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Review/Reseña

Steven Topik, Carlos Marichal & Zephyr Frank, eds., *From Silver to Cocaine. Latin American Commodity Chains and the Building of the World Economy, 1500-2000*. Durham: Duke University Press, 2006.

Commodity Chains: Revisiting the History of Latin American Global Exports

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As Christian Europeans sallied forth both east and west from their homelands in the later 15th century onward, they came across not only the longed-for cinnamon and pepper in the Spice Islands but also the continental economies of India and China, producers of refined cotton and silk textiles and expensive porcelains. A little later, from Japan, the Mexicans imported such items as the elegant lecterns and *namban byobu* (biombos) or “southern barbarian folding screens” (i.e., influenced by the Portuguese, the “southern barbarians”). For these manufactured goods, the Europeans paid in hard coin, mostly silver pesos from Peruvian and Mexican mines.

On the western front, however, the inhabitants of what is today Latin America had little to offer except for plant and mineral commodities, raw materials for European markets. Consequently, the main impact of the European intrusion was to turn aboriginal America’s vast areas of isolated and regionally autarkic peoples into export economies. Nearly all the inhabitants, including several million African slaves added to assist in the project, were swept up in this long process which led to both salutary and devastating consequences: salutary, by and large, for the entrepreneurial sectors; baneful, often for those who did the physical work.

The turn to export economy began with Columbus and it is still encouraged as the solution to Latin America’s forty percent who live in poverty. Within weeks of his October landfall, it dawned on Columbus that the native people of the Caribbean produced no valuable manufactures—save the hammock—and moreover, would offer only a scant market for European goods. Undeterred, the Great Navigator scouted about to find local goods that might be shipped back across the Ocean Sea for profit. The Catholic monarchs, he proclaimed in a letter, will have as much cotton and spices “as they shall command” and as much mastic and aloe wood “as they shall order to be shipped.” Ever the visionary, a bit later when presented with the green and red bulbs of a plant called *ají* by the Caribbean natives (and chilli in Náhuatl) Columbus took a bite, found it hot and spicy and persuaded, himself against all contrary evidence, that he had found *pimiento*, or pepper, the coveted spice from the East, the search for which had largely propelled his journey in the first place. But his pimiento was actually a *capsicum*, a plant utterly unrelated to the Asian pepper (*piper nigrum*). Alas, Columbus's dream of establishing a "commodity chain" *avant la lettre,* which would link the unsuspecting local Taíno producers to consumers in a suddenly global market (with the Admiral himself as the wealthy commercial intermediary) was doomed to fail, not because of the lack of global consumers but because the capsicum was easily cultivated in many different soils. In fact, the American plant spread like wildfire throughout sub-Sahara Africa, India, Southeast Asia and China. Only the relatively small Anglo-Saxon population north of Mexico and the people of Western and Central Europe failed to appreciate the gustatory appeal of "Chile Peppers" (Columbus's misnomer is still with us); Hungary with its paprika was the one exception. Other examples of native American plants that might have been valuable exports had they not been carried with great success to other soils are maize and potatoes. At the same time several commodities born elsewhere in the world, such as coffee, sugarcane and banana, when brought to America became valuable global exports, so perhaps the score is even.

Let me now present thumbnail, descriptive sketches of each chapter in order to give the reader a sense of the dozen American commodities chosen for the Topik, Marichal and Frank volume, before taking up the book's overall theme of "Commodity Chains."

Silver. The compact and magisterial essay on "The Spanish American Silver Peso" sets a high standard. This is not only because of Carlos Marichal's broad and sophisticated conceptual reach which places American silver exports—mainly the famous "pieces of eight," cackled out by Long John Silver's guardian parrot— in the framework of a truly global economy which includes much detail on the importance of American silver in Asia; not only for its mastery of the most recent American, European and Asian bibliography—in three languages—on the subject; but also because he has a keen, and unobtrusive, understanding of appropriate economic theory and a clean, engaging yet calmly authoritative style of presentation.

