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“Gold & Labor in Zaruma (Ecuador), 1699-1820”

Whenever I inform the odd interested person of my research topic and area their eyes inevitably light up, then fade. “Gold mining sounds kind of interesting,” they say, “but where is *Zaruma*?” San Antonio de Zaruma, quite possibly the longest-running hard-rock gold camp in the Americas, is hardly well-known outside the Republic of Ecuador, yet it was once considered among the most promising of Spanish gold finds in South America. There were the inevitable early comparisons with Potosí, and Viceroy Francisco de Toledo even planned a visit, but Zaruma, first exploited by the Spanish in the late 1550s, was already falling on hard times by the 1580s. The main concern, as one might expect, was labor. Everyone agreed the deposits were enormously extensive and deep, the plentiful ores easily excavated and milled, but no one seemed willing to work them—indeed, wise indigenous subjects positively *ran* from them. The other option, large-scale importation of African slaves, was generally deemed too expensive.

By the early 1590s Zaruma had fallen to such crisis that Philip II called for remedial proposals, several of which were so detailed they have since formed the basis of colonial Ecuador’s indigenous demographic history (as described by Tyrer, Vieira Powers, Newson, etc.). But whether the proposals called for indigenous “vagabonds” to fill *mita* quotas or Crown-subsidized imports of African slaves, Zaruma was not to be revived in colonial times. Instead, and this is the subject of the following paper, the gold camp settled into an extended period of decadence, never returning to its glory days (even in the later Bourbon years), but never quite falling to total abandonment, either. By circa 1800 gold mining at Zaruma became, it seems, a kind of subsistence activity, exploiting, rather like a family agricultural enterprise, a mix of ad hoc labor forms, some of them desperate, none very dependable.

Beginnings: The Zaruma *mita* was first proposed by Viceroy Toledo in 1573, but does not appear to have been instituted until 1579, and even then not without constant impediments and controversy.¹ Indigenous population density in the southern highlands was relatively low, possibly due to pre-conquest wars between the Inkas, Paltas, Cañaris, and other neighboring groups. Whatever its causes, this relative natural scarcity of labor in the Zaruma region, coupled with new epidemics in the late 1550s and again in the 1580s, necessitated a fairly broad *mita* net simply to meet the minimal requirements of the district’s gold miners. To complicate matters, gold was more costly to produce at Zaruma than in early placer districts such as Santa Bárbara, east of Cuenca. First, labor was needed in more tasks, such as tunneling in hard rock, ore removal, carriage, milling, canal tending, and so on, and secondly, aside from the hard labor and complex refining technology needed for recovery, Zaruma gold was of low karat (c.14-18k) and thus less valuable in relation to placer gold (usually c.20k+). The new mill owners, or *dueños de*

¹ See Roberto Levillier, ed., *Gobernantes del Peru* 6: 181-83. Toledo also called for the consolidation of the several *cajas reales* of the southern audiencia at one site, Loja. Galo Ramón has published a fine overview of Zaruma’s regional importance to 1700, including a fairly detailed discussion of the mine *mita*, in “Loja y Zaruma: entre las minas y las mulas, 1557-1700,” *Revista Ecuatoriana de Historia Económica* No.7 (1990): 111-43.

ingenios, of Zaruma called for Crown-subsidized labor from the very beginning, and the 1579 mita muster was the first and only response.

Initially some six hundred *mitayos* were to be drawn from four ethnic groups living in the Cuenca and Loja regions, specifically the Ambocas, Garrochambas, Paltas, and Malacatos.² Since the mitayos sent by these groups failed to meet the miners' demands, the mita net was extended to cover the southwestern Cuenca groups living near Cañaribamba and Pacaibamba. Even with these modifications, however, the Zaruma mine mita in the 1580s never exceeded 700 workers on two-month rotations, a paltry number compared with the several thousands who were drafted to serve one-year stints in the silver mines of Potosí. As Karen Vieira Powers has noted, many indigenous persons living within the mita zone fled to avoid mine service in the early 1580s. 1581 *visitas* to Cañaribamba and Garrochamba, for instance, revealed population drops of seventy-six and ninety-one percent, respectively, from 1575.³ Such precipitous declines before the second wave of epidemic disease, as Vieira Powers suggests, reveal that flight was the most likely cause of Zaruma's labor problems. Linda Newson has also suggested that mining conditions, coupled with extremely low wages (the mitayo received a token wage of one *tomín*, or about two reales, per day, and probably not in cash), meant that mitayos who survived one trip to the mines made sure they never had to return.⁴ Unlike rich silver towns such as Zacatecas or Potosí, Zaruma offered few incentives for indigenous laborers to stay, even if they picked up specialized occupations; as a regional market for both labor and produce San Antonio de Zaruma simply remained too small and undercapitalized throughout colonial times to escape marginality in spite of its high-sounding designation as a Villa Real, or "Royal Settlement," in 1593.

By this time the Zaruma mita was on the verge of extinction. The original prediction that some 500-1,000 indigenous workers could be easily drafted into service from the southern provinces had fallen victim to various unforeseen circumstances. First of all, Andean laborers died in the mines and elsewhere, largely due to epidemic disease, but also because of overwork, mine and mill accidents, dangerous river crossings, and other hazards. Secondly, and perhaps more importantly in the long run, *encomendero*-agriculturalists around Cuenca and Loja were unwilling to send their precious native charges to Zaruma for others to exploit; they quickly learned that too many temporary mine laborers did not come home.⁵ Thus, even if indigenous workers did not run away from the visiting mita officials of Palta and Cañaribamba themselves, their *encomenderos* or other employers were likely to shield them. Quito officials, being so far away, rarely visited the mines and surrounding provinces and made little effort to alleviate either the situation of Andean mitayos or to resolve the conflicts arising between agricultural and mining elites.

Faced with renewed economic pressures in Europe, the Crown in the early 1590s solicited proposals to solve the mita crisis at Zaruma. Most of the observers, primarily audiencia officials from Quito, called for forced resettlement of some 2,000 "vagabond Indians" collected from the northern highlands, including Pasto and, in one case, Popayán. These non-village

² Ramón, "Loja y Zaruma," 121.

