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FRONTIER CAPITALISM IN COLONIAL AND CONTEMPORARY LAOS

The Case of Tin Mining

Oliver Tappe

INTRODUCTION

When France seized control of the Lao territories on the east bank of the Mekong from Siam in 1893, the sparsely populated country remained a colonial "backwater" that received only little administrative and commercial attention (Gunn 1990; Ivarsson 2008). However, as Laos was rich in minerals, not only gold and silver but also tin and copper, it evoked imaginaries of a "Klondike Indochinois and New Bolivia" (Deloncle [1930] 2011, p. 116) and attracted numerous entrepreneurs and venturers. Taking the tin mining area in the Nam Phathaen valley (Khammouane Province, central Laos; see Figures 8.1 and 8.2) as an example, this chapter investigates the contingent processes of (capitalist)

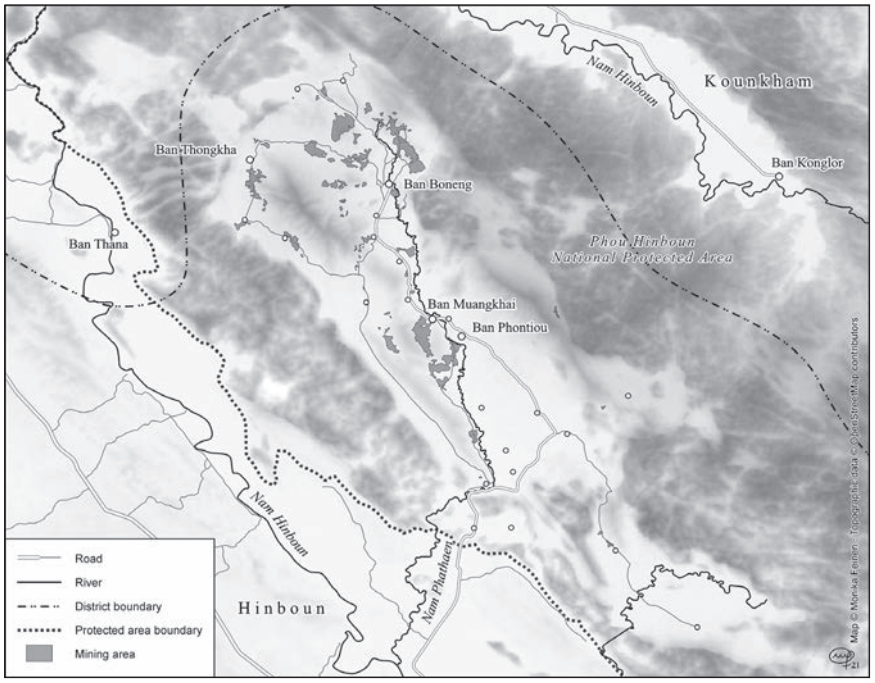
frontierization—processes of uneven and combined development on the ground—in past and present Laos.

The image of a resource frontier has certainly shaped the perception of Laos until the present day. Still in the 2000s, the Asian Development Bank depicted the country as a "new frontier" (Barney 2009, p. 147) and promoted transnational investment into mining, energy and agribusiness, which was a striking echo of colonial discourses on underdeveloped and underpopulated Laos. Both under colonial capitalism and in the context of present-day "market socialism with neoliberal characteristics" (Hann and Endres 2018), the vast, forested uplands of Laos (80 per cent of the state territory with only half of the country's population of 7 million), in particular, have been envisaged as a resource-rich frontier awaiting exploitation. This imaginary translated into extractive practice that produced considerable social and environmental costs among the fifty different ethnic groups of Laos and their largely subsistence-based

FIGURE 8.1
Province Khammouane, Lao PDR



FIGURE 8.2
Nam Phathaen Valley in Khammouane Province, Lao PDR



economies (see, e.g., Kenney-Lazar 2018; Rigg 2005; Laungaramsri 2012; Dwyer and Vongvisouk 2017; Ponce, this volume).

As several authors have noted (Tsing 2005; Li 2014; Cons and Eilenberg 2019), the concept of the (resource) frontier can be used as a heuristic device to examine the interwoven social, economic, political and environmental dynamics and transformations at the margins of global capitalism (see as well the introduction to this volume by Rowedder and Tappe). In particular, the relationship between global capital and indigenous communities, processes of exclusion, and increasing inequalities can be examined through the lens of the frontier. Shifts in local subsistence strategies and labour relations under conditions of frontier capitalism and rudimentary industrialization constitute a key aspect to be discussed in this chapter.

