The Enigmatic Evanescence of Coca from Ecuador

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Abstract

The coca plant, native to the tropical and subtropical Americas, seems to have disappeared from Ecuador. How and why did this occur? A combination of colonial religious and civil prohibitions, native demographic collapse, competition from other crops and the infeasibility of mining contrived against coca. More recently, legislation calling not only for prohibition but eradication of the plant under the auspices of an anti-narcotics campaign has pushed it into obscurity, where it will likely remain.

Introduction

Why is coca widely cultivated, used and marketed in Peru and Bolivia, and to a lesser extent in Colombia, but not in Ecuador (Figure 1)? Ecuadorian exceptionalism to Andean norms in politics, culture and ecology is apparently repeated in this botanical anomaly. This paper offers an explanation for why and how a native plant, with endemic wild and cultivated varieties that were once ubiquitous in western equatorial South America, has nearly disappeared from the natural and cultural scene in Ecuador.

The Erythroxylaceae family has about 200 species native to Latin America. The various species are adapted to different micro climates, from hot, dry deserts, to damp, temperate forests. Fourteen species, two of them cultivated, have been identified in Ecuador (Plowman 1984, 1989). The two cultivated species are *Erythroxylum coca* Lam. var. *coca* and *Erythroxylum novogranatense* var. *truxillense* (Rusby) Plowman, the former adapted to humid conditions, the later to drier environments.

The earliest evidence of coca in Ecuador comes from the Santa Elena Peninsula on the coast (Figure 2). Archeologist Karen Stothert found what seem to be lime containers made of shell in burials at the site of Las Vegas (Stothert 1988, Stothert & Freire 1997). The site in which these burials are found is dated to 8850-4650 BC. Small ceramic lime containers were found associated with Valdivia Phase 4, dating to about 2100 BC (Plowman 1984). Lime containers corresponding to Machalilla and Chorrera phases (1000-300 BC) have also been found. There is also a late Valdivia (1600-1500 BC) figurine showing the typical bulging cheek of the coca chewer. Other coastal figurines depicting coca chewers have been found in Jama Coaque, Bahía, Cosanga and La Tolita associations (Otaneda & Espíndola 2003).

Archeological evidence of coca use is found in the Ecuadorian highlands and Oriente as well, in the form of lime pots and figurines with bulging cheeks. In the Cañari area in the southern highlands, Meggars (1966) indicates a large production of coca leaf in the Jubones Valley and lower Alausí Valley. The Cañari also had access to coca from the Oriente, in Shuar territory. Later, the Incas expanded the coca plantations in the Jubones Valley, especially around Yunguilla (Newson 1995). To the northwest of Quito, coca was grown in the area known as the Yumbos (Salomon 1980, 1997). Traders known as **mindaláes**, were based in the Yumbos and distributed coca and other

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Figure 1. Ecuador and neighboring Andean Coca growing nations.

valuable goods such as spondylus shell beads, gold, silver, salt, and clothing, throughout the northern highlands (Salomon 1987). North, in the Chota/Mira Valley, coca was grown extensively on irrigated, terraced fields (Borja 1992, Coronel 1991). These fields were surely pre-Incan because the irrigation systems and cultivated areas were too extensive to have been created in the short time between the Inca and Spanish conquests. However, the Incas may have extended the agricultural infrastructure in the area. They developed coca plantations to the east and northeast, at the headwaters of the Pastaza River. Atahualpa had his own workers cultivating coca there. **Puruhá** from the Riobamba area were sent to cultivate coca in Guanbahaló and others were sent to the Yumbos, both in Pichincha. Descendants of these **Puruhá** were still carrying on with this task into the later half of the 16th century (Newson 1995).

