



Original article

From pickaxes to metal detectors: Gold mining mobility and space in Upper Guinea, Guinea Conakry



Anna Dessertine*

LESC (UMR 7186)/ED. 395, Milieux, cultures et sociétés du passé et du présent, Université Paris Ouest Nanterre la Défense, France

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ABSTRACT

Drawing on fieldwork conducted over a period of one year in a Malinke village in Guinea, this article aims to develop an understand of the evolution of mining mobilities from a spatial perspective. Artisanal and smallscale gold mining (ASM) has expanded rapidly in Northeastern Guinea since the 1980s. Here, men, women and occasionally, children, work at the gold mines and live in temporary camps during the dry season. However, since the introduction of metal detectors at the end of 2011, mobility has been dominated by men and has become much more random. Men now make numerous trips back and forth to their villages during the dry season, changing mobilities into trajectories. My purpose is to show that, paradoxically, this randomness allows men greater flexibility in managing their presence and absence in their village of origin.

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1. Introduction

In February 2011, I began a year of fieldwork in the village of Guirlan in Northeastern Guinea (Conakry), where I would come to know the dry season for the first time. I was immediately struck by the number of people who were absent from the village. Homes were empty, and only older women, children and a few other inhabitants remained in the village. Two censuses, one conducted during the dry season and the other during the rainy season,¹ later confirmed the significance of this migratory phenomenon. The village clearly endured massive departures during the dry season, affecting on average a third of the members of each household – men and women included – mainly to work in artisanal gold mines. The arrival of people returning to work in the fields at the beginning of the rainy season was just as significant. In September 2012, I returned for a second time, for a five-month field study, but this time the back-and-forth of some individuals was much more rapid and seemingly chaotic than what I had seen in 2011. A few inhabitants left, came back, and left again, sometimes after having only stayed a few hours or a few days. In short, two forms of mobility coexisted, and according to the inhabitants, the explanation lay in a new technical tool: the metal detector. It was all

anyone could talk about, especially the young bachelors,² who now constituted the majority in gold exploitation, since metal detectors had been introduced. The inhabitants had always practiced artisanal gold mining, but according to Musa a miner I interviewed, the use of a metal detector allows the miner to return home more often and to gain much more money. The mines were well known to Musa, and he was reputed to have good luck. He had managed to build a concrete house for his mother, in a village where there were no more than ten such houses for over a thousand inhabitants.

In this article, I interrogate the evolutions that have occurred within the various forms of mining-related mobilities in this region, and the way in which they create and characterise spaces. Thus, choosing to employ the concept of “forms” is far from arbitrary. In using it, I situate my analysis in a perspective which maintains that mobilities create ties (and not ruptures) and allow individuals to “enter into relationships” (Simmel, 2009). I thereby envision them as one form of socialisation among others. The term “mobility” is preferred to “migration” because it best encompasses the variety of movements observable, including their circular dimensions and their social and cultural embeddedness (De Bruijn et al., 2001; Bakewell and Jónsson, 2011). I also situate my work in continuity with that of de Certeau (1984), for whom space is “an

* Correspondence to: 50 rue de Turenne, 75003 Paris, France.
E-mail address: anna.dessertine16@gmail.com (A. Dessertine).

¹ The rainy season begins around May or June and the dry season begins near the end of October.

² This expression is actually tautological, as I employ the terms “young” and “youth” in their Malinké usage, in which they designate a social status – that of a bachelor – rather than a biological age. Marriage thus marks one’s entry into “adulthood”.

intersection of mobile elements”, and for whom “in relation to place,³ space is like the word when it is spoken” (p. 117). In this context, the “mobile elements” are in reference to individuals and to objects such as the metal detector. Therefore, I posit that the different “intersections” at the foundation of the constitution of spaces are neither incidental nor random, and that they rely on particular forms which, as we will see, are not the same with artisanal gold mining and with that based on the use of metal detectors.

In Guirlan, if certain people are permitted to leave it is only because others stay behind. This is particularly striking when it comes to maintaining a household. What is important, as I am told, is to not let the household (*lu* in Malinké) – composed of classified brothers, their wives and their children – “die”. Families count on an adelpic mode of succession in order for the household to continue existing, wherein the second-born brother succeeds the first-born brother, followed by the next-born, and so on. This mode of succession in itself influences movements in general, as it implies that men can only leave once another has returned, in contrast to succession from father to son. In the first case, all men must theoretically return home one day to take their place as the head of the household, and in the second, favouring the firstborn gives a certain liberty of movement to the younger brothers. In parallel to the adelpic mode of succession, the *lu* is perpetuated following the principle of patri-virilocality – involving the circulation of wives – which allows for ensuring offspring. Therefore, in order to maintain the *lu*, all individuals must at one time or another fulfil an obligation to be present, according to their sex, their age, and their status.