³ Karen Vieira Powers, *Andean Journeys: Migration, Ethnogenesis, and the State in Colonial Quito* (Albuquerque: University of New Mexico Press, 1995), 38.

⁴ Linda Newson, *Life and Death in Early Colonial Ecuador* (Norman: University of Oklahoma Press, 1995), 241.

⁵ Pilar Ponce Leiva, ed., *Relaciones Histórico-Geográficas sobre la Audiencia de Quito*, 2 vols. (Madrid: CSIC, 1991), 1: 492 ("no se ha de sacar más por causa de los pocos indios que ay en los dichos pueblos, de enfermedades de viruelas y otras, y tambien por repartir los dichos indios a los labradores moradores en Loja y Cuenca y para el servicio de las dichas ciudades sin los cuales no se pueden sustentar," 1592).

Andeans were seen as a menace to public safety in Quito and other cities, their forced removal justified on moral grounds. After a sort of round-up the workers would be marched to two sites near the Zaruma mines, presumably along the Amarillo and Calera Rivers, and would there construct and occupy a kind of wattle-and-daub barracks after the manner of slaves. If they tried to run away or return to their former haunts, they were to be corporally punished and sent back to the mines.⁶ Some officials argued that these unattached workers, also called *peinadillos* (in reference to their manner of hair-dressing), were so unaccustomed to work that they would prove intractable under these conditions, and would flee like “runaway blacks” (*negros cimarrones*).⁷ Massive importation of African slaves was in fact proposed by some observers, including the former Bishop of Nicaragua, Gerónimo de Escobar, but it never came to pass. Escobar, one of the few proposal writers to complain of mita abuses, among them periodic floggings in the mines, which he had visited, opposed all indigenous mine labor; he suggested that mitayos instead be restricted to raising food products for slaves, which the Crown would offer to mine owners at reduced prices, on credit.⁸

In the end, none of these schemes materialized, mostly due to disputes with northern elites who laid claim to the *peinadillos*, but the mine owners of Zaruma also lacked the political clout to see such plans enacted. Toledo had left the project of rehabilitating the district by ensuring a constant supply of mita laborers to the elite Quiteños, and they had failed. Certainly Zaruma could never have become another Potosí, in spite of contemporary claims, but in light of the combined resistance of indigenous laborers, mostly in the form of migration, and stubbornly possessive elite agriculturalists in the late sixteenth century, it most certainly failed to achieve its productive potential. For Andeans and Africans spared the torture of working in the district’s pits, shafts, and mills, this shortcoming was no great tragedy, but for Spanish elites in the southern highlands, the decadence of Zaruma was at least one factor leading to a sustained regional economic decline which would characterize most of the remainder of the colonial period.

By the turn of the seventeenth century Zaruma’s half-dozen or so principal mines, along with some two dozen *ingenios de agua*, or hydraulic stamp-mills, were barely operating. The number of mitayos had dropped to less than two hundred, and those who came could not be enticed to stay by recent wage hikes (1.5 tomines a day after 1593) or other incentives. Due to the continued high cost of transport and minimal local production, food prices were so high in Zaruma that a *fanega* of maize cost the equivalent of a month’s pay.⁹ In the 1610s gold production languished and was only partially revived in the 1620s with the reintroduction of tax breaks (the *quinzavo* instead of the quinto). With a renewed interest in mining, abuses apparently also increased: in 1621, for example, mitayos from Cañaribamba filed a series of complaints with the corregidor of Cuenca, claiming that many of their fellow draftees had died from drowning, disease, and overwork.¹⁰ One worker, a night watchman for a stamp-mill, had

⁶ Ibid., 546 (Lcdo. Auncibay).

⁷ Ibid., 515-16 (Lcdo. García Tamayo de Morales).

⁸ Ibid., 517. African slaves did work in late 16c Zaruma, as suggested by Quito notary records and other sources, e.g.: ANHQ Notaria 6:2, SH, 6-ix-1583, f.1016; here Martín Hederr of of Zaruma disputed the loss of seventeen slaves to an unscrupulous factor, Tomás de Vergara. Hederr (a German?) purchased other slaves in Quito with gold ingots about the same time (Notaria 6:2, SH, 13-ix-1583, f.264v [marked ‘267’]).

⁹ Newson, *Life and Death in Early Colonial Ecuador*, 242.

¹⁰ Anda Aguirre, *Zaruma en la Colonia*, 69-73.

even been stabbed by the dueño with a rapier for sleeping on the job. Others employed in the same man's mines had been beaten with canes for minor infractions and had had their heads shorn.

In the 1630s mining slumped again, and "mill-lords" began to quarrel with local priests over native workers employed in rotational service for the church. The *doctrineros*, the miners charged, were allocating to themselves the services of "their" mitayos, calling them *pongos* (precursor of the term *huasipunguero*, or debt-peon) or *semaneros* (weekly domestic workers) and paying them nothing. It was insinuated that these pongos were illegally put to work in gold collection, possibly stream panning in nearby rivers, as they were made to pay the priests some kind of tithe in gold.¹¹ Further, the Zaruma cabildo charged, the priests had used these new means of extortion so effectively that many indigenous workers, mostly *forasteros* to begin with, had permanently run away. Perhaps most annoying of all, the priests charged the mine owners themselves exorbitant fees in gold for religious services. As for their own labor practices, the *dueños* claimed they were offering fair wages to native laborers, the least being one tomín, or two reales per day, but graduating to a full patacón (four tomines, or eight reales) for workers in rivers and *desmontes* (shallow excavations).¹² Thus the town's vecinos, who in 1639 had demanded that priests be banned from using indigenous workers in personal, unpaid service, tried to persuade the audiencia that mine work in Zaruma was competitively priced and even attractive. Needless to say few native workers seem to have agreed with this assessment. Finally, as if to symbolize the town's seventeenth-century decadence, the nave of the Merced church, Zaruma's principal place of worship, collapsed in 1653; no local residents offered to fund its restoration.¹³

By 1664 an official visiting the Loja district noted:

"the [gold] deposits of the Villa of Zaruma are so exhausted there are no more than ten mills, and these are sustained not by the interest their owners have in recovering gold, which does not even yield enough for ordinary costs, but rather so as not to lose their allotment of mitayos, with whose work and rent (alquiler)—as if they were slaves—they feed themselves, occupying them in other tasks; and the corregidores do nothing to remedy the situation so as not to lose their 500-ducat salary, which depends on [the continued operation of] the said mills and distribution of mitayos..."¹⁴

Thus it appears that Zaruma circa 1664 was no longer about mining gold, but rather mining native Americans directly.