Spanish chronicles of the 16th century document cultivated coca in all parts of Ecuador. Lope de Atienzo, a Spanish chronicler writing in 1583 about the "**Provincia de Coca**", four leagues down stream from Baeza on the Quijos River, noted that the Indians had many coca fields. The lower Quijos River had become known as the Coca River by 1541 when Gonzalo Pizarro and Francisco de Orellana started their expedition to the "land of Cinnamon". The **Relaciones Geográficas de Indias** contain references to coca in the Chota/Mira Valley (Pimampiro, Quilca, Ambuquí, Salinas), around Cuenca in Paccha, the Jubones Valley, Pacaibamba, and Leoquina, in Loja, in Riobamba, and west of Chunchi (1992) .

Plowman suggests that *E. novogranatense* var. *truxillense* may have been domesticated in the dry, coastal valleys of northern Peru, from *E. coca* var. *coca* ancestors (1984). Subsequently it diffused south and north to Colombia, where it evolved to a sister species, *E. novogranatense* var. *novogranatense* (Morris) Hieron, as early as 4000 BC (1984). Both *E. novogranatense* varieties are adapted to dry climates, but the northern type also grows in more humid conditions and is found only in Colombia. Pre-Columbian peoples clearly appreciated its various uses (work, religious offering, divination, visionary and erotic) as do many people today (e.g. Allen 1988, Spedding 1994). The distribution of coca in Ecuador today presents a striking contrast: near total absence and near total ignorance of the plant and its properties.

Coca Today

The ubiquitous presence of coca in pre-Columbian Ecuador stands in remarkable contrast to its present dearth. The pre-Columbian uses and meanings seem to have vanished. Ecuadorians, for the most part, do not recognize the coca plant or its leaves. In the media, in popular conception, and in Ecuadorian law, coca simply means cocaine. The association with drugs and crime is a pervasive though recent development, a response to foreign pressures and a "war on drugs".

In 1990 the national Congress passed a law against narcotics and psychotropic substances. Title IV, article 38 of the law prohibits the cultivation, use, gathering, storage or transport of coca plants or any of their parts, for any purpose. "Coca plant" is defined as including all species of the *Erythroxylum* genus (Ley de Sustancias Estupefacientes y Sicotrópicas 1999). Thus all species of the coca plant are formally proscribed in Ecuador.

In Peru and Bolivia coca is associated foremost with indigenous peoples who use it according to traditional mores (see Allen 1988). In contrast, none of the contemporary literature on Ecuadorian indigenous peoples mentions coca. Even in areas known to have produced coca in pre-Columbian times modern populations have no knowledge or historical awareness of the plant or its uses. Instead, coca has been pronounced eradicated and extinct in Ecuador, save relict and sporadic plants that have evaded annihilation through neglect or at the hands of anti-narcotics enforcers.

Plutarco Naranjo, ex-Minister of Health, declared coca "extinct" in Ecuador, attributing the disappearance to an effective colonial eradication program sponsored by the Catholic Church (1974). Timothy Plowman, the authority on Erythroxylaceae species, wrote that coca was virtually, but not totally, eradicated from Ecuador by ecclesiastical and government officials since the 16th century (1979, 1984). He noted remnant *E. novogranatense* var. *truxillense* plants in Carchi province, near the Colombian border; and *E. coca* var. *coca* plants in western Cañar province, in Pastaza province and Napo province. Pauline Ledergerber claims that the King's orders were more strictly applied in the Audiencia of Quito than elsewhere in the colony, making for a more effective eradication campaign (1989). Why and how this compliance was obtained is not clear. Otaneda and Espíndola acknowledged the colonial eradication efforts but assert that coca use was never completely abolished (2003). They list several sightings, or published notices of coca plants from the Ecuadorian Amazon, and the provinces of Azuay, Chimborazo, Pastaza, western Cañar, Pichincha, and Carchi. No one has reported peasant or indigenous knowledge or traditions associated with coca use.

