their work are the context in which experimentation in sexual relations has gained momentum. Women's economic role is prominent as basic needs service providers in the informal economy. The following recaps the dynamics and paradoxes of change.

We have argued that the casualization of sexual relations is ubiquitous, mirroring what is happening in the work arena. Unlike the Southern African waged labour and corporate mining experience of the late nineteenth and twentieth centuries, the majority of people working in Tanzanian mining at present are doing so on the basis of casualized, self-employed labour. Artisanal gold mining involves men in pit work for long stretches of time without income, speculatively waiting for their efforts to be rewarded with a mineral strike.

While African casualization of labour has been exceptionally well documented over the past two decades, there is very little macro analysis of the casualization of associated sexual reproductive activities. The performance of rites of passage connected with male and female sex lives, the payment of bridewealth and traditional marriage ceremonies are progressively being replaced by individuals' day-to-day ad hoc decision making about sexual partnering and marriage, giving prominence to the recreational rather than the procreational value of sex (Talle, 1998). The exercise of this freedom, in the case of the mining settlements cited here, underpins the normalization of promiscuity, especially among young girls and miners.

With miners' frequent and extensive mobility between mining sites, polygamy has evolved from extended homestead compounds with the individual households of multiple wives to locationally dispersed wives either in the mining settlement or resident in other settlements of the country (Bryceson et al., 2014). Visits and remittances are at the discretion of the

polygamist rather than under the watchful eye of village elders and gossiping neighbours. Having identified this broad trend, it is important to note a number of paradoxes that belie the embedded, transitory and contradictory nature of this sexual transformation.

Gifted not Marketed Sex

Social relations have a tendency to become increasingly commodified with the spread of global capitalism, yet in the extremely money-obsessed environment of Tanzanian mining settlements, formally organized prostitution and market-driven pricing of sex have not become entrenched. Men are usually seen to take the initiative by offering small gifts of food, drink or money with the view that they are staking a claim on the woman. However, there are mixed signals and confusion between the 'advancing' men and the recipient women in this system, sometimes giving rise to abusive or even violent behaviour. It is apparent that availability of money is foundational to extra-marital sex. During the seasonal lull in gold mining, the hot spots where men and women find sexual partners are relatively quiet. Nonetheless, even though some people call the women frequenting these spots prostitutes, the women do not see themselves in these terms (Desmond et al., 2005). Both women and men are searching for fun, companionship and affection as well as material advantages. Certainly there are signs that men are not inured to the idea that the women they approach are involved in a simple money transaction. Men whose advances are rejected or who see their girlfriends go off with other men are frequently visibly jealous. Furthermore, although having sex is the primary objective in the first instance for most, many couples genuinely enjoy each other's company, become couples and ultimately 'marry' albeit typically as informal cohabiters.

Swidler and Watkins (2007) provide an insightful discussion of how patron-client economic exchanges associated with pervasive uncertainty underlie a wide spectrum of sexual relations in African rural and urban settings. Given the especially high risks of Tanzanian mining settlements, this tendency is clearly in evidence from substantive regular economic support down to ad hoc gifting. Small gifts in effect represent a credit token hinting at the possibility of future reciprocity when in need.

Monogamous Marriages in a Sexually Competitive Environment

Contrary to the widespread belief that mining settlements are characterized by prostitutes economically dependent on male custom, most of the women who remain in the settlements seek diversified incomes and form relational ties with male miners that are helpful to the men during the lean times

when they are not finding gold. It is along this trajectory of economic interdependence that some men and women have enduring monogamous marriages of several years, despite the widespread promiscuity prevailing in the settlement. Two distinctive features of marital ties and sexual relations emerge in these cases. First, economic trust prevails whereby the husband and wife pool their work efforts and incomes to form a business partnership. Second, these are monogamous marriages with joint long-range investment goals to optimize children's education and housing in areas beyond the mining site, once the artisanal mineral supplies are depleted or the couple grows too old to sustain a living within artisanal mining.

From the women's perspective, these marriages offer the most economic security and income (Bryceson et al., 2014), combining sexual relations with capitalist business for purposes of material interdependence. Relative to other sexual relationships, the monogamous couples' standard of living and life prospects tend to be superior, representing economic accumulation and emerging class differentiation. Many of them profess to be Christians, which suggests similarities with the elite wives that Parpart (1994) wrote about in Northern Rhodesia.

Interdependence of Younger and Older Women

Older women's business acumen is set on establishing income-generating projects, the most popular being the management of bars. While the women in this capital-accumulating group perceive young women newcomers as a threat to the stability of existing marriages and family units, the older women nonetheless rely on the newcomers to attract clientele to their restaurant-bar establishments. The two groups are pointedly critical of each other, with the older women often condemning the younger women for mercenary livelihood pursuits.¹⁵ However the contempt that elite married women on the Copperbelt displayed towards promiscuous women, as documented by Parpart (1994), is not replicated in Tanzania given the material interdependence between older and younger women.

