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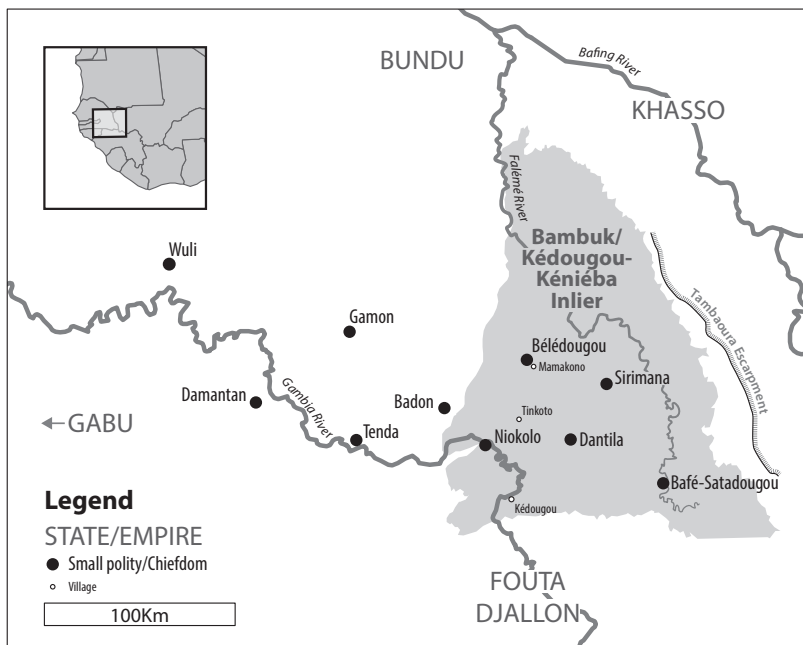
West Africa's Ritual Geology, 800–1900

Situated thirty kilometers northeast of Tinkoto is the village of Mamakono. Founded roughly six hundred years ago, Mamakono is one of the oldest known settlements in southeastern Senegal and a reference point for the region's history of orpaillage. In the Atlantic era, Mamakono was the seat of a small province known as Bélédougou, which then consisted of a cluster of villages, each numbering several hundred residents of mixed Pular, Maninka, and Soninke heritage. Like residents of provinces scattered along the Birimian rocks of the savanna, Bélédougou's people farmed, hunted, and engaged in orpaillage. Today, Mamakono sits in the heart of Senegal's corporate mining corridor. Mamakono is encompassed by the exploration permits of Endeavor Mining, a Britain-based gold company that now operates the Sabodala mine. Some young residents of Mamakono work as truck drivers and mechanics in Endeavor's camp. But most labor as orpailleurs in surrounding villages. Mamakono is prosperous compared with many villages in the region. Since the early 2000s, concrete buildings have replaced mud huts with funds from the expansion of orpaillage and corporate gold mining. Boutiques stocked with rice, onions, and sugar line neat dirt pathways that wind between lineage compounds and two mosques.

Roughly ten kilometers west of Mamakono, it is reported, sits a tomb covered in a pile of porous laterite rocks. A shrine marks the foot of the tomb—an assemblage of splintered iron scraps, strips of cloth, and the dried blood of slaughtered chickens. The shrine is dedicated to Taubry Sidibé, an infamous tyrant who briefly ruled as a “slave king” over Mamakono, likely in the eighteenth century. Oral traditions recounted in Kédougou region today speak to the alliances Taubry Sidibé forged with territorial spirits to exercise control over two crucial subterranean resources: gold and water. The precise period of Taubry Sidibé's reign, and the circumstances of his

life, are mysterious.¹ The name Sidibé, a common Pular patronym, suggests that he may have been a former captive of a Pular lineage. He earned fame by overthrowing the Soumaré clan, then the Soninke overlords of Mamakono. Taubry was ritually cunning. Every Monday—considered a day of rest for spirits—he ordered men to lower him with ropes into Mamakono’s only water well. Taubry remained underground until village residents mined enough gold dust to fill a goat’s horn. According to some versions of the story, Tinkoto was discovered during Taubry’s reign, as *orpailleurs* ventured farther and farther in search of gold (map 2.1).² After the Soumarés were deposed, they attempted to kill Taubry, but a spirit allied to the “slave king” shielded him from their attacks. Desperate, the Soumarés called on Soro Cissokho, a Maninka hunter from western Mali, for assistance with Taubry. Soro sent two of his sons, Siriman and Moussa Cissokho, to Bélédougou. Their cousin, a stunning woman named Dan Mania, accompanied the brothers.

While crossing the Falémé River, Siriman remarked on the fish darting in the fresh water and the rich land lining the riverbanks. He decided to stay and farm along the Falémé, founding Sirimana, a province that bordered



Map 2.1 Atlantic-era polities in southeastern Senegal, ca. 1700–1900.

Bélédougou to the south. Moussa and Dan Mania continued their journey. Upon arriving in Mamakono, Moussa hid in the Soumaré clan's household, and Dan Mania approached Taubry's compound. She declared her desire to marry Taubry. Compelled by her beauty, Taubry prepared a marriage. On their wedding night, while she braided his hair, Dan Mania asked Taubry to reveal the secret to his ritual power. Taubry replied, "Nothing can overcome me unless you slaughter a white rooster and throw it on the roof of my dwelling."³ Dan Mania relayed Taubry's secret to Moussa Cissokho, who prepared the sacrifice. Taubry cried out as the rooster descended onto the roof, his occult power severed. Dan Mania seized Taubry's braids and decapitated him with a cutlass. She carried Taubry's head to the Soumarés.⁴ The Soumarés placed Taubry's head on a metal balance and piled gold dust on the other end until the balance leveled. They offered the gold to the Cissokhos and announced, "You liberated us. We could do nothing against this slave. Now, to show our gratitude, we give you the land of Bélédougou. In exchange, we ask that you do not harm us."⁵ In oral renditions of the Taubry narrative, this offering is an origin story for the transfer of political power over Bélédougou from the Soumaré (ethnic Soninke) to the Cissokho (ethnic Maninka). While the Cissokhos became the masters of the land (*dugutigi*) of Bélédougou and Sirimana, descendants of the Soumaré retained a ritual office as masters of shrines (*jalantigi*): to cultivate relationships with territorial spirits. In one account, the Soumarés prepared sacrifices at Taubry's tomb to appease the spirit guardians of gold, with whom Taubry had a privileged relationship.⁶ Until the present day, male descendants of the Cissokho clan occupy the office of the *dugutigi* in all but one village within the historical province of Bélédougou.⁷ Bambo Cissokho, the *dugutigi* of Tinkoto (see chapter 1), also traces his ancestry to Moussa Cissokho.

Taubry Sidibé is remembered as a tyrant because he breached a cultural ideal of the savanna: that distinct authorities should manage ritual power over gold and political power over the land. In recent centuries, this division was maintained by the separation of the *dugutigi* from the *juurakuntigi*: the former managed rights to land; the latter, rights to the subsoil. Taubry monopolized both offices. By overthrowing the Soumaré clan, he became the *dugutigi* of Mamakono and harnessed occult power over gold. Today, Bambo Cissokho is similarly criticized for overstepping his jurisdiction as *dugutigi* by claiming a share of all gold mined within Tinkoto, a privilege once exercised exclusively by the *juurakuntigi*. Separated by centuries, the stories of Taubry Sidibé and Bambo Cissokho speak to competition for

power over gold-producing polities and of tempestuous alliances between ritually attuned persons and spirit guardians of gold. Such themes are not isolated to southeastern Senegal. They belong to the spatially and temporally expansive history of gold-producing communities that have occupied West Africa's Birimian rocks over the past millennium. As previewed earlier, I call this phenomenon a ritual geology: the set of material and ritual practices, prohibitions, and ideological engagements with the earth and its spirited inhabitants shared widely across a geological formation.