What is more, one’s presence in the village is closely linked to being visible in daily life: you have to “be seen”, residents told me, “stay awhile”, call on one another, etc. Young men will put a few benches under the shade of a tree and make tea, an old woman will put a chair out and sit for part of the day, giving others the chance to come and greet her, young girls will meet in the central court of the family compound to cook, and children will play together near them: one has to see and be seen by all. This manner of “being there” in daily life seems to easily contribute to the desire to maintain households. The visibility of the inhabitants has the effect of reinforcing the spatial stability they so earnestly seek. At first sight, the obligation to be there might not seem favourable to long-term, permanent mobility. And yet, young men go out “seeking adventure”, wives go to Mali to sell spices, and especially, more and more inhabitants go to the artisanal gold mines in the region. Although gold extraction had already been practiced in West Africa during the pre-colonial period, particularly in the Ghanaian and Malian Empires,⁴ specialists agree that these practices intensified in the 1980s; some even speak of a “gold rush”⁵ taking place at this

time in the region (Mbodj, 2009, 2011). Guinea is no exception: over the past two decades, its gold mines have become one of the principle sources of income for inhabitants.⁶

This paper aims to understand the way in which mining mobilities, depending on their various forms, create specific spaces of sociability. I will start by examining artisanal mining spaces, showing how the gold miners’ temporary installation in camps allows for communities to emerge and defining those communities. In the second section, I will show how the introduction of metal detectors has given way to a new form of mobility which is constantly shifting and more difficult to grasp, encouraging a perspective which is more focused on miners’ trajectories.

2. Artisanal mining camps: miniature villages?

In May 2011, I decided to spend three months at the gold mines with two young men from Guirlan who had been planning their trip for several days. They only decided on their destination the night before their departure, when Musa called them to tell them about a promising mining area near the city of Mandiana – renowned for the mining areas in its vicinity – 85 km from Kankan. And so, the three of us left at daybreak to meet with Musa in Faralako, five kilometres from Mandiana, where a large proportion of the gold miners from Guirlan had set up camp. It is hard to determine exactly how many people were present in the camp at that time; perhaps about 2000 if we are to believe what some said. The camp, which I could immediately see was temporary in nature due to the makeshift wooden shelters covered with straw, seemed to be divided into “neighbourhoods”, grouping individuals according to their place of origin. All of the miners from Guirlan were in the same camp and had joined together with those from Diansoumana, a village which borders Guirlan. The miners from the two villages were mostly all familiar with one another: “You see, we stick together and we organise ourselves”, one told me.

I was immediately struck by how many women were present. Authors have already noted their high rate of participation in artisanal mining. In Mali mines, for example, it has been reported that women represent 50% of the local mining population, on average (Hentschel et al., 2003: 31). I interviewed 51 Guirlan women – 30 of whom were married and 21 of whom were single – aged between 15 and 70, each of whom was asked to describe their trip(s) to gold mines. Spouses were sometimes accompanied by their husbands (12 out of 30); generally, they were the last of their husbands’ wives, their husbands refusing to leave them in the village “out of jealousy”, the miners said. Others came alone or fled, leaving their husbands or close relatives behind. Although this is generally condemned in the village, some spouses managed to obtain permission from the members of their household to go to the mines as long as they stayed with other Guirlan natives (14 out of 30 reported this). This was the case of Mariama, who recounted, in an interview, the events of a typical day:

In the morning, everyone gets up at their own pace. I actually wake up earlier than most because the other women and I take turns preparing the food. We prepare breakfast, or sometimes, if everyone has chipped in, we ask one of the men to go buy bread, mayonnaise and Nescafé. Some don’t eat with us, they prefer to take their breakfast at the café with other miners. We also have to fetch water, but we never go alone. Either we go in a group with the other women, or sometimes a man will accompany us. We tidy up the camp and then we wait for those who are going to work to get ready to go. There are days when some go ahead

³ Translation from French into English is problematic. Yi-Fu Tuan notes “In experience, the meaning of space often merges with that of place. ‘Space’ is more abstract than ‘place’. What begins as undifferentiated space becomes place as we get to know it better and endow it with value” (2001: 6). Nevertheless, according to de Certeau, “A place (lieu) is the order (of whatever kind) in accord with which elements are distributed in relationships of coexistence. It thus excludes the possibility of two things being in the same location (place). The law of the ‘proper’ rules in the place: the elements taken into consideration are beside one another, each situated in its own ‘proper’ and distinct locations, a location it defines. A place is thus an instantaneous configuration of positions. It implies an indication of stability. A space exists when one takes into consideration vectors of direction, velocities, and time variables. Thus space is composed of intersections of mobile elements” (1984: 117). In that perspective – which I here follow – space is “practiced place”, while in the other perspectives such as Yi-Fu Tuan’s, place and space are two different types of experiences: “Place becomes a center of meaning constructed by experience” (Tuan, 1975: 152).

⁴ Cf. for more on this subject C. Panella (2007) who also explores colonial mining policies in this region.

⁵ Boom aurifère in French.