Presently, a large leafed coca has been observed [*Erythroxylum* sp., Lynn Hirschkind 001, Santa Cecilia, Pucará Canton, Azuay Province, Ecuador, deposited in Universidad del Azuay as HA 5181] growing spontaneously in western lowland Azuay. The leaves are 7 to 10 centimeters long, lanceolate shaped, and medium to dark green. The bushes are slender, 4 to 5 meters tall, though they may grow to 10 meters heigh with 10 centimeter diameter trunks. These characteristics suggest it is one of the non-cultivated species such as *E. glaucum* O.E. Schulz

Figure 2. Ecuador with provinces and sites referenced in the text.

or *E. patens* Ruiz ex O.E. Schulz (Plowman 1989). Both of these species were present in El Oro province, which borders western Azuay. Peasant farmers in the area may chew the leaves, but are apparently unaware of any activating element such as calcium carbonate. They say the leaves are good for dental health, but otherwise recognize no other uses for the plant. There is no market or trade in the leaves.

Farmers in the western lowlands know that coca leaves are used to make cocaine and that both are outlawed with severe sanctions applied to those having them. Thus, they are reluctant to talk about coca or acknowledge any familiarity with the plant or its uses. For them, cocaine is a modern day devil and the government a modern day inquisitor, avid to root it out. The equation of coca with cocaine finds no opposition in Ecuador as it does in Peru and Bolivia where large sectors of the population have first hand experience with the leaves. In Ecuador, the media, the judiciary, and the security forces collapse all distinction between the plant and its pharmaceutical derivatives, conceptually and for all practical purposes. Lacking the knowledge or experience to contradict the equation, the public accepts the coca/cocaine equivalence, and so ratifies its taboo status.

Ironically, coca leaf tea is available in Ecuador's "natural " medicine shops, where it is prescribed as a tonic, an energy drink, a physical and mental stimulant, and a weight loss potion. Several commercial brands of the tea, all of them manufactured in Peru, have become quite popular in the last decade. They have been incorporated into the large herbal remedy pharmacology associated with traditional, "natural", or indigenous medicine. In this presentation, coca leaf has none of the negative or illegal classifications applied to it and none of the restrictions on its circulation. Presumably, nothing in a tea bag could be, or become, illegal.

How Coca Disappeared From Ecuador

Most investigators cite Spanish colonial suppression as the cause of coca's disappearance from Ecuador. However, there were other interests and influences at play during the colonial period, whose effects on coca use and cultivation are worth considering. I argue that the native demographic collapse, the disruption of native trade networks, the constriction of native economies, and market conditions favoring other crops and products over coca, together with church and state repression, combined to remove coca from the Ecuadorian landscape and memory.

Spanish colonial edicts against coca are the obvious culprits in the abolition of coca from Ecuador. Naranjo (1974), Rossi (1996), Otaneda and Espíndola (2003), and Rostworowski (1977) all point to the series of official attempts to control or suppress coca use. The Crown saw coca as one of the means colonists used to squeeze more work out of the Indians. Since the Indians' labor belonged to the Crown, as part of the natural resources discovered in the New World, the King had some interest in protecting and perpetuating this source of labor. Indians should be put to work but not put to death in the process. Without a real understanding of coca's influence on physical effort, the King might well have deemed abstinence the prudent policy.

Some Spanish **encomenderos** employed part of their Indian labor grants to cultivate coca plantations. Weather and climatic conditions in coca producing areas were often unhealthy for highlanders who were unused to the heat and humidity. Mortality rates among coca workers were high. The King wished to reduce this loss of his resource and so prohibited **encomienda** laborers from coca work.

Mortality rates in the mining areas were also high, and coca was accused of facilitating excessive physical demands. The King saw it as in his interest to limit coca use in the mines as much as possible, as a means of conserving his native labor force. However, this assessment was contradicted, and effectively overshadowed, by a simultaneous need to extract as much precious metal, textiles, foodstuffs, and civil works as possible, all of which required native labor. The outcome was the unimpeded flow of coca.