This chapter traces three elements of West Africa's ritual geology that took shape sometime between the ninth century, when we have the earliest evidence for regional gold production, and the nineteenth century, when the French army conquered much of the savanna. The full expression of this ritual geology comes firmly into view only in the early nineteenth century, when the documentary record for the region thickens. But features of this ritual geology are evident as early as a millennium ago in the oral traditions attached to the expansion of medieval polities; village settlement narratives; migrations of blacksmiths and gold merchants; and the narratives of the spirit snakes Bida and Nininkala that traveled along historical trade routes and disparate goldfields. For one, during this millennium of history, small, non-centralized societies retained control over gold production. At different junctures, hierarchical states situated on the Sahel and the savanna controlled the trade in gold but not gold mining itself.⁸ Second, since the medieval period, Muslim outsiders, who wrote many of the early accounts of gold mining and trade in West Africa, denigrated and racialized African miners as pagans.⁹ The ideological opposition of gold miners to Islam was partly cultivated by the rock escarpments and poor agricultural soils of geologically active zones, where gold is often found. These landscapes served as a natural refuge for generations of men and women who wished to practice and innovate ancestral religious traditions beyond the reach of slave raiders and Muslim states. Third, West African societies of the savanna and the Sahel regarded gold as a dangerous occult substance tied to spirits, including malevolent ones. This may account for why gold producers on the savanna preferred copper over gold for jewelry, ritual affairs, and burials. Ritual concerns about gold in West Africa do not reflect a generalized concern with accumulation, greed, or usury, qualities associated with gold in medieval and Renaissance Europe. Rather, I argue, they emerged from a regional ritual geology that predated, and evolved alongside, cultural critiques of gold and mining capitalism elsewhere on the globe.

My account of the emergence of West Africa's ritual geology complements a growing scholarship on medieval and early Atlantic-era West Africa that highlights the region's participation in early globalization through the gold trade and Muslim scholarly networks.¹⁰ The historian Toby Green offers a compelling theory for why West African polities, from thirteenth-century Mali to sixteenth-century Asante, sold so much gold dust to Europeans on the cheap. At the dawn of the Atlantic age, Green argues, a variety of materials were valued for currency in Europe and in Africa. Africans sold gold dust, which was ubiquitous in the region, in exchange for materials they valued as currencies on regional markets: imported cloth, cowries, copper, iron, and silver. Over time, capital imbalances between the two regions emerged as most of the materials imported from Europe lost their value as currencies beyond West Africa, while gold and silver retained their value and European city-states backed their credit systems with these metals.¹¹ West Africa remained disadvantaged in its access to capital as the region's gold dust accumulated in the coffers of European and North African states at the same time that the labor value of African war captives, sold into the Atlantic economy, benefited New World plantations.¹²

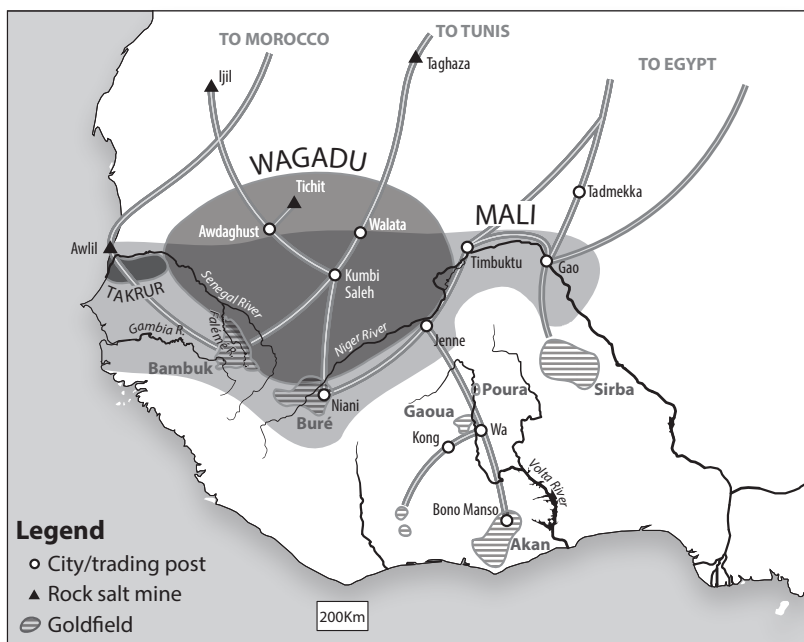
I offer a parallel suggestion: ritual concerns also motivated gold producers to part with gold. This remained the case even as it became clear that the middlemen of the Sahara and European traders were benefiting far more from the trade in African gold than their trading partners south of the Sahara. Green hints at the ritual powers associated with gold mining.¹³ But he does not specify the content of these powers and how they evolved alongside markets for currencies and enslaved persons. Though West African societies have long considered gold a commodity—an abstracted token of generalizable exchange—gold has also remained a ritually fraught object attached to occult forces, territorial spirits, and mobile spirit snakes. To build this argument, I triangulate archeological reports, Arabic manuscripts in translation, French and British archival sources, oral narratives, oral histories, and songs from across West Africa. My entry point are the goldfields of Bélédougou: the realm of Taubry Sidibé and his successors, the Cissokho clan. In prior centuries, outsiders lumped Bélédougou into Bambuk, the name given to gold-producing territories located between the Senegal River and its tributary, the Falémé.¹⁴ From Bambuk, I widen my spatial lens to cover events in what is today modern Mali, Guinea, Burkina Faso, Côte d'Ivoire, and Ghana. The history of orpaillage in Bambuk must be placed within the vast territorial and temporal reach of West Africa's ritual geology.

Spirit Snakes and Gold in West Africa, 800–1200

A millennium prior to Taubry Sidibé's reign over BéléDougou, gold mined from Bambuk was used to mint coins in North Africa and Europe. While the antiquity of gold mining in West Africa is debated, there is clear evidence for a far-western trans-Saharan trade route in gold by the ninth century.¹⁵ The gold trade coincided with the introduction of Islam into Saharan trading diasporas. Islamic conquests in North Africa further integrated the region into Muslim mercantile networks of the Sahara to Mediterranean port cities and the Arabian Peninsula. Gold fueled the expansion of city-states and centers of Islamic learning across West Africa, including Gao, Timbuktu, Tadmekka, Takrur, Silla, and Mali. In its reputation and influence in the wider Muslim world, none of these trading centers rivaled Wagadu, known in Arabic sources as Ghana, the name of its dynasts. As Al-Ya'qūbī wrote in 872–73, the king of Ghana is “very powerful.... In his country are the gold mines.”¹⁶

The ancestors of today's Soninke peoples, who speak a variety of Mande languages also known as Soninke, established Wagadu as early as the year 600.¹⁷ From the ninth through the thirteenth century, Wagadu appears to have held a monopoly on a western Saharan trade route stretching from its presumed capital, Koumbi Saleh, in southeastern Mauritania, to the northern Saharan entrepôt of Sijilmasa, in southern Morocco. Though historians have long described Wagadu as an empire, it more likely operated as a loose “over-kingdom” that incorporated Soninke provinces and multiethnic trading centers into a sphere of Soninke commercial and ritual influence.¹⁸ Centuries prior to the rise of a regularized Saharan gold trade, urban societies on the Sahel forged dense regional trade networks in West Africa (map 2.2).¹⁹ However, what distinguished Wagadu from its predecessors was the power its Soninke dynasts exercised over the trade in gold mined on the savanna against salt and copper from the Sahara desert.

Despite the growing scholarship on medieval West African empires and trade, little is known about gold-producing communities and their relationship to mineralized land. Sources are a limiting factor. Early mining concentrated on alluvial gold deposits, which leave few traces in the archeological record.²⁰ Gold objects recovered from burial mounds on the Sahel and the savanna and recently excavated gold-processing sites are key sources of data.²¹ Most Arabic sources on the gold trade are second- or thirdhand accounts, compiled by diplomats and traders based in North Africa and Andalusia. And the few Arab travelers who visited West Africa were prohibited from



Map 2.2 Medieval West African empires and trade routes, ca. 900–1500.

visiting the gold mines. Chroniclers imagined that Wagadu's dynasts oversaw huge open-pit mines powered by slave labor. The reality was far different. Wagadu built its wealth on the gold trade, but control over gold-bearing land and mining remained in the hands of small-scale villages and provinces dispersed along the savanna to the south of Wagadu's capital. Bambuk was likely the earliest source of Wagadu's gold.²² While regional oral traditions credit ancestral Soninke and Maninka peoples as the earliest miners of gold in Bambuk, the precise cultural and ethnic makeup of early *orpailleurs* are unknown.²³ As shown by the archaeological work of Ibrahima Thiaw, by the early second millennium there is evidence for Soninke influence on the gold trade, and on pottery styles, to the north of Bambuk.²⁴ This is suggestive of the growing reach of a Soninke trading diaspora with roots on the Sahel, known as the Wangara, into gold-producing regions of the savanna.