The End of the Mita: Given the steep decline in gold production at Zaruma over most of the seventeenth century, one might expect the mita and its problems died a natural death, as well. The truth, however, was quite the opposite, as an indigenous complaint of 1699 reveals. On 20 October of that year, three workers from the pueblo of Guanazán, located some 20 km north of Zaruma, made a deposition in Quito and presented it to the audiencia. The petitioners, headed by

¹¹ ANHQ Fondo Especial, caja 1, #125 (25-ii-1639).

¹² Ibid. This last wage seems exceptionally high (more than 2 g of gold per day) and was probably never paid in cash form, if at all. This was, however, the cost of renting a slave for a day in contemporary Guayaquil.

¹³ ANHQ Fondo Especial, caja 2, vol. vi, #211, 12-v-1653.

¹⁴ Don Alfonso de la Cueva from Loja, 6-iv-1664, AGI Contaduría 1540, ff.2-2v.

cacique principal don Pedro Sari, claimed they had undergone intense hardships in making their way to Quito, but that it had been necessary to make the long journey since no local priests or officials would listen to their pleas for justice. They complained of two things: first, Zaruma's cabildo was interfering with the election of indigenous *alcaldes* in the region; and second, mine owners, in particular a priest named Rua, were abusing mitayos in their mines.¹⁵ The *alcalde* appointment issue was important to Zaruma's mine owners since access to mitayos was only possible through indigenous town officers, or *alcaldes*. The people of Guanazán claimed Zaruma officials were interfering with their affairs by placing *forasteros*, outsiders of their choice, in these key village positions, hence guaranteeing easy access to workers. This activity, Sari claimed, would soon destroy the remaining indigenous towns of the region. Mitayos would be consumed by mine labor, their families by hunger, or they would simply choose to flee into the forests, living "like barbarians," in order to avoid certain death by mita service.

More cutting than this issue of meddling in indigenous town politics, however, was the question of abuse of mine laborers. No other document from the period illustrates more clearly the working conditions faced by mitayos in Zaruma's mines and mills, and this brief and plaintive petition is all the more remarkable in that Sari and his companions described the hazards they faced firsthand. The workers claimed, to begin with, that the mines themselves were unsafe to enter. They said that contrary to royal *cédulas*, with which they were familiar, they were being sent to work in dangerous mines "at the risk of their lives." Sari stated that mitayos from his village were made to work in "a very ancient mine" called Callejuelas ("the Alleyways"), by a parish priest named Juan de [la] Rua. The mine, Sari continued, "is so deep, over twelve *estados* [c. 25 m], that in order to descend to the floor the Indians must cling to a rope ladder that hangs freely in the air."¹⁶

"Consider, Your Highness," Sari went on, "with your great understanding, how it would appear: a poor Indian, making his way up such a small ladder made from ropes, a burning wick (*mecha*) in one hand, the same he uses to cling to the ladder, and in the other and over his shoulder a sack (*zurrón*) of ore weighing at least three arrobas [c. 35 kg]." Climbing thus, during Lent of 1698, a mitayo named Marcial fell to the floor of the mine. He was injured so badly that even a year-and-a-half later he had not fully recovered. Another mitayo from the pueblo of Guachanama suffered a similar fall while climbing the ladder. "He remained for a long time almost dead," Sari continued, "pissing blood (*meando sangre*) for three days, his chin and jaw crushed from the great blows."¹⁷ These were the sort of conditions that the *audiencia's* own visitors had apparently overlooked during their inspections of the mine works of Zaruma only one year prior to the filing of this petition. To trust the official record alone, the *cacique* contended, was to miss much of the truth about the mine mita.

The list of Zaruma's mining dangers and accidents as presented by don Pedro Sari and his companions continued. Sari claimed that on one occasion a mitayo named Pillasé, "who is miraculously alive," was working in the Callejuelas mine when a wall collapsed. Having nowhere else to go to avoid the falling rock, the worker leaped into a water-filled shaft. "Finding himself in water up to his shoulders," Sari went on, "he would have drowned if not for the aid of some Indians who happened to be nearby."¹⁸ On another occasion a worker named Pedro Aila

¹⁵ AHHQ Indígenas, caja 23 (20-x-1699).

¹⁶ *Ibid.*, f.3.

¹⁷ *Ibid.*, f.16v.

¹⁸ *Ibid.*

was nearly crushed in a similar cave-in at Callejuelas. He had been ordered to excavate a section of mine ceiling with the iron barra when it collapsed, “the roof being hollow and false.” Like Pillasé, he just barely escaped death. Yet another indigenous worker from Sari’s pueblo, Antonio Veldama, was not so fortunate; he was crushed and killed in a cave-in a year earlier, apparently in the same fashion.¹⁹

The mines themselves were dangerous enough, as these testimonies demonstrate, but there were other “industrial” hazards faced by Zaruma’s mitayos at the turn of the eighteenth century. Sari claimed that one of his subjects, a mitayo named Manuel Aila, brother of Pedro Aila above, had been made to work at a hydraulic stamp-mill belonging to the same Maestro Rua. While operating the ingenio, at night, no less, Aila “was caught by the wheel and raised with it and flung to the ground, nearly dashed to pieces.” Sari claimed that the priest and mill-owner Rua had been informed of this accident but did nothing, “leaving the said Indian for dead.” Indeed, the unfortunate worker would have died had he not been rescued by another indigenous man (who happened to be his brother).²⁰ Working in the mines and mills of Zaruma was obviously a deadly business, especially for indigenous draft laborers whose safety was ignored by both mine owners and officials who might enforce mining and milling ordinances. This case also illustrates the fact that low gold receipts in faraway Quito, and even in the relatively nearby *caja real* of Cuenca, did not necessarily mean that mining activities had ceased in places like Zaruma. For all we know, individual abuses may have been worse during periods of low productivity, when official attention waned.