The Catholic Church saw coca as an element of devil worship paraphernalia. Stamping out coca was part of extirpating idolatry, destroying native gods and everything associated with them. The Church was zealous in its persecution of idolatry, but less so in its suppression of coca. The Bishop of Cuzco himself was a major coca dealer in the 1590s (Stern 1982). In 1626-7 the Spanish Inquisitor Juan de Mañosca was inspecting the state of the faith in the **Audiencia** of Quito. He found, to his horror, Dominican and Augustinian priests chewing coca and proceeded to forbid it, explicitly (Otaneda & Espindola 2003, Gironda 2001). The Jesuit haciendas in the Chota/Mira Valley continued the coca production that was well-established in that area since pre-Inca times (Coronel 1991). These examples suggest that the church, like the King, had conflicting interests regarding coca. An evil association with native religion, divination, and curing was counter-balanced by the economic benefits it brought to church coffers. Apparently at least some of the clergy also appreciated its medicinal and psychotropic qualities and put them to personal use.

The church called for bans against coca throughout the later 16th century and early 17th century. At councils held in Lima in 1552, 1567, and 1609 Catholic bishops denounced coca as a demonic influence on natives (Streatfield 2001). They declared it an intoxicant and a hazard to health. However, at each attempt to ban it, extenuating considerations made it inadvisable and instead, com-

promise positions were substituted for prohibition. At the First Council, the King refused a ban, convinced that coca was necessary for keeping Indians at work. In the Second Council, the King remained convinced of its necessity but allowed limits to be placed on the time Indians could be required to work coca fields. In the Third Council, the church levied a tax on coca sales, a **diezmo** or 10% of the sale value. This measure gave the church an interest in preserving coca cultivation, a position that seemed to surprise no one.

Meanwhile in Quito, the First Council of Catholic bishops, held in 1570, declared against coca and in 1628 the bishop of Quito called for prohibition. Despite this apparently decisive stand on the issue, coca continued to be grown and the church continued to debate its pros and cons into the 1700s (Otaneda & Espíndola 2003).

Overall we observe a strange contradictory assessment of coca among the Spanish. It was appreciated as a fuel for Indian labor (highly desirable) and as a medicinal plant alleviating a variety of afflictions (also desirable). In areas where demand was high, such as mines and prosperous native communities, coca leaf was a lucrative agricultural commodity, and Spaniards enthusiastically produced and marketed it with good profits (highly desirable). Finally, coca profits provided income with which Indians could pay their taxes to church and state, another advantage, from the Spanish perspective.

There were also perceived drawbacks of coca usage concerned Indians' spiritual and physical health. Coca was a means of communication within native cosmology (highly subversive) and thus a threat to Catholic evangelization. Spanish clergy saw coca as integral to idolatry, which they were committed to stamping out. Coca was not only a vehicle for worship, divination, and sending messages to higher powers, but was also an object of veneration itself: its leaves being sacred objects (disruptive). Thus, it was an obvious target for Spanish spiritual hygienists. On the physical side, coca made over-exploitation of native labor somewhat easier. One of its most valued qualities is its attenuation of sensations of thirst, hunger and fatigue. By postponing the demands of their bodies for rest, food, and drink, Indians could in fact work longer and harder. These effects have been well studied and quantified (Villena & Sauvin 1997).

Coca-growing environments were often unhealthy and disease-ridden, particularly with leishmaniasis and malaria (Gade 1999, Gagliano 1994). They were generally inhospitable, especially for unaccustomed highland Indians. Extreme changes of climate were found to be detrimental or fatal to native people and the King tried to limit such labor transfers. For example, in the Chota/Mira Valley in 1665 native leaders were admonished not to send Indians to hot valleys to fulfill work obligations (Coronel 1991). In the **Relación** concerning Cuenca, the Jubones Valley is described as "so hot and unhealthy that it is uninhabitable, and thus nothing grows here but cacti though in past times they had the whole valley cultivated with coca fields…" (my translation) (1992 [1577]). The forces for and against coca engaged in perpetual debate throughout the colonial period, neither side winning a clear victory over the other. In the end, coca-promoting forces won out in Peru and Bolivia, while coca-suppressing forces dominated in Ecuador and parts of Colombia. Because these contradictory forces seem to have cancelled each other out, additional causes must be sought to explain the eclipse of coca in Ecuador.