⁶ Spiegel (2015) notes the same phenomenon in Zimbabwe.

of us to get an early start, but I never go to the mining area alone, it's about two or three kilometres away after all. Here, we don't go to the mines very early because you have to wait for the machines that pump the water to pass. There's a lot of water in the mines these days so we don't start working until 11am or noon. However, we don't stop working until 6pm or later. But at night, you aren't allowed to mine. The police patrol at night. Once I'm back, I bathe. Again, I don't go alone. There is a spot in the bush where we all go together to bathe. You have to get your water at the well, and then find a hidden spot. Usually, Landiné [one of the miners in the camp native to Guirlan] accompanies us. With him, we aren't afraid. The women who go alone are the ones that have problems and who have something to hide. But in our group, there's nothing like that. In the evening we make tea. Either a young girl who stayed in the camp to look after the children or else a woman who came back a bit early from work will have cooked. Other times we buy dishes of beans. Everyone likes that, and it's the kind of thing you can't get in Guirlan. It's nice a change!

Sometimes, the camps can give the impression of being miniature, temporary villages where individuals of all ages settle for a few weeks or months. They are the locations of intense business activity which, it seems, contributes to the building of a relatively autonomous space. Indeed, when a mining area is first exploited, traveling salespeople also come and settle in the camps to profit from the temporary crowds. In the case of the Faralako camp, there were several bar-café, which were full every evening but also, near the mining area, vendors selling motorcycles, mobile phones, clothes and utilitarian objects of all kinds (soap, buckets, tubes, etc.). One often hears the gold miners repeating that you can find "everything" at the mines. The mining way of life is therefore cherished by some young men who, besides being able to find original t-shirts and multiple-sim mobile phones, can spend their money however they want, eat the food they want, and most of all, take advantage of the presence of young women who (according to the men), even when surveyed, find strategies to get away from their "chaperones". This discourse clearly is not shared by all but contributed to the image of the miner as both virile and resourceful, and leading an ostentatious⁷ life, which is addressed later.

A specific social life thus takes shape in these camps, and it would therefore be reductive to consider it just the reproduction of village social relationships. For example, the bar-café, which are usually only frequented by men in Guirlan, become, at the mines, spaces where it is possible for men and women to be in proximity.⁸ Some, such as Condé, the oldest of the women from Guirlan to come to Faralako, even maintained attitudes which are considered "masculine" in the village (for example, drinking coffee or walking fast), which the other inhabitants attribute to her "habits from the mines" of which she cannot rid herself. These spaces also allow for a sort of "short-term marriage", called *fudukurunin*, which, to my knowledge, is unique to the mines. It appears to be quite close to the *hawara* union described in Tanzania: "Girls are especially eager to find a man to live with, related to their need for a sense of both material security and physical protection given the 'rough life' of the mining settlement" (Bryceson et al., 2013: 45). Only a few cases were reported to me but there is consensus among the miners that

it is generally the runaway women, single or married, who stay in the camps alone. For comfort, it was said, they seduce one or more men who can offer them protection and financial support.⁹ The miners say that some of them even use their charm to steal gold or money from the men who succumb to them. But I reject the idea that prostitution is the essence of such social relationships. Rather, I find it more useful to see it as a negotiated, even sometimes conflictual social relationship, based on interdependence, since miners also fall back on the incomes of their "girlfriends" (Bryceson et al., 2013, 2014).

Although I heard that some of these unions could potentially be prolonged, it seems that for the most part they only last the time of one season and that they are not the object of any particular ceremony. The camps thus possess norms which are unique to them and tolerate in particular temporary unions,¹⁰ thereby becoming "other" spaces. Some authors thus qualify them as "heterotopias" (Werthmann, 2010), following Foucault's argument:

There are also, probably in every culture, in every civilization, real places¹¹—places that do exist and that are formed in the very founding of society— which are *something like counter-sites, a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted.*¹² Places of this kind are outside of all places, even though it may be possible to indicate their location in reality. Because these places are absolutely different from all the sites that they reflect and speak about, I shall call them, by way of contrast to utopias, heterotopias [1984: 3].

The advantage of this notion, without considering it to be an exhaustive or definitive definition for the camps or more broadly for gold mining spaces, is that it emphasises a process of "condensation" of what Foucault calls "real sites". He later adds "The heterotopia is capable of juxtaposing in a single real place several spaces, several sites that are in themselves incompatible." (p. 6). Furthermore, these spaces allow, among other things, for the presence of individuals who would not have had access to mobility without them. Many unaccompanied married or single women run away to the mine themselves, taking pains to avoid settling in a camp where there are many Guirlan natives. For example, when a young woman is pregnant before having contracted a marriage, she will usually leave to give birth in another town, another village, or at a gold mine. In this context, it is not the mines themselves that are important; what matters most is being able to avoid giving birth publicly to a child who is unrecognised by any father and unclaimed by any household. However, the gold mines also allow these young women to gain financial autonomy and to remove themselves from working for their mothers. This is also the case for wives who were financially abandoned by their husbands. According to the inhabitants, the exodus of married and single women is closely linked to the intensification of gold extraction,

⁷ Cf. for example, see: Grätz and Marchal (2003), Panella (2007), Cros and Mégret (2009), and Bredeloup (2014).