Wangara traders were crucial to the rise of Wagadu's monopoly over the trade in gold. The Wangara converted to Islam shortly after its introduction to the Sahara in the first two centuries after the Prophet Muhammad's death in 632.²⁵ They were predecessors to the *juula*, a generic Maninka term

for long-distance traders in use by the thirteenth century. Wangara linked disparate geographies: savanna and forest zones where gold was mined and kola nuts collected, city-states of the savanna and Sahel, and Saharan copper and salt mines. Wangara traders established autonomous Muslim settlements among gold-producing pagans, with whom they exchanged rock salt, copper, cloth, and glass beads for gold dust, elephant tusks, animal skins, and the occasional war captive.²⁶ Wangara also nurtured relationships with Berber and Arab clans who controlled copper and rock salt mines on the Sahara, which occupies a distinct geological formation from gold-bearing Birimian rocks.²⁷ Bambuk's residents derived ample salt for dietary needs from plant ash, but they sought rock salt for seasoning, animal pasturage, healing preparations, and cultural prestige. Gold producers valued copper, a metal revered for warding off malevolent spirits, in contrast to gold, which attracted them. Copper and copper alloys were also desired for aesthetic and tonal qualities that changed in different climates.²⁸ These qualities may explain why many medieval West African societies preferred copper ingots and rods as currencies. While Arab chroniclers marveled at the high price, in gold, that orpailleurs paid for copper, gold miners appeared eager to rid themselves of a metal controlled by spirits for one that offered protection from occult forces.

The archeologist Susan Keech McIntosh proposes that a "royal ideology," shared between Wagadu's pre-Islamic kings and gold producers, could have provided a ritual incentive for gold miners to sell gold to Wagadu.²⁹ This royal ideology may express West Africa's medieval ritual geology. Evidence for this theory emerges from Soninke oral traditions that recount the fate of Bida, Wagadu's guardian spirit snake. Bida was one of the twin sons born to Dinga, the purported founder of the Soninke clan who migrated to West Africa from biblical lands. Dinga acquired ritual power by vanquishing the guardian spirits and beasts of the land and waterways he traversed. He married the three daughters of one such spirit. One of Dinga's wives gave birth to male twins: Diabé (a human) and Bida (a spirit snake). Diabé founded Wagadu, guarded by Bida who became the Soninke clan's totem. In some accounts, Bida guarded the gates of Wagadu wound in seven great coils; in others, he haunted a subterranean aquifer. Bida protected the fertility of Wagadu's land and its people by calling forth a rain in gold three times a year. In exchange, Bida demanded a yearly sacrifice of a young woman. Preceding the sacrifice, Bida raised his head three times from his aquifer before seizing the offering and retreating underground. One year, on the heels of a costly war, Bida chose the beautiful Sia Jatta Bari as his sacrifice. Sia's lover resolved

to challenge the snake. When Bida emerged from the well, the crowd bade farewell to Sia. The second time Bida emerged, Sia's lover decapitated the snake with his sword. With a second blow, he severed the serpent's tail. Bida hurtled through the air, cursing Wagadu and depriving it of gold and rain. The snake's trisected body rolled southward. Where each section landed, a goldfield emerged. In some versions of the narrative, Bida's entire body created the goldfield of Buré in northeastern Guinea. In other accounts, his trisected corpse nourished three gold-bearing territories: Bambuk, Buré, and Akan. Cursed by killing its totem, Wagadu suffered a drought, and its residents migrated southward.³⁰

Scholars have interpreted Bida's death through various registers: as a climatic shift to drier conditions on the Sahel that favored migration toward the savanna; the possible invasion of Wagadu by the (alleged) Berber Muslim Almoravid dynasty around the year 1076; or the emergence of a more reformist Islam among the Sahel's ruling elite.³¹ Bida's story can also be read as a template for a shared ritual geology in which rain, gold, and fertility are materialized in the body of spirited snakes who broker among the underground, the earth's surface, and the sky. Bida's golden rain and the movement of his severed corpse bound Wagadu's Soninke residents and dynasts with southern-lying goldfields. Bida's death may have marked the end of a ritual ideology shared by Wagadu's pre-Islamic kings and the gold producers of the savanna. The breach could have been rooted in the conversion of Wagadu's dynasts to Islam in the eleventh century, following a trend among the Sahelian ruling classes.³² Earlier in the century, the Andalusian geographer Al-Bakrī described the religion of the king of Wagadu as "paganism and the worship of idols." The king presided over sacred groves "where the sorcerers of these people, men in charge of their religious cult, live. In them too are their idols and the tombs of their kings." Was Bida's aquifer concealed in these sacred groves, guarded by the king's soldiers so that "none may enter them and know what is there?"³³ Did this "religious cult" propitiate Bida? If so, the conversion of Wagadu's dynasts to Islam may have severed this sacred tie, pushing Bida and his followers southward toward the savanna.

Bida's spirit continued to haunt the living, traveling through subterranean tunnels and aquifers, appearing at gold-mining sites across the savanna's Birimian rocks. Spirit snakes were also bound to the ritual iconography of iron smelting in medieval West Africa. Iron-smelting technology, widespread in West Africa by 500, was embedded in concerns with fertility and abundance. Smelting kilns were modeled on pregnant women; the iron bloom

represented a fetus.³⁴ Blacksmiths brokered with spirits attached to iron ore and channeled occult power by smelting iron from rocks. Spirit snakes aided in the ritual and technical labor of blacksmiths. Early West African blacksmiths may have doubled as rainmakers, as suggested by some Maninka creation myths.³⁵ A blacksmith shrine, possibly a ritual device tied to rain-making, was found at the archeological site of Jenne-Jeno along the Niger River in modern Mali. Dating to roughly 1000, it features a large sandstone basin with a pot lid rimmed in a serpent.³⁶ Around the same period, oral narratives from Guinea and Mali suggest that Maninka blacksmiths adopted the python as their occult totem.³⁷ Spirit snakes, revered for connecting the physical and the spirit world, emerge in other accounts of medieval West Africa. Al-Bakrī described the “Zāfqū”—likely a clan of Soninke origin—making offerings of alcohol, milk, and garments at the mouth of a “cave in the desert” that housed a monstrous snake. When one of their rulers died, Al-Bakrī reported, the snake selected his successor by prodding one with his nose.³⁸ Centuries later, spirit snakes and ritually cunning people harnessing the occult forces of the underground re-emerge in the oral narratives of speakers of Maninka and Pular language varieties. Recall that Taubry Sidibé—the “slave king” of Bélé Dougou—descended into Mamakono’s sole water well until villagers paid a tribute in gold. Taubry’s descent parallels that of Bida, who surfaced from his aquifer for an annual sacrifice. Spirit snakes provide a glimpse of the edges of a medieval ritual geology shared by Muslims and non-Muslims alike.

During the early first millennium, the tension between pagan gold producers and Muslim dynasties also emerges as a central tenet of West Africa’s medieval ritual geology. Beginning in the eleventh century, many African dynasties on the Sahel converted to Islam. Arabic sources began to draw a distinction between Muslim urban centers in West Africa and non-Muslim gold-producing groups to the south of these polities. Chroniclers described gold producers as animal-like, cannibals, and stateless fish eaters.³⁹ These characterizations likely expressed an ideological justification for slave raiding by Muslim dynasts who sold pagans in small numbers across the Sahara. In medieval Muslim theology, resistance to Islam was considered grounds for enslavement. Facing pressure to convert to Islam or risk enslavement, some residents of the Sahel may have migrated southward into the mountains of Bambuk, where they could practice ancestral religious traditions. By the thirteenth century, external sources identified Bambuk as a land of pagans and a potential source of slaves for Muslim states and traders. By then, several elements of West Africa’s early medieval ritual geology had taken shape: the

association of gold with malevolent spirits; an opposition between gold mining and Islam; and the role of spirited snakes in maintaining fertility, goldfields, and iron smelting. These themes reemerged, and took new directions, with the rise of the Malian empire.

Blacksmiths and Muslim Kings, 1200–1500

A century after the demise of Wagadu, the Maninka empire of Mali rose to prominence on the savanna plains of the Upper Niger River. This shifted the locus of power in the trans-Saharan gold trade from the Sahel to the savanna. From the thirteenth to the sixteenth century, Mali expanded its influence into the southern forests of Guinea and Sierra Leone and toward the Atlantic Ocean, establishing vassal states as far west as modern Gambia. Manding language varieties and institutions spread across this broad geography during and after Mali's reign. A growing demand for gold in North Africa and Europe fueled the empire's success. The goldfields of Buré—situated several days' walk from Niani, one of Mali's presumed capitals—was a key source of Mali's gold.⁴⁰ Goldfields in Burkina Faso, Niger, Côte d'Ivoire, and Ghana also likely entered production during Mali's reign.