The Demographic Collapse

Among the consequences of Spanish arrival was a devastating demographic collapse among native peoples due to epidemic diseases. The disruption and impoverishment of native societies was compounded by war and emigration as people fled colonial impositions. Since native peoples constituted the only significant demand for coca, the decline of this population explains a decline in coca consumption. Epidemics of Old World diseases, particularly smallpox, plague, measles, typhus and diphtheria, spread through Ecuador beginning in 1524, before the Spanish arrived in person. The first century after the conquest was most devastating. According to Newson's meticulous calculations, by 1600 the native population of the **Audiencia** of Quito declined from 1.5 million at contact to about 217,200, an 85% decrease (1995). There were important regional variations: the coast suffered a 95% decrease, the Oriente a 73% decrease, and the highlands an 80% decrease. These differences had to do with climate, topography, disease vectors, settlement patterns, population densities, and variation in natural resistance, standards of living, and intensity of Spanish activities. A demographic holocaust of this magnitude, alone, would have collapsed the organized native capacity to produce and consume coca leaves, among other necessities of life.

Writing in 1592 about the logistics of obtaining Indians for mining, a colonial judge reported that there were fewer Indians in Quito than around Potosí, and that they were more dispersed (Auncibay 1992). This impression is confirmed in Alchon's study (1991) of disease and demography in colonial Ecuador. She concludes that less than 60 years after the Spanish conquest, three-fourths of the native population had died, and that this decline was more severe than in the rest of the Spanish colonies. Again in the 1690s, the native population was reduced by half, and had still not recuperated 100 years later. Thus, there were relatively fewer Indians here than elsewhere in the Viceroyalty of Peru.

Population trends are not isolated events but ramify into other aspects of economy and society. The ability of native communities to produce food, shelter, and clothing would have been compromised by pervasive death and illness.

Their social organization was disrupted, if not destroyed. Religious specialists were persecuted, so the use of ritual paraphernalia would have declined. Of particular importance was the disruption of trade networks and the disappearance of **mindalá** traders (Salomon 1987). Before the conquest, coca had been distributed by traders, making it available in areas where it could not be grown. Without the traders, who would provide coca to the scattered settlements and homesteads, or to the markets catering to Indian needs?

Colonial attempts to reorganize native societies also had negative impacts on their capacity to consume native products. The surviving population had to meet Church and state or **encomienda** taxes, in cash, goods and labor. They lost lands to religious orders, the state, and **encomenderos**. They lost access to water for irrigation. To escape the taxes and labor levees many natives left their home communities, or at least where the Spanish classified their places of origin, and moved far away where their caciques could not find them (see Powers 1994 on **forasterismo** in colonial Ecuador). Indian migration further disrupted native communities, as kinship ties and communal obligations were abrogated.

Coronel (1991) has described the effects of this complex of disruptions on the coca producing area of the Chota/Mira Valley. She notes that by the early 1600s, Indians in northern Ecuador were too poor to buy coca. They had to spend their cash on tribute payments instead. The northern traders had been recruited for **mita** work for the Spanish Crown. In 1606 the town of Ibarra was founded and many Indians were recruited from the Chota/Mira Valley and sent to help in the construction and public works for the new settlement. This study exemplifies many of the different factors having a negative impact on coca production and use in colonial Ecuador. Thus, despite regional variations in demographic, social and economic impacts, the Chota/Mira Valley offers an important case and guide to investigation. Coca had specific local strikes against it, such as the founding of Ibarra which competed for Indian labor, but general trends also took a toll. These trends include the demographic collapse and official attempts at prohibition.

Economic Causes

Coronel's (1991) study suggests another major blow to coca cultivation: other crops provided better economic returns and there were other, more profitable ways to employ Indian labor. Coca grows in warm climates, not necessarily on good soils or with irrigation. It was often associated with cotton and chili pepper cultivation in pre-Columbian agriculture. The Spanish considered sugar cane, olives, and wine grapes preferable crops for such areas. As demand for sugar, its derivatives, and wine, increased with the growing Spanish and mestizo population, it became more profitable to grow them.