Over the course of three centuries, from 1500 to 1800, Spanish America—or rather its miners, many of them forced—produced something like 150,000 *tons* of silver, perhaps 80% of the global output during this period. Much of this crossed the Atlantic in the form of one-ounce coins, the *reales de a ocho* or pieces of eight, which became the universally accepted measure of accounts, in large part because of its intrinsically high metallic value and stable value. The peso's importance in European economy is well known and its effects have long been debated. Paradoxically, in the viceroyalties of Peru and Mexico, the homelands of silver, coin was scarce.

Less well known until fairly recently has been the importance of America silver in Asia. According to recent research by French, Swedish and Indian scholars cited by Marichal, in the eighteenth-century alone some 500 million silver pesos entered China, some carried by the well-known Manila Galleon but even more by ships sailing around the Cape of Good Hope and across the Indian Ocean. India too, received much more American silver—passed through the hands of European merchants—than previously thought. For an explanation of the near ubiquitous presence of the Spanish American silver peso in the early modern global economy, students will want to read Carlos Marichal's state of the art, compact, and illuminating essay.

Marichal's second essay for this volume on "Mexican Cochineal and the European Demand for American Dyes, 1550-1850," is also a very nice piece of work. He begins with the demand or consumption side, taking into account the exceedingly high price that Europeans were willing to pay for the deep scarlet dye. "A master mason then (in the fifteenth century) earning sixpence a day would have had to spend his full wages for two years and nine months” to buy a good piece of crimson fabric. The extraordinary cost derived from the symbolic importance of carmine or deep crimson color for the finest fabrics “as may be observed in the Renaissance paintings of the princes of monarchy and church.” Other colors such as deep blue, gold and silver, the author points out, also carried prestige but “undoubtedly crimsons stood out” (79). Moreover, because cochineal was, like silk and wool, of animal or insect origin, the chemical interaction of proteins fixed the brilliant color permanently in silk and wool, two highly prestigious fabrics to begin with. The high price of cochineal also made that commodity the second most important export from colonial Mexico, after silver.

Marichal follows the cochineal “commodity chain” from the Indian community-producers in Oaxaca (who plucked and dried some 70,000 insects from the pulpy blade of the *nopal* cactus to produce a single pound of dye) through local bureaucrats and several merchant layers to final consumption in Europe—a trajectory one might call from insect to investiture. By the mid nineteenth century, synthetic dyes worked out by German chemists made the laboriously produced cochineal, which had been such an important commodity in the Atlantic economies, obsolete.

Rubber trees. Another example, along with maize and potatoes, of a native American plant which thrived when transplanted abroad, is the rubber tree (*Hevea brasiliensis*) the source of latex, which grew natively in the upper Amazon. Driven by a demand for bicycle and automobile tires, the early Brazilian export bonanza ended when the tree was smuggled down the Amazon to plantations in Malaysia and Indonesia. This story is well-told by Zephyr Frank and Aldo Musacchio employing some useful comparative economic analysis involving Brazil and Malaysia/Indonesia along with conventional trade theory.

At the production end of the commodity chain, British and Dutch entrepreneurs in Asia employed “tens of thousands of Tamil and Chinese workers” who were much more productive and consequently less expensive than their Brazilian counterparts, which help explain the collapse in Amazonia and boom in Asia, particularly after the unanticipated, sky-rocketing demand when Henry Ford whetted the U.S. and European appetite for automobiles. Brazil’s more rustic output couldn’t keep pace; moreover, the authors believe, Brazilian workers would have resisted, on the grounds of opportunity costs, a shift to Asian style plantations. The story of rubber is then followed up the “commodity chain” (here used rather more metaphorically than analytically) “from trees to tires” to explain the effects of uncertainty in supply and demand and the degree of competition in investment and profit.

Sugarcane. Whereas chiles and rubber plants were carried out of Latin America and became important commodities produced elsewhere in the global economy, others—most notably sugarcane and coffee—were introduced into Latin America and became the foundation of several New World economies. Sugarcane, original perhaps to New Guinea, was mid-wifed across S.E. Asia and the broad swath of India by eighth century Arabs, pushed along the far side of the Mediterranean to Andalusia, and then carried by Spanish and Portuguese in the sixteenth century to the Atlantic Islands and the Indies, spreading quickly into nearly every niche with suitable latitude and elevation across the Caribbean, tropical Spanish America and the Brazilian littoral.