⁸ The same phenomenon has been reported at other mining camps, such as in Tanzania, where "Meeting and mating with the opposite sex is pragmatically facilitated in miners' daily lives by the existence of bars that serve as fuelling stations for fulfilment of the basic needs of eating and drinking" (Bryceson et al., 2013: 40).

⁹ I also heard about this type of practice during research that I began in Rabat, Morocco on the daily life of Guinean migrants. The rare women that I met who had travelled alone explained that it was indispensable for them to find a "boyfriend" to protect them, with whom they had sexual relations. Fouquet (2011) notes the same kind of phenomenon in Dakar.

¹⁰ Indeed, in the village, marriage (*fudu*) is seen as an irreversible definitive "journey". Once married, the young woman no longer belongs to her father's clan, but to that of her husband who will then be responsible for paying for her funeral—the ultimate sign the transfer of who the woman belongs to.

¹¹ Again, translation is problematic. In French, Foucault uses the term *espace* to designate heterotopias, which seems to be close to the meaning of 'space' used in the translation of de Certeau's work, *The Practice of Everyday Life*. In this article, I am making the distinction between place and space in accordance to de Certeau.

¹² My emphasis.

because the mining way of life allows them to gain their own income as well as a certain level of autonomy. According to some runaway wives, going to the mines alone, where no one knows them, means that they no longer have to justify themselves or respect the obligation to have a presence and to “be seen”. It allows them to have “something else”, possibilities that they would not have conceived of previously. The mines can therefore be analysed as spaces of juxtaposition in the Foucauldian sense, accommodating and producing normally incompatible social relationships, and spaces of potential, offering opportunities that did not exist in the village¹³ (Werthmann, 2009). As we shall see, the camps allow for the emergence of a more egalitarian model which, rather than depending on a rigid definition of the statuses of each individual, is based on one’s relationship to mining work itself.

3. Emergence of an egalitarian model

The mining areas in which I stayed were not managed by businesses but by village organisations, of which the members are called *tombolomanyi*¹⁴ in Malinké and which benefit from military assistance. These village organisations are created spontaneously when a local farmer renders a field for gold exploitation. The farmer, as well as the *tombolomanyi*, receives a variable percentage of the earnings from the mining. Among other things, the *tombolomanyi* are notably responsible for attributing mine shafts to newcomers. Panella (2005, 2007) explains that, before mining was intensified in the 1980s, the main function of the *tombolomanyi* was to defend the village against thieves. Their tasks have since broadened. Today, they function as true corporations, regulating, mediating and sanctioning all issues concerning gold extraction and life in the camps. The *tombolomanyi* hold regular assemblies and sanction infractions against village laws, including cases of theft and murder. Their most difficult task consists of preventing miners from tunnelling horizontally into other mine shafts to prevent cave-ins. Regulating such situations requires them to be experienced miners, capable of intervening in occasionally critical situations. All of them have already worked in the mines and have reached the “rank” of *kalanjan-ti*, literally “chief of the long pickaxe”.

Indeed, some miners are more experienced than others, and not all execute the same tasks. In Faralako, they were organised into groups of four to six individuals, including men and women. Anyone can buy a mine shaft (in June 2011, a shaft was worth 10,000 FG, or a little more than 1 USD,¹⁵ to be paid to the village chief), as long as they can assemble a work team and provide them with lunch. Therefore, the groups of workers are not the owners of the shaft attributed to them. Generally a farmer/landowner secedes his land for gold extraction in exchange for a percentage (determined with the village chief) of the money earned from gold mining. Shafts are then traced out in a line, side by side, by the *tombolomanyi*. First, they are sunk vertically by the least experienced miners until a certain threshold is reached, called *nara* in Malinké, identified by the presence of lime. Next the *kalanjan-ti* take over and begin digging horizontal tunnels. The women’s role consists of pulling the heavy buckets of gravel up out of the mines by rope and washing them in streams near the mine shafts.¹⁶ Gold dust and flakes or, occasionally, nuggets, then emerge, as gold is generally denser than the earth that surrounds it. The gold collected is then ground – although some sold it crude

after washing – in order to liberate as much of the precious mineral from the gangue.¹⁷

Gold buyers were present, fully legally, in the camps or in the markets of the region’s bigger towns. Their trademark is their minimalist materials: a scale, weights and a few cups placed on a Table or displayed on shelves behind a pane of glaze. The gold extracted by the people I was with had not been treated before selling, and, in December 2012, a gram sold for about 375,000 FG, or about 52 USD. Given that the shaft owner does not pay his workers, the income earned from this form of artisanal gold extraction is, in principle, equally shared among the different members of the group, including women, and a variable percentage is reserved for the village where the area is located. Indeed, besides the Village Chief, a Chief of Mines is also designated, to whom gold miners pay an extraction tax when they arrive. In Faralako, 1/10 of the earnings was reserved for the village which managed the area and 2/10 were for the owners of the water pumps. The remaining 7/10 were then shared equally between the workers and the owner.