Mali's rise is recounted in the oral epic of Sunjata Keita, the most famous of its genre in West Africa reported by a specialized class of Maninka griots, known as *jeli*.⁴¹ Sunjata was born in the early thirteenth century to an illustrious hunter, Magan Kon Fatta, on the savanna plains of Manden, a landscape of decentralized Maninka polities in the Upper Niger River. Magan's second wife and Sunjata's mother, Sogolon Kejou, was prophesied to bear the next leader of the Keita clan. But Sunjata, Sogolon's only son, was born with a severe disability for which he was ridiculed. After the death of Magan Kon Fatta, Sunjata's half-brother Dankaran Tuman seized the crown. Fearing assassination, Sunjata and Sogolon fled Manden and sought refuge in the Soninke polity of Mema, to the west. While in exile, Sunjata overcame his disability and became a revered hunter and warrior. Residents of Manden called on Sunjata to return home to fulfill his birthright when Dankaran Tuman was overthrown by Sumanguru Kante, the blacksmith king of the Sosso people. Sosso was a successor polity to Wagadu, and Sosso/Susu is a Mande language variety closely related to Soninke. In some versions of the epic, Kante transformed into a monstrous forty-headed snake. In others, he kept a massive snake in an earthenware vessel in his chamber.⁴²

Sunjata returned to Manden, recruiting an army along the way, to battle Sumanguru. In the oral epic, Sunjata's power derives from a combination of

ancestral religious traditions and Islam. By contrast, Sumanguru is depicted as pagan, his powers channeled through a mystical serpent. With the help of his sister, Sogolon Kolokon, Sunjata severed Sumanguru's ritual power, symbolized by the death of his snake. Sunjata was crowned the "king of kings" (*mansa*) of Manden, which became known to outsiders by the Pular name of Mali. Sunjata's descendants ruled over Mali until its demise. The death of Sumanguru and his serpent marked the end of a political epoch, echoing Bida's death and the dissolution of Wagadu. Sumanguru was one of many blacksmith kings who ruled polities in West Africa prior to Mali's rise.⁴³ With Sunjata's thirteenth-century victory over Sumanguru, blacksmiths exited political office and became techno-ritual specialists known as *nyamakala*.⁴⁴ *Nyama* is a Maninka term that refers to an occult force or energy that "flows through all animate and inanimate things."⁴⁵ *Nyama* is contained by all sentient beings, objects, and landscapes. *Nyamakala*, the "handle (*kala*) of *nyama*," specialized in manipulating this force. Blacksmiths (*numu*) are likely the early prototype for *nyamakala*, which later incorporated leatherworkers (*garanke*) and griots (*jeli*).⁴⁶

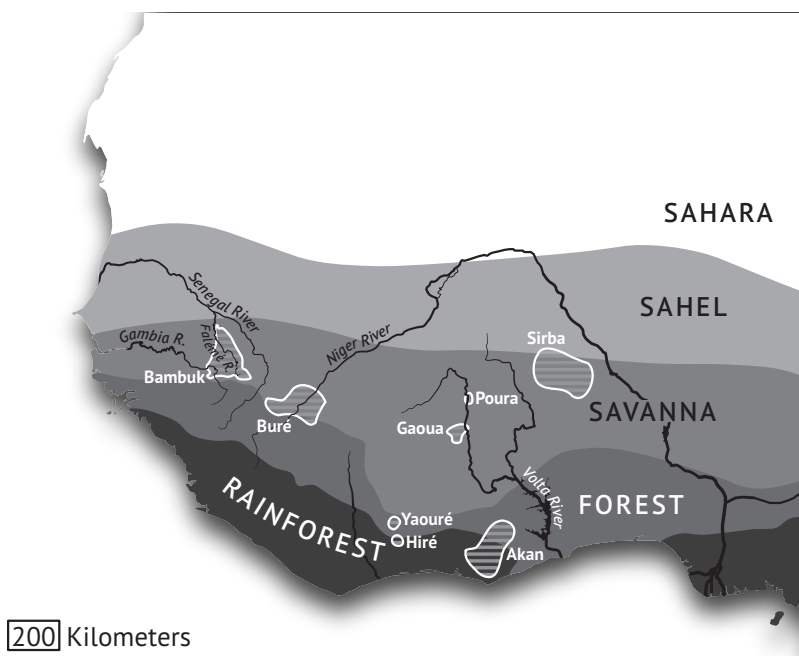
The emergence of the occupational category of the *nyamakala* was part of a trend toward social stratification that crystallized under Mali into a tripartite division among slaves (*jon*); freeborn farmers and nobles (*boron*); and craft specialists (*nyamakala*). Over time, these social categories came to be understood as embodied differences—channeled through saliva, blood, and semen—and inherited through descent. They also acquired a geographic character. By the early first millennium, blacksmiths at Jenne-Jeno had moved their homesteads and kilns to the hinterland of the core settlement. This separation was likely motivated by ritual concerns, as there is no clear material justification for it.⁴⁷ By the time of the Malian empire, *nyamakala* lived and worked at a physical remove from slaves and nobles.⁴⁸ The geographic segregation of the dwellings of competing ritual powers is also evidenced in the considerable physical distance between Muslim and non-Muslim neighborhoods in medieval Wagadu, Gao, and Mali.⁴⁹

Respect for complementary ritual powers in medieval West Africa, regulated through spatial segregation, may explain why Muslim rulers left pagan polities to oversee gold mining. A reported exchange from Cairo in 1324 sheds light on this pattern. According to an account by the chronicler Al-Dawādārī, Qadi Fakhr al-Din asked Mansa Mussa—a descendent of Sunjata, then king of Mali—about the "place where gold grows" back in Mali. Mansa Mussa was passing through Cairo en route to Mecca, a voyage that left a mark on medieval maps and North African currency markets as

Mansa Mussa gave gifts of enormous quantities of gold to his hosts along the way.⁵⁰ Mussa reported that gold “is not in that part of our land which belongs to the Muslims, but in the land which belongs to the Christians [pagans] of Takrūr.”⁵¹ The qadi asked Mussa why he did not take this land by force, to which Mussa replied: “If we conquer them and take it, it does not put forth anything. We have done this in many ways but seen nothing there; but when it returns to them it puts forth as usual.”⁵² Nearly a decade later, Al-’Umarī offered another version of this exchange that speaks to the relationship of gold to different ritual authorities: “If the sultan wished he could extend his authority over them [gold producers] but the kings of this kingdom have learnt by experience that as soon as one of them conquers one of the gold towns and Islam spreads and the muezzin calls to prayer there the gold there begins to decrease and then disappears, while it increases in the neighboring heathen countries.”⁵³ Al-Dawādārī’s and Al-’Umarī’s accounts both suggest that Mali’s kings shared at least one belief with gold miners: Muslim overrule made gold disappear. Gold preferred pagans.

The goldfields in these accounts likely refer to those of Buré (map 2.3). Similar to Bambuk, Buré was a non-centralized and multiethnic political landscape, dominated by speakers of Maninka and Jallonke, a Mande language variety related to Susu and Soninke. Residents of Buré paid tribute to the mansa of Mali, but they enjoyed political and religious autonomy from Mali—similar to the structural relationship of Bambuk to Wagadu.⁵⁴

By the time of Mansa Mussa’s reign, there was a clear divergence in the metal value system of West African dynasts, on one hand, and gold producers, on the other. The former embraced gold as a sign of prestige, wealth, and power, whereas the latter continued to privilege copper and copper alloys. This divergence is on display by the eleventh century, when Al-Bakrī described the king of Wagadu wearing gold necklaces “round his neck and [bracelets] on his forearms, and he puts on a high cap decorated with gold and wrapped in a turban of fine cotton.” The king held audience in a “domed pavilion around which stand ten horses covered in gold-embroidered materials” while pages held shields and swords decorated in gold. Dogs, guarding the doors, wore gold and silver collars studded with “balls of the same metals.”⁵⁵ Centuries later, Ibn Battūta described the gold regalia donned by the mansa of Mali, his elite military cavalry, and royal dogs.⁵⁶ Al-Bakrī also observed elite women wearing small rings twisted into a torque-like shape along each ear, in the nose, and as a forehead ornament.⁵⁷ By contrast, there is no evidence for a tradition of gold regalia or jewelry among non-Muslim populations of the savanna, where gold was mined, until the Atlantic period.



Map 2.3 Bioclimatic zones and historical goldfields in West Africa.