Sugarcane was almost always accompanied by the enslavement of Africans, and a large proportion of the ten million or so brought to the Americas in the course of the Atlantic slave trade ended up on sugarcane plantations. Sugar became such a fantastically lucrative global commodity, so important, that in the later eighteenth century the French colony of Saint-Domingue (today's Haití) with its population of some 500,000 slaves ruled over by less than 35,000 whites, produced more annual export revenue that all the rest of Spanish America combined. Horacio Crespo takes up a narrow and manageable slice of the long history of the sugar commodity with a compact and effective chapter on "Trade Regimes and the International Sugar Market, 1850-1980". The novelty and value of this piece rests in its comparative analysis of cane and beet producers together with a properly informed discussion of the elaborate and often politically motivated networks of protection, subsidies, and regulation of sugar quotas in the twentieth century global market.

Coffee. Originally from either (or both) Yemen or Ethiopia—but has nothing to do with the legendary shepherd Kaldi whose goat became hyped-up after nibbling on the red buds of a shiny green plant— it was cultivated since perhaps the sixth century. Introduced into Venice it had become popular enough in early modern Europe that Bach's Cantata tells of coffee "taken three times a day, sweeter than a thousand kisses" and, a bit later, Mozart's libretto for *Cosi Fan Tutti* locates his two overconfident but soon to be cuckolded husbands in a Neopolitan cafe. And, of course, Lloyds of London began among rattling cups in a coffee house. Coffee filtered into the middle classes by mid nineteenth century, and only became an item of mass consumption in the twentieth. And then, as the authors tell us, it became "the leading export of nearly half the countries of the Americas." By 1930 coffee accounted for one-fifth of all Latin American exports.

Steve Topik and Mario Samper bring their long experience and extensive knowledge of coffee culture to lead us, in a comparative essay contrasting Brazil and Costa Rica, up the commodity chain from *workers* (often slave in the nineteenth century, immigrant and free in the twentieth); to *producers* (generally large scale in Brazil; generally smaller in Costa Rica); through *techniques* (dry method, large *fazenda*-based processing in Brazil; wet processing and central processing plants in Costa Rica); to roasters and merchants, transportation and transaction costs, and finally up to ever-changing markets and consumer habits at the top of the chain. This discussion, particularly of the Brazil material, becomes a bit crowded with statistics (not always consistent) and concepts (not always elucidated) along with simplified notions of supply, demand and elasticities (not always made clear). The crowding, no doubt, is because the authors have so much information at hand and—in article form—so little space in which to display it. But this is an excellent chapter that compresses a great lot of knowledge and thought into an explanatory comparative frame.

Tobacco. Laura Nater takes up the story of European demand for the American tobacco plant beginning briefly with its sixteenth century worldwide spread but concentrating more narrowly on the Cuban-Spanish link between 1500 and 1800. Professor Nater endeavors to fit her subject into the commodity chain theme of the book, but she glides over the foundations of work in the field and has no discussion of the actual wrapping of cigars in Cuba, concentrating instead on trade, monopoly practices, the factory in Seville (where Carmen danced) and the consumption link. This is a well-done, if modest, essay.

Cacao. Mary Ann Mahony ignores the commodity chain theme of the book and endeavors to explain why landowners in Bahia chose to plant cacao trees rather than, say, sugar, tobacco, coffee or manioc. The answer—to this not particularly challenging query—seems in her explanation to be partly idiosyncratic ("a few southern Bahia planters and farmers. . . may have chosen to plant cacao because they liked the taste of chocolate. . ."), or because, given the high cost of workers, cacao was less labor intensive than other activities, but mostly because they figured that they'd earn more money with cacao than other crops (!).

In an aside, the author remarks that landowners "assumed that it was impossible to guarantee sufficient labor for a plantation of farm without coercion." This notion might have been pursued a bit to provide an insight into planter mentality. It would be hard to find a single landowner anywhere in nineteenth-century Latin America who didn't complain of "escasez de brazos." Such a statement often meant that free workers wanted more than the landowner was willing to pay and consequently turned to coercion.