Processes of frontierization in colonial and present-day Laos are intertwined with discourses of backwardness with both economic and

racial connotations (Ivarsson 2008; Goscha 2012; Barney 2009). This makes Laos a fruitful arena to investigate trajectories of uneven and combined development through old and new processes of spatially and temporally incoherent capitalist expansions (and contractions), resulting in economic and social contradictions and ambiguities (see van der Linden 2007; Allinson and Anievas 2009; Kasmir and Gill 2018; Strümpell and Hoffmann forthcomimg). Those dialectics arguably shape the Lao frontier and reproduce it—not as a linear process of enclosure but as fragmentary recasting (see Nyíri 2012 for the case of Special Economic Zones in the Lao-Chinese borderlands; Rowedder, this volume). The persistence of Lao miner-peasant livelihoods calls for a closer examination of the historical contingencies of frontier capitalism.

Against this backdrop, one key problem in the context of mining in Laos is the precarious coexistence of artisanal and small-scale mining (ASM) and industrial large-scale mining (LSM) operations, a pattern that has been characterizing the Lao tin mining area in Khammouane for the past hundred years. This pattern includes shifting labour relations between agriculture and industry that correspond with processes of uneven and combined development, arguably grounded in the complex frontierization processes that shape the Nam Phathaen valley.

Taking the tin mining area in Khammouane as a test case, I will address the following questions:[1] How did and do processes of frontierization play out on the ground, shaping local subsistence strategies within shifting frontier assemblages? How is frontier capitalism linked to the question of (unfree) labour, especially in sparsely populated regions? How does the reproduction of the frontier (instead of a closure) correspond with processes of uneven and combined development? My historical perspective aims to illustrate the dynamics of frontier capitalism in Laos from the French colonial *mise en valeur* policy to the Chinese Belt and Road Initiative—both targeting allegedly "untapped" resource frontiers.

MINING THE LAO FRONTIER: A BRIEF HISTORICAL OVERVIEW

Early French accounts highlight the local mining practices in the river valleys of Laos, in particular, artisanal gold mining (e.g., Pavie 1900; Gosselin 1900; Raquez 1902). Precious metals constituted important tax

and tribute commodities for centuries. A constant flow of gold, silver, copper and tin connected upland societies to the Lao principalities along the Mekong (and further to the Siamese court). This was part of an encompassing exchange cycle linking upland and lowlands in mainland Southeast Asia through complex movements of goods and people (Grabowsky and Wichasin 2008).

The French took advantage of this existing mining system and began systematic explorations by the turn of the twentieth century. This happened at a time when the colonial government heavily invested in infrastructures and met French capitalist interests through state contracts, monopolies, and subsidies, not least to dismantle Chinese commercial dominance in Indochina (Brocheux and Hémery 2009; Sasges 2015). New roads connecting the Lao towns by the Mekong with the Vietnamese ports also aimed at redirecting flows of revenue and trade away from neighbouring Siam (Goscha 2012). However, transport across the rugged Lao hinterland remained slow and costly in comparison to the route across the Mekong to Siam, often controlled by Chinese merchants.

Even more challenging for the fledgling frontier capitalism in colonial Laos, however, was the question of labour. In the case of the Lao tin mines, local villagers only practised small-scale mining for two months during the dry season. The French resorted to Vietnamese migrant labour, using the newly built roads and existing networks of coolie recruitment. With modern mining technologies, Western know-how and separate workers' compounds, the mining area of the Nam Phathaen became the first sizeable industrial agglomeration in the country (and remained so after national independence in 1953).

While the enthusiastic anticipation of a railroad linking the Mekong with the Vietnamese coast and corresponding exaggerated hopes of economic development had been disappointed, the tin mines remained a stable industrial enterprise, best represented by the *Société des Études et Explorations Minières de l'Indochine* (Mouscadet 2013). By the start of the mineral boom in the 1920s, local tin mining in the villages around the French mines seemed to have proceeded as well: "*une petite industrie indigène*" with basic mining techniques and simple earthen ovens to melt the mineral.[2]

The tin mining area in Laos remained an only rudimentary industrialized frontier, though. After national independence and later

in the context of the Second Indochina War, the tin mines—still under the direction of French engineers, and in lack of alternative notable industries—were important for the revenues for the Royal Lao Government (in cooperation with the ally Thailand, see CIA 1967). After the communist revolution of 1975 and the resulting exodus of the educated class to Thailand (including many skilled Vietnamese workers; see Evans 2002), the mines—like other economic sectors—fell into decline. The American "secret war" in Laos, a sideshow of the war in Vietnam, had left the country heavily bombed and with destroyed infrastructures (including many roads to Vietnam). Most critical was perhaps the closure of the border to Thailand that made trade across the Mekong difficult (ibid.).

