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RESEARCH ARTICLE

Gold Mining in the Sahara-Sahel: The Political Geography of State-making and Unmaking

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ABSTRACT
In the Sahara-Sahel, artisanal gold mining is booming. Fragile Sahelian states arguably provide a most likely case for the 'resource conflict' theory to hold, yet 'resource capture' can also underpin informal governance schemes through which the co-optation of non-state actors ushers in (hybrid) state-building. While the diversity of empirical cases lends credibility to both theories, the dialectic of proximity and distance – both social and spatial – helps make sense of the different modalities of artisanal gold mining governance in the region. In the Sahelian core of regional states, artisanal gold mining has supported regime empowerment; in the Sahara, it has helped assuage pre-existing tensions; in the Tibesti, it has led to militarisation and conflict.

KEYWORDS
gold mining; governance; resources; state-building; violent entrepreneurs

Artisanal gold mining has recently experienced a boom in the Sahara-Sahel. This article asks whether, how and under what circumstances this phenomenon feeds into the broader conflict dynamics affecting the region, or, alternatively, helps prop up fragile states through processes of extraction, protection and capture of resources.

The question has the potential to raise broader theoretical insights beyond the case examined. The literature on 'conflict resources' has long addressed the alleged linkages between natural resources and conflicts in fragile countries. While early studies focused more on the motivations of individual belligerents (Kaldor 1999; Keen 1998), subsequent investigations (Collier *et al.* 2008; Kalyvas 2009) have tended to shift the attention more to the opportunity structure enabling violent entrepreneurs to catalyse either 'greed' or 'grievances' and translate individual preferences into organised armed contention. From the perspective of feasibility, fragile states are viewed as a breeding ground that makes natural resources vulnerable to violent rebel capture. Arguably, the boom of artisanal gold mining in the Sahara-Sahel provides a 'most likely case' for this theory to hold: Sahara-Sahelian states are acutely fragile by almost any measure, ranking systematically at the bottom of international rankings.[1] In combination with the widespread presence of non-state actors and weapons in the region, this generates a strong expectation that interactions between state and non-state armed actors for the control of artisanal gold mining in the Sahara-Sahel are bound to deteriorate and become violent.

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[1]See in particular: the Fragile State Index (https://fragilestatesindex.org/), the UN Development Programme's Human Development Index (http://hdr.undp.org/en/content/human-development-index-hdi) and the World Bank's governance indicators – particularly with regard to political stability.

These claims, however, have been disputed. In a retrospective survey, Michael Ross (2015) concludes that the correlation between natural resources and civil wars is statistically weak, and only based on a handful of conflicts from the 1990s in which alluvial diamonds played a disproportionate role. In general, rents from natural resources have a less mechanical influence on the interactions between state and non-state actors in fragile states. Neopatrimonial capture can help the rulers both avoid insurgencies and survive them when they do occur (Bueno de Mesquita and Smith 2010); and it can even divert the determination of rebels to overthrow the incumbent regime (Bøås and Jennings 2012). Drawing on historical sociology, one can even see the extraction, protection and capture of natural resources by non-state violent entrepreneurs as precursors of state formation, albeit messy and violent. As a valuable illustration of this, informal mining in the Great Lakes region can be seen less as a driver of state disruption than of state co-optation of violent entrepreneurs (Raeymaekers 2010) with the 'taxation' of these activities potentially generating public authority even if performed by non-state actors (Hoffmann *et al.* 2016).

Noteworthy is that the amount of gold illegally smuggled out of the Sahara-Sahel region is reportedly much greater than that smuggled out of the Great Lakes region, and its aggregate economic value higher than that of drug or migrant smuggling (Micallef *et al.* 2019; Hunter 2019). Politicisation may explain the much greater attention dedicated to drug and migrant smuggling in the Sahara-Sahel and gold smuggling in the Great Lakes region. The present article aims to contribute to redressing this distortion.

There are no large-*N* studies looking specifically at the impact of artisanal gold mining on the making or unmaking of fragile Sahara-Sahel states. Observers have nevertheless hypothesised a variety of causal mechanisms that plausibly link artisanal gold mining in the Sahara-Sahel to either fragility or stability promotion, some of which match with those put forward in the literature above. Reports suggest that artisanal gold mining may have a disruptive impact on the stability of the Sahara-Sahel in as much as it: contributes to the funding of non-state armed and rebel groups, including jihadist terrorists in the region (OECD 2018; UNSC 2019); fuels money laundering and organised crime (Hunter 2019); stimulates violent banditry and, conversely, protection rackets, both prompting the proliferation of arms smuggling (Pellerin 2017; De Tessières 2018); exacerbates 'sons-of-the-soil' type conflicts between the migrant workforce and local communities (Molenaar *et al.* 2018); not to mention the potentially devastating impact of artisanal gold mining on human rights and environmental protection across the region. On the other hand, it has been argued that artisanal gold mining can help strengthen the resilience of Sahara-Sahelian countries and their populations in the face of growing challenges. Not only is gold mining the main source of income, export and hard currency for the otherwise meagre budgets of local states, but job opportunities in artisanal gold mining can also represent an alternative source of livelihood for marginalised groups trying to cope with the impact of climate change (McCullough *et al.* 2019), the push factors of irregular migration (Grégoire and Gagnol 2017) and the mobilisation potential of rebel and terrorist groups (OECD 2018).

The diversity of Sahara-Sahel states' approaches to artisanal gold mining across time and space seems to vindicate *prima facie* the plausibility of all these mechanisms. As new discoveries of gold mining sites across the region have prompted a proliferation of informal and irregular mining, state responses have ranged from brutal repression to substantial neglect to more or less direct exploitation. Similarly, non-state armed actors in the Sahara-Sahel have invested in artisanal gold mining to pursue different agendas, from *jihad* to rebellions to co-optation in state-sponsored patronage networks.