In short, within the limits of uncertain market information and a certain natural hesitation to innovate, Bahian planters in the nineteenth century appear as rational actors. This essay does not explore the links in our commodity chain that dangle into the slave quarters below the level of the plantation fields, nor those above that led to merchants and markets, but we do get a lot of useful information about choices the Bahian planters were faced with.

Bananas. In "Banana Boats and Baby Food", Marcelo Bucheli and Ian Read provide good background on the United Fruit Company and its Great White Fleet which not only carried innumerable tons of bananas from the tropics to the United States and "thousands of young couples on romantic honeymoons" on the return passage. The Company also developed a "strategic relationship with the State Department" to help "civilize the tropics," a project that included "the often bloody repression" of early labor strikes (213-4). But the authors do not dwell on these melancholy events nor tell us much about plantations and workers; their interest is to follow bananas "from port to kitchen" and—unlike most of the other contributors to the volume—take up seriously the question of consumption as part of the "commodity chain." After WW II, for example, the use of frozen and canned fruit rapidly increased as did canned baby food, its consumption going from 21 millions pounds in 1934 to a billion twenty years later. This cut into the banana market until North Americans rediscovered bananas, as a health food, after 1970. Annual consumption—17 pounds in 1909—is now around 30 pounds per capita.

Henequen. Allen Wells gives us a literate and engaging distillation of his considerable knowledge of Mexico and particularly of Yucatan and the henequen trade. He begins with a sketch of the long global history of hard fibers, beginning with hemp or *cannabis sativa* (yes, that same plant), cultivated since at least 4,000 b.c. and which became vitally important during the age of sailing ships when an eighteenth-century frigate required a hundred tons of rope, rigging, and tow lines. At first, the Russians produced most of the hemp used for cordage, followed by suppliers in several of the United States.

Then, driven by a sudden and skyrocketing demand, an ancient source of fiber in an unlikely corner of the world became, for 50 years more or less following the 1880s, a wildly lucrative export commodity. The market for henequen (sometimes erroneously called sisal) developed primarily because of the inventions of new wheat and oats harvesting machines (or "binders") in the United States. By 1902, five of the largest companies including McCormick and Deere were folded into the International Harvesting Company, which became the world's largest consumer of raw fiber for binder twine. Since Harvester made its money selling machines, it sought to keep twine prices low and consequently sought allies at the production level. Thus an important link in the commodity chain was not the impersonal working of the market but "an economic octopus in turn of century Yucatan" in the form of "Olegario Molina & Co.," whose interests embraced landownership, the first railroad, import and export agencies, and banking. International Harvester and Molina & Company coincided in their interest in a steady supply of low-priced henequen twine. Conveniently enough, don Olegario Molina was also the "progressive" governor of Yucatan (1902-09) who no doubt believed that what was good for him was good for Yucatan. "In the short term," Wells points out, "the henequen boom enriched a small group of foreign investors, merchants and local elites in Mexico." The "tens of thousands" of sandal-clad campesinos were off don Olegario's screen. His fellow landowners and a compliant state bent their effort to ensure that the workers on the henequen haciendas accepted the customary wage and kept their nose to the grindstone.

In this essay, Allen Wells makes good use of the "commodity chain" approach that is "mindful of production, processing, manufacturing, financing, distribution, and consumption," and does this with the politics left in. It might have been a model for the entire volume.

Guano and Nitrate. Rory Miller and Robert Greenhill's comparative study of Peruvian guano and the Chilean nitrate export economies is an excellent piece of work. Here the commodity chain is employed to useful effect beginning with an examination of agriculture in the United States and Europe that constituted the market for Peruvian guano and, later, for Chilean nitrates. The authors' research sticks close to the ground in this early discussion. They pay close attention to farming practice showing that fertilizers were appropriate for both heavy and light soils; that guano smelled like ordinary barnyard manure (that's a plus); that nitrate was particularly favored for root crops in a four year farming rotation; and substantially increased yields. There is historical context. The use of guano is linked to the mid nineteenth century Corn Laws which required that British agriculture, faced with cheaper wheat imports, had to become more efficient; nitrate became important in the new sugar beet cultivation in England and on the continent. They also show that the collapse of the global nitrate market in the years following W.W. I was caused not only by the German Haber-Bosch process of extracting nitrogen from the air and combining it with hydrogen to produce ammonium fertilizers (p. 241), but also because of the decline in the demand for explosives after W.W. I for which nitrate (but not guano) had been used.