It was not until the twentieth century that a goldsmithing trade, separate from blacksmithing, emerged on the savanna. By contrast, in the forests of modern Ghana, where gold was first mined centuries later than on the savanna, goldsmithing was a specialized craft by the seventeenth century, and there was a rich aesthetic tradition of jewelry and artistic objects crafted from gold.⁵⁸

Did gold producers abstain from wearing gold because of its ties to the occult? We can only speculate. But intriguing new archeological evidence suggests that although Muslim rulers—and populations on the Sahel more oriented to the Muslim north—wore gold, they rarely chose gold to accompany them in death. Excavations of tumuli dating from the eighth to the fifteenth century in contemporary Senegal and Mali have unearthed only a scattering of gold objects—the odd pendant, ring, earring, bead, or ingot fragments—embedded in much larger caches of ornaments in copper, stone, and silver (which is not native to West Africa).⁵⁹ An excavation at Koï Gourrey, Mali, dating to the eleventh or twelfth century, revealed that a man was buried with bronze animal figurines, objects alloyed with high

levels of zinc to mimic the patina of gold. Gold was ubiquitous at the time of the burial, so the choice of copper was not strictly economic. Rather, the brass figurines signal the metal system of the Muslim north while suggesting a reluctance to bury the dead with gold.⁶⁰ In a burial at Kael, Senegal, dated to the twelfth or thirteenth century, a man in his forties was interred with a bracelet composed of two bands—one of silver, and the other of a gold alloy fabricated with gold that did not originate from a West African source. The bracelets evidence a previously undocumented southward traffic of gold into the Sahel while reinforcing a possible ritual avoidance of burying the dead with gold mined in West Africa.⁶¹ When paired with evidence from other burials, the bracelets point to a possible ritual avoidance of incorporating pure gold mined in West Africa in burials. This is a suggestive prong of a ritual geology shared by Sahelian elites and gold producers on the savanna. While gold generated considerable wealth for some West African merchants and kings, they shared a concern with gold producers about gold's ritual dangers.

The realm of Mali's influence expanded in the thirteenth and fourteenth centuries as its Muslim trading diaspora, the *juula*, opened new routes for trade in gold and kola nuts as far east as Worodugu, in Côte d'Ivoire, and Hausaland, in northern Nigeria. Village settlement narratives from modern Burkina Faso suggest that speakers of Manding language varieties, potentially *juula* traders themselves, introduced mining to the goldfields of Poura and Lobi.⁶² As *juula* spread into new ethnolinguistic landscapes, many took on the languages and ethnonyms of their hosts. They became the Maninka Mori of Kankan, the Marka of Niger, the Dyula of Côte d'Ivoire, and the Jakhanke of the Senegal River Valley. Under Mali's rule, *juula* reached the goldfields of the Akan forest, establishing trading centers at Bono-Mansu, Wa, and Wala of modern Ghana that were linked to Sahara-bound trading routes.⁶³ *Juula* traders, mobile gold miners, or Manding-speaking blacksmiths in search of fresh iron deposits may have introduced gold mining to Côte d'Ivoire and Ghana as they encountered Birimian rocks that reminded them of gold-bearing landscapes back home.⁶⁴

In the fifteenth century, Tuareg and Pular raids along the Niger River, and the rising power of Songhay to the east, fissured Mali's dominance. But the cultural legacy of the Malian empire was only beginning to take root across the territories of its former influence. In the centuries to follow, Manding-speaking polities consolidated in modern Gambia, Senegal, and Guinea-Bissau. Origin narratives for the kingdoms of Niumi, Wuli, and Gabu report that their settler-founders migrated from Manden during the time of Sunjata and his generals, conquering local populations through vio-

lence. Though migration from Manden cannot be ruled out, these stories may also be allegories of a far more gradual transfer of Maninka language and political institutions into multiethnic spaces over centuries.⁶⁵ The spread of *komo*, a male power association of the Manding-speaking world, occurred in tandem with growing Maninka influence to the west and south. Blacksmiths led *komo* societies, which adopted the python as their totem, a key sacral element of West Africa's medieval ritual geology. Komo became known as komorang, jankaran, and kankarang as it adapted to local conditions in Guinea, Guinea-Bissau, Gambia, and Senegal.⁶⁶

The settlement narratives of speakers of western Manding language varieties are also replete with references to another mystical snake: Nininkala (Nikinanka, Ningi-nina, Ningiri), the female guardian serpent of ethnic Maninka. Echoing the ancient movements of Bida, Nininkala dwells underground and in waterways. She presides over water, rainbows, springs, waterfalls, earthquakes, and two metals: iron and gold. Nininkala ate iron and secreted gold in her wake or produced gold from shedding her scales and skin. In the Casamance, Nininkala's head was covered in gold. In Guinea, she took the form of a lamb with golden fleece. Maninka migrants encountered Nininkala when they crossed the Gambia or the Senegal River. Blacksmiths made offerings to Nininkala before mining iron ore.⁶⁷ Nininkala was also central to the origin stories of Pular-speakers, having been sent to earth by an omniscient god under the name of Tyanaba, the serpent guardian of cattle, the historic wealth and livelihood of Pular pastoralists. Tyanaba emerged from the Atlantic Ocean accompanied by twenty-two cows that were confided to a young man named Gueno. The cattle traversed the savanna plains to the east until they reached the source of the Niger River. There Tyanaba changed his name to Nikinanka and guided the mythic fourteenth-century migration of Pular herders and farmers from Fouta Toro to the Fouta Djallon by the warrior Kolli Tenguela.⁶⁸ Well into the twentieth century, some Pular-speakers in the Fouta Djallon of Guinea took part in a cult called Ningiri dedicated to this spirit snake.⁶⁹

Stories of Nininkala may have merged with or reinforced those of Bida. Both spirits dwelled underground, their bodies performing alchemy: the conversion of iron into gold and tears into springs. Bida's corpse fertilized new goldfields on the savanna, while Nininkala's excrement created gold veins. Both Bida and Nininkala guided migrants across foreign landscapes, discouraging settlement in territories haunted by malevolent spirits. Rumors of Bida's spirit moving along a north-south-trending paleo-channel along the Middle Niger—known as the “Vallée du Serpent” in Mali—may have

warned people against settling in this corridor. In recent memory, as reported by the archaeologist Roderick McIntosh, the Vallée du Serpent is understood as “the manifestation of a subterranean pathway taken by the great snake, Bida, on his transverse from Wagadu southwards toward the Niger River.”⁷⁰

Spirit snakes offered humans metals and rain in exchange for the sacrifice of loved ones. These exchanges cemented the claims of people to natural resources. Oral traditions from the polity of Gabu relate that the power of its ruling dynasty was based on making a human sacrifice to Nininkala.⁷¹ Though separated by centuries from the time of Wagadu, this story resonates with the yearly sacrifice given by the Soninke people to Bida, their guardian snake. Across the Gambia, Senegal, and Niger river valleys, human-spirit pacts, forged in violence and demanding constant renewal, generated the claims of empires to political power and of lineages to land, gold, iron, and water. Stories of the underground movements of Bida and Nininkala bound gold-bearing Birimian rocks across the savanna into a unified ritual geology.

The Devil's Workshop: Europeans in Search of Bambuk, 1500–1880

In the 1440s, the Portuguese monarch financed ships to navigate around the West African coast in search of the fabled goldfields of Bambuk. By then, Mediterranean city-states had minted coins with gold mined in West Africa for centuries. But Saharan traders mediated access to the West African gold dust trade. Portugal sought to bypass North African middlemen by creating a seabound trading relationship with West African traders and miners of gold. Portuguese mariners were searching for a direct corridor to Bambuk when they entered the mouth of the Senegal River in 1446. While no records remain of this voyage, the Portuguese left a rich documentary trail of their interactions farther south.⁷² Along the Gambia River, the Portuguese encountered “Mandingo” traders, who traveled under the orders of the mansa of Mali. Farther south, along the coast of modern Ghana, Portuguese sailors established trading partnerships for gold with Akan chiefs and traders dressed in gold regalia. By 1482, the Portuguese had completed the fort of Elmina, “the mine,” named after the large amounts of gold mined by Akan-speaking groups in the forested interior. In a few short decades, however, the Iberian encounter with the vast gold and silver working traditions of the Americas, and the opening of new mines in South America, reduced demand for West African gold. Over the next two centuries, the sugar plantation economy of the Caribbean and Brazil created an insatiable demand for a new trade—one in war captives—from the West African coast. The Elmina

fort, and dozens of others constructed along the Atlantic, became portals for the trade in slaves.