The aim of this article is therefore to try to provide the reader with the interpretative tools needed to make sense of these variations and reduce cacophony to legibility. In particular, I focus on the interactions between states and non-state armed actors in the governance of gold resources, in an attempt to locate the specific factors and mechanisms that make such interactions veer towards either cooperation or confrontation, that is, (hybrid) state-building or state disruption. As part of this endeavour and in keeping with an influential tradition of resource conflict literature, I especially emphasise the heuristic value of spatiality. This does not imply endorsing the positivist concern for the alleged locational regularities of struggles over resources: not only does this approach disturbingly echo the "geographical destiny" or old-fashioned geopolitics, it is also ill-suited to grasping the transnational dynamics that straddle the porous Sahara-Sahelian borders (see Checkel 2013). Instead, the article draws on Philippe Le Billon (2007) and looks at spatiality through the prism of the relationship between proximity and distance vis-à-vis the centres of state power. As Le Billon makes clear, "these criteria are not only defined by their 'physical' locational attributes, but also by their broader political geography relating to socially constructed space" (173). This brings to the fore the political dialectic between centrality and marginalisation as a crucial feature in gold mining governance and its oscillation between the making or unmaking of fragile states.

Building on this analytical framework, the article is structured in three sections. The first provides a description of the key features of artisanal gold mining and its governance in the region. The second section puts forward an interpretation of the diverse approaches to artisanal gold mining governance based on the proximity-distance dialectic, and identifies three different sub-regions where distinct governance schemes prevail: the Sahel, the Sahara and the Tibesti. Comparative analysis of these clusters suggests that the dialectic of proximity and distance influences the likelihood of artisanal gold mining to fuel violence. The third section explores a plausible mechanism for explaining how the interactions between state and non-state actors involved in artisanal gold mining governance can evolve from cooperation to competition when affected by exogenous shocks. This explanation contributes to clarifying that the rise of 'violent extremism' can be a manifestation of violent entrepreneurship structurally linked to artisanal gold mining.

The article focuses primarily (but not exclusively, as states do not represent the article's main unit of analysis) on a few select countries: Mali, Burkina Faso, Niger and Chad. It is based on an extensive literature review, as well as 28 semi-structured interviews with key stakeholders involved in artisanal gold mining-related activities, including local security forces, leaders of non-state armed groups, local researchers, pit owners, smugglers, traditional authorities, humanitarian actors and officers of national and international agencies dealing with gold mining. Interviews were carried out in Tunis, Bamako, Niamey and Agadez between September and November 2019. Complementary data comes from several less-structured interviews with a variety of local stakeholders carried out since 2016 in Mali and Niger in the framework of previous research projects.

Gold mining, governance and statehood in the Sahara-Sahel

Gold mining is closely intertwined with historical trajectories of state formation and transformation in the Sahara-Sahel region. As of the 12th century, the gold mined and traded from Sahelian deposits paved the way for the establishment of some of the most powerful pre-colonial polities in Africa, including the empires of Mali and Ghana that occupied large swathes of today's Sahel. The 14th century Emperor of Mali, Mansa Musa, has been dubbed "the richest man of all time" (Mahmoud 2019) owing to the extraordinary gold riches he reportedly managed to amass. The legendary wealth of Sahelian goldfields stimulated the appetite of Europeans and propelled early colonial enterprises. In order to cut out the expensive intermediation of Arab and Italian traders, the Portuguese sent their ships down the Atlantic coast of Africa to purchase gold directly at the source: eloquently enough, the Portuguese named the first European trading post in Africa *Elmina*, The Mine.

After the end of colonisation, gold mining was initially sidelined by the impetus of 'modernisation'. However, the environmental crises of the 1970s and 1980s propelled artisanal gold mining as an alternative source of livelihood for local labourers. Following the financial crisis of 2008, the global gold price boom boosted industrial gold mining activities worldwide, making the Sahel an attractive destination for both major and venture-capital extractive industries. Recently, a combination of high global prices and cheap technologies available through transnational networks has led to the discovery of a particularly rich gold vein stretching across the Sahara Desert from east to west. After the first finds in 2012 in the area of Jebel Amir, in Sudan, rich gold deposits were subsequently found in the Chadian Tibesti area in 2013, in Niger's Agadez region in 2014, and finally in northern Mali and Mauritania in 2016 (Chevrillon-Guibert *et al.* 2019).

As a result, a crucial share of the Sahara-Sahelian states' economies now revolves around gold mining. Sudan, Mali and Burkina Faso have become, respectively, the third, fourth and fifth most important gold producers in Africa, right behind more established market leaders such as South Africa and Ghana. In the past fifteen years, gold has replaced cotton as the main export of both Mali and Burkina Faso, and accounts for a substantial share of these governments' income and fiscal capacity. Focusing on the so-called 'Central Sahel' only, Mali, Burkina Faso and Niger combined are estimated to extract 150 tons of gold per year, of which industrial and artisanal production account for two thirds and one third, respectively. Extractive industries in the three countries account for 60-70 per cent of total exports, and 15-20 per cent of government revenue. In Mali and Burkina Faso, gold mining dominates the sector by far, while in Niger and Chad oil production still comes first, although projections may change soon due to low international oil prices. Companies from world sector leaders, Canada and Australia, dominate the regional industry, although Russian and South African companies are well established in Burkina Faso and Mali, respectively. National operators and joint ventures are also present in the three countries (OECD 2018).

In spite of the obvious asymmetry between the power of multinational extractive corporations and the weakness of fragile Sahelian states, extractive industries can crucially support statecraft by increasing the legibility – as James Scott (1998) would put it – of gold production, as compared to the informal practices of artisanal gold mining. Tax revenues generated by industrial gold mining can provide a key resource of state-building, in fragile states in general (Moore *et al.* 2018) and in the Sahara-Sahel in particular, where a strong resistance to individual income taxation limits states' capacity to mobilise domestic revenue.[2] On the other hand, informal gold mining allows for a much higher degree of job absorption, a key feature in countries plagued by mass unemployment. Furthermore, the protection offered by political elites to informal production and export networks enables the capture of essential resources that fuel patronage politics.