The villagers in the Nam Phathaen valley returned to their fields and occasionally dug for minerals in the abandoned mines. In the 1980s, Russian (and later North Korean and Chinese) engineers were running the mines on a modest level (Lahiri-Dutt, Alexander, and Insouvanh 2014). The valley faced increasing mechanization and environmental degradation (e.g., deforestation due to charcoal production) while local communities continued their specific subsistence strategy combining agriculture with ASM in both abandoned and active mines.

After decades of war and revolutionary struggle, the Lao People's Democratic Republic was basically an agrarian subsistence economy, with the only revenues resulting from mineral and timber export. In the 1990s, the World Bank identified mining as a key sector for socio-economic development and revenue generation. Since then, the mining and energy sector has attracted a large share of foreign direct investment (FDI)—especially from the economic regional powerhouses China, Thailand and Vietnam—and generates important state revenue. The Lao Ministry of Energy and Mines estimates more than 150 mineral reserves in the country, including gold, copper, tin, iron, bauxite, lignite and potash (Mottet 2013; Tappe 2021).

Perceptions of the Lao mining sector used to be dominated by the "big two" gold and copper mining areas: Phu Bia mine in Xaysomboun province; and Xepon mine in Savannakhet province, extractive enclaves in the mountains. Established by Australian mining companies under World Bank guidance, the mines were later purchased by Chinese enterprises. Until both mines reduced production to a minimum in 2020 (as planned even before the pandemic), they generated more

than 90 per cent of state revenues earned from mining (ibid.; Barney 2018). However, several smaller mining operations currently explore the remaining gold reserves and other rare metals in these areas, taking advantage of existing infrastructures and new technologies.

Smaller mining areas such as the tin mines of Khammouane are today marked by Chinese or Vietnamese concessions (investment from both countries accounts for more than 80 per cent of FDI in the Lao mining sector; Mottet 2013). While ASEAN integration fosters transnational trade and migration (in particular with Thailand and Vietnam), the legacy of the Chinese Go Out policy of the 1990s and the recent Belt and Road Initiative (BRI), in combination with the legal reforms in Lao PDR, has resulted in a massive increase of Chinese investment (Tan 2014; see Nyíri and Tan 2017 for broader tendencies of Chinese involvement in Southeast Asia). Chinese infrastructure investment in the context of the BRI adds a new dynamic to the sector, linking upland peripheries to the "economic corridors" already envisaged before by World Bank and ADB (Dwyer 2020).

These tendencies in the resource-driven economic development strategies have not translated into job opportunities for a great part of the local populations, though. As in the case of Vietnamese- and Chinese-run plantations in Laos (see, e.g., Baird et al. 2019), and recent infrastructure projects, most mining companies prefer a Chinese and/or Vietnamese workforce, especially (but not only) with regard to skilled labour. The reason for this tendency within the Lao labour market is manifold (see ibid.; Molland 2017; Tappe 2019a) and will be discussed in more detail below.

Artisanal and small-scale mining has for long been neglected, sometimes as "informal" or even "illegal", by policymakers (Lahiri-Dutt 2014, p. 17). Amidst reports of closure and perhaps fragmentation of the two big mines, and a growing uncontrolled ASM sector, the latter shifted into focus and received more political attention. For the moment, we witness a more differentiated view of the mining sector that includes various practices of artisanal and small-scale mining, the different actors involved, and state attempts at control and formalization (Barney 2018; Moretti and Garret 2018; Keovilignavong 2019).

Thus, in most mining areas in Laos we can identify (uncontrolled) processes of frontierization, sometimes encouraged by legal frameworks—business-friendly ones initiated by World Bank—sometimes hampered by legal uncertainties and political chaos on the ground. The focus on

resource extraction—and the disconnection from other sectors of the Lao economy, prevent the development of a skilled local workforce and reproduce the frontier situation with its characteristic power imbalances and contradictions.

ARTISANAL, SMALL-SCALE AND LARGE-SCALE MINING: FRONTIER DYNAMICS AND CONTESTED LIVELIHOODS

This is the curious situation today in the Nam Phathaen valley: local artisanal miners digging in open pits overshadowed by Chinese excavators, sometimes using tools leased from the foreign companies, precariously balancing the mineral along the muddy slopes (Tappe 2019b). Chinese and Vietnamese concessions cover most of the land in the valley, often overlapping with local land rights, with a dozen mining operations ranging from medium-scale ad hoc businesses to large-scale enterprises. In the Nam Phathaen valley as elsewhere in the mineral-rich Lao uplands, such concessions blossomed after the World Bank encouraged reforms towards market capitalism since the 1990s to develop the largely agrarian Lao economy.