Embryonic capitalist class formation is in evidence in the interaction between the two generations, even though most of the bar owners do not formally employ their barmaids. Tellingly, work in the mining site for the former is a means to an end, as they accumulate for investment elsewhere. The work of the barmaid, on the other hand, is an end in itself, essential for her daily survival.

15. This is analogous to the emerging middle class women that Parpart (1994) identified in her study of Zambian Copperbelt communities.

‘Going it Alone’: Female-headed Households

Chance and choice in spheres of production and sexual relationships lead many women to remain single. Single women are represented across almost the full spectrum of income levels in our sample but most are concentrated around the middle. Female-headed households are generally fluid, a result of women being between boyfriends or husbands. Nonetheless, as the mode of human reproduction transforms in the artisanal mining settlement, it appears that women and children are increasingly managing without male support. Furthermore, natal kin are rarely on hand to provide day-to-day fallback economic and childcare help.

In effect, the sexual dynamics of mining settlements based on high mobility and casual labour constitute a more unstable foundation for enduring sexual and reproductive ties between men and women than what prevailed in rural agrarian settings where marriage was a contract between two lineages rather than individuals. Promiscuity and polygamy interact, generating stressful circumstances that militate against the integrity of the family unit, leaving intact only the most essential human tie — that between mother and child. Through past marital experience, some women have become wary of marriage and choose to be alone. Their rejection of female dependency on men and their desire for independence is, however, defensive and often related to a fear of AIDS (Bryceson et al., 2014; Bujra, 2009).

Male Polygamous vs Female Monogamous Material Betterment Strategies

Having stressed the convergence of male and female material interests in monogamous marriages, our survey data suggest that polygamous men may have some financial advantage over monogamously married men in drawing on the labour and investment resources of more than one wife as and when needed. Yet given their wives’ dispersed spatial locations, polygamous men are less likely to provide enduring financial backing to wives and children outside their home areas. Their support appears to be more tenuous and meagre relative to that of monogamous men. In this way, male and female interests in marital unions may be fundamentally diverging, since women perceive their interests to be better served in monogamous marriages. For a woman, marriage to a polygamous husband offers far less security in view of having to share her husband’s income with far-flung wives, some of whom she may not know even exist.

Nonetheless, it is necessary to be cautious about evaluating the relative benefits and costs of different marital ties. In some cases, couples’ trust-sealed and goal-focused marriages survive and their business partnerships thrive based on foresight and planning. Others with less interdependence are extremely vulnerable to economic duress and HIV infection, with men

relying on hand-to-mouth gold-digging and women subsisting on service tip earnings.

CONCLUSION

In world mining literature there is a tendency to over-generalization about male and female sexual relations in mining settlements (Laite, 2009). Using Bryceson and Vuorela's (1984) concept of modes of human reproduction, we argue that promiscuous, casualized sex rather than female prostitution per se characterizes sexual relationships in the Tanzanian gold mining settlements we studied. This contrasts with the pronounced presence of prostitution associated with large-scale corporate mining in the Southern African literature as well as in the literature on nineteenth century artisanal mining in North America.

In Tanzanian rural bridewealth systems, women as wives were in effect commodified. In the transition to artisanal mining with its individualized, casualized courting and partnering, women have gained greater manoeuvrability and freedom of choice in the absence of male elder and extended family control, but they are likely to be more materially vulnerable with a higher probability of uncertainty of their conjugal partner's economic support. Families are being formed in the mining settlements and family welfare is at risk when male provisioning is not forthcoming. The hiatus between immediate sexual gratification and the imperatives of childbirth and childrearing are readily apparent. Neither traditional extended family support nor state welfare is addressing the family welfare shortfall. This dilemma resonates throughout urban areas of Tanzania (Talle, 1998), but is most accentuated in mining settlements, given the prevalence of extreme income fluctuations and high mobility on the part of miners.

Contrary to the view that women are parasitically dependent on miners' economic support, financial interdependency between miners and their stable female partners is the norm. Most women are self-making in terms of constructing a livelihood combined with searching for a male partner. Viable emotionally and financially supportive sexual partnerships can and do form in a significant proportion of relationships despite miners' temptation to seek the company of young good-time girls and their financial capability to have many girlfriends and/or marry frequently. Women who are strong, business-diversified, calculating planners with enduring marital relationships are rewarded whereas many others fall on exceptionally hard times, often dislocated from the material and moral support of their extended families.

Thus, men's luck, skill and willingness to move to new mining strike sites are only part of the story. Many have female partners, be they informal wives or girlfriends, who facilitate their economic success. Reciprocal balance between men's and women's ad hoc sexual and economic partnerships is hard

to achieve. Miners' mobility can be enriching for men, but impoverishing for their female partners and the children they father. Nonetheless, women in Tanzanian mining settlements generally do not perceive or portray themselves as victims of sexual oppression. No longer subject to the control of their elders, they have migrated to the mining settlements, engaged in sexual relationships, and pursued productive and reproductive paths of self-making in or out of relationships with men.

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