The output of artisanal gold mining in the Sahara-Sahel is far from negligible. Hundreds (OECD 2018) if not thousands (Lewis and McNeill 2019) of artisanal gold mining sites punctuate the region. While accurate figures are hard to obtain, available estimates suggest that artisanal gold mining's yearly 'yield' can amount to up to 20 tons in Mali and Burkina Faso, and 10 in Niger (OECD 2018). This is assessed to have an overall economic value, at retail price, between USD 350 million (Grégoire and Gagnol 2017) and 1 billion (Lewis and McNeill 2019) per country per year. The largest share of gold produced artisanally in the Sahara-Sahel is smuggled out of the region. Mali (Martin and Helbig de Balzac 2017), Togo (Guéniat and White 2015) and Libya (Hunter 2019) provide the most important regional smuggling hubs, often with the complacency of local authorities, while Dubai remains by far the preferred destination (OECD 2018; Hunter 2019).

In the Central Sahel alone, artisanal gold mining is estimated to employ directly between 2 million (ICG 2019) and 3 million (Martin and Helbig de Balzac 2017) people, with more than 6 million being at least partially dependent on the sector (Hilson 2016). Considering that the aggregate population in the three countries is nearly 60 million, a staggering figure of 10 per cent of the overall population of Central Sahel may be indirectly linked to gold mining. Some of the largest artisanal gold mining sites in the region can host tens of thousands of workers at peak time. This is (or has been) reportedly the case for the sites of Kouri Bougoudi in Chad (40,000 miners according to Micallef *et al.* [2019]); Komabangou in southwest Niger (30,000 miners);[3] Djado in northeast Niger (25,000 miners according to Grégroire and Gagnol [2017]); Kénieba in Mali (20,000 miners);[4] and Tikando in Burkina Faso (10,000 miners according to Guéniat and White [2015]).

While informality remains one of the defining characteristics of artisanal gold mining in the Sahara-Sahel, it would be wrong to presume that artisanal means primitive. Driven by the need to finance the growing costs of prospecting and extracting, emerging forms of organisation increasingly rely on mechanical equipment (hydraulic pumps, milling vessels, grinders and crushers) and chemicals (mercury and cyanide) that replace traditional methods (OECD 2018). A complex entanglement of formal land titling, customary land rights and individual entrepreneurship provides the framework for granting the right to exploit a specific land parcel, or pit, which varies considerably across countries and regions. In many cases, pit owners are financed by gold buyers and traders based in regional and national hubs, who in turn are granted preferential purchasing rights (Guéniat and White 2015; OECD 2018; Hunter 2019). Capital may be injected by either pit owners themselves, or, more frequently, a 'logistic provider', who supplies the means of production, owns the needed equipment and pays for the labour force and its sustenance on the mining site.[5] Labour is usually supplied flexibly on a project basis. Payment can be in salary or in kind,

[2]Interviews with diplomats, Bamako; and journalists, Niamey, November 2019.
[3]Interview with Nigerien researcher, Niamey, November 2019.
[4]Interview with Malian researcher, Bamako, November 2019.
[5]Interviews with several gold entrepreneurs from Agadez, Niger, November 2018 and November 2019.

such as a share of the finds. In both cases, it is generally perceived as a relatively remunerative job, ensuring a higher than average income (OECD 2018; McCullough *et al.* 2019), although working conditions are reputedly nasty.

Beyond the factors of production – land, capital and labour – the governance of artisanal gold mining in the Sahara-Sahel is strongly influenced by variations in the provision of protection. Artisanal gold mining sites have a very high potential for generating conflicts due to the explosive combination of a high availability of valuable resources and poor regulation, if not lawlessness. Conflicts among miners, local dwellers and mining companies reportedly occur frequently and escalate easily, while the opportunity to prey is a magnet for bandits of all sorts (De Tessières 2018; Pellerin 2017). At the same time, law enforcement is minimal: not only because artisanal gold mining escapes formal state regulation, but also because local states' security forces are inherently weak and already over-stretched. Gaps in state power projection are even worse in the remote regions where artisanal gold mining sites are frequently found. As a result, Sahara-Sahelian states like Mali, Burkina Faso, Niger and Chad are often unable to commit the resources needed to prevent, deter, address and extinguish potential conflicts arising around artisanal gold mining sites.

In order to avoid dangerous escalations in these 'areas of limited statehood', states are often led to underwrite informal outsourcing schemes. In this way, non-state (yet state-backed) armed actors are empowered to ensure the protection of artisanal gold mining sites and the transactions taking place therein. Theoretically, these arrangements may fall somewhere between the notion of hybrid security institutions and mafia-style (but state-sponsored) protection rackets by violent entrepreneurs. The former amount to situations where, debunking the Weberian orthodoxy of statehood, "state and non-state security institutions have eroded to the point where they have become almost indistinguishable" (Bagayoko *et al.* 2016, 11). The latter are said to take hold "in societies where new property owners develop a demand for protection that the state is incapable of fulfilling, while at the same time a supply of people trained in violence is present" (Varese 2014, 348) and are tolerated by the state. Both perspectives acknowledge that, in these contexts, the interactions between state and non-state actors can range from cooperation to competition. With regard to the protection of artisanal gold mining in the Sahara-Sahel, this depends to a large extent on the dialectic between proximity and distance, as the subsequent sections of the article set out to demonstrate.