Luning and Pijpers (2017) describe the coexistence of industrial mining companies and local mining communities as (more or less voluntary) "cohabitation", shaped by uneven power relations and with often unresolved questions of illegality and resource governance (see Hilson 2009; Bryceson and Geenen 2016 for African ASM contexts). Local villagers certainly operate in a legal grey zone, sometimes tolerated by the companies, as will be discussed in more detail below. Even if ASM produces income opportunities, the villagers suffer from the side effects of resource extraction such as environmental degradation and pollution that negatively affect agrarian subsistence.

Processes of dispossession and exclusion on the Lao resource frontier date back to colonial times when French entrepreneurs could easily claim concessions through the colonial administration and/or military force (Gunn 1990). However, with French operations only punctual and limited, local ASM communities could easily move elsewhere to secure their livelihoods (that relied on flexible upland swidden cultivation, anyway). Meanwhile, ASM was included in the colonial economy through a newly established tax system that targeted the non-monetarized upland societies with requirements for *corvée* labour and commodities such as minerals, opium and valuable forest products (ibid.).

Environmental degradation began to be an issue under colonialism when the French enterprises intensified the production of charcoal to run the melting ovens that previously were only used on a minimal scale. Mechanized open-pit mining under French and Russian direction later turned large tracts of arable land along the Nam Phathaen into wastelands that have not recovered until the present day. On the contrary, farmland has been continuously reduced, and the reliance on ASM increased (Lahiri-Dutt 2014; Lahiri-Dutt, Alexander and Insouvanh 2014).

ASM in the Nam Phathaen valley includes mining with simple tools in abandoned mines or running concessions, as well as panning in the rivers that contain the sewage of the mining operations further upstream. More than 95 per cent of the working-age population practise ASM which accounts for an estimated 70 per cent of the average household income (interviews in Ban Muangkhai, February 2019). ASM is largely a family business with gendered labour divisions between male diggers and female panners, often drawing labour away from what remains of the agricultural sector in the valley.

What are the consequences for local livelihoods? Agrarian subsistence has become increasingly precarious, with cultivation and livestock suffering from the polluted environment. The local economy has been commercialized, and a number of traders are active in the valley, either buying minerals from the villagers or selling goods for daily needs to them (including drinking water as the water sources are by and large contaminated). The landscape and society of this remote village certainly carry the marks of a century of resource extraction (Lahiri-Dutt 2014; Earth Systems and BGR 2019; Tappe 2019b).

What historian Geoffrey Gunn (1990, p. 35) has identified as a "localized agromineral sphere" in colonial Laos, can still be observed today. The historical vicissitudes of colonialism, socialism and recent globalization tendencies in Laos notwithstanding, the Nam Phathaen valley population (approx. 12,000 people) demonstrates a specific miner-peasant identity that Kuntala Lahiri-Dutt (2014, p. 3) describes as "mining by peasants", even though some households in the valley do not cultivate the land at all—while still insisting on living from the resources of the valley's earth. Arguably, the moral economy of the local villages is still shaped by subsistence ethics that combines remnants of agriculturally based livelihoods with resource extraction.[3]

PROBLEMS OF LAO MINING LEGISLATION

A discussion of legal issues in the mining sector will further illustrate the ambiguities of "mining encounters" (Pijpers and Eriksen 2018) on the Lao resource frontier. Tin mining in the Nam Phathaen valley is regulated by the Ministry of Energy and Mines, primarily through the Law on Minerals (2017). Yet other ministries are also involved in the whole process between concessions and impact assessments (Ministry of Natural Resources and Environment, Ministry of Planning and Investment, Prime Minister's Office; see Earth Systems and BGR 2019). Poor communication and competition between ministries and different administrative levels of the respective ministries (national, provincial and district) is a major problem in Laos. This produces challenges for resource (frontier) governance and legal frameworks for investment (Lu and Schönweger 2019; Keovilignavong 2019; Suhardiman, Keovilignavong, and Kenney-Lazar 2019; Baird 2011).

A recent advisory report (Earth Systems and BGR 2019) notes a lack of commitment to the enforcement of core legislation throughout the approval process, exploration and mining from the responsible ministries and their provincial and district counterparts. Moreover, district and provincial authorities are highly dependent on financing from mine operations to conduct monitoring. Not surprisingly, only limited funding is provided. Obviously, local ASM communities are caught in the crossfire of competing and contradicting legal regulations on different and arguably disparate scales.

What exactly counts as ASM remains an ongoing debate. The Law on Minerals clearly distinguishes between artisanal mining and small-scale mining. Artisanal mining mainly means panning for alluvial gold and tin, practised by using "primitive tools, mechanized equipment with fewer than five horsepower and no more than ten laborers". It is considered a communal, non-permanent operation, "and shall not be regarded as a business". Throughout Laos we find villages holding customary rights to practise artisanal mining while others operate in a legal grey zone (Lahiri-Dutt 2014; Barney 2018; Keovilignavong 2019; Tappe 2021, pp. 4–6).