This shift from a cotton/coca/chili pepper complex to a sugar/grape/olive complex and ultimately simply a sugar monoculture is exemplified in the Chota/Mira Valley. Large haciendas run by the Jesuits developed through the 17th and first half of the 18th century. With the benefits of rights to native labor, capital, and rigorous organization, the Jesuits sought to establish rational, efficient agrarian enterprises. Wine and sugar products had the potential to enter colony-wide markets. In the face of native demographic collapse, the Jesuits brought in African slaves to work their haciendas. They also purchased Indian lands, consolidating their holdings in larger, mutually complementary tracts. Over the 1600s, they gradually wrested control of water from the Indians, so that they could irrigate their own crops.

Despite their best efforts, the Jesuits of the Mira Valley failed in the grape industry. And they were not alone. First, Ecuadorian climates and soils do not produce good wine grapes. Second, wine made in Peru was approved for colonial distribution while textiles made in Ecuador were authorized only for internal circulation, especially in the Peruvian and Bolivian mines (Coronel 1991). Local entrepreneurship was not encouraged. Third, the market for wine and olives remained relatively small. Over the course of the 17th century the mosaic of crops gradually shifted, responding to these conditions and limitations, until sugar was left to predominate.

No comparable study has been done on the Jubones Valley, another major pre-Columbian coca producing area. However, it is perhaps not coincidental that sugar cane is the principal crop in the valley today.

The decline of coca in the Chota/Mira Valley was not abrupt, ordained or forced. Rather the gradual changes in land tenure patterns, demography, markets, competing products, and church and state regulations slowly brought coca into eclipse. By the end of the colonial period, coca was no longer grown commercially. The producers and consumers of coca were mostly gone, carried off by disease, pulled away to work, or pushed away to evade the burdens of tribute and local obligations. With the disruption of native trade networks and disintegration of native communities, knowledge of coca itself was lost. This scenario makes sense of today's state of affairs: a few sporadic coca plants preserved but not really cultivated on peasant properties; minimal use of the leaves for medicinal purposes and no employment for religious, divinatory or recreational objectives; and overwhelming ignorance about the plant and its properties among the population at large.

Mining

In addition to the economic, demographic, social, religious and legislative strikes against coca in Ecuador, the question of mining, or rather the lack of it, may have been a fi-

nal blow. The tight connection between mining and coca in Peru and Bolivia was lost on no one during the colonial period. The major markets for coca leaf were the mining areas such as Potosí and Huancavelica (e.g. Gagliano 1994). Miners demanded coca as a necessity for their labor. Any Spaniard or mestizo with interests in Indian labor or mines had to reckon with coca. Coca helped Indians to bear the work demanded of them (Stern 1982). Coca brought good income to those who sold it (Gade 1999, Gagliano 1994). It was no coincidence that coca production paralleled mining activity (Gade 1999). The more miners at work, the higher the demand for coca. When mining declined in the late 1600s, so too did coca demand and production (Soux 1993).

Given this correlation, the relative dearth of mining in Ecuador is noteworthy. The Spanish found no huge gold or silver veins, no precious stones. Instead, following indigenous leads and established exploitations, they continued to work where natives had already found precious metals. But these efforts were thwarted by the lack of Indian labor in Ecuador and by the vastly more productive mines of Peru and Bolivia. Chacon's (1986) description of colonial mining in southern Ecuador is a long lament for a lost potential source of wealth. The few Indians available under the **mita** labor conscription were repeatedly deflected to other purposes, such as urban services, public works and militia duties. Then, when the brilliance of the southern mines became clear, royal policy intervened against mining in Ecuador. The **Audiencia** of Quito would focus on farming, ranching and weaving, to supply the cloth, meat, leather goods, and pack animals for internal markets, not least of all in the southern mining areas (Stern 1982).