Clusters of proximity and distance in the governance of artisanal gold mining

The different combinations of production factors and protection provisions result in multiple modalities of governance of artisanal gold mining in the Sahara-Sahel. The kaleidoscopic variations that result make it hard to discern whether and under what circumstances artisanal gold mining contributes to the making or unmaking of fragile states in the region. Nevertheless, one can identify subregional sets of governance modalities that are relatively consistent. These are clustered according to the criteria of proximity and distance – both spatial and relational – vis-à-vis the local centres of state power: the patronage networks gravitating around the capitals. I categorise these subregional clusters of gold mining sites as Sahel, Sahara and Tibesti.

Sahel

The Sahel cluster encompasses the gold mining sites located within the Sahelian 'core' of regional countries. It includes the regions of Sikasso, Koulikoro and Kayes in Mali, the entire territory of Burkina Faso (which, unlike its neighbours, does not stretch deep into the Sahara Desert) and the region of Tillabéri in Niger. These regions are situated at a relatively short distance from state capitals, with which they tend to share common socio-cultural traits (although nuances do exist). This cluster accounts for the largest share of gold produced in Mali and Burkina Faso – whether industrially or artisanally – while it contributes only marginally to Niger's and Chad's overall gold output.

In this area, private actors have largely benefitted from the attribution of mining permits and protection provision tasks linked to artisanal gold mining activities. A closer look, however, reveals that these actors, albeit formally 'non-state', are often very close to the respective countries' political leadership and members of networks patronised by the incumbent presidents. The outsourcing of public goods to private actors, while in keeping with the neoliberal doctrine, has thus ended up fostering the consolidation of hybrid orders linked to the capitals' political elites, where public and private, state and non-state actors are blurred and intertwined.

In Mali, for instance, observers describe the awarding of gold mining exploration, exploitation and export licenses as "non-transparent and heavily politicised",[6] due to the interference of key personalities. The trajectory of Aliou Boubacar Diallo provides a good illustration of these dynamics: a businessman from the Kayes region in Mali, Diallo reportedly managed to acquire the largest share of important gold mining sites due to his close personal relationship with former Malian President Amadou Toumani Touré.[7] When Diallo ran for president against incumbent Ibrahim Boubacar Keita in 2018, his gold mining rights were legally challenged, forcing him to sell. Today, Keita's son, Karim, is rumoured to influence the awarding of gold licenses.[8]

Similar dynamics were observed in Burkina Faso, especially under President Blaise Compaoré. Throughout his semi-authoritarian regime, which lasted from 1987 to 2014, the majority of gold mining permits were reportedly awarded to loyal members of Compaoré's client networks, including his government, his party and his family. The most notable example is perhaps that of Adama Kindo, a former public officer who transitioned into a private gold buyer during the Compaoré regime, and

> earned his fortune from artisanal gold mining. He is the first and foremost in the sector in Burkina Faso. Back in the day, his access to the cosy offices of the Republic (ministers and presidency) went without question, enabling him to obtain numerous exploitation permits very, very easily (Guéniat and White 2015, 23; see also Luning 2020).

After the ouster of Compaoré, Kindo was reportedly forced to shut down his profitable business (*Jeune Afrique* 2016).

This opaque system of permit allocations has often clashed with existing customary and formal entitlements, which form a thick and sometimes inextricable framework in the densely populated Sahelian space. As a result, discontent, conflicts and abuses have

[6]Interview with Malian researcher, Bamako, November 2019.
[7]Interview with Malian investigative journalist, Bamako, November 2019.
[8]Interview with Malian researcher, Bamako, November 2019.

frequently been observed. In many cases, villagers have reportedly been expelled from their lands with limited or no compensation, only to be subsequently hired as miners or labourers with precarious contracts. Many of them have apparently turned to banditry, further exacerbating the tensions and conflicts around gold mining sites (Keita 2017) and the need for protection provision.

Patronage networks and informal regulations also feature prominently in the provision of protection of Sahel's artisanal gold mining sites. Site concessionaires are considered responsible for the security of their perimeters. To this end, they hire unofficial mining police corps who provide security, taxing miners and pit owners in exchange. In both Mali and Burkina Faso, these are typically recruited among the *Dozo*, hunting confraternities entrusted with customs police functions in 'bush areas' (OECD 2018; ICG 2019). In the jumble of Sahelian politics, the *Dozo* have traditionally been considered state-backed militias, if not state proxies, whether in Mali,[9] Burkina Faso (Hagberg 2019) or Ivory Coast (Bagayoko *et al.* 2016). Members of the rulers' parties or families patronise these networks and are considered key entrepreneurs of vigilantism and security in gold mining sites. In Burkina Faso, this was particularly the case of François Compaoré, the brother of the country's former president (Thurston 2019; Luning 2020).

These observations highlight the considerable proximity – both locational and relational – that ties together the political elites based in regional capitals, on the one hand, and the non-state actors operating in Sahel artisanal gold mining sites, including site concessionaires and violent entrepreneurs, on the other. The patronage networks of the former are robust and extensive enough to absorb, co-opt and control the latter. The mutual profitability of this relationship suggests that value extraction and protection, albeit informal, are not antithetical to state interests. This lends credibility to the argument that, in the Sahel subregional cluster, artisanal gold mining contributes to the construction of a hybrid political order and, as such, is a tool of regime consolidation. Indeed, artisanal gold mining sites in the Sahelian cluster are seldom associated with challenges to state security. This precarious equilibrium, however, can be disrupted by exogenous shocks, as illustrated in the third section of the article.

Sahara

The Sahara cluster comprises a handful of gold mining sites in the northernmost regions of Niger and Mali: Tchibarakaten and Tabelot in the Nigerien region of Agadez, and Kidal in Mali. Located a couple of days drive away from the respective capital cities, these regions have distinctive characteristics. The inhospitably harsh environment makes them very sparsely populated. Claims to customary land rights are shallow and weakly enforced. The most prevalent ethnic group are the Tuareg, an otherwise minority group which in the past has been marginal in both countries' political elites. Both regions have experienced rebellions and secessionist uprisings, and ethno-nationalist leaders retain a significant influence.