For small-scale mining, the law appears more complicated. Small-scale mining includes "digging, drilling, blasting, and sorting of mineral from the surface, underground and under water where it is not appropriate for industrial mining within an area not to exceed ten hectares". Again,

this mining activity is only permitted "for Lao entities" such as village communities or single households. They are entitled to obtain official permissions and legal rights to do small-scale mining. And yet, larger mining concessions granted to foreign companies are often superimposed on such communal rights (ibid.).

The specificities of ASM in the Law on Minerals make it also difficult to legally reckon with recent trends of mechanization and intensification in ASM and the rise of domestic and foreign small-to-medium-scale mining activities that escape such categorizations. Many mining operations in Laos outside the relatively well-monitored LSM, thus navigate in legally ambiguous waters. Increased mechanization, migration and other, unintended effects of mining development entail a variegated pattern of ASM which poses considerable challenges for effective legislation and governance, as Keith Barney (2018, pp. 354–55) has pointed out.

Most of the mining concessions in the valley were granted before the aforementioned regulations were introduced, or during the process. In consequence, there is a number of legal community or family-run artisanal mining operations which found themselves on concession grounds or, rather, investors realized that there were already legal mining activities, even if only small scale, operating at the local level. Although artisanal mining within a concession is de facto illegal, exploiting a concession without proper land titles is legally ambiguous as well. What looks orderly at the macro level of ministerial planning is thus more complex on the ground, the whole process yielding unexpected, contingent results depending on mining sites.

The interaction of artisanal miners and mining companies is certainly complex; it can be conflictual or mutually beneficial. Only a few mining enterprises try to block entry of ASM miners on their concession grounds, while the majority tolerate ASM activities on concession grounds either by taking advantage of local informal labour (see below), acknowledging local customary rights, or just realizing their own legally dubious concession acquisition (in cases when such concessions were granted without the required consultations at district or village level; interviews February 2019). Mining companies are usually not held accountable for pollution even if the law calls for sustainability and post-closure rehabilitation. This is so far hardly ever enforced. Increased LSM activities result in vast stretches of degraded

land and limited agricultural options. Local communities suffer a lot from land degradation, pollution, noise and other side effects of mining. As already indicated above, arable land is either minimized by open mining pits, dumps and other mining facilities or affected by pollution; deforestation entails the reduced availability of non-timber forest products and timber forest products for community harvest; water pollution threatens local fishery, livestock and drinking water reserves (Earth Systems and BGR 2019, pp. 10–16). Therefore, villagers carry the risks of mining opportunities, often ignorant of laws that can protect them.

As Keith Barney (2018, pp. 354–57) notes, the recent decade has witnessed another environmentally detrimental development: medium-scale mechanized mining that operates with backhoe excavators, pump dredges and sluices blurs the boundaries between LSM and ASM as fixed in the Law on Minerals. This emerging field draws in workers, operators and investors from China and Vietnam who negotiate permissions with local authorities, usually without any governmental control or monitoring. Local villagers lease farmland to those mining operators for some easy money but then see their land being irreparably damaged. This development and increased, uncontrolled use of chemicals have been identified in ASM contexts throughout Laos (cf. Keovilignavong 2019) including the Nam Phathaen valley.

Adding to environmental and health issues, the fact that the local villagers have to buy fish, rice and drinking water (unlike the average Lao village community) for consumption, puts the income opportunities of mining in a more questionable light. This aspect is also critical for the understanding of labour relations in the tin mining area of the Nam Phathaen valley, in particular concerning the exclusion from regular employment and the preference for informal ASM activities. The next section traces questions of labour back to colonial times.

LABOUR RELATIONS IN LAO TIN MINING

At the turn of the twentieth century, the French travel writer Alfred Raquez (1902, pp. 499–503) provided detailed descriptions of local mining practices: The villagers dug narrow vertical shafts in the ground, between 10 and 20 metres deep with a diameter of 80 and 150 centimetres. Then they dug out tunnels, extracted the ore, crashed it with stones and washed it in wide bowls or coconut shells (techniques

still used today). Finally, the miners melt the mineral in small earthen ovens and produced small nuggets to sell in the Mekong towns or to give to Chinese merchants in exchange for textiles, salt, dried fish, and sometimes rice in cases of local famine (cf. Laurent 1907).

When I visited the valley more than a hundred years later, the parallels between ASM practices in past and present struck me. In an abandoned mine near the former headquarter of the French *Société des Études et Éxplorations Minières de l'Indochine* and, decades later, of a short-lived Lao–North Korean joint venture, I watched local villagers climbing into narrow shafts with rickety bamboo ladders. They used basic tools to produce the ore while their wives and daughters washed it with simple pumps. The more thorough the processing, the higher the concentration of the mineral and, thus, the profit when selling the mineral to traders or the mining companies operating in the vicinity (see Figure 8.3).