As Afro-Portuguese trade thickened on the coast, juula traders in Senegambia began to redirect their caravans from the Sahara toward European riverine trading ports and the Atlantic coast.⁷³ By the mid-seventeenth century, British, French, Danish, and Dutch merchants were competing with the Portuguese for control over West African coastal markets. By 1700, the British Royal African Company had established a stronghold on the Gambia River, while the French *Compagnie des Indes* (later the *Compagnie du Sénégal*) monopolized trade along the Senegal River. For the next two hundred years, the primary preoccupation of the rival trade networks of the British and the French in Senegambia was the commerce in African captives, which they encouraged through the sale of firearms. But Europeans never stopped speculating about the riches they could derive from controlling either the gold trade, firmly in the hands of the juula, or mining itself.⁷⁴ Throughout the 1700s, trading companies attempted to bypass juula by creating direct trading relationships with gold producers. The French built forts along the Senegal River's upper reaches to divert the trade in gold dust to their ships. Juula traders and religious leaders from the Soninke state of Gaajaga thwarted these efforts by attacking forts and seeding rumors that people at the headwaters of the Gambia and Senegal were "ferocious and savage."⁷⁵

The trickle of European travelers who reached Bambuk described it as a former Maninka "kingdom" fractured by war, where the lingua franca was a variety or creole of Maninka (Malinké in French travelogues; Mandingo in English accounts). In fact, Maninka cultural dominance likely emerged in the Atlantic period, when Bambuk became a refuge for those fleeing enslavement by mercenaries and Muslim polities. Immigrants integrated into Maninka lineages through marriage or by changing their patronyms. Even today, many ethnic Maninka in southeastern Senegal claim their ancestors migrated from the Malian empire. But settlement narratives suggest a far more recent history of blended, multiethnic societies, drawn from a mixed heritage of speakers of Mande (Jallonke, Soninke, and Maninka), Pular, and Tenda (Beliyan-Bassari and Bedik) language varieties. These groups may have adopted Maninka institutions as a form of cultural authentication.⁷⁶

By the eighteenth century, Bambuk was surrounded on three sides by Pular Muslim states: Fouta Djallon to the south, Bundu to the north, and Khasso to the east. These states grew from their involvement in markets tied to the transatlantic slave trade. Fouta Djallon and Bundu waged jihad

against practitioners of ancestral religious traditions who refused conversion to Islam. These states sold war captives to juula intermediaries and kept enslaved people as domestic servants and agricultural laborers. Bundu and Fouta Djallon occupied rich agricultural and pasture land. By contrast, Bambuk's igneous volcanic formations contained only narrow corridors of arable land. In this inhospitable terrain, people of diverse backgrounds created an inland maroon society.⁷⁷ As a French explorer remarked in 1818, Bambuk's "elevation proves a defense to the country, constantly exposed to the invasions of the Poulas of Bondou and the Bambaras."⁷⁸

While Bambuk was geographically isolated compared with neighboring states, it was deeply entangled in regional commercial networks through the gold trade. Mining alluvial gold enabled its residents to access salt, cloth, and other imports. In 1846, Anne Raffeneil, a French explorer, described women panning for gold dust along the Falémé:

This is how they do it: the products of the mine, made up of large fragments of shale, pebbles and sandy soil, are placed in a calabash full of water and kneaded by hand until they are crushed; the pebbles, a large part of the sandy earth and very large fragments of shale are thrown away after this first operation. . . . The calabash contains only a muddy sand which, subjected to repetitive washes, ends up producing a very fine black sand, in which is found gold, in the form of molecules and flakes, sometimes very fine.⁷⁹

Only men dug for gold underground. They dug circular mining shafts with iron picks that doubled as farming tools. Most mining was focused on alluvial deposits, known as *nara*.

Long-distance Manding-speaking traders—the juula—visited dispersed goldfields to purchase gold dust or thin gold wire smelted by blacksmiths. Juula organized caravans of donkeys and human porters who traveled through Bambuk to trade for gold, ivory, beeswax, animal skins, and shea butter. Residents of Bambuk exchanged these products for strips of cotton cloth, copper bars, salt, rifles, and gun powder.⁸⁰ Some gold-producing communities in Bambuk organized their own overland caravans, bound for British forts on the Gambia, where they traded gold for alcohol, cloth, and salt. But much of the gold trade from Bambuk was organized by overland juula caravans that traveled through Muslim Jakhanke villages along the Gambia River. Jakhanke, an ethnic group who trace their ancestry to the Soninke, were followers of the pacifist teachings of Al-Hajj Salim Suwari, a thirteenth-century Islamic scholar. By renouncing involvement in political

affairs, the Jakhanke lived and traded peaceably with non-Muslim neighbors while presiding over autonomous Muslim villages of their own.⁸¹

The boundaries of political belonging were narrow in Atlantic-era Bambuk. The authority of chiefs rarely extended beyond a single settlement of several hundred souls. Villages occasionally federated for defensive purposes. But they also raided one another for war captives, a symptom of the growing violence and militarization of life in the region. Young men with rifles guarded villages encircled by *tatas*, stone walls built for defense.⁸² Armed warriors and hunters accompanied men and women to distant agricultural fields and mining sites, where they were vulnerable to roaming mercenaries seeking captives. In 1729, a French traveler remarked that most villages were populated by women and children. Men had departed for warfare or long-distance caravan trade or had been captured for the slave trade.⁸³ “Bamboukains” earned a reputation as “ferocious and mean,” known to “kill travelers and pillage their merchandise under the slightest pretext.”⁸⁴ Gold miners chased away European travelers and often refused their requests to take samples of gold-bearing soils.⁸⁵ The suspicion of African miners toward outsiders was so well established that the Scottish explorer Mungo Park feigned a lack of interest in the “riches of their country” to earn trust from local chiefs.⁸⁶

European explorers commented on the lack of Muslims in Bambuk and glossed the region’s diverse residents as pagans or fetishists (*fétichistes*), as did earlier generations of Arab chroniclers.⁸⁷ These terms elided the heterogeneity of ancestral religious traditions, and the emergence of new ritual forms, practiced in the region. Most non-Muslim Maninka residents of Bambuk believed in a world presided over by a Supreme Being who confided elements of the natural world to spirits. Malevolent demons, witches, and ancestors also haunted the world of the living. Bambuk’s ritual landscape was shaped by the presence of lineage shrines (*jalan*) erected by the founders of villages to consecrate their relationship with territorial spirits, who brokered access to the natural world for humans. The foundation narratives of villages in Bambuk align with a template for establishing land claims found across West Africa. The village founder-settler, a distant ancestor, stumbles upon land propitious for hunting, iron mining, or cultivation. Many oral traditions present landscapes as uninhabited with the exception of spirits, the real autochthons of the land.⁸⁸ Village founders ask the permission of spirits to settle the land. In many accounts, the founder-settler offers a sacrifice, often a child, to the spirit. By accepting the sacrifice, the spirit accords the right to the founder-settler to hunt, mine, and farm in the spirit’s territory.

The founder-settler consecrates this pact by erecting a jalan to the patron spirit.⁸⁹ His male descendants claimed autochthony, or first-comer status, and occupy the office of dugutigi, charged with allocating land to newcomers and hosting strangers.⁹⁰

The territory of the first-comer group was configured as a field of power that radiated outward from the jalan. Over time, clearing land for farming extended the boundaries of the traditional territory of the village.⁹¹ Descendants of the founder-settler lineage slaughtered animals at the jalan to renew the human-spirit pact the shrine consecrated.⁹² The jalan presided over the fertility of the land and productive activities that marked the alteration of the savanna's distinct seasons. During the annual rains, life was bound closely to the village. Women tended plots of tobacco, okra, and tubers near their cooking huts. Men cultivated millet, sorghum, and fonio at fields within walking distance of the village. Harvest ceremonies opened the dry season—a time of mobility and adventure, when boys and girls underwent puberty rites; hunters tracked elephants for the caravan trade; and women collected shea butter nuts and medicinal plants.⁹³