The Guanazán cacique’s petition is also revealing in that it explains the difficulty of the mitayo’s position in the local economy. First of all, service was essentially unavoidable. The only means of escaping duty (other than running away) was to pay five *patacones*, or silver pesos, at each six-month turn, a practice already institutionalized in contemporary Potosí. In remote Zaruma and its hinterland, however, there were few things an indigenous man could do to raise this amount of cash, and even if he had the value of goods in kind, a general scarcity of coin made cash conversion virtually impossible. Because mine labor was so horrible, however, many mita-eligible men, Sari claimed, still chose to “sell what little they had, leaving their wives and children perishing from hunger, naked, with nothing to maintain themselves.” If these individuals failed to pay, or were not “very punctual in going to the mita,” they were “placed in stocks in the jail,” whipped, and subjected to “other unspeakable cruelties,” including having their hair shorn.²¹ Other miners committed similar crimes, according to Sari, but since the owner of his village’s mita labor was a priest, no one could stop him but the audiencia. Since there were no ecclesiastical authorities in Zaruma, and those of Loja and Cuenca were too easily influenced, the cacique and his followers had been forced to make a more than 100-league trek in order to seek justice before Quito’s high court.

¹⁹ Ibid., f.3v.

²⁰ Ibid., f.16v. For an interesting case from the same period involving an “industrial” accident with a cane press, or trapiche, see ANHQ Popayán, caja 9 (1687). Here a young boy’s hand was crushed by a water-driven trapiche near the village of Tagua, below Pasto. The audiencia investigated the case as a potential instance of Indian labor abuse in spite of the testimony of the mill owner, who claimed that the boy and his friends, in a prank (“travesura”), had tried to press some canes in secret to make “una vevida que llaman guarapo,” or sugar beer (f.30). Luis Calero also cites this incident in *Chiefdoms Under Siege*, 138.

²¹ ANHQ Indígenas, caja 23 (20-x-1699), f.3v. Other indigenes in the Zaruma area were apparently made to work in cane trapiches in this period as well. An auto of 1687 ordered a visita after receiving claims that several “indios de concertos,” or hired hands (more likely rented mitayos), had suffered injuries and even death in such work. See ed. Freile-Granizo, *Autos Acordados*, 205 (8-iii-1687).

Aside from the issue of a priest being the chief culprit in this case, the situation was all the more troubling in that the audiencia had just sent a visitor to Zaruma, precisely to investigate the relationship between mine owners and mitayos. The investigator, whose report Galo Ramón has summarized, reported on the number of mines and mills in operation, the types of workers employed, and the potential income the crown could expect to collect in quintos.²² Of the seven principal mines visited, Rúa's was only one of two said to be currently productive (i.e., paying quintos). Both of these producing mines' owners, including Rúa, had access to more than two mitayos, while four others listed only one each and a fifth none. Rúa's mine was also one of only two listed as "unsafe" (*insegura*) and "old" (*antigua*). Tellingly, in light of Sari's complaints, of the seven, Rúa was one of three owners who paid his workers with goods in kind, in effect retaining their cash salaries. Three other dueños claimed they paid a wage of five pesos per month (of twenty-six work days) and a fourth rented indigenous workers from an unknown source (illegal in any case), probably an encomendero. Only one other mine owner, who had only one mita employee, was said to have had complaints registered against him for abuse (*maltratos y quejas*).²³

Sari claimed that the investigation of 1698-99 was a farce even though the existence of indigenous complaints against mine owners had been noted. The visiting judge had spent most of his time in town, and although he was required by law to "personally enter the mines (*boquerones*) with the *vedores* to see if they were secure and firm, he did none of this." "Instead," Sari continued, "he only came to each mill, spoke briefly with the dueño, and asked for his fees (*derechos*)." The judge took no sworn depositions from the mine owners, and none from the mitayos.²⁴ If there were abuses being committed, big or small, he took none seriously, focusing instead on prompt compensation. Sari continued to denounce the visita, saying that even the local *teniente*, who was to participate as a witness and correct abuses, had simply not shown up. Corrupt officials such as these should have been fined, Sari claimed, and deprived of their offices. It was, after all, "a grave sin to cause the loss of a soul, as has occurred in the dangerous mines to many Indians" by not "seeing with one's own eyes what one must."²⁵ Such was the business of checks and controls in late seventeenth-century Zaruma's gold mines. No one, it seemed—neither the Crown's nor God's supposed servants—was watching out for indigenous miners. Up to this point the mitayos' only recourse was to look out for themselves, exploiting whatever regional feuds and differential policies they could discover, or simply fleeing the region.

It just so happened that the complaints of Sari and his subjects corresponded with the vespers of the Habsburg period, a time of renewed interest in indigenous labor reform throughout the empire. As early as the mid-seventeenth century Quito officials had begun to question the legality of forced indigenous labor in mining, whether in encomienda (as in Barbacoas, on the Pacific coast) or mita form (as in Zaruma).²⁶ Given that Las Casas and others had argued

²² Galo Ramón, "Loja y Zaruma: entre las minas y las mulas," 141. A copy of these documents may be found in ANHQ Indígenas, caja 29 (27-iv-1706).

²³ Ibid.

²⁴ ANHQ Indígenas, caja 23 (20-x-1699), f.3v.

²⁵ Ibid., f.4.

²⁶ On encomienda abuses and reforms in Quito's other goldfields circa 1700, see my "Taming the Master: Witchcraft, the Encomienda, and Slavery in Barbacoas (Colombia) at the Turn of the Eighteenth Century," *Ethnohistory* 45:3(Summer 1998): 477-507.

against the same things in the Caribbean context over a century earlier, and that the boom years of the first century after conquest were now well in the past, this late-coming concern for indigenous welfare may seem rather disingenuous from a modern perspective. Still, the very fact of renewed attention was notable, if not noble; in 1650 church officials in the Cathedral of Quito suggested that the New Laws of 1542-43 had not been properly observed in their district, and that the worst abuses had survived in mining centers. They called for an end to perpetual service (favoring the temporary mita over the multi-generational encomienda), an end to corporal punishment and “imprisonment in private jails,” fair payment of wages, and exemption from underground and *ingenio*, or mill work of any kind. In mining districts such as Zaruma, they claimed: “an Indian who enters into mita service at eighteen years, when he is first subject to pay tribute, never leaves the ingenios and mines until he is an old man of sixty or seventy, and there he dies without having enjoyed the liberty God gave him.”²⁷ Complaints about this type of abuse had been heard before—and would be heard again in 1699, as shown above—but the church’s statements signaled the beginning of the end for the mine mita in Zaruma.