The ethnical principle of sharing and mutual aid is mentioned in most work dealing with artisanal mines in the region and is based on the fundamental principles of the *koroya*¹⁸ (seniority), that is “primogeniture, accomplishment of tasks, mutual aid and not being ostentatious” (Panella, 2007, 2005). However, this ethical principle also originates, according to inhabitants, in the very serious consideration given to *ginayi*,¹⁹ invisible beings mentioned in the Coran who are considered the possessors of gold and of precious metals and stones in general.²⁰ Therefore, mining spaces are also meeting points between these invisible beings and humans, where workers expose themselves to dangerous encounters. This proximity to *ginayi* reinforces the image of the mines as “other” spaces in which extra precautions must be taken, such as not working after 4pm (when genies appear) or not leaving any of the mined gold behind. One must also perform certain (mainly animal)²¹ sacrifices (*hadiya*), to stay in the genies’ good graces. Red or ochre coloured animals remain the favoured choice for sacrifice today, as they make reference to blood and to danger and as the colour is analogous to gold. Indeed, what the inhabitants call “luck” in this context actually refers to the development of specific relationships between *ginayi* and humans.

Thus, in 2011, mining spaces offered a particular mode of relationships, based on a vocabulary of sibling affinity and lasting only as long as one’s presence in this specific space. The gold

¹⁷ I did not, however, observe processes such as amalgamation, which require mercury for amalgamating the gold. Use of mercury – or of cyanide – is frequently decryd in the media but to my knowledge these substances were not used by the Guirlanda, perhaps because they did not consider themselves to be professionals and their goal was to sell gold as quickly as possible.

¹⁸ Redistribution from the elder siblings to younger siblings is indeed fundamental to the *koroya*, and does not contradict with its principle of hierarchy (quite the contrary).

¹⁹ This term comes from the Arabic word *djinn* (pl. *jnoun*).

²⁰ Gold is perceived as an animate object, like wild game that can “escape” or “hide”. This parallel between the precious metal and wild game does not stop with gold. De Boeck (1998), in a study on diamond extraction in ex-Zaire, explains that the diggers “hunt” the gems like they would wild game, which must first be calmed or “domesticated” and then tamed if his family was to know health, prosperity and fertility.

²¹ As Panella (2007: 6) reports. “In the former Kédougou Circle in Senegal, the “Gold Priest” slaughtered a white rooster with a red comb. If the ‘testicles’ were black, he would have to do it again until the white testicles proved that the *jinayi* were satisfied (Belan, 1946: 10–11). In Guinea in the 1940s, a red animal was sacrificed (a rooster, a buck, or a bull) and the meat was consumed by the assistants. Sacrifices were also held when nuggets of over 1 kilo were discovered. Placed in a placer, one would then shoot at the nuggets with a rifle to ward off bad spirits when the person who discovered the gold complained of having brought on the anger of the *jinayi*. A red bull was then sacrificed if the discoverer was a man, or a white ram if it was a woman (Balandier, 1948: 54)”.

¹³ This perspective is not to exclude the possible emergence of conflicts.

¹⁴ Panella (2007) has also made reference to them in Southern Mali.

¹⁵ (1 USD = about 7250 FG on 24 May 2015).

¹⁶ In dryer mining areas, sacks of gravel are brought back to the camp to be washed, either in the camp or in a nearby river.

miners referred to themselves as “brothers” and “sisters” in “suffering”, and sometimes the older miners were called *borin* (maternal uncle) or *naronin* (term which literally means “little mother”, generally used for one’s mother’s sisters), as references to maternal kinship, which, according to the miners, is the form of complicity which takes shape in the camps. Perhaps we could even speak of maternal sibling affinity, given that, according to inhabitants, complicity and cooperation are more significant among siblings of the same mother than among those who share only a father.

However, when I returned for a second field stay in Guirlan in September 2012, this time for five months, many miners had given up on their pickaxes and swore only by their metal detectors. Their movements back and forth between the mines and the village had accelerated, creating a constant parade of motorcycles in the village. While the miners described above still stayed in the camps a relatively long time, this new type of miner followed their “luck”, information on promising mining areas, and especially their metal detectors, which had become actors in and of themselves in determining miners’ movements. How have metal detectors transformed the mining spaces based on a seasonal temporality and relationships based on ethics, sharing and communal living? Could the use of the metal detector be the source of a new way of “creating” spaces?

4. Metal detectors: From the surface to the line

With the introduction of metal detectors mining mobilities have become more male-dominated.²² Miners diversified their exploitation spots and left for shorter periods of time without truly settling. In contrast to the camps, such incessant movements would not be compatible with female mobility as they do not allow for stable settling. It also seems that, given that the women in Guirlan have little travel experience – save for the ceremony of accompanying one’s husband to his home or any movements she might have made in his company – going away for several days or weeks without settling sustainably is incongruous to the norms of feminine presence. A female presence is characterised by a prolonged stay in a single place, with only brief, local absences.