Compared to the Sahel cluster, artisanal gold mining here is a relatively recent phenomenon. Overall, the (estimated) figure of miners working at Saharan sites is much smaller than in the Sahel, although considerable compared to the size of the

[9]Interview with Malian customary authority, Bamako, October 2018.

local population: 3-10,000 in Tchibarakaten (Grégoire and Gagnol 2017; ICG 2019), 3-5,000 in Tabelot,[10] and 1-5,000 in Kidal.[11] These figures include a majority of national workers, but also sizeable contingents of foreigners, including in particular Chadians, Sudanese and Burkinabé.[12]

In these sites, exploration and exploitation permits have been often attributed with minimal regulation and no state oversight (with the partial exception of Tabelot), according to the elementary principle of 'first come, first served'.[13] This led early observers to describe the situation as "almost complete anarchy" (UNSC 2019, 24). In the three localities, however, local municipalities hurried to issue informal permits so as to tax excavation and extraction activities.[14] At the same time, entrepreneurial individuals invested in the provision of logistics not only for their own pits and labourers, but for entire sites and the (rapidly expanding) population around them.

Perhaps the most significant example in this sense is Ibrahim Saley. A former Tuareg rebel and drug smuggler from Niger, he turned to artisanal gold mining after the discovery of gold in Tchibarakaten, and soon increased his wealth and social status. By supplying the basic infrastructure enabling life on the mining site – power units, fuel cargoes, water tanks, telephone antenna and a health clinic (Tubiana and Gramizzi 2018) – he soon became known as the 'Boss'. Interestingly, Saley Boss has reportedly not invested in public goods that cannot generate direct revenues, such as roads or sanitation (and, as a result of thousands of people living without sewage system for several years, local observers describe the area as "very disgusting").[15] Saley Boss is also said to have "brought security" by negotiating the establishment of a military garrison in Tchibarakaten, and by supporting the creation of a "Tchibarakaten management committee" to settle disputes. Run by a former Tuareg rebel, the committee is eloquently headquartered next to Saley Boss' house in Tchibarakaten.[16] The Nigerien army garrison is called upon to enforce the committee's decisions, thereby *de facto* subjecting the use of public force to the service of private decision-making.

Saley Boss is not an isolated case. In both Tabelot[17] and Kidal (Dubois 2019), power at Saharan artisanal gold mining sites tends to be concentrated in the hands of a few prominent Big Men who control the means of production (extraction equipment) and reproduction (logistics and security). And in both cases, just as in Tchibarakaten, these individuals are closely connected to the milieu of Tuareg armed rebellions: former MNJ (*Mouvement Nigérien pour la Justice*) leaders in the Agadez region, and current CMA (*Coalition des Mouvements de l'Azawad*) members in Kidal.[18]

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[10]Interview with Nigerien researcher, Niamey, November 2019. See also Grégoire and Gagnol (2017).
[11]Interviews with UN officers, Malian investigative journalist and former rebels, Bamako and Agadez, November 2019.
[12]Interviews with gold entrepreneurs, Agadez; Nigerien researcher, Niamey; and investigative journalist, Bamako, November 2019.
[13]Interview with different gold entrepreneurs, Agadez, November 2019.
[14]Interviews with Tuareg traditional leaders, Agadez, November 2019.
[15]Interviews with gold entrepreneur and humanitarian worker, Agadez, November 2019.
[16]Interviews with gold entrepreneurs, Agadez, November 2019; leading member of the Tchibarakaten management committee, Tunis, September 2019; and Nigerien researcher, Niamey, November 2019.
[17]Interview with Nigerien researcher, Niamey, November 2019.
[18]Interviews with former Tuareg rebel, Agadez; and UN officer, Bamako, November 2019.

In both regions, central state authorities reportedly tried to shut down artisanal gold mining activities.[19] One can reasonably suppose that this was motivated by fears that gold mining revenues could escape state oversight (and capture) and, instead, boost a separatist insurgency, enrich criminal networks or fuel insecurity and arms smuggling (De Tessières 2018). This would be unsurprising, given the greater distance – geographic, social and political – that separates, and at times opposes, the patronage networks rooted in the national capitals and the rebellious northern districts.

In both Mali and Niger, however, the closure of artisanal gold mining in the Sahara eventually failed, and state authorities dropped the endeavour. Some observations can contribute to explaining this outcome. First, government authorities realised that clamping down on artisanal gold mining in the Sahara was "politically sensitive",[20] as it could have prompted an escalation of the already high tension with the Tuareg communities (Pellerin 2017; ICG 2019). This is particularly the case for Kidal, where Bamako's control has remained very limited since the multi-faceted security crisis of 2012, but also for Agadez, where the Tuareg resentment towards the central government is mounting due to repeated economic backlashes: the crisis of the tourism sector, the partial closure of uranium mines and the clampdown on irregular migration. Second, artisanal gold mining could have – and has – absorbed local rebellious youths, driving their attention away from dangerous temptations. Local observers confirm that the backbone of artisanal gold miners in the Sahara subregion is made of former rebels, drug traffickers, migrant smugglers and small bandits.[21] And third, the revenues of artisanal gold mining in the Sahara are largely reabsorbed by regional and national economies: the issue of informal permits generates a significant cash flow (estimated at tens of thousands of euros per week in Tabelot and Iférouane),[22] enabling local municipalities to provide basic services (OECD 2018); the profits of pit owners and logistics providers are largely reinvested locally, boosting real estate and businesses in Kidal and Agadez; and the majority of gold buyers and traders operating in the Sahara are reportedly nationals.[23] The local circulation, albeit informal, of artisanal gold mining revenues may have tempered the regulatory ambitions of Malian and Nigerien state authorities. Lastly, one should not overstate the distance between capital-centred and Sahara-centred patronage networks to the point of reifying it. Observers have noticed that Saharan leaders with an important foothold in the capitals' *palais du pouvoir* have probably contributed to shielding northern gold entrepreneurs as well as violent entrepreneurs from the interference of state authorities (Pellerin 2017; Micallef *et al.* 2019; UNSC 2019).[24]

As a result, the governments of Mali and Niger have ostensibly resolved to tolerate artisanal gold mining in the regions of Kidal and Agadez. Here, important commonalities stand out, that may hint at the terms of the informal agreements between central and

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[19] Interviews with leading member of the Tchibarakaten management committee, Tunis, September 2019; former Tuareg rebel, Agadez, November 2019; and UN officer, Bamako, November 2019. See also Grégoire and Gagnol (2017).