After a lot of quantitative data about nitrate production, price and labor productivity, at the bottom end of the chain we have a brief but effective discussion of the impact of the export economy on Peruvian, Bolivian, but mainly Chilean nitrate workers attracted by the possibility of wages higher than those paid in the countryside. The subsequent deception and repression of these hard-bitten workers in the early years of the twentieth century provided the cradle of the Chilean labor movement and the beginning of the long march of the Left that reached a tragic denouement in 1973.

The marketing of guano and nitrate–the middle links of the chain—is deftly handled in a comparative frame. In the 1840s, the Peruvian state claimed ownership over guano deposits (on a few islands just off the coast) and, in return for cash advances, awarded individual merchants monopoly rights to connect the guano islands with global markets. The Chilean state, on the other hand, privatized the newly captured (in the War of the Pacific) nitrate fields and obtained revenue via a tax on nitrate exports. A linkage not discussed involved the enormous demand for jute from what is now Bangladesh. For much of its history, nitrate was exported in sacks.

The authors end their essay with useful counter-factual hypotheses designed to engage the question of whether or not both the Peruvian and Chilean states might have obtained more benefit from the short term, windfall bonanza of exports. What if the Peruvians had opened up the guano trade to competitive bids rather than assign monopoly rights for a handful of silver? Suppose the

Chilean state had retained possession of the nitrate fields rather than sell them to foreign companies? These hypotheses are played out in well-reasoned analyses based on the historical circumstances of the time.

Cocaine. In this typically smart and sparkling essay, Paul Gootenberg gives us a lively account of "the rise and demise of a global commodity" during the years 1860-1950, with a brief Afterward on the current illicit, and widely practiced, global cocaine trade. There is little information on actual production—"from leaf to line," one might say—of coca or cocaine, perhaps because, after all the Agent Oranging, the helicopter gun ships' fruitless pursuits, and many other depressing efforts to inhibit the cultivation of coca, the actual work of campesinos has become submerged in those events. But that aside, beginning with the next link up the commodity chain, Gootenberg leads us through the fascinating development of nineteenth-century German alkaloid science which first isolated the coca leaf's active agent for medicinal use. This was a substance enthusiastically promoted "most famously by the young Sigmund Freud," among others, and for cocaine's local anesthetic properties "which revolutionized Western surgery" (p. 324). Gootenberg points out that after some early enthusiasm (one thinks of Charles Chaplin snorting up in "Modern Times") down to the 1950s, North Americans developed a "fear and loathing" of the drug, imposed strict controls, and in the process threw out the (harmless) coca baby with the cocaine bath. Gootenberg tells us that after 1970, cocaine "flooded" into the United States made popular by the 1960s drug culture and high visibility users such as the Hollywood elite and the fast track white new rich in the wealthy California suburbs, but he doesn't explain *why* these "consumer reference groups" appeared or why just then. But then, the short postscript doesn't pretend to treat the years after 1950 years in any depth.

The essay is devoted as much to the equally interesting coca leaf as to cocaine. There is a brief, informed sketch of the production of coca and cocaine use in Japan (by the 1930s, the Japanese dominated the cocaine market in S.E. Asia) and by the Dutch, who had transplanted the Andean shrub to Java). In the United States, consumption grew explosively after 1884, about the same time that Coca-Cola, whose secret ingredient came from the "Trujillo" coca leaf, was launched in Atlanta. By W.W. II, the United States consumed some 200,000 kilos of coca in soft drinks; or, as Gootenberg puts it, "as legal and illegal cocaine dwindled the addiction to Coca-Cola rose."