Excavating gold from nearby riverways and alluvial placers was also a dry season activity. Gold-bearing lands were ritually charged landscapes, haunted by two categories of spirits: those bound to the territory and spirited snakes who traveled across space. Oral narratives gloss both categories of spirits by the term *jinne*.⁹⁴ Dwarf-like goblins, *goto* in Maninka, also haunted gold deposits, mountains, and caves. The proliferation of spirits on Bambuk's goldfields may explain why Maninka lineages retained a special politico-ritual office to manage relations with these spirit forces: the juurakuntigi (master of the mines).⁹⁵ *Juura*, the Maninka term for a gold mine, referred to any expanse of land, a hill, or a riverbank that contained gold.⁹⁶ The geography of a juura aligned with the territory of a resident spirit. Each juura had a primary patron spirit, though other classes of spirits traveled through it. The juurakuntigi ritually opened the juura to the broader community. They were aided in their ritual functions by young men who prospected for fresh gold deposits on behalf of their lineage or village. Washing in ablutions of leaves that pleased spirits, these men searched the savanna landscape for signs of gold. Some tree species coincided with paleo-channels lined with ancient alluvial gold deposits.⁹⁷ Men learned from their fathers how to taste and smell soils for the presence of iron, pyrite, and gold. Prospectors sampled termite mounds for traces of gold dust. Because termites burrow hundreds of meters underground in search of water and carry soils to the surface through their digestive tracts, termite mounds generated a cross-section of

the composition of underlying soils.⁹⁸ When they discovered a new goldfield, the juurakuntigi slaughtered a chicken, goat, or lamb on the goldfield in the name of the patron spirit of the underlying geobody. The animal carcass was buried up to its neck underground. Spirits signaled their acceptance of the sacrifice by retracting the carcass into the earth. If the carcass remained at dawn, the spirits rejected the sacrifice and refused to release gold.⁹⁹

Once a juurakuntigi opened a gold deposit, anyone could putatively mine the juura as long as they submitted to the ritual authority of the juurakuntigi and respected a set of ritual prohibitions or taboos (*tanas*). The key exception was a prohibition against leatherworkers (*garanke*) entering the goldfield (see chapter 1). By the late nineteenth century on some of the large goldfields in Bambuk, a group of young men known as the tomboluma—a portmanteau of the Maninka terms for “prohibition” (*tom*) and “handle on” (*boluma*)—enforced the juura’s tanas.¹⁰⁰ The origins of the tomboluma are unclear, but the institution may date to the Atlantic era. In oral histories, the term *tomboluma* was used interchangeably for hunters or warriors who accompanied miners to seasonal juuras for protection.¹⁰¹ Generations of sacrifices performed on mineralized land transformed the juura into a shrine, a jalan, dedicated to its spirited owners. The juurakuntigi also made offerings to Bida and Nininkala—the spirit snakes (*jinn saa*) that haunted the goldfields and paleo-channels of the savanna and the Sahel in medieval West Africa.

The accounts of European travelers to Bambuk are saturated with references to the occult power of gold and animal sacrifices. Europeans likely learned about ritual practices on the goldfields from their African guides, porters, and translators. Atlantic-era travelogues filtered accounts of blood sacrifice through Christian frameworks, but they captured the edges of the ritual geology, one built on the precedents of earlier centuries but taking on new features with the violence of the Atlantic era. French accounts, for example, are peppered with stories of a Maninka “belief” that the devil was the “true master of the mines.”¹⁰² In 1729, Claude Boucard, an officer of the Compagnie des Indes, described the “common opinion” that “he who discovers a mine invariably dies if there is not within eight days a black cow burned for the gold that they say is a sorcerer.”¹⁰³ Jean-Baptiste Durand, a director of the Compagnie du Sénégal, wrote that Maninka miners were “certain that gold is a malignant being who delights in tormenting those who loved it, and for this reason it often changes place.”¹⁰⁴ Europeans were particularly vexed by mines that were “no longer worked because of a superstition of the country.”¹⁰⁵ Such reports suggest spirits making

sacrificial demands—likely of humans—that miners were unable or unwilling to meet (see chapters 4 and 7).

Many chroniclers interpreted the “beliefs” of Bambuk’s gold miners as a shield for their ignorance of “the art of excavating mines.”¹⁰⁶ As early as the 1680s, European travelers argued that massive profits could be drawn from Bambuk’s soils by replacing the “wasteful” techniques of Africans with ladders, pumps, and machines.¹⁰⁷ But due to ongoing warfare in the Senegal River Valley, it was not until the 1850s that the French tested the long-circulating theory that Europeans could transform Bambuk into the “Californie d’Afrique.” At the time, the coastal colony of Senegal was under the governorship of General Louis Faidherbe, who had fought a series of battles against Al-Hajj Umar Taal. The descendant of a Pular Muslim clerical family from Fouta Toro, Taal led a massive Muslim reform movement in the Senegal River Valley that critiqued the African Muslim clerisy that was aligned with the French. Like many Muslim leaders before him, Taal raided Bambuk’s non-Muslim population for war captives under the banner of jihad.¹⁰⁸

In 1857, the French narrowly defeated Taal at a battle at the French fort of Médine. Taal ceded the Senegal River to France. To signify his victory over Taal and to prove the region’s potential to generate wealth for France, Faidherbe initiated a mining project in the village of Kéniéba of modern Mali.¹⁰⁹ Gold production was low, however, and the mine was closed in 1860. Faidherbe attributed the project’s failure to a lack of capital and appropriate machinery. But mystical theories also circulated. Africans abandoned the mining site because they were “horried by the pits.”¹¹⁰ Were they terrified because the French did not make adequate sacrifices to territorial jinne and Nininkala? The death rate alone was cause for terror. Roughly eighty African workers were ill at any given time, and dozens died. Three French technicians died within weeks of their arrival. Yellow fever and malaria took its toll, but there are suggestive parallels with oral traditions of the angered spirit of Nininkala who seized miners for making inadequate sacrifices. The lead French engineer of the mine expressed fears of a breach with the occult when, bedridden for five months, he wrote to Faidherbe that the Kéniéba mine was “cursed.”¹¹¹

European travelogues presented two hermetically sealed and diametrically opposed worlds of mining: one French, one West African. In fact, mining in Atlantic-age Bambuk was the shared product of an evolving Afro-Atlantic encounter that shaped the Upper Senegal Valley for roughly four hundred years prior to colonial rule. Mining techniques and notions

about geology were exchanged at this interface, as were ideas about gold and spirits. Bambuk's spirits had much in common with those haunting underground mines in France. For example, seventeenth-century residents of France's Midi region reported that "evil spirits sought to prevent men from entering the mines" in the Pyrenees. The inhabitants of Couzeran recounted "terrible and awful noises and the lightning and thunder that befell anyone who tried to open mines in the mountains of Poueg and Gouas." In Alsace-Lorraine, a goblin-like gnome, the *petit mineur*, played tricks on miners by extinguishing lamps.¹¹² Despite obvious parallels between the *petit mineur* of Alsace-Lorraine and the *jinne* of Bambuk, French travelers to Atlantic-era Bambuk framed the "beliefs" of West African miners as an exotic and primitive foil, distant in time and space from their own.

European accounts of Bambuk became a privileged ground for the emergent European conviction that Africans were technologically backward and mired in "superstitions," frozen in an earlier epoch of human history long surpassed by Europeans.¹¹³ Reports from Bambuk merged with efforts by eighteenth-century French and British naturalists to expunge the demons, angels, and gods long associated with mining in Europe from the new "scientific" discipline of geology.¹¹⁴ As European naturalists worked to distance themselves from geology's origins in biblical creationism and Christian demonology, they located the presence of spirited mines overseas. These two processes were related and part of a much broader constellation of discursive and legal contrasts that Europeans invented in the Atlantic age to emphasize their distinctiveness from Africans, which became a justification for the transatlantic slave trade and later colonialism.

The multiethnic landscape of Bambuk created new conditions for ritual practices that Europeans interpreted as time immemorial and static. A key prong of the ritual geology described in this book—the notion of gold as the property of spirits—likely solidified in the Atlantic era, a time when new notions of territory and people circulated across the Atlantic world.¹¹⁵ That "spirits own gold" (*sano ye jinne le ti*; *ko jinne jey kanye* in Pular) is a ubiquitous phrase in twentieth- and twenty-first-century Bambuk. The Maninka and Pular verbs in this phrase are the same as those used to describe the historical "ownership" of slaves by masters in these languages. The lexicon of property is also evident in accounts of French explorers who described spirits jealous of a "metal that is his property" or "the devil, who is the master of the gold mines."¹¹⁶ Spirits may have become owners of gold as notions of people as commodities that could be exchanged against metals solidified along the West African coast in the seventeenth and eighteenth centuries.