[20] Interview with gold entrepreneur, Agadez, November 2019.

[21] Interviews with gold entrepreneurs, drug traffickers, former Tuareg rebel, former migrant smuggler, Agadez, November 2019; member of the Tchibarakaten management committee, Tunis, September 2019; and investigative journalist, Bamako, November 2019. See also Grégoire and Gagnol (2017).

[22] Interviews with former Tuareg rebel, Agadez; and Nigerien researcher, Niamey, November 2019.

[23] Interviews with Nigerien researcher, Niamey; gold entrepreneurs, Agadez; and investigative journalist, Bamako, November 2019.

[24] Saley Boss is rumoured to enjoy the informal backing of the Tuareg representatives in Niger's government, including the Prime Minister Brigi Rafini. In Kidal, artisanal gold mining is reportedly protected by members of the ruling party.

Saharan elites ensuring the non-discontinuation of artisanal gold mining. In both regions, the governance of gold mining sites is split among different factions so as to avoid excessive centralisation: in Agadez, former Tuareg rebels now affiliated to the ruling PNDS (*Parti Nigérien pour la Démocratie et le Socialisme*) party exert significant control in Tchibarakaten, while Tabelot is dominated by the opposition MNSD (*Mouvement Nigérien pour la Société du Développement*) party and Tuareg with no links to past rebellions;[25] and in Kidal, artisanal gold mining is controlled by members of the separatist CMA as well as the pro-government Algiers Platform (ICG 2019). In both Kidal and Agadez, the protection of the sites is largely outsourced to local armed Tuareg groups, entrusted with the prevention of dangerous escalations and foreign infiltrations.[26] Yet, in both cases, state security apparatuses exert some, admittedly limited, degree of oversight through the army garrison in Tchibarakaten and compliant armed groups in Kidal.

In conclusion, the allocation of mining permits and protection provision tasks in the Sahara cluster has been bottom-up: it has followed local actors' spontaneous forms of organisation rather than state authorisation. From a distance, state governments and elites in their capitals have proved unable to project any significant degree of control and regulation. Their attitudes have evolved from formal opposition to informal cooperation, especially once they realised that artisanal gold mining in the Saharan regions could represent more of an opportunity for state resilience in the face of mounting challenges than a threat. As spatial and political distance bars the option of addressing Saharan non-state actors through absorption and co-optation in the capitals' patronage networks, the latter have managed to engage the former by skilfully negotiating supervision (*droit de regard*) and division of their activities. This arrangement may be fragile, but for the time being, it seems satisfactory for all the parties involved and has prevented major outbreaks of violence. In the Sahara, too, then, the recent boom of artisanal gold mining can be seen as a (fragile) factor of state-building rather than conflict.

Tibesti

The Tibesti cluster comprises the artisanal gold mining sites in the area of the Tibesti mountains, located in northern Chad and stretching towards Libya and Niger. The area is the traditional homeland of the Tebu, an ethnic group known for its alleged independence and statelessness (Scheele 2014; Tubiana and Gramizzi 2018). State penetration has remained extremely shallow:

> Over the last 50 years, Tibesti has […] more often been under the control of rebel movements than that of the Chadian state. The state's continued absence led the indigenous Tebu population to rely on light forms of local governance (Micallef *et al.* 2019, 68).

The most important artisanal gold mining sites include Miski and Kouri Bougoudi in northern Chad, Kilinje in southern Libya and Djado in northeast Niger. The latter is actually located in a Saharan type of environment, yet the trajectory of its discovery and

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[25] Interview with Nigerien researcher, Niamey, November 2019.

[26] Interviews with former Tuareg rebels, Agadez; Tuareg customary leaders, Agadez; UN officer, Bamako, November 2019; and member of the Tchibarakaten management committee, Tunis, September 2019. The latter has acknowledged the contribution of his organisation to (selective) intelligence gathering on the behalf of the government.

the typology of its population justify its inclusion in the Tibesti cluster. The Djado area is in fact inhabited predominantly by Tebu with close family connections to those of the Tibesti mountains, and gold here was reportedly discovered by a Chadian Tebu expelled from the Tibesti (Grégoire and Gagnol 2017). Gold mining sites in the Tibesti may not be numerous, but they are reportedly very extensive – Kouri Bougoudi stretches for about 50 km (Micallef *et al.* 2019), Djado for more than 300 km (Pellerin 2017) – and include shallow deposits that allow for easy extraction. As a result, they soon attracted a sizeable miner population, including migrants and refugees escaping regional conflicts.

As in the Sahara, artisanal gold mining in the Tibesti developed informally and spontaneously, in the almost total absence of state regulation. After initial tolerance, however, Niger and Chad state authorities adopted a much more repressive stance, which entailed the formal closure – *manu militari* – of gold mining sites in the Tibesti, leading in some cases to violent escalations. The Djado was formally closed in late 2016,[27] and its tens of thousands of workers dislodged in early 2017 (Grégoire and Gagnol 2017; Pellerin 2017). The protests that followed were severely repressed, with the Ministry of the Interior taking the bold step of commanding the removal of a local Tebu chief. Niger's military garrison in the Djado was strengthened thereafter, and the military-civilian ratio in the area is now an impressive 1 to 5.[28] In Chad, the government first ordered the evacuation of Miski and Kouri Bougoudi in August 2015; two years later, miners were brutally evicted by the army; and in mid-2018, following the Ministry of the Interior's order to arrest the miners and destroy their installations, military helicopters and the air force bombed the sites (Molenaar *et al.* 2018; Tubiana and Gramizzi 2018).