As Diana Bonnett has shown in her study of the office of the Quito Fiscal Protector de Naturales, or state attorney for indigenous rights, the Spanish Crown also favored new ameliorative legislation prior to the Bourbon accession. In 1666, for instance, the regent Queen Mariana of Austria at last signed long-pending cédulas in support of the creation of the office of Protector General in the colonies.²⁸ These cédulas were slow to take effect in Quito, as audiencia and viceregal authorities sought to block any moves that might erode their power over indigenous affairs, especially regarding access to native lands and labor. Nevertheless, restrictions on abuse in another key sector of the economy, namely the (at this time) much more productive highland *obrajes*, or textile mills, were enacted.

A royal cédula of 1680 denounced Quito’s colonial elites for forcing indigenous subjects to labor in the obrajes from dawn to dusk, day-after-day, not allowing them to leave their work long enough even to be educated in Spanish, much less indoctrinated according to mandate. Obraje workers, who were said to have received no more than eighteen pesos per year in wages, included children as young as six years, many of whom were left crippled or dwarfed (*tullidos o enanos*) by incessant and demanding tasks.²⁹ Since they were driven from their subsistence plots these sweatshop workers were forced to buy food, mostly barley—unambiguously referred to as “relief” (*socorro*)—from corregidores in order to survive. Many obraje workers had been previously engaged in agricultural or stock raising service on private or corporate (usually church-run) haciendas. Such workers, driven to hunger, were forced to compensate their employers for any livestock that died in their charge, either by slaughter or accident, landing them in situations of permanent indebtedness. Debts of this kind, unsurprisingly, were serviced by work-time in the obrajes. It was a nasty cycle, in short, one that kept most indigenous workers in the Quito highlands entrapped and unpaid for decades at a time. By 1699, then, Quito’s mills and mines had both become targets of labor reform.

The Eighteenth Century: In the midst of the messy Bourbon accession, Zaruma’s shafts flooded, no significant new discoveries were made, and the indigenous population

²⁷ Ponce Leiva, *RHGQ* 2: 250.

²⁸ Diana Bonnett V., *El Protector de Naturales en la Audiencia de Quito, Siglos XVII y XVIII* (Quito: FLACSO, 1992), 26.

²⁹ ed. Freile-Granizo, *Autos Acordados*, 133 (cédula of 7-xi-1680, with commentary by Quito officials).

declined or fled. The citizens and friars of the once-rich Villa petitioned the audiencia for aid, but none came. In 1705 a Zaruma citizen complained that there was not even a public scribe in town, and that this and many other offices had been vacant for years for lack of bidders.³⁰ Either no one had the money to purchase these normally sought-after public offices, or the income they promised to yield was too small to offset the cost of holding them. Through it all, however, gold mining continued. According to occasional visitors, a few struggling entrepreneurs, if they can be called such, continued to produce a meager living in a half-dozen or so mines, and although they probably continued to abuse indigenous laborers just as in earlier times, their produce was so small they barely supplied the local jewelry market.³¹ Science-minded visitors like Baron Condamine and Jorge Juan & Antonio Ulloa likewise claimed minimal effort went into exploiting Zaruma's obvious potential circa 1735, but they suggested Quito's general agricultural bounty was in part to blame.³² Why should a person slave away underground, they asked, when nature made subsistence so easy? Quito was hardly so desolate, after all, as, say, Potosí; indeed it was a Physiocrat's paradise. Needless to say, Crown revenue officers were not convinced.

Indeed, given its early fame as a fabulously rich gold-mining zone, one might imagine that Zaruma eventually underwent some sort of renaissance during the Bourbon period, when scientific methods were introduced to replace "folk" ones in many industries. A revival did in fact occur, but only a very modest one. Mining reform was always central to the Bourbon revenue-enhancing project, and it largely succeeded in Peru and Mexico, where new machinery, beneficiation processes, and laws had been introduced to stimulate production. A mission was likewise sent to New Granada by the 1780s, though with less positive results,³³ and information on mineral wealth was collected throughout the Audiencia of Quito. As in late sixteenth-century accounts, Zaruma was a central focus: it was most promising, but also deeply troubling. All observers felt there had to be *some way* of reviving the district's glory days, but in the end the only effective changes brought about by the Bourbon investigations were the lowering of the severance tax from five (really six-and-a-half) to three percent in 1777 (a rate that still holds in Ecuador today), a reduction in mercury prices (a crown monopoly supplied by mines at Almadén, Spain, Idrija, Slovenia, and Huancavelica, Peru), and the eventual installment of a miners' savings bank, or *fondo de habilitación*, not established until 1811.

The lowering of taxes, though not particularly innovative (in fact widely practiced since the early sixteenth century), immediately stimulated production, but the creation of a savings institution, aimed at advancing joint projects and the like, seems only to have exacerbated existing conflicts between neighboring mine and mill owners. One of the primary functions of the *fondo*, as Manuel Lucena has shown, was to relieve miners of debts to local merchants, but this was such a deep-seated problem (as in most mining centers, including contemporary Barbacoas, on the Pacific coast) that it would not be easily solved by late-coming state

³⁰ ANHQ Fondo Especial, caja 12, #511.

³¹ Dionisio de Alsedo y Herrera, *Descripción Geográfica de la Real Audiencia de Quito* (Madrid: Hispanic Society of America, 1915 [1740]), 44-45.

³² Condamine, in Pinkerton's *Travels*, v.11; Juan & Ulloa, *Voyage to South America*, XX (locate pop ed.)