Miners are thus no longer subscribed to a process of settling and their mobilities look more and more like opportunistic movements. In December 2012, I spent a few days in Kourémali, a border town between Guinea and Mali. There, miners come by the thousands and market stalls fight over every minute centimetre. Big cars are lined up, one after the other, as mechanical incarnations of the fortune of the miners present in the city. The authorities are immediately visible: customs, border police, and military personnel have turned the city into their playground, moving about freely, armed, greeting some and yelling at others. Here, building shelters to establish a camp is out of the question, as simply finding a spot, even on the ground in the courtyards of those who were willing to have us,²³ was quite challenging. And yet, I had never seen quite so many miners as in Kourémali. There was hardly any ground space left in the courtyards, and miners had begun spending the night on the sides of paths. The city is very noisy until late at night: the men prefer to spend part of the night in bar-café, unable to sleep, motorcycles come and go, and people adjust their metal detectors.

²² The inhabitants explain this “masculinization” of movements by both the conditions of migration themselves as well as the direct relationship with the metal detector, as women and technology “don’t go together”. I was not able to explore this last argument further, but it would seem that keeping women away from metal detectors is a way of denying them technical and technological knowledge (especially with regards to the machine’s settings), a source of power and prestige.

²³ I followed a group of four men from Guirlan for one month.

In the morning, it is as if the agitation of the night never ended and the coming and going of motorcycles picks right back up at sunrise, already bringing miners to the extraction areas. Some miners work alone, but the vast majority work in groups of two or three who share a metal detector. Just as with the mine shafts, they do not own their metal detector, as the initial investment is steep—between 1000 and 5000 USD for the best machines.²⁴ One or more individuals would generally invest in a metal detector and would then allow groups of workers to use it. Shares of the gold are intended to be equal, although at first, two-thirds of the income is reserved for the owners(s) until the machine has paid for itself.²⁵

One of the miners who accompanied me climbed off of his motorcycle, his faced covered with the red earth which characterises this region. Holes pitted the mining areas as far as the eye could see, proof of the intensity of exploitation. A few silhouettes, almost phantom-like, seemed to wander over the broken earth. The metal detector is aptly named in Malinke: its name literally translates as a “blind man’s cane”. The miners followed their detectors, and above all, the silence which reigned over the area was in stark contrast with the effervescence, the verbal jousting, and the shouting which characterises artisanal mines. In Kourémali, with headphones clamped to their ears, the miners traced random lines along the ground, following the sounds of the machines.

Indeed, there was no longer any question of investing the space of the mines and creating a community as with the artisanal gold mines. Use of detectors is characterised by such instability and mobility that the miners did not even have the possibility of settling, even temporarily. Miners follow their detectors, and when the search is successful they dig large holes of about two meters deep. It is important to note that this kind of exploitation can “freeze” the artisanal one by damaging the soil, in which it becomes almost impossible to dig pits after. Miners do not need to stay a long time in one field, and sometimes they sleep directly on the ground for one or two nights before moving on to their next episode of fieldwork or returning to their villages. Clearly, the spaces created by this type of exploitation depend on miners’ trajectories and on their mobility. I posit that these trajectories lead to a mode of spatialisation which is close to that described by Ingold (2007) in his work:

Threads may be transformed into traces, and traces into threads. It is through the transformation of threads into traces, I argue, that surfaces are brought into being. And conversely, it is through the transformation of traces into threads that surfaces are dissolved [p. 25].

Indeed, once we see mining mobilities as lines, how can we not see mine shafts and camps as traces, and the paths drawn by the motorcycles and metal detectors as threads? Artisanal mine spaces seem to need traces to be established, which assumes that relationships – albeit negotiated – with humans built on solidarity (based on a model of maternal sibling affinity) but also with *ginayi*. Can we, reflexively, identify a kind of sociability which is unique to the spaces created by the use of metal detectors and which seem to dissolve the surfaces of artisanal mines into threads?

5. Competition lines?

Beyond the vigorous and uncertain nature of seeking gold with a metal detector, one can also observe a certain rivalry which occurs, not so much in the mining work itself, but in the

²⁴ At the time, the miners especially used the Minelab X-Terra 705 and GPX 5000.

²⁵ To give an idea of the kind of incomes that using a metal detector can obtain, it typically took one to two months for a group’s metal detector to “pay for itself”.

ostentatiousness of spending the incomes it produces. This ostentatious way of life has been well documented in studies on West African gold mines, including in artisanal sites (for example, see Grätz and Marchal, 2003; Werthmann, 2008; High, 2008) but in these settings, and in principle, it remains “deliberate” and oriented towards sharing and redistribution.²⁶ On the contrary, the introduction of metal detectors seems to have given way to a new kind of ostentatiousness which is more centred on waste and on rivalry with other miners. It can explain why condemnation of certain behaviours has grown stronger in the region. A man of about 40 years old, an experienced miner, reflected on the attitudes of the younger miners in a bar-café in Siguiri:

The youth today are not serious. Instead of saving their money, they spend it stupidly by “burning up” petrol. Every day, young men make round trips for no reason, just to show off that they have enough money to buy petrol! They’re cursed children, they are. God won’t help them! If you want God to show you where the gold is, you have to behave correctly. [He then gave an example] A young man was in a night club with his girlfriend. To impress her, he bought a motorcycle, right then and there. He called a mechanic and told him to bring the motorcycle to the night club parking lot right away. The salesman brought an Apache motorcycle, the most expensive on the market, four million FG.²⁷ The young man went to the parking lot with his girlfriend and told the others to come, too. To show off how much money he had, he emptied the fuel tank onto the motorcycle. You should have seen it! He took out a match, and then, he threw it . . . The fire was huge! That right there is not good behaviour. How do you think God will repay you after that? I hear he hasn’t found anything for six months . . .²⁸

Finding gold is certainly a “stroke of good luck”, but which can quickly turn against the beneficiary, becoming a curse (*danka*). This argument is explained by the fact the gold is considered to belong to the *ginayi*, and by the ethical principle of sharing which is at the heart of the mining way of life. This anecdote puts miners’ “good” behaviour in close relation with their success in searching for gold. In this way, the miner’s behaviour is strongly condemned by this man because he is wasting money instead of giving to others. In this example, the problem seems to arise from blocking circuits of redistribution. This is especially true when the miners, due to their earnings,²⁹ pass from the status of a simple worker to that of an investor and owner of several metal detectors. This was the case with a man of about 30 years old from a neighbouring village who found approximately two kilos of gold in the courtyard of his home. He had just bought a metal detector, having made his fortune in the artisanal mining sector, and was testing it before leaving for a mining area in Siguiri. He obviously never suspected that he would

find such a quantity of gold so close to his home. He is said to have gained nearly six hundred million FG (approximately 82,759 USD) which he used to build a villa, considered to be one of the most beautiful in the region, and most of all, to buy several more metal detectors to continue gold extraction.

This economic and social ascension is an example of how a group of entrepreneurs can form. Out of a system based on group organisation and equal sharing of the gold, we may be witnessing the emergence of a model which more closely resembles that of a small business. The owner of the metal detector progressively becomes an employer, in competition with others, paying fixed salaries to the miners rather than sharing the gold with them equally. This is already the case for work who require heavy equipment such as a crusher, designed for breaking large rocks into smaller pieces. These machines are owned by “bosses”, *patrons* as they are called in French, and those who work for them receive a fixed daily salary.³⁰ But the difference between a crusher and a metal detector is that the latter depends on the finding of gold and, consequently, produces highly unpredictable and variable results.

To conclude, I have shown that the forms of mobility which are unique to gold mining and to the use of metal detectors are at the root of the production and investment of very different spaces, the one relying on the temporary settlement of miners and the creation of heterotopic communities, the other on the mobilities of miners themselves, weaving the threads of the foundation of gold mining. The camps, and, more generally, artisanal gold mines, lead to egalitarian relationships of interdependence in which tasks and incomes from gold are supposed to be equally shared. Further studies on possible conflicts which may arise from sharing would be beneficial for a better understanding of the social relationships that take place in camps and help provide more in-depth information into gender relationships. At the same time, the use of metal detectors leads to more competition and rivalry between miners, not only because of the increasing of incomes but perhaps also because of an exacerbation of the image of the miner as virile due to the masculinization of mobilities. This stronger competition becomes visible through markedly ostentatious waste.

Lastly, evolution in the forms of mining mobilities raises the question of the way in which miners are present in the village. Indeed, the introduction of metal detectors had the consequence of accelerating the alternating presences and absences in the village, resulting in more frequent returns and shorter stays in the mines. It is also a factor fuelling social change, redefining relationships between men and women, and between miners and their household. By reducing the length of absences, it appears that this manner of movement allows for more easily fulfilling of the obligations of being physically present in the village emphasised in the introduction. The geometry of mobilities thus leads to specific modes of sociability, wherein the form (lines or traces) allows us to better understand the contents of the relationships they produce. The use of metal detectors would have permitted the weaving of threads with the village, while artisanal gold minding – in leaving its traces – could inversely lead to the obligation to create community and, at least for a while, to break off from the native village.

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²⁶ The redistribution of mine incomes within the village is not the main subject of this article. For this reason, I will content myself with giving just a few statistical elements: my corpus shows that parents are the primary beneficiaries of redistributed mine incomes, with a net preference for mothers. Out of the 70 miners interviewed, 25 reported giving more to their mother than to their father, and often saved a bigger proportion for her than for themselves. Only 18 out of 70 reported giving more to their father, although 16 of them still gave some to their mother; six others gave the same amount to either parent without distinction. The other relatives who benefitted from incomes in this corpus were uncles, both paternal and maternal, but also older and younger brothers, as a significant portion of the money from the mines is also used for paying one another’s bride price.

²⁷ About 550 USD.

²⁸ Excerpt from a recording from November 2012 in a bar-café in Siguiri, in the North-East of Guinea.