Niger's and Chad's leaders have justified their behaviour arguing that artisanal gold mining sites in the Tibesti had become uncontrollable due to the inflow of bandits, disbanded rebels and terrorists from across the region, fuelling insecurity. Local observers confirm that the tension between indigenous populations and newcomers was indeed high, and state authorities too distant to prevent and address conflicts effectively.[29] This, however, begs the question of why forms of soft co-optation and negotiation with local actors were not resorted to, as in the Sahara. Arguably, this has to do with the inherently transnational character of artisanal gold mining governance in the Tibesti. In particular, Tibesti's proximity to Libya has undermined Sahelian state authorities' capacity to implement an even informal, or shadow, form of regulation on local actors. Gravitating around a different political-economic centre, actors in Tibesti have increased their distance from Sahelian capitals, leading to an inevitable clash.

To a large extent, the monetary flows of artisanal gold mining sites in the Tibesti originated from, and returned to, Libya. Powerful networks based in Libya, whether Tebu or Arab, reportedly supplied the bulk of the logistics for gold mining operations in the Tibesti (Pellerin 2017; Grégoire and Pellerin 2019). Similarly, Libya-based buyers were said to "control the industry" (Hunter 2019, 7), ensuring a steady supply of gold to Libyan traders (Micallef *et al.* 2019). In 2016, when all the Tibesti gold mining sites were still operational, "Libya exported 81.5 tons of gold valued $2.8 billion to the UAE [...],

[27]Interview with mining authority, Niamey, November 2019.
[28]Interviews with Nigerien military commander, Tunis, September 2019; and Tebu traditional leaders, Agadez, October 2018.
[29]Interviews with Tebu traditional leaders and gold entrepreneurs, Agadez, November 2019. See also Tubiana and Gramizzi (2018).

dwarfing the annual trade figures of any other African nation since 2002" (Hunter 2019, 13; OECD 2018) – and this in spite of almost no domestic production.

Even more problematically, Libya-based violent entrepreneurs of Tebu origins were claimed – or feared – to be behind the provision of protection in Tibesti's artisanal gold mining sites. Tebu rebel leader Barka Wardougou, defined a "predatory criminal" by Nigerien army officers,[30] was reportedly in control of artisanal gold mining at Djado (Murray 2017), while Allatchi Mahadi, a former Libyan then Chadian Tebu rebel commander, was reportedly in control of Kouri Bougoudi (Tubiana and Gramizzi 2018). The government of Chad has formally accused Tebu artisanal gold miners in the Tibesti of financing Chadian rebel groups hidden in Libya (Micallef *et al.* 2019; Chevrillon-Guibert *et al.* 2019).

Libya's pull factor made itself felt on the provision not only of capital and protection, but also of labour. The Tibesti gold mining sites are located along the major migratory routes connecting sub-Saharan Africa to Libya, and possibly Europe. This fuelled the fear that artisanal gold mining could boost, or hide, north-bound irregular migration (Molenaar *et al.* 2018; Micallef *et al.* 2019). From this perspective, the shutdown of Tibesti's artisanal gold mining intercepted both European and Sahelian states' security concerns, and it is not unlikely that the former encouraged the latter to intervene with bold measures.[31]

These considerations concur to explain why state authorities' attitude towards artisanal gold mining in the Tibesti has been strikingly different from that observed in the Sahel and Sahara. Geographic and social distance, on the one hand, and the attraction of an alternative centre of power, on the other, have undermined the effectiveness of the co-optation and negotiation schemes adopted elsewhere, preventing state capture and hybridisation. The violent escalation and militarisation that followed the state's attempts to eradicate artisanal gold mining in the Tibesti suggest that, beyond the reach of states' patronage networks, artisanal gold mining can easily turn into a factor contributing to the escalation of violence.

From co-optation to contestation: the case of Burkina Faso

The importance of spatiality in explaining how artisanal gold mining can contribute to either stabilisation or destabilisation should not lead one to presume that the interactions between state and non-state actors are static across time. The case of Burkina Faso illustrates how a relatively solid modality of governance, embedding state rulers and private (violent) entrepreneurs in a patronage network, can transition from a factor of stability into a burden of fragility leading to destabilisation.

As observed previously, former President Compaoré's opaque allocation of mining rights had benefitted his own regime and clients, yet it had also prompted the private enclosure of mining sites and the expulsion of local dwellers. This triggered resentment in some rural communities, who felt discriminated against and dispossessed to the advantage of urban elites tied to power networks (Hubert 2019). Activist organisations went as far as denouncing the establishment of what they called "colonial enclaves"

[30]Interview with Nigerien military commander, Tunis, September 2019.
[31]Interviews with Nigerien leaders, Niamey, October 2018 and November 2019.

(Thurston 2019, 48) at the peripheries of Burkina Faso. Proximity, which had tied together the Sahelian mode of artisanal gold mining governance, was thus progressively eroded from the inside by the layers of social distance that grew along the centre-periphery dialectic. At the same time, the pace of expulsions had swelled the ranks of a "surplus population", which often ended up turning to small banditry as a source of livelihood (Hubert 2019; ICG 2019). And the criminalisation that ensued further deepened the gulf between central state rulers and the marginalised ruled.