³³ See Sandra Montgomery Keelan, "The Bourbon Mining Reform in New Granada, 1784-1796," in eds. John Fisher, Allan Kuethe, & Anthony McFarlane, *Reform and Insurrection in Bourbon New Granada and Peru* (Baton Rouge: Louisiana State University Press, 1990), 41-53; and Arthur Whitaker, "The Elhúyar Mining Missions and the Enlightenment," *Hispanic American Historical Review* 31 (1951): 560-?

intervention.³⁴ Simply put, short of servicing large private-sector debts or kicking out all the miners, there was little to be done. The Crown's supposedly beneficial reduction of mercury prices likewise did little to stimulate production among the debt-encumbered miners of Zaruma. Wanting to have things both ways, the Crown even tried, rather desperately, to track contraband gold by calculating mercury usage, but this "mercury mathematics" did not translate into better control or greater productivity. The already "discolored and pallid," and possibly half-mad citizens of Zaruma had not wanted for mercury since the early seventeenth century.³⁵ Besides, amalgamation was never as important in colonial gold beneficiation as it was in that of silver (i.e., the celebrated *patio* process). What Zaruma's miners needed more than anything was the capital and expertise necessary to permanently drain their underground works so as to increase ore removal and hence make cash flow. But then this would naturally require massive inputs of labor, and where would one turn for that?

A 1765 relación of the Loja district claimed that at Zaruma some fourteen mills were operating, and that gold yields ranged between three and four *arrobas* (c. 6,000 to 10,000 *castellanos*) per year.³⁶ Cuenca's accounts for the eighteenth century record much less gold from Zaruma than the Loja relación claims, but the author accounted for this by stating that most produce was exchanged directly for mercury and possibly traded to the coast, presumably at Tumbes or Machala. In any case, not until after 1767 does one find quinto records of Zaruma gold that hint at a slow revival of the mining industry in the era of Bourbon reforms. As in the case of Barbacoas, the Crown's concession of a three percent total royalty in 1777 was the most crucial stimulus of the period. Registered production at Zaruma, based on Cuenca's (rather inconsistent) real caja receipts, appears to have risen from only about 5,000 *castellanos* per year between 1767 and 1777 before leaping to c.20,000 *castellanos* per year between 1777 and 1785.³⁷ Gold production then seems to have fallen off to just over 12,000 *castellanos* per year for the remainder of the eighteenth century. Records for the turbulent years of 1800-1821 are spotty, but registered production seems to have declined even further at Zaruma to between 5,000 and 9,000 *castellanos* per year.³⁸ In sum, Zaruma's late eighteenth- and early nineteenth-

³⁴ Manuel Lucena Salmoral, "La crisis minera de Zaruma (Ecuador), a fines de la Colonia: La visita de 1811," *European Review of Latin American and Caribbean Studies* 57 (December 1994): 53-68.

³⁵ Zaruma mercury sales for the years 1771-89 appear in AGI Quito 439. The Jesuit historian Juan de Velasco, in his classic *Historia Moderna del Reino de Quito* (1789), described the citizens of Zaruma as "pallid" due to mercury contamination, and summed up the district as follows: "No obstante la liga de plomo y plata, son las únicas minas que se han trabajado con mayor constancia, desde la antigüedad, hasta el tiempo presente, en que se hallan ya muy decaídas y casi exhaustas. Aún la misma Villa esta sumamente deteriorada en lo material de sus edificios, porque estando fundadas sobre minerales, por cavar estos se han arruinado muchas casas y calles. *Sus habitantes son pálidos y descoloridos, por los malignos efluvios de los metales, especialmente de azogue vivo, que se encuentra donde quiera que se cava un poco.* Todos ellos son al presente 5 a 6 mil personas de todas clases, en que se conservan diversas familias de distinción y nobleza" (p.367, my emphasis). Only the final population estimate seems to have been wrong. For a good collection of Zaruma-related facts, see Alfonso Anda Aguirre, *Zaruma en la colonia* (Quito: Casa de la Cultura, 1960).

³⁶ Ponce Leiva, *RHGQ* 2: 359. The *castellano*, or 22k gold peso, apparently weighed c. 4.2g. The Loja report was not written by hacienda officials as that city's *caja real* had been merged with Cuenca's in the 1660s due to dwindling receipts and charges of rampant corruption.

³⁷ These numbers are extrapolated from AGI Quito 452, which notes transition from a fixed quinto "rent" of 477 pesos per year in 1776 to the 3% universal severance on gross production. Quintos are missing for 1778-80, but numbers for 1781-83 appear remarkably high (1,362, 1,571, 1,032 pesos, respectively). Even when translated into gold *castellanos*, the numbers suggest registered production of 17,000-25,000 *castellanos*.

³⁸ AGI Quito 452, 453, ANHQ Real Hacienda, caja 31.

century “boom,” generously estimated, seems to have yielded less than 500,000 pesos of low-karat gold, equivalent to less than a decade’s worth of Barbacoas production in the period after 1777.

Table 1. Registered Gold Production for Zaruma (at Cuenca), 1783-1819:

<u>YEAR</u>	<u>3% severance (Castellanos Au)</u>	<u>TOTAL (Castellanos Au)</u>
1783	250	8,843
1784	487	16,229
1785	279	9,123
1786	378	12,594
1787	298	9,907
1788	446	14,867
1789	378	12,579
1790	395	13,156
1791	414	13,800
1792	427	14,236
1795	447	14,900
1796	424	14,142
1797	311	10,367
1798	349	11,633
1799	341	11,375
1801	157	5,228
1802	131	4,378
1803	94	3,133
1804	129	4,294
1808	382	12,733
1809	86	2,867
1810	159	5,311
1818	258	8,600
1819	177	5,900
TOTAL (26 years recorded)	7,197	239,900

*source AGI Quito 541, 453, ANHQ Real Hacienda, caja 31

These numbers offer some sense of scale and flux, but one should always bear in mind that quinto records for gold mines, particularly, were notoriously imperfect recorders of production. In the case of Zaruma, a 1778 visita laid bare some of the reasons why quinto collection was a problem in this particular corner of empire, and in doing so also revealed something of the way mining was carried out in those years. First of all, quintos had become entangled with mercury allotments over the years, such that Cuenca’s royal exchequer officials were openly swapping Crown-subsidized mercury for quintos. This method meant that only a select group of mill owners who practiced amalgamation went to Cuenca, where they bargained with royal officials to lower their taxes. Worse, quintos were not linked to production (the five

percent of gross mandated prior to 1777, plus two-and-one-half percent assaying fees), but were rather assessed by mill ownership and paid annually (six *castellanos* a year for a small mill, twelve for a large one).³⁹

This was all the more troubling when one realized that the forty-odd mills said to be operating circa 1778 refined not only the mill-lords' gold, but also that produced by nearly five hundred "free-lancers," an enigmatic group called *piqueros*. Some of these men were clearly *peones*, or dependents of the mill owners, in fact, but others were apparently roving prospectors, the rough equivalent of today's "artisanal miners" (*mineros artesanales*). All paid the dueños five percent of their produce in milling fees, then went their way, apparently never paying taxes or purchasing mercury. Still others were said to mill, refine, and smelt gold ores by hand and in secret, never registering even their claims, much less their mills and produce.