FIGURE 8.3
Artisanal Tin Miners in the Nam Phathaen Valley



Source: Photo taken by the author, February 2019.

In this section, I will discuss the different labour relations that mark the tin mining industry in the Nam Phathaen valley. Both in colonial times and the present, Vietnamese work migrants constitute the main workforce in the industrial mining operations (actually, in all labour-intensive sectors of the Lao economy; see Tappe 2019a). Local Lao villagers are by and large excluded from regular employment and operate in a legal grey zone between illicit ASM activities and informal work for the mining companies.

Exclusion from regular employment and the precarious cohabitation patterns echo labour regimes under colonialism: a local Lao village population with mixed livelihoods consisting of ASM and agriculture (and, in the past, of foraging in the forest), and small industrialized mining enclaves relying on a temporary migrant workforce from Vietnam. The ratio may change, and overlaps happen during periods of waxing and waning local employment in response to diverse external forces (border policy, legislation, economic crisis, etc.).

In the Lao uplands and elsewhere, indigenous labour was considered insufficient and unreliable (Goscha 2012; Tappe 2016). Indeed, the local peasants in the Nam Phathaen valley only practised tin mining in the dry season, for both practical and cosmological reasons. During the monsoon the spirits of the water may become aggressive, causing floods and landslides.[4] Mining work was certainly more dangerous in the rainy season, and wet rice cultivation required labour for most of the year, so mining was just more practicable in the agriculturally slack winter months.

As in all labour-intensive sectors of the Indochinese economy, the recruitment of Vietnamese labourers, the so-called "coolies", appeared more convenient to the colonial enterprises. The tin mining area in Laos attracted thousands of Vietnamese from the impoverished coastal areas of northern Annam.[5] This migration was more spontaneous in comparison to the state-orchestrated recruitment campaigns on behalf of the newly established enclaves of colonial capitalism in southern Indochina, most notably the rubber plantations on the high plateaus of Cambodia and Cochinchina (Brocheux and Hémery 2009; Aso 2018).

As I have discussed elsewhere (Tappe 2016), "coolie" labour constituted a kind of hybrid between wage labour and coerced labour—politically institutionalized and legitimized. According to the

law, it was possible to leave the contract when advances and other costs were paid off. However, it was difficult for the labourers to do so given the low salaries and deductions for food and accommodation in the isolated compounds. They rather accumulated more debts and their systematic exploitation of the (often heavily guarded) workplace continued (see Klein 2012).

In the Lao tin mining area and elsewhere in Indochina's resource frontiers, the impoverished population of coastal northern and central Vietnam constituted a veritable reserve army of labour. For the year 1932, Geoffrey Gunn (1990, p. 48) counts a workforce of 1,157 in the tin mines (down from 6,000 in 1929, prior to the world economic crisis), 921 of them Vietnamese, 156 Lao. This ratio indicates the Vietnamese dominance in the labour sector, but also the fact that at least seasonal work in the colonial mines had become a part of local Lao livelihoods, perhaps parallel to agriculture and fishing.

Frontier capitalism's Vietnamese workforce—unlike the Lao miner-peasants—showed gradual tendencies of proletarianization, however, interrupted by political crises and spontaneous (re)migrations. The 1930s witnessed the emergence of the first communist cells in the Lao mines, agitating against colonial exploitation and hard working conditions (Gunn 1988). The economic crisis and corresponding salary cuts fuelled workers' unrest, and the mines became the arena of the first labour struggles in the country (with only a few Lao participating, though). In 1946 and 1975, many Vietnamese moved back or further to Thailand. Together with the miner-peasant subsistence ethics that blur the distinction between pre-capitalist and capitalist modes of production, these developments mean that the Lao tin mining area never experienced full proletarianization.

Moreover, present-day employment patterns resemble the colonial labour regime, an efficient means to prevent labour organization (Derks 2010). Since Lao labour laws largely ignore ASM labour and the contract labour in the foreign enclaves, neither Vietnamese migrants nor local villagers can expect protection from this side (and neither from the Lao trade union, under strict control of the Party-State). Therefore, the tin mining context implies precariousness for both groups of mining workers.

Today, Vietnamese work migrants in Laos take advantage of border arrangements, efficient recruitment networks and networks among

local Lao-Viet communities. However, lacking legal security in Laos, they depend on the goodwill of their employers and local authorities (Baird et al. 2019; Tappe 2019a). Working (illegally) on a thirty-day tourist visa, they used to cross the bridge between Thakhaek (Laos) and Nakhon Phanom (Thailand) for monthly "visa runs"—a practice now complicated by Thai authorities.[6] Thus, cases of visa overstay and corresponding insecurity are increasing among the Vietnamese migrant community.