These dynamics contributed to the political upheaval, which led to the ousting of Compaoré's regime in October 2014 (Luning 2020). With the departure of its cornerstone, Burkina Faso's hybrid order crumbled, leaving a crucial void in the governance of the gold mining sector, both artisanal and industrial. The protection provision of gold mining sites lost its state sponsor and remained vulnerable to contention and competition by a variety of violent entrepreneurs. This determined a situation particularly prone to violent escalation, as theorists of state-sponsored protection rackets have long argued (Snyder and Duran-Martinez 2010). The situation drifted dangerously towards the ideal breeding ground for mafia-style gang competitions and turf wars, with

> the lethal combination of a demand for the protection of property and property rights, the presence of a threat from banditry and disputes with other owners, low levels of trust, and a supply of disbanded soldiers and unemployed field guards ready to offer protection (Varese 2014, 347).

Indeed, a multiplicity of self-appointed protection providers stepped in, claiming either to fill the state's security gap and protect gold mining sites from banditry, or to give access to resources back to the rural populations of which the *ancien régime* had illegitimately stripped them (ICG 2019). Among the first group are, most notably, the *Koglweogo*, a vigilante group with strong ties to Burkina Faso's customary leadership, who progressively tried to displace and replace the *Dozo* as the informal police of gold mining sites (Hagberg 2019). Among the second are the jihadist groups proliferating in the region, whose legitimation narrative combining social and religious discourses helped cast a bridge towards local dispossessed communities (Hubert 2019; Lewis and McNeill 2019).

The new democratic authorities' hesitant response only made things worse. In an attempt to dry up the stream of revenue fuelling violent entrepreneurship, the government frequently ordered gold mining sites in remote regions to be shut down. In many cases, though, this move bolstered the standing of the violent entrepreneurs claiming to protect people's source of livelihood from state capture. Recent events provide numerous illustrations of this. In 2018, the governor of the East region ordered the closure of artisanal gold mining sites, officially to cut off sources of funding for terrorist groups. As a result, disgruntled miners reportedly turned to the jihadists, who reopened some of the mines (ICG 2019). At Kabonga, in particular, the jihadists have proven to be rooted enough to exert some territorial control, with the implementation of checkpoints and the imposition of Islamic rule (UNSC 2019). Another case is Kereboulé, in the northern province of Soum. In 2016, the site was seized by a group of *Koglweogo*, known for their complicity with Compaoré-era patronage networks (ICG 2019). In the subsequent months, *Koglweogo* members were targeted by jihadist attacks, who were strongly suspected of operating with the sympathy, if not the support, of local artisanal miners

(OECD 2018). Jihadists also targeted the gold mining site of Inata, where state authorities had repeatedly carried out forced evictions and suspended operations (Hubert 2019).

Thus, the spiral of expulsions and grievances related to artisanal gold mining may well contribute to explaining the sudden rise of jihadist groups' influence in Burkina Faso. This appears to be less a matter of violent extremism than of violent entrepreneurship, suggesting that interactions between rulers and non-state violent entrepreneurs around artisanal gold mining sites can evolve from cooperation to competition when hybrid orders fall apart, leading to the collapse of state-sponsored protection rackets.

Conclusion

There is much variability in the complex interactions between state and non-state actors in the governance of artisanal gold mining in the Sahara-Sahel. Nevertheless, the relative consistency of the governance schemes that prevail in the clusters of the Sahel, Sahara and Tibesti contributes to shedding some light and clearing a path of interpretation. While non-state permit holders and protection providers play a key role throughout the region, state authorities authorise and subcontract artisanal gold mining in the Sahel; tolerate and negotiate its control in the Sahara; and prevent and suppress it in the Tibesti.

The dialectic between proximity and distance helps explain under what conditions artisanal gold mining represents a driver of either the making or the unmaking of fragile states. Proximity tends to be associated with forms of governance that enable stabilisation and state-building; geographical and social distance, instead, often gives rise to (fears of) centrifugal pushes that escape state control, leading to an escalation of violence. Empirically, this means that in the Sahelian core of regional states, artisanal gold mining has provided a tool for regime empowerment; in the Sahara, it has helped assuage pre-existing tensions; and in the Tibesti, it has exacerbated them, leading to militarisation and conflict.

Proximity and distance, however, should not be considered only locational regularities. In the Sahara-Sahel, proximity stretches as far as the patronage networks that entangle state and non-state actors together in the governance of artisanal gold mining. Distance marks the degree of peripherality within these networks. From this perspective, proximity produces its own distance, as the case of Burkina Faso illustrates. Conversely, distance is someone else's proximity, as in the case of the Tibesti with respect to Libya. And when the patronage networks' centre of gravity collapses, as in the case of radical regime change, the concepts of proximity and distance can be turned upside-down.

This suggests that proximity in the governance of artisanal gold mining can increase regime stability, but that does not necessarily equate to state resilience in case of exogenous shocks. In neopatrimonial orders, in fact, the coalescence of regime and state can easily lead to the collapse of the latter when the former is challenged. However, even in the best-case governance scenario, in which proximity and tight-knit co-optation prevail, artisanal gold mining per se cannot undo the root causes of state fragility in the Sahel, as long as violent entrepreneurs are there to harvest widespread grievances against the exclusionary practices inherent in patronage politics. Beyond structural factors, then, one needs to pay closer attention to how national politics mould the environment that makes artisanal gold mining a factor contributing to state-making or unmaking in the fragile Sahelian context.

The rise of artisanal gold mining in the Sahara-Sahel is too recent, and does not allow for enough longitudinal variability. Further studies can contribute to clarifying the scope conditions, the range of applicability, as well as the ultimate validity of the interpretation set out here. At the same time, Sahelian states' proneness to extra-constitutional regime changes and *coups d'état* makes them a valuable laboratory for studying how different sorts of power transitions impact on natural resources governance schemes based on the dialectic of proximity and distance. This article hopes to contribute to this promising research agenda.

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