Stunned by this confusion, Quito's *fiscal* recommended to recently-arrived Visitor-General José García de León y Pizarro that the system of quinto collection be re-linked to gross production and separated from the distribution of mercury. Furthermore, he recommended the labor shortages mine owners constantly complained of be met with a consignment of criminals and "vagabonds" (of no particular caste) culled from the streets and jails of Cuenca and Loja.⁴⁰ As Kenneth Andrien has demonstrated, García de León was not known for his light touch among Quito officials, and his reaction here was a swift and comprehensive twenty-four-point reform plan, several points of which were devoted to the business of collecting and redistributing criminal exiles.⁴¹ At the risk of appearing ungrateful, Zaruma's mill owners responded with equal speed, asking that two things be reconsidered: one, it seemed silly to them that gold should still be carried all the way to Cuenca to be marked and founded by every single miner when this could feasibly be managed in Zaruma (the coast was nearby, after all, and gold would continue leaking to Lima and Guayaquil); and two, the idea of sending criminals to Zaruma was positively terrifying, a condemnation to total chaos for an already lawless frontier district.⁴²

García de León appears to have ignored the miners' requests (his plan was approved *in toto* by José de Gálvez in a June 1780 letter from Aranjuez),⁴³ but thus far no evidence of criminals exiled to Zaruma has appeared, either. Even with the reforms that did go through—and optimistic predictions from such mining specialists as Juan José D'Elhúyar in the 1780s (his mission apparently assayed Zaruma ores sent to Bogotá)⁴⁴—no new bonanzas materialized and resuscitation efforts in Zaruma fell short of expectations. By 1790 Quito's hacienda officials lamented that there was no one in the area who understood mine development, and that agriculture and textile manufacture were insufficiently capitalized to awaken an already cash-starved, quasi-feudal economy. As it was, Quito's elites just barely managed to sustain a properly ostentatious existence by supplying internal, (mostly poor) urban markets with agricultural produce and livestock; as a consequence they lived in near-total isolation from the south Andean economy. Quito's textiles, once famous throughout Peru, were now shunned by even the most destitute plebeians; some were said to prefer nakedness to the shame of wearing

³⁹ ANHQ Minas, caja 3 (5-ii-1779), f.2.

⁴⁰ *Ibid.*, ff.23-25v.

⁴¹ *Ibid.*, ff.38-43.

⁴² *Ibid.*, ff.54-55.

⁴³ ANHQ Minas, caja 3 (5-ii-1779), f.59.

⁴⁴ ANHQ Minas, caja 3 (26-vi-1786).

second-rate Quito cloth (*pañó de segunda de Quito*).⁴⁵ The coastal cacao industry, with the potential to revive the region, was so hobbled by restrictions prior to the 1770s that it only began to expand significantly in the turbulent decade prior to independence.⁴⁶ Even quinine (*cascarilla*) extraction and export was insufficient stimulus, being, as it was, a rigidly controlled Crown monopoly. Likewise the burgeoning tobacco industry, which yielded substantial royal rents in Guayaquil, connecting growers in the Macas region with highland factories and outside markets. Thus it is clear that as textile manufacture and mining struggled in Quito, agricultural exports were growing. Still, as Kenneth Andrien has amply demonstrated, the post-1778 atmosphere of reform and so-called *comercio libre* created only a superficial economic renaissance in the Audiencia of Quito; in fact, here increased tax revenues better reflected predatory collection strategies than gains in productivity.⁴⁷

In the 1780s some 2,500 people “of all classes” were said to inhabit the highly excavated and contaminated town of Zaruma and environs. Roughly eighty-five percent of the population was self-described as “white,” about nine percent labeled “Indian,” less than one percent “slave,” and around five percent “free,” apparently referring to free persons of color.⁴⁸ A sample list of mines from 1788 included names like “La Tostada,” “Pinchiligi,” “Soroche,” “El Nudo,” “Portovelo,” “Loma Larga,” “El Sesmo,” “La Vetilla,” “Mercadillo,” and “La Bomba.”⁴⁹ Apparently Zaruma had become much more self-sufficient agriculturally than in the boom years of the late sixteenth century; the slave and indigenous populations, along with many of the *libres*, were said to be engaged in subsistence agriculture and stock-raising by this time, slaves being specifically relegated to nearby sugar plantings (none really qualified as plantations) and their cane presses, or *trapiches*. This meant the only people left to work the mines were the so-called “whites” (including, and perhaps more often referring to, mestizos). Using late colonial visitas, primarily, Manuel Lucena has suggested that labor was now either of the free wage variety or based on the exploitation of family members. Evidence for the latter arrangement among the small scale operators is in fact common,⁵⁰ but the former could (at least in some cases) more accurately be described as debt-peonage. Suits and bills of sale from circa 1800 reveal—in stark terms—that contract mine laborers, or *peones*, were being bought and sold (for the value of their debts) along with mining properties.

⁴⁵ AGI Quito 569, f.53.

⁴⁶ See Michael Hamerly, *Historia Social y Económica de la Antigua Provincia de Guayaquil, 1763-1842* (Guayaquil: Archivo Histórico de Guayas, 1976), 124. Hamerly’s table and other relevant statistics are summarized in Hugo Arias, “La economía de la Real Audiencia de Quito y la crisis del Siglo XVIII,” in Enrique Ayala Mora, ed., *Nueva Historia del Ecuador*, mult. vols. (Quito: Corporación Editora Nacional, 1983), 4: 189-229.