In the mines, Vietnamese labourers earn less than the official minimum wage in Laos (LAK1,200,000; US$128). Given the extreme poverty in some regions of Vietnam and the favourable exchange rate of the Vietnam dong to the Lao kip, working in Laos remains an opportunity for impoverished and mobile parts of the Vietnamese population. Due to better roads and efficient communication networks cultivated by Lao-Vietnamese middlemen, seasonal work migration to Laos is convenient for both employers and employees. Therefore, a transregional perspective is key to understanding labour relations in mining and other labour-intensive economic sectors of past and present Laos.

While Vietnamese (and Chinese) companies find it more efficient to recruit migrant labour, local Lao seem to prefer freelance artisanal mining to employment under a fixed contract. Low salaries and hard working conditions make formal jobs in the mining sector less attractive, anyway. Since the job skills of the Lao miner-peasants are considered insufficient for better-paid jobs (e.g., engineer), the Lao rarely obtain regular work contracts. Accordingly, ASM miners lack even the little work security that Vietnamese formal workers have.

Unskilled workers earn hardly more than the minimum wage of LAK1.2 million in the mines while skilled workers, such as excavator operators and mechanics, can earn up to LAK3 million (US$320). Regrettably, hardly any local Lao can get one of these well-paid jobs due to a lack of skills and the preference of Chinese and Vietnamese companies for their countrymen. Interestingly, Lao artisanal miners often refuse unskilled jobs in the mines because they can earn more than the minimum wage by doing ASM. In addition, young Lao rather prefers to accept precarious working conditions in neighbouring Thailand where salaries are higher. Remittances are an important factor for household incomes.

More than 90 per cent of the working population in the Nam Phathaen valley is active in freelance artisanal and small-scale mining, either in closed mines or operating concessions. Artisanal mining may generate up to US$200 per month depending on the amount of ore and its tin concentration. On bad days it may be half of that and without the small benefits such as insurance which direct employment provides. Artisanal miners enter the pits without protective gear and other means of work security. Accidents occur very often but health risks are exempt from the equation when people talk about income opportunities (interviews in Ban Muangkhai, February 2019).

An interesting phenomenon is local Lao ASM communities that constitute an informal workforce tied to the mining operations through leasing contracts of tools and machines. One Chinese company had made such arrangements with several households in the village Ban Boneng. Those "freelancers" lease jack-hammers and pumps to produce and process the ore as described above, and are obliged to sell the ore at a fixed price to the company. This holds advantages for both parties: The company can outsource labour and circumvents labour laws, and the local villagers enjoy more security (not work security, though) and stability. Illicit sale to itinerant metal traders occurs as well, to the discontent of the companies, yet another aspect of the precarious cohabitation.

Unlike the Vietnamese migrant workers, the Lao seem to maintain more distance from the industrial workplace and rely on the moral economy of the village instead. They constitute a casual, temporary and largely unskilled workforce that is separated from the Vietnamese migrant workers both socially and physically (Parry 2018). While the Vietnamese often live in compounds in the workplace (e.g., mine, plantation or infrastructure project) and spend their leisure time after long working days among themselves (often gambling and singing karaoke), the Lao workers resent long working hours with regard to their social obligations in the household and village. There are certainly overlaps (for instance, intermarriage and respective celebrations of Lao/Thai and Chinese/Vietnamese New Year) but the pattern remains valid.

We can identify a division of the workforce in the mines between more or less regular company workers and "a penumbra of insecure casual and temporary labour" as Jonathan Parry (2018, p. 1) puts it.

The Vietnamese coolies on the colonial mines, and the Vietnamese labour migrants of today, both examples of coerced immobilization in the workplace, constitute a convenient workforce for frontier capitalism. Yet also the local miner-peasants help to reproduce the frontier by shifting between the household economy and the industrial workplace along a continuum of informal ASM variants and casual employment.

The capitalist frontier in Laos seems to co-produce specific labour relations, either informal/unregulated (in ASM contexts) or unfree ones (the coolies in the colonial enclaves and, arguably, also the contract workers of today; see Derks 2010; Damir-Geilsdorf et al. 2016). Addressing the question of labour from a historical perspective thus offers new perspectives to understanding processes of frontierization and extractivism on the margins of global capitalism (see Banaji 2011).