Use of Indian labor in Ecuador, whether under the **mita**, the **encomienda**, the Church, or private citizens, did not congregate large numbers of workers, as elsewhere in the mines. It did not keep them for extended periods, i.e. over a month. Conditions were not as brutally harsh as they were at the high altitude mines of Peru and Bolivia. Rather, Indians worked in smaller groups, sporadically, in varied settings according to shifting needs and in less arduous tasks than mining. Perhaps these differences in working conditions also explain the different fate of coca in Ecuador as compared to Peru and Bolivia. Coca was, and is, strongly associated with mining (Nash 1979). Coca helps miners physically withstand the rigors of the work; it also helps them by providing spiritual protection and propitiating malevolent or jealous forces lurking in the mines. In Ecuador mining was not, and is not, a major industry (Fieweger 1998). According to an International Monetary Fund statistical summary, all non-petroleum mining contributed .6% of GDP in 1999 (IMF 2000). So the mining/coca symbiosis was not established in Ecuador and coca use gradually withered away and was forgotten.

I suggest that in combination, and compounding each other, the historical accidents and deliberate policies, as described above, occurring over the course of the colonial period, conspired in the near disappearance of coca from Ecuador. This waning of a native cultigen marks a radical change from its pre-Columbian ubiquity. Its survival, as an orphan, self-propagated in undisturbed corners of peasant holdings or as a leftover from long ago, or tended in a medicinal plant section of a native garden, is due to its hardiness and to non-interference more than to design. These remnant plants escaped eradication or death-by-neglect thanks to their tenacity, fitness, and endurance.

Back to the Present

Today the "war on drugs", the US sponsored crusade against illicit drugs, drug precursors, drug use, and drug traffickers, proposes the total eradication of cultivated coca, as the answer to cocaine abuse. The futility, not to mention the injustice, of this enterprise, has been widely and thoroughly documented (Allen 1988, Carter 1996, Clawson & Lee 1998, García-Sayón 1989, Gironda 2001, Kirk 2002, Lee 1989, Pacini & Franquemont 1986, Rossi 1996, Streatfeild 2001). Most likely, coca will persist in Ecuador as a sporadic, hidden, rare plant, known and used by few people. Efforts to introduce it in cocaine-producing quantities have failed decisively, so far. The northern border with Colombia is highly militarized at present, in order to protect the oil fields and stem the tide of Colombian refugees from "Plan Colombia" (one front of the "war on drugs"). Aerial spraying with herbicide and surveillance to detect cocaine-processing facilities discourage cocaine traffickers from moving into northern Ecuador. In the 1970s some small coca plantations in western Azuay and Cañar provinces were destroyed and their proprietors jailed (Plowman 1984, CONSEP pers. comm.). Given the absence of a native tradition of coca use and cultivation, and its highly criminalized status, it seems unlikely that coca has a future flourishing in Ecuador.

Since the economic and pharmacological attractions of coca seem to be irresistible once they are experienced, is there anything else that might explain Ecuador's abstention? As a final point, I would draw attention to Ecuador's exceptionalism in other contexts. Why have Peru and Colombia had serious guerrilla armies, violent and effective enough to challenge state control while Ecuador has not? Why is large-scale violence a more frequent option in Peru and Colombia than in Ecuador? Why does Ecuador's indigenous rights movement have a political impact disproportionate to its small Indian population? Why do Ecuadorians disagree so profoundly about their projection of national identity? I pose these questions only to point out that Ecuador is exceptional in a number of ways, and so the status of coca in the country is part of a pattern. Its geography and climate, broken and extreme, has micro-ecologies with micro-cultures, each jealously separate from its neighbors. They have a saying that they may be mixed but they aren't blended, and this disengagement is how they prefer everything from "blood" to culture. Most of its people are poor, so security takes priority over risk-taking. Entrepreneurial plunges into the un-

known are not in the realm of real possibilities, or even of fable and folklore. Advice from well-meaning development consultants is politely acknowledged and then ignored. By way of explanation they could say that exogenous ways of being are not part of "our idiosyncrasy", as they term Ecuadorian culture. And, they could further reason that if something isn't here or isn't done, maybe it shouldn't be here or done. This is not the place to defy the laws of economics, the eye of God, the suggestions of nature, the power of caudillos. Coca, unfortunate plant in Ecuador, sits on the wrong side of the principles of the land.

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