Indigo (Añil). David McCreery provides a common-sense comparative essay on the various forms of indigo production in lowland South Carolina, Central America and India and takes us through the ways this valuable dye material was commercialized together with the role of the state in shaping production and commerce. Indigo was perhaps originally from India (hence the name in English) and was, like sugarcane and coffee, of ancient origin carried by Arabs into the Mediterranean and spread into the Indies by Portuguese and Spanish sailors. McCreery's account expertly describes the factors of land, labor, capital and specialized knowledge needed for production of this valuable plant, discusses the role of the state in both production and commercialization. This is a compact, rather modest but still valuable essay that does not pretend to explicitly frame the material in a "commodity chain" model.

Conclusion

The authors of the twelve essays in this collection generate new, welcome, and useful information, or in other cases they present older research put together in innovative ways. But what is the overarching question? What do the editors want *to explain*, or to use the move elevated verb, *to theorize?* Because they place their book in the company of other attempts to deal with the crushing problems of what used to be called "underdevelopment" and poverty in Latin America (such as the Prebisch thesis, the early CEPAL analysis, Dependency Theory, and so on, down to more recent Friedmanesque, Washington Consensus, neo-liberal orthodoxy) the reader might assume that this work is directed toward these same Big Question issues. But apparently out of patience with the previous and now old-hat—and largely failed—explanations which took the nation state or even "systems" as the unit of analysis, the description here disaggregates national or imperial economic relations into individual "commodity chains" which are meant to demonstrate how—if not why—certain links connecting production-to-markets-to-consumption are formed. In fact, although the editors encourage them to do so in the Introduction, few of the individual essays pay attention to work or labor systems and offer only glancing attention to consumption—and then, never employing the long-accepted practice of cultural anthropologists to relate consumption to identity, status, and power.

On another point—not an original one—that ideas have a social context, the book's focus here on the post 1980s and 90s academic paradigm-shift away from forms of *political* economic analysis to a liberal, "self-regulating" market emphasis, seems almost unconsciously to reflect the parallel *real-life* affection for free market global capitalist processes which shape history leaving the social consequences to come out in the wash. Maybe all this too will be out of date soon as several countries in Latin America seem to be moving in the direction of a neo-Keynesian synthesis.

Many of the essays stay at the descriptive level. It is not as useful to tell that people plant or mine certain commodities as it is *to explain* to whom the earnings in the export stream accrue or why they are distributed the way they are. Paul A. Baran, in a now ignored work *The Political Economy of Growth* (1958), had a pretty good idea about this process. I wondered too about the use of cultural explanation in, say, the "Nike Shoe Commodity Chain" (not dealt with in the book) where Vietnamese workers earn four dollars a day while Michael Jordan gets forty million for endorsing the product.

Now, obviously, the sophisticated editors of this book are acutely aware of politics and power (359), but by straining to distance themselves from the long list of previous, and largely Marxist-inspired, "theories" in order to create a new niche for the "commodity chains approach" we are left with strands of interesting research along with an unassuageable hunger for an approach that might, more comprehensibly, further an explanation of fundamental problems.

It is hard, for example, to accept the primacy of "supply and demand" or the "self-regulating markets" in commodity chains in a place where, say, an Olegario Molina, Yucatan merchant, landowner *and* state Governor, worked "to concentrate wealth, facilitate exports, and break workers' resistance." Or to have a clear understanding of "commodity chains" without taking into account—as Buscheli and Read in fact do—the U.S. government's "strategic relationship" with the United Fruit Company to "civilize the tropics," a project that included "the often bloody repression" of strikers (206, 213-4). In fact, three or four of the essayists themselves question the usefulness of the commodity chain approach; one points out that "commodity chains cannot be explained without attention to politics and culture" (221).

In my salad days, when occasionally I slipped into an attempt to be clever at my colleagues' expense, a wise friend pointed out: "that's not what you do when reviewing a book: you ask, 'what does this brother or sister have to say that's useful for us'?" The editors of this book have drawn on their own broad experience taking into account a wide swathe of previous attempts to understand the particular circumstances of Latin America's social and economic history, and they endeavor to locate their own ideas within that process. I have no doubt over-simplified their discussion in the Introduction and Conclusion which, in fact, is properly hedged about with caveat and qualification. They modestly point out that the commodity chain approach does not solve the large questions but does thicken the analytical stew. It is a welcome contribution.