⁴⁷ Kenneth Andrien, *The Kingdom of Quito*, 144. Though correct on this issue, Andrien fails to even mention the existence of Zaruma, or any other mining zone in the Audiencia of Quito, for that matter; this in spite of the fact that mining revenues appear in his Real Hacienda tables for late eighteenth-century Cuenca (e.g., 197).

⁴⁸ Lucena, “La crisis minera,” 53.

⁴⁹ ANHQ Minas, caja 4 (1-ii-1793). The Sesmo mine was still in operation and had exceeded a mile in depth when the author visited in 1998. A 1782-83 list of mine owners noted thirty-two individuals, among them one “cacique” and five women (AGI Quito 541).

⁵⁰ See, e.g., the Zaruma cabildo’s 1796 petition for 500-600 subsidized African slaves, noting that the richest miners in town are those with the largest families (ANHQ Minas, caja 4 (12-xi-1796). Zaruma Receptor don Florentin Carrión noted in 1788 that peons were fleeing the mines due to hunger, particularly the lack of meat (only bananas and plantains were available). Some had turned to cattle rustling to feed themselves (AGI Quito 541, f.3).

The clearest evidence of this practice comes from an 1800-1805 lawsuit detailing the troubled operations of mine-and-mill-owner Mariano Parra. Parra may have experienced early success in mining gold at Zaruma, since he appears to have paid quintos on tens of thousands of pesos produced by his first mine, called “El Cerrillo,” between 1791 and 1793.⁵¹ By 1800, however, Parra had fallen into debt such that this and another mine, “La Vetilla,” along with a stamp-mill, an estancia, and other assorted assets had been repossessed and taken over by a court-appointed administrator. Parra’s suit, taken up by the *procurador de pobres* in Quito, alleged that in order to produce quick cash the administrator had ordered the mines’ peons to excavate critically important “pillars and bridges,” or gold-bearing native-stone supports. This practice, commonly decried in mining suits throughout Spanish America, was by now closely regulated (or rather, codified) and could be punished by a ten-year prison term.⁵² The audiencia was generally unconvinced by Parra’s claims of destruction of fixed-capital assets, however, and in part due to contradicting testimonies from the laborers, the court chose not only to throw out the case but also to reprimand Parra for falsely claiming poverty in order to bolster his case and secure free representation.

The Parra case is particularly useful with regard to labor practices circa 1800 precisely because labor was not a central concern of the suit. Instead, embedded in the folios are liens and other more-or-less objective documents relating (albeit imperfectly) how workers were hired and compensated. There is mention, for example, of temporarily-hired “pick-men” (*barreteros*), paid five pesos for twenty days of work in one case, four pesos for a full month in another. These were no doubt some of the “piqueros” mentioned above, working for wages. According to a listing of operational costs, mercury was purchased for amalgamation, yet a skilled furnace-keeper (*huayraquero*) was also on the payroll, earning nine pesos per month, or about twice that of a pick-man. “Maintenance costs” for peons are also mentioned, however, suggesting some kind of semi-permanent dependency, followed by explicit mention of their “value” among other assets in an exchange agreement: “Item, sixty-five pesos for the sale (*venta*) of Domingo Apolo...; Item, sixty *castellanos* collected for the debt of Ysidro Roman.”⁵³ It is difficult to say at this point how common such practice was, but the extraordinarily casual mention of indebted workers being sold as working capital suggests it was not rare. Add to this the often-claimed scarcity of labor in Zaruma, and one begins to suspect such arrangements were commonplace.

Along with the *fondo de habilitación*, the formation of the Zaruma miners’ guild, or *cuerpo de mineros*, was pushed through the courts in the 1810s, though not without difficulty. Quito’s high officials were all for improving gold output, but not at the cost of empowering Zaruma’s already anarchic mine owners further by way of new corporate privileges. Most of the problems again stemmed from long-standing debt disputes, and debt was still the principal bone

⁵¹ ANHQ Minas caja 4 (1-ii-1793).

⁵² An 1808 relación dismissed Zaruma’s underground works as generally “deep, without direction, out of production (*sin laboreo*), without light, without ventilation, without support pillars or bridges, all of them flooded.” To make matters worse, miners were so careless in milling and refining the ores that half their product was “washed away in sand and mud” (Ponce Leiva, *RHGQ* 2: 758, “sus minas profundas sin dirección, sin laboreo, sin luces, sin vientos, sin pilares, ni puentes y aguadas todas; sus máquinas unos martinetes o morterillos que apenas muelen 8 arrobas de metal en día y noche, y se llevan en arenas y lamas la mitad de su riqueza, y sus brazos ningunos o muy pocos ignorantes y desidiosos”).

⁵³ ANHQ Minas, caja 4 (5-iv-1805), ff.46-47 (“yten sesenta y cinco pesos de la venta de Domingo Apolo; yten sesenta castellanos que se cobraron por la deuda de Ysidro Roman”).

of contention in 1813, when a miner-turned-gold-trader (*comerciante de oro*), Agustín Roman, petitioned the audiencia for an outside official to enforce contracts.⁵⁴ When guild members at last agreed to a set of rules in the following year, attempts to collect on old debts were met with fisticuffs all around; miners “bathed” one another in blood, and insults (commonly centered on the word “pícaro”) flew freely. The contemporary political crisis in Spain and most of its colonies—including Quito—was mentioned here only inasmuch as it might affect legal protocol (proclamations of the Cortes were rejected in favor of the customary laws of the kingdom), and among those to testify against new and old masters, once again, were the peons, really “debt-pawns” like Domingo Apolo (themselves in debt).⁵⁵

In sum, whereas gold mining towns in northern New Granada came to be mostly characterized by African slavery and related labor forms by the end of the colonial period—and those of Upper Peru by continued (or revived) rotational indigenous ones—Zaruma labor evolved in its own, local way. Largely remaining outside close Crown scrutiny throughout colonial times, mine labor at Zaruma seems to have followed a somewhat “organic” path toward debt-peonage, a path that mimicked agricultural forms found throughout the Audiencia of Quito by the later eighteenth century. Even more amazingly, some of these “archaic” labor forms may still be found among the still-flooded and dangerous (but always enticing) mines of San Antonio de Zaruma today.

⁵⁴ ANHQ Minas, caja 5 (1-vii-1813).

⁵⁵ ANHQ Minas, caja 5 (30-vi-1814).