²⁹ The use of metal detectors has markedly increased the income earned from gold extraction. Some young men now earn several million FG in a matter of weeks, in a country where the average monthly salary per inhabitant is less than 40 USD (Calculated using the GNI per inhabitant). Source: <http://donnees.banquemondiale.org/indicateur/NY.GNP.PCAP.CD> [consulted 20th May 2015].

³⁰ Panella (2007: 6) recorded the same phenomenon and cited Werthmann (2003, 2006), and yet did not elucidate the implications of this on ostentatious modes of consumption: “In these contexts, individual accumulation bears dynamics of social differentiation and of prestige, sometimes with violence”.

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References

- Bakewell, O., Jónsson, G., 2011. Migration, mobility and the African City. IMI Working Paper Series 50.
- Bredeloup, S., 2014. Migrations d'aventures. Terrains africains. CTHS-Géographie, Paris.
- Bryceson, D.F., Jønsson, J.B., Verbrugge, H., 2013. Prostitution or partnership? Wifetypes in Tanzanian artisanal gold-mining settlements. *J. Mod. Afr. Stud.* 51 (01), 33–56.
- Bryceson, D.F., Jønsson, J.B., Verbrugge, H., 2014. For Richer, for poorer: marriage and casualized sex in East African artisanal mining settlements. *Dev. Change* 45 (1), 79–104.
- De Boeck, F., 1998. Domesticating diamonds and dollars: identity, expenditure and sharing in Southwestern Zaire (1984–1997). *Dev. Change* 29, 777–810.
- De Bruijn, M., van Dijk, R.A., Foeken, D., 2001. *Mobile Africa: Changing Patterns of Movement in Africa and Beyond*, vol. 1. Brill, Leiden.
- de Certeau, M., 1984. *The Practice of Everyday Life*. University of California Press, Berkeley.
- Cros, M., Mégret, Q., 2009. D'un idéal de virilité à l'autre? Du vengeur de sang au chercheur d'or en pays lobi Burkinabé. *Autrepart* 49, 137–154.
- Foucault, M., 1984. *Of Other Spaces: Utopias and Heterotopias*. <http://web.mit.edu/allanmc/www/foucault1.pdf> (From: Dits et écrits, Des espaces autres. *Architecture, Mouvement, Continuité*, 5, 46–49).
- Fouquet, T., 2011. Aventurières noctambules. *Genre, sexualité et société*. 5, 10.4000/gss.1922.
- Grätz, T., Marchal, R., 2003. Les chercheurs d'or et la construction d'identités de migrants en Afrique de l'Ouest. *Politique africaine* 91 (3), 155–169.
- Hentschel, T., Hruschka, F., Priester, M., 2003. Artisanal and Small-scale Mining. Challenges and Opportunities, Mining, Minerals and Sustainable Development. IIED. 73, <http://pubs.iied.org/pdfs/9268IIED.pdf>.
- High, M., 2008. Wealth and Envy in the Mongolian Gold Mines. *Cambridge Anthropol.* 27 (3), 1–18.
- Ingold, T., 2007. *Lines. A Brief History*. Routledge, London–New York.
- Mbodj, F.B., 2009. Boom aurifère et dynamiques économiques entre Sénégal, Mali et Guinée. *EchoGéo*, 8, 10.4000/echogeo.11034.
- Mbodj, F.B., 2011. Boom aurifère à l'est du Sénégal, à l'ouest du Mali et au nord-est de la Guinée: mutations socio-économiques et spatiales d'anciennes marges économiques et géographiques, Thèse de doctorat de géographie, université Paris 1–Panthéon Sorbonne, mai 2011.
- Panella, C., 2005. « Je vais chercher le prix de condiments ». *Rapports de genre, économie domestique et symbolique de l'or du yemasu (vallée du Sankarani Mali)*. *Africa* 426–443.
- Panella, C., 2007. L'éthique sociale du *damansen*. *Cahiers d'études africaines* 186, 345–370.
- Simmel, G., 2009. *Sociology. Inquiries into the Construction of Social Forms*. Brill, Leiden–Boston.
- Spiegel, S.J., 2015. Shifting formalization policies and recentralizing power: the case of Zimbabwe's artisanal gold mining sector. *Soc. Nat. Resour. Int. J.* 28 (5), 543–558.
- Tuan, Y.-F., 1975. Place: an experiential perspective. *Geogr. Rev.* 65 (2), 151–165.
- Tuan, Y.-F., 2001. *Space and Place. The Perspective of Experience*. University of Minnesota Press, Minneapolis–London eighth printing.
- Werthmann, K., 2009. Working in a boom-town: Female perspectives in gold-mining in Burkina Faso. *Resour. Policy* 34 (1–2), 18–23.
- Werthmann, K., 2010. Following the hills: gold mining camps as heterotopias. In: Freitag, U., von Oppen, A. (Eds.), *Translocality. The study of Globalising Processes from a Southern Perspective*. Brill, Leiden, pp. 111–132.