Sylvain de Golbéry, a French geographer who traveled to West Africa in the 1780s, spoke to the metonymy between people and metals in a rumor of the fate of miners buried underground. Golbéry reported that cave-ins in Bambuk's mines were created by "the devil," who "occasions these accidents in order to procure slaves for himself":

The Bamboukains suppose that the devil fabricates gold at an immense depth in subterraneous caverns; that he causes this rich metal to be worked by slaves; that the number of these slaves employed in this manufactory is very great; that a certain quantity of them perish every year; and that the falling in of the pits is only a trick of the devil's, who wants to get some new slaves to replace those he has lost. Impressed with this opinion, they are afraid to help the unhappy sufferers, they would displease the devil if they were to try to save them, and thus deprive him of his slaves, besides running the risk that his highness would carry the gold out of the country, and establish his workshop in some other place.¹¹⁷

Golbéry couches this stunning account of the "devil's workshop" in a broader exegesis about the technical incompetence of "simple and mindless" African miners who think fallen pits are the "work of the devil" rather than "the effect of their own stupidity."¹¹⁸ If Golbéry assumed metropolitan readers would interpret this as an account of fantastical African beliefs, the devil's underground traffic in African slaves was an all-too-realistic interpretation of current events. Golbéry's travelogue was written in 1802, many years prior to the criminalization of the slave trade. At the time, thousands of Senegambian war captives were sold off the Atlantic seaboard to Caribbean Islands, Brazil, and the United States. Golbéry wrote about a subterranean "slave trade" in Bambuk that "takes more than 10 to 12 men a year in the most productive mines." At the time, mercenaries took hundreds of men and women from Bambuk in raids each year, targeting isolated mining sites. Logged and marched in caravans bound for the coast, they were sold as domestic slaves to wealthy African merchants or shipped across the Atlantic.

In 1855, more than a half-century after Golbéry penned his account, two French agents wrote about the fate that befell a miner "surprised by a landslide that filled his pit." The land would be set aside for the family of the deceased, who would wait seven years before unearthing the cadaver. At this time, the "pores of the bones will be filled with gold flakes."¹¹⁹ The disturbing conflation between the bones of miners and gold, between an unspeakable tragedy and extraordinary gains, reemerges in oral narratives, colonial-era

reports, and present-day rumors on the goldfields of Bambuk. It recalls the alchemy performed by Nininkala, who consumes iron and excretes gold, or the transformation of Bida's slayed body into the goldfields of Bambuk and Buré. But while this account echoes medieval concepts of metal and ritual conversions, it also points to inventions of the Atlantic-era, such as the practice of paying for war captives with mineral currencies: gold flakes, iron bars, copper rods, or so many cut slabs of rock salt. The fate of a young man buried alive in Bambuk, his bones turned to gold, is not distant from the very real possibility that the same person could have been sold for iron bars on the Gambia River. Far from fantastical African "beliefs," these narratives reveal how the ritual world of Bambuk was shaped by Euro-African trade relationships based on converting people into metals.

Mining Gold in the Realm of the "Slave King"

We do not know when Taubry Sidibé reigned as the slave king of Bélédougou, the small gold-producing province in western Bambuk. Taubry likely lived in the eighteenth century, as his name does not appear in the accounts of nineteenth-century travelers to Bélédougou. In 1881, Ernest Noirot, a French artist traveling with the lieutenant-governor of Senegal, wrote about his passage through Mamakono, a "Malinké" village surrounded by bamboo forests with a "king" named Kié-Kié-Mahadi. Kié-Kié-Mahadi's patronym was Cissokho, indicating that the transition from Soninke to Maninka rule in Mamakono was already underway. Like other French travelers of his day, Noirot described a landscape devastated by slave raiding and displacement.¹²⁰ For decades, mercenaries from the Pular Muslim states of Fouta Djallon and Bundu, and the Maninka state of Konkodougou to the east, had pillaged small provinces to the west of the Falémé River for war captives. Militias from the small provinces of Bélédougou, Sirimana, and Niokolo partook in this economy of violence, raiding neighboring polities for captives. Noirot estimated that of Mamakono's roughly five hundred residents, as many as three hundred were captives. Slave labor contributed to Mamakono's relative prosperity. It boasted dense fields of sorghum, millet, cotton, and tobacco. Women mined gold from placers on the Falémé's tributaries. After the November harvest, men from the village sacrificed a "red goat and a white hen. They eat half and throw the other half here and there so that the devil will not bother the workers."¹²¹ Following a drumming ceremony, as Noirot casually mentioned, Kié-Kié-Mahadi signed a treaty "permitting the French to settle in Bélédougou and to exploit gold there."¹²²

By the 1880s, despite the tepid results of earlier mining ventures in Bambuk, there was renewed optimism in French circles for the prospect of turning a profit from Bambuk's gold. Across much of Africa, Victorian rumors of hidden mines and unexplored "El Dorados" proved illusory. But competition for access to natural resources, real and imagined, shaped growing European ambitions to control land, and not just riverine trade, in West Africa. In the decades to follow, the French army led conquest campaigns in the Senegal and Niger river valleys. They faced their staunchest opponent in Samori Touré, a Maninka empire builder with a base in the Guinean highlands. In the 1870s, Touré controlled territories along the Niger River, including the goldfields of Buré. Touré requisitioned gold dust to purchase rice, millet, and rifles for his army from British posts in Sierra Leone. In 1884, the French captured Bamako, prohibiting Touré's movement northward, and in 1892, the French pushed Touré out of Buré—claiming this goldfield for imperial France.

Meanwhile, the French were gaining a foothold in the Fouta Djallon from the south. In 1893, desperately clinging to power, Alpha Yaya, the prince of the Fouta's northern province, expanded his power to the north. His soldiers pillaged BéléDougou, Sirimana, Dantila, and Niokolo for captives and tribute in what is today southeastern Senegal. In 1894, representatives of these provinces appealed to the French for assistance against attacks. The French agreed to protect these small states (*petits états*), which they saw as a bulwark against large Muslim states with standing armies, in exchange for their allegiance to France.¹²³ It was at this time that the French began referring to the small polities stretching west of the Falémé as Haute-Gambie (Upper Gambia). In 1886 and 1887, the French army invaded this region in pursuit of Mamadou Lamine Dramé, a Jakhanke Muslim reformer calling for Islamic renewal. The French killed Lamine in 1887, an event commonly interpreted as the end of French conquest in the Senegal Valley.¹²⁴ During the same mission, officials of the French army signed treaties with the chiefs of Niokolo, which included the future base for French officials in the region: the town of Kédougou.

By the close of the nineteenth century, the French army had claimed a West African landmass nine times the size of metropolitan France—a large corner of the European "scramble" for Africa that accelerated across the continent in the 1880s and 1890s. The *petits états* to the west of the Falémé were first administered from the post of Satadougou in French Soudan. In 1907, the French constituted the circle of Upper Gambia, with a French commander resident at Kédougou, and made the provinces of Niokolo,

Dantila, Sirimana, Bafé-Satadougou, BéléDougou, Badon, and Tenda into cantons with French-appointed African canton chiefs. Colonial rule was most keenly felt by the imposition of a yearly head tax collected by African canton chiefs. Residents of gold-producing provinces in eastern Senegal and western Mali—historical Bambuk—turned to regional goldfields to meet these tributary demands. In an unknown year early in the new century, swarms of locusts decimated the millet and sorghum crop. As famine loomed, men and women from across southeastern Senegal packed bundles of clothing and tools and walked to Tinkoto, situated in the borderlands of BéléDougou and Niokolo. Tinkoto was then a dry season gold-mining site, a juura. Its patron spirit, childless and angered, demanded the sacrifice of a dozen young men to release gold to human hands. Makhan Keita, an elderly man from Kanoumering, a village neighboring Tinkoto, recounted: “Some years, she asked for a man or a woman. But that year, she demanded the sacrifice of twelve young men. And so, we dug twelve mining shafts in a line, and we buried our children up to their necks in soil. We told the jinne: ‘Look this is your share. In taking this sacrifice, may you liberate our share.’ When they returned the next day all of the bodies had disappeared into the earth. Gold was abundant. No one was hungry that year.”¹²⁵

This stunning tale of human sacrifice is likely apocryphal, a metonym for the loss of young life to famine, violence, and slave raiding. But the account also articulates with a regional idiom of exchange between humans and the otherworldly owners of minerals. It recalls the annual sacrifice made by Wagadu’s residents to Bida to secure water and gold. It is a blueprint for dozens of human-spirit pacts forged by confiding a beloved child to the spirit world. These stories speak to the very high price West African societies situated along the Birimian rocks of the savanna paid to gain access to gold. The ritual geology elaborated by generations of West African miners, traders, kings, and blacksmiths reframes French colonial conquest of Bambuk in the late nineteenth century as a question not only of the economic value of land but also of the ongoing presence of subterranean spirits.