CONCLUSION

Laos is a frontier in the sense of Anna Tsing's (2003, p. 5100) notion of "not yet". Incomplete processes of industrialization and proletarianization mark key sectors of the economy. The extractive industries in past and present Laos merely constitute enclaves in shifting frontier contexts where processes of uneven and combined development play out on the ground. Such enclaves may have only limited direct effects on local labour relations due to the preference for migrant labour, but certainly have indirect effects on local socio-economic configurations with regard to environmental degradation, changing local subsistence strategies, and increasing precariousness due to contested land use regimes (see Suhardiman and Kramp, this volume).

Factors for the persistence of the Lao resource frontier are, until today, the constant labour reserve from Vietnam, the low labour costs of extractive industries, opportunities for investors, but also ambiguities and precarity. The reproduction of local miner-peasant subsistence strategies in the Nam Phathaen valley also illustrates the uneven development and inequalities on the mining frontier (not least when adopting a regional perspective, with Laos occupying a "peripheral centrality" (Brown 2018) in the economically dynamic ASEAN region, increasingly linked to China).

What Philip Taylor (2016) has described as "frontier commoditization" in post-socialist Southeast Asia, appears rather as recommoditization (or just reproduction?) of a colonial frontier through a combined neoliberal and frontier capitalist agenda today.

Current frontierization implies uneven development, especially through the spatial and institutional separation of resource extraction from other sectors of the economy. Global capital—in the case of Laos mainly from China, Vietnam and Thailand—requires such allegedly "underdeveloped" resource frontiers.

The Lao economy has hitherto never developed beyond resource extraction—not only because the French did not build industries that could compete with industries in the metropole but also because a broad alliance of international agencies and investors from neighbouring countries supported resource-based economic growth in Laos. Not surprisingly, Laos never witnessed the evolution of a skilled and organized working class (let alone a labour aristocracy). Given the availability of a mobile and cheap Vietnamese reserve labour army, capitalist entrepreneurs on the Lao frontier do not need a local working class, anyway (at least that was the case before COVID-19 disrupted the transnational mobilities in Southeast Asia).

Meanwhile, the Lao Party-State benefits from the alleged "privilege of historical backwardness"—to quote Leon Trotsky—in that they can cash in the revenues from mining concessions and other forms of resource extraction while leaving investment in infrastructures and technologies to the "more developed" neighbouring countries. Investors from China, Vietnam and Thailand co-produce the Lao frontier through their competition with each other for influence in Laos, revealing both economic and geopolitical aspects of capitalist expansion in Southeast Asian peripheries (Myanmar constitutes another case in point; see Kenney-Lazar and Mark 2021; Mierzejewski, this volume). The political elite in Laos is reaping the benefits of frontier capitalism while leaving economic, social and environmental risks to foreign investors and local communities. Frontier capitalism thus reproduces one of the last communist regimes in the world. Interestingly, the regime aims to legitimize this kind of frontier capitalism as a necessary step towards socialism. The question remains if the local communities living on the contested resource frontiers will buy the message.

Notes

1. This paper is part of an ongoing project on the history and anthropology on tin mining in Laos, financed by the German Research Foundation. Previous field research in Laos and archival research in France have been kindly supported by the Competing Regional Integrations in Southeast Asia (CRISEA) interdisciplinary research program (funded by the European Union's Horizon 2020 Framework Program), and through the Small Grants Program of the German Society for Asian Studies.
2. Archives nationales du monde du travail (Roubaix, France), Fonds Belugou 176 AQ 23, *Copie de l'Option sur les Mines d'étain de Pak–Hin–Boun* (March 1926).
3. The socio-cosmological dimension of tin mining in Laos will be a central issue for my future research in the Nam Phathaen valley, following the example of key anthropological works in South American (Nash 1979) and central Asian (High 2017) mining contexts.
4. Ritual practice aimed at protection against malevolent ghosts are still crucial for the Lao ASM communities in the Nam Phathaen valley. Integrated into a general animist belief system that shapes the lifeworlds of both Buddhist Lao and non–Buddhist ethnic minorities (Sprenger 2016), the tin miners address specific water spirits that may cause landslides and flooding—crucial for work security (interviews in Ban Muangkhai, February 2019).
5. Vietnamese migration resulted in massive demographic changes in the Mekong River towns such as Thakhaek, where the Vietnamese constituted 85 per cent of the urban population, the highest percentage of Vietnamese among all Lao towns (Pietrantoni 1957, p. 230). This was an effect desired by many French administrators who considered the allegedly more "industrious" Vietnamese "race" as key to the development of sparsely populated Laos (Goscha 2012).
6. Under the current pandemic, transnational migration patterns between Thailand, Laos and Vietnam are changing for the time being. It remains to be seen if the labour regime in Laos will move back to the status quo ante, with Vietnamese workers again dominating the labour-intensive sectors in Laos, and Lao workers preferring employment in Thailand—movements currently restricted after decades of relaxed border